

Demonstratives reconsidered: Insights from experimental pragmatics and corpus-based studies

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ABSTRACT

This study provides an up-to-date overview of current research on demonstratives, integrating insights from experimental pragmatics, corpus-based studies, and language acquisition research. The contributions to this thematic issue, including our own, emphasize the importance of social, multimodal, and interactional factors in demonstrative use and show how the selection of demonstratives dynamically adapts to various speaker-addressee configurations and evolving discourse contexts. A central aim of this thematic issue is to highlight an ongoing shift toward interaction-oriented and procedural accounts, where demonstratives serve not only as spatial markers but also as tools for managing joint attention and maintaining discourse coherence. The introductory paper argues for an interdisciplinary approach that incorporates linguistic typology, relevance theory, and usage-based models to deepen our understanding of the cognitive and social foundations of demonstrative reference.

KEYWORDS

demonstratives, experimental pragmatics, corpus linguistics, child language

1. INTRODUCTION

Demonstratives are widely used in everyday communication, serving as a fundamental tool to refer to entities in speech situations. In English, *this* and *that* are stand-alone pronominal forms, while in the so-called adnominal constructions, a demonstrative and a noun co-occur, as in *that hat*. When characterizing the use of demonstratives across the board, it is first necessary to

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distinguish between exophoric and endophoric uses. In exophoric use, the referent is part of the physical context. For example, by default, the use of the expression *that hat* typically indicates that the intended referent is farther away from the speaker. This type of use is usually accompanied by gestures, such as pointing, changes in body posture, and coordinated eye movements. The combined use of verbal and non-verbal cues serves to direct the addressee's attention to the intended referent and establishes a joint focus of attention (Diessel 2006). In contrast, in endophoric use, the use of the demonstrative refers to elements within the discourse itself. For instance, in the utterance 'The princess was wearing a spectacular hat at the derby yesterday. *That hat* must have cost thousands of pounds', the phrase *that hat* refers back to an entity that has been introduced earlier within the text or conversation. Here, the referent is part of the discourse context. In general, demonstratives across languages can perform both exophoric and endophoric functions. Thus, a fundamental question in the study of demonstratives is the extent to which these two uses are manifestations of the same underlying mechanisms, i.e. directing attention and establishing joint attention (cf. Jarbou 2010; Talmy 2017).

For a long period of time, demonstrative reference was considered an egocentric, addressee-blind phenomenon, with speakers selecting spatial demonstratives solely on the basis of relative distance of a referent from the deictic centre (*I-here-now*), without taking into consideration the addressee's mental state and prior knowledge of the referent. Accordingly, proximal demonstratives were traditionally assumed to indicate entities that are close to the deictic centre, while distal demonstratives were assumed to refer to entities that are not so close. The emergence of experimental pragmatics at the beginning of the 21st century and the introduction of new methodologies have challenged the traditional, egocentric view. Peeters & Özyürek (2016) provide a comprehensive review of studies that argue that the use of demonstratives is not merely a function of relative distance from the speaker, but also incorporates social and multimodal factors. The findings from both production and comprehension experiments and the results of observational studies suggest that other factors, such as joint attention, the presence or absence of gestures, familiarity with the intended referent, manipulation of the object, or collaboration between interlocutors also have an impact on demonstrative choice. The inclusion of these novel factors calls for a reassessment of the traditional model. As we will see below, recent studies support this more dynamic approach and underscore the role of social and interactional factors in demonstrative use. However, current findings also emphasize the need to understand the interplay between traditional, egocentric factors and social, multimodal dimensions.

Taking into consideration the aforementioned advancements in experimental methodologies, the aim of the present paper is to offer glimpses into the latest contributions to research on demonstratives, examining how recent empirical findings, especially in experimental and corpus-based research since 2016, have shaped our understanding of these referential expressions. We also introduce four selected papers that are included in this special thematic issue of *Acta Linguistica Academica* and highlight how these contribute to ongoing discussions, thereby providing an up-to-date overview of the field and outlining emerging theoretical directions.

2. DEMONSTRATIVES ACROSS LANGUAGES

As Holger Diessel remarks in the study presented in the current volume, human languages in general possess some form of demonstrative system. Most languages make a distinction between

an exophoric proximal and a distal demonstrative. In addition to these two-term systems, there are languages that employ three terms, and others that have more than three deictic expressions (Diessel 1999, 2013).

Diessel examines adnominal demonstratives from a cross-linguistic perspective. Drawing on the results of an extensive survey, he shows that in most languages, the demonstrative pronoun also surfaces in adnominal constructions (similarly to English). However, there are languages (e.g. French and Japanese) in which the adnominal demonstrative differs from the pronominal form. In some languages (for instance, in Turkish and Persian), adnominal demonstratives and demonstrative pronouns differ in their inflectional properties. Finally, there are also languages, such as the Afro-Asiatic languages Gude and Lango, where adnominal demonstratives are realized as bound morphemes in the form of suffixes attached to the head noun, while pronominal forms also exist (Diessel [this issue](#)).

Diessel concludes his cross-linguistic examination of the morpho-syntactic properties of adnominal demonstratives with the following observation: “The adnominal use of demonstratives is universal, but their syntactic functions are language-particular” (Diessel [this issue](#)). Within the current context, Diessel’s study highlights the importance of taking into account the diversity of demonstrative systems across languages. It underscores the need to base generalizations about the factors influencing demonstrative use on data and findings drawn from as broad a range of languages as possible.

3. TOWARDS AN INTERACTIONAL MODEL OF DEMONSTRATIVE USE

As mentioned above, building on the social and multimodal perspective presented by Peeters & Özyürek (2016), subsequent research has focused on empirically testing whether demonstrative use is shaped by universal, non-linguistic constraints or by language-specific factors. This section offers a brief summary of selected novel contributions.

3.1. The spatial view reconsidered: a large-scale study

One of the most extensive studies is that of Coventry et al. (2023), which explores the use of spatial demonstratives in 29 languages to assess the interplay between egocentric and sociocentric factors using the same experimental paradigm, the so-called memory game method in a controlled setting (Gudde, Griffiths & Coventry 2018). The aim of this large-scale study was to test the role of relative distance, and the relative location of the speaker and the addressee to one another in the selection of demonstrative forms and to identify potential universal constraints that shape the use of demonstratives across languages. The findings indicate that demonstrative systems across languages exhibit a proximal-distal opposition, which often aligns with the distinction between peripersonal (reachable) and extrapersonal (non-reachable) space, implying the presence of a semantic universal. The authors argue that this cross-linguistic generalization strongly supports the “centrality of egocentric spatial relations in spatial language and spatial cognition” (Coventry et al. 2023, 5). Additionally, some languages with three demonstrative forms also showed a sensitivity to addressee position, and to a certain extent the same effect was also detectable in some languages with two-term systems. Moreover, participants showed a tendency to select the proximal form more often when the speaker and the addressee

were face to face and the object was out of reach than when they were next to one another and the object was out of reach. Thus, while the findings reinforce the assumption that egocentric distance is central in the selection of demonstratives and suggest that universal spatial constraints may influence the structure of demonstrative systems across languages, they also indicate that sociocentric considerations, such as the relative positions of the speaker and the addressee, cannot be set aside.

3.2. The position of the speaker and the addressee

Rubio-Fernandez (2022) also investigated the typological distinction between distance-oriented and person-oriented demonstrative systems when she compared demonstrative selection in English (a two-way system) and Spanish (a three-way system). From a typological perspective, English is classified as a distance-oriented system, in which the opposition between proximal and distal demonstratives reflects the location of the intended referent relative to the speaker. Demonstrative selection in Spanish has been in the centre of attention of current research, since there is no consensus on whether it exhibits a distance-oriented or a person-oriented system. In person-oriented systems, demonstrative choice reflects the location of the referent as relative to both the speaker and the addressee. One of the aims of Rubio-Fernandez's (2022) study was to collect empirical evidence in favour of the person-oriented analysis. In an online questionnaire study with static images, the author manipulated both the position of the intended referent and the location of the addressee, i.e. in table-top space, while the speaker's position remained the same, the positions of the intended referent and that of the addressee both varied across four locations, resulting in a fully crossed 4×4 design. This experimental setup thereby allowed a more fine-grained analysis of demonstrative use in table-top space and extended insights gained from the memory game method. The results of the experiment are in line with the findings of Coventry et al. (2023): English was again shown to be a distance-oriented system, while in Spanish, the position of the addressee also influenced the choice of demonstratives. Within the same experimental design, Rubio-Fernandez (2022) also explored demonstrative selection by Catalan-Spanish bilingual speakers. Catalan has a distance-oriented system with two demonstratives, and the findings provided evidence for a transfer effect from Catalan to Spanish.

In one of the articles in the current volume, Naomi Shin and Sarah Lease also investigate whether Spanish-English bilinguals transfer the way demonstratives encode space from one language to another. The authors employ a novel method, a puzzle task that elicits the use of demonstratives in a controlled setting, and explore the choice of demonstratives in the participants' peripersonal (reachable) and far (non-reachable) space, while manipulating the location of the addressee and the speaker (next to or face to face). An analysis of the data by monolingual English speakers shows that English demonstratives encode space in an egocentric manner and that addressee location does not have an effect on the selection of demonstratives. The findings indicate that English-dominant bilinguals ("U.S.-Raised Bilinguals") rely on this egocentric conceptualization of space even when they speak Spanish. The same pattern was found for Catalan-Spanish bilinguals by Rubio-Fernandez (2022), thereby providing further evidence for Coventry et al.'s (2023) universal constraint of reachability. At the same time, Spanish-dominant bilinguals ("Adult Arrivals") were sensitive to addressee position when using Spanish demonstratives, indicating a sociocentric conceptualization of space. However, it remains an open question whether Spanish-dominant bilinguals transfer their sociocentric conceptualization of

space to their use of English demonstratives. Overall, the studies conducted by Rubio-Fernandez (2022) and Shin & Lease (this issue) both indicate a prevailing trend: the dynamic, interactional model offers a more nuanced and comprehensive account of the factors that shape demonstrative use, particularly in languages where the demonstrative system comprises more than two forms. The study to be presented in the following section, which also examines a system with more than two demonstratives, arrives at a similar conclusion (Gipper 2017).

3.3. A non-spatial procedural account

Gipper (2017) examines spontaneous conversation data from native speakers of Yurakaré, a language spoken in Bolivia. She argues that the spatial account of demonstratives fails to explain certain speaker choices. Instead, she proposes a non-spatial procedural model that more adequately captures the interactive, social features of demonstrative reference. In Gipper's study, interlocutors were seated side by side and engaged in an interactive problem-solving task based on a set of pictures. The design drew on the *Family Problems Picture Task* (San Roque et al. 2012; see also Barth & Evans 2017), and consisted of the following phases: (1) the participants described 16 pre-ordered pictures freely and spontaneously; (2) through open discussion and joint reasoning, the participants collaboratively reconstructed and sequenced the pictures to reflect a storyline; and (3) the participants narrated the reconstructed story to the interviewer based on the ordered pictures. Gipper (2017) focused her analysis on the data produced during the second phase of the study, as this phase featured the most spontaneous interaction and yielded the richest data on demonstrative usage. The data gathered were analysed both in terms of the spatial account and the so-called non-spatial procedural account.

The model put forward by Gipper (2017) builds on relevance theory (Sperber & Wilson 1986) and the idea of pre-semantic pragmatics (e.g. Levinson 2000), claiming that demonstratives encode instructions for inferential processing rather than spatial descriptions. As Gipper (2017) argues, the non-spatial procedural approach fundamentally claims the following:

1. Demonstratives possess *procedural* rather than *conceptual* meaning (see Blakemore 1987; Powell 1998; Scott 2013). That is, they convey instructions that facilitate a faster and easier understanding of an utterance for the addressee in a given situation.
2. Drawing on Enfield (2003), Gipper (2017) assumes that expressions categorized as demonstratives in natural languages possess a *basic encoded semantics*, which can be referred to as DEM. This denotes an *indicating function*, which issues an instruction from the speaker to the addressee regarding reference resolution: "I am identifying a referent for you" (Gipper 2017, 126).

In this framework, demonstratives do not describe the location of a referent in physical space; rather, they direct the addressee's attention in such a way that they are able to identify the referent targeted by the speaker with minimal cognitive effort (see, for instance, Powell 1998; Scott 2013). This approach aligns with both relevance-theoretic and interactional accounts, which emphasize demonstratives as tools for guiding attention rather than merely marking spatial relations.¹

¹For a more recent overview see Scott (2020).

The data analysis revealed that the procedural account provides a more comprehensive explanation of the relevant data than the spatial account. This is illustrated by the following example. Yurakaré exhibits a three-way demonstrative system, employing the forms *ana*, *ati*, and *naa* (Gipper 2017, 123). According to the spatial account, *ana* is classified as ‘speaker-proximal’, *ati* as ‘addressee-proximal’, and *naa* as ‘distal’. Under the procedural semantic approach, however, *ana* is associated with the most general meaning: “DEM: I am identifying a referent for you” (Gipper 2017, 128). The procedural semantics of *ati* is more specific: “DEM + you will find the referent in the preceding discourse”. The demonstrative pronoun *naa* indicates that the addressee must engage more cognitive resources to identify the referent: “DEM + you will find the referent by drawing an additional contextual inference” (Gipper 2017, 128). This additional effort, on the part of the addressee, may involve activating “shared contextual knowledge” (Gipper 2017, 139). In the case of general *ana*, however, it may suffice for the addressee to simply follow the speaker’s gesture or gaze, for instance.

Importantly, Gipper (2017) does not reject the spatial account outright; instead, she argues that it accounts for only a subset of demonstrative uses and falls short in interactive contexts where inferential processes and social interaction drive reference resolution. For example, the *speaker-proximal* demonstrative *ana*, which, under the spatial account refers to a referent that is physically close to the speaker, frequently surfaced in contexts where the referent was closer to the addressee. In a similar fashion, *naa*, the distal form in the spatial model, was used for referents that were physically close to the speaker but required a greater cognitive effort on the part of the addressee. Such uses are more adequately explained by the procedural model. In sum, Gipper’s findings support the view that demonstrative use is not governed solely by spatial features, but is fundamentally socially and interactionally constructed. Accordingly, speakers choose demonstratives strategically to manage shared attention, maintain discourse coherence, and optimize referential success.

3.4. Reinforcing the role of interaction

Rocca et al. (2019) also explore whether interaction with other interlocutors affects the personal (reachable) vs. extrapersonal (non-reachable) organization of space that is manifested in the selection of proximal vs. distal demonstratives. In a novel experimental paradigm, the authors carried out two experiments with Danish native speakers. Danish has a two-term demonstrative system. Participants were explicitly instructed to use *den her* or *den der* (‘this’ or ‘that’) and pointing gestures to refer to the location of two shapes that appeared and then disappeared on a grid of circles. The primary aim of the experiment was to compare individual and collaborative conditions. In the former, participants performed the task alone, whereas in the latter the participant and the so-called confederate needed to cooperate to perform the task. Thus, the experiment tested whether social manipulation alters the selection of demonstratives. The findings indicated that in the collaborative condition, speakers abandoned their egocentric perspective and also relied on the position of the confederate, moreover, proximal space was shifted towards their partner. In a follow-up experiment, two participants had to switch roles in the pointing and naming task by taking turns, thereby getting closer to modelling spontaneous interaction. The results showed that proximal space was now shifted towards the partner for both interlocutors. The authors argue that this is a manifestation of “a strategy which might facilitate the addressee’s task of disambiguating the intended locations” (Rocca et al. 2019, 12).

This indicates that purely egocentric strategies identified in the individual condition of the first experiment were overwritten by the social interaction between participants. Thus, the findings provide evidence against a purely egocentric approach and suggest that demonstrative use is dynamic, always adapting to the interlocutors' immediate communicative needs.

As discussed above, recent experimental findings underscore the interactive and dynamic use of demonstratives. Next, we turn to corpus-based studies that provide insight into how these patterns emerge in child language acquisition, and finally we consider corpus-based studies of discourse anaphora.

4. CORPUS-BASED ACCOUNTS

4.1. Analyzing child language data

The adaptive and dynamic use of demonstratives is also supported by corpus-based studies conducted on child language (see, for example, [González-Peña, Doherty & Guijarro-Fuentes 2020](#); [Diessel & Monakhov 2023](#)), which draw on data from the CHILDES corpus and the CDI Wordbank. [González-Peña, Doherty & Guijarro-Fuentes \(2020\)](#) re-examine a long-standing hypothesis proposed by [Clark \(1978\)](#), which, based on single-case diaries and observational data, claimed that English demonstratives typically appear among the first 50 words acquired by children. However, after analyzing both Spanish and English data from the CHILDES corpus, the authors conclude that “demonstratives do not typically appear before the 50th word, and they are more frequent in two-word utterances” ([González-Peña, Doherty & Guijarro-Fuentes 2020](#), 11). They also emphasize the need for further investigation into the pragmatic and interactive functions of demonstratives in early development (see also [Diessel & Monakhov 2023](#)).

This line of research is particularly relevant, as it offers a window into how demonstratives are used interactively and adaptively in caregiver-child interactions. [González-Peña](#) and colleagues found that adults adapted to the children's language use and tended to repeat the demonstrative used by the child, rather than shifting perspectives or adopting an egocentric spatial point of view. The authors suggest that this addressee-oriented use may serve to support word learning, especially at a stage when spatial distinctions (e.g. near vs. far) may not have been fully acquired.

[Diessel & Monakhov \(2023\)](#) also report that in English parent-child interactions in CHILDES, adults use demonstratives extensively, and the distribution of spatial terms mirrors that of the children, showing a preference for distal forms. However, [Diessel & Monakhov \(2023\)](#) offer an alternative explanation and argue that rather than reflecting parents' adaptivity, the frequent use of the distal demonstrative in English may stem from its role as the default form in non-contrastive contexts in adult speech (cf. [Levinson 2018](#)). Since non-contrastive situations are common in everyday conversations, the use of the default might dominate in both child and caregiver speech.

Corpus studies of Hungarian child language ([Hungarian Kindergarten Language Corpus – MONYEK](#); [Mátyus & Orosz 2014](#)) also support the latter hypothesis. [Tóth, Csátár & Rákosi \(2024\)](#) show that Hungarian children also overuse the distal demonstrative *az* ‘that’, which serves as the unmarked, neutral option in non-contrastive situations. The authors also note

that *az* in Hungarian has acquired grammaticalized, non-spatial functions, which reinforces its status as the default demonstrative in both child and adult speech.

4.2. Analyzing discourse anaphors

The current volume also presents two corpus-based studies on discourse anaphors in Finno-Ugric languages that reveal language-specific strategies in Estonian and Finnish. Estonian is classified as a two-term system (Pajusalu 2009), where in exophoric uses the proximal demonstrative *see* refers to both entities that are either nearby or farther away (Reile et al. 2020), while the distal term *too* is only used when the referent is out of reach (Coventry et al. 2023).² Reile and colleagues in the present volume (Reile et al. this issue) investigate the use of distal *too* as a bare pronoun in written discourse, analyzing data extracted from the Estonian National Corpus (Koppel & Kallas 2022).

The authors examined a random sample of 500 sentences in which each token of *too* was manually tagged for its semantic, referential, and morpho-syntactic features and then compared with the semantic and referential functions of *see*. The most significant finding was that *too* generally refers to human or other animate referents (86%), whereas *see* typically refers to abstract entities (75%). Notably, *too* often occurred in contexts where the personal pronoun *ta* ‘he/she’ would also be appropriate. The authors suggest that the selection of *too* can be explained by the presence of more than one human referent in the preceding discourse (75% of relevant cases). Thus, the role of *too* may be to mark contrast; its use helps to differentiate between multiple potential human antecedents in the preceding discourse.

Reile and colleagues also argue that *too* has a pragmatic promoting or highlighting role in discourse. Their syntactic analysis shows that in over 90% of cases, *too* refers to a previously mentioned referent whose grammatical role (typically object or adverbial) changes: in the clause introduced by *too*, it becomes the subject. This syntactic shift reflects a functional promotion of the referent into discourse focus. Once promoted, the referent is typically referred to by the personal pronoun *ta* in subsequent clauses, suggesting that *too* initiates, but does not maintain, discourse prominence. In sum, the authors conclude that *too* is used both contrastively and to mark informational prominence, suggesting an early stage of grammaticalization, where the choice remains pragmatically motivated.

Elsi Kaiser in the present volume (Kaiser this issue) explores how Finnish refers back to human antecedents, and examines the anaphoric use of personal pronouns (*hän* ‘he/she’) and demonstratives (*tämä* ‘this’). More specifically, based on both native speaker judgments and large-scale corpus data, the author argues that in Finnish, pronoun-pronoun sequences such as *hän soitti hänelle* ‘he/she called him/her’ are marked or unnatural in the same local domain, as coarguments (subject and object) of the same verb, whereas mixed (pronoun-demonstrative or pronoun-name) sequences, such as *hän soitti tälle* ‘he/she called this one’ are more acceptable. Kaiser calls this phenomenon the Pronoun Dissimilation Constraint, and shows that its presence cannot stem from the need for disambiguation, linear proximity or phonological repetition, or from the mere presence of another option in the rich anaphoric paradigm of Finnish.

²It should be noted, however, that regional variation exists within Estonian. In some dialects, *see* functions as a distance-neutral demonstrative pronoun. Furthermore, Võro, which is regarded either as a dialect of Estonian or as an independent language, employs a three-term demonstrative system.

The study relies on corpus data from original Finnish texts (*Käännössuomen korpus*) and from a parallel English-Finnish subtitle corpus (*OpenSubtitles2012*), the latter being used to assess how English pronoun-pronoun sequences are translated into Finnish. First, it is shown that in texts written by Finnish authors, coargument pronoun-pronoun pairs do not occur at all, whereas pronoun-demonstrative sequences have been identified in 12% of the cases. Second, the findings indicate that over 90% of pronoun-pronoun sequences in English are translated into Finnish using mixed forms (e.g. pronoun-demonstrative or pronoun-name sequences), supporting the claim that the dispreference for two personal pronouns as coarguments is quite robust in Finnish. Interestingly, other languages with a similarly rich paradigm, such as German or Estonian, do not exhibit this dispreference or ban of two personal pronouns in coargument positions, indicating that Finnish has a language specific constraint that favours referential form variation over the repetition of the same personal pronoun in the case of anaphoric coarguments, even when the pronouns clearly refer to different human antecedents in the previous discourse.

Thus, the two corpus-based studies presented in the current volume provide evidence that both Finnish and Estonian demonstrate sensitivity to discourse structure in pronoun vs. demonstrative choice. However, Finnish exhibits a stronger syntactic constraint, whereas Estonian highlights pragmatic contrast and prominence.

5. CONCLUSION

Taken together, the selected findings discussed above underscore the need for an interdisciplinary and methodologically diverse approach to demonstrative research, one that integrates linguistic typology, experimental pragmatics, corpus tools, and social cognition. Future research is called for to explore further how demonstratives are used in spontaneous conversations where interlocutors actively collaborate and work to reach a common goal.

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CHILDES corpus: <https://childes.talkbank.org/access/>.

Käännössuomen korpus [Corpus of Translated Finnish]: <https://www.kielipankki.fi/language-bank/>.

MONYK (Magyar Óvodai Beszélt Nyelvi Korpusz) – HUKILC (Hungarian Kindergarten Language Corpus): <https://archive.nytud.hu/depts/corpus/monyk.html>.

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The Estonian National Corpus (Estonian NC 2021): <https://www.sketchengine.eu/estonian-national-corpus/>.

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