

REVIEWS

Thora Tenbrink 2020: Cognitive Discourse Analysis: An Introduction.
Cambridge: Cambridge University Press. ISBN: 978-1-108-42266-6 (Hb).

DOI: 10.1017/9781108525176

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Starting from the premise that language represents the primary mode for expressing thought, the book *Cognitive Discourse Analysis: An Introduction* builds on a long tradition for connecting insights into cognitive science with those of linguistics to understand the connection between speakers' concepts and language use. Cognitive Linguistics is one of the research fields to represent this connection. It revolutionised the study into linguistics in the 1970s and 1980s, breaking with formal linguistics in the Chomskyan tradition, whose main focus was on syntax as the structural principle of language. Cognitive Linguistics was spearheaded by influential linguists such as Charles Fillmore, George Lakoff, Ronald Langacker and Leonard Talmy, who understood that meaning is not peripheral to the study of language but is a central feature that must be studied in its own right. Hence, the mapping between meaning and form, that is, between meaning and semantic structures, was considered a prime object of study (ICLC 2020). Forty years on, this interdisciplinary approach (or "movement", as it is called by Evans and Green 2006) has become widely accepted as one of the most important contributions to linguistic research in recent decades.

However, the praise does not come without thorns. A recurrent critique has been the relative lack of contextualisation by first-generation cognitivists, and so, in recent decades, a growing number of second-generation cognitive linguists have introduced “social aspects of language as theoretical explanatory factors” into the study of discourse, language and meaning. This development has been coined “The ‘new’ social turn” and recognises the importance of contextual factors such as the linguistic and communicative situation, historical context, socio-cultural aspects, etc. to the study of meaning and language use (Romano and Porto 2016: 3).

This is a development that the author of the book, Thora Tenbrink, is well aware of. The monograph is centred around the study of language and thought in communicative situations, understood either as naturally occurring or controlled situations, with the aim of finding out more about how humans think. Specifically, the author’s interest comes from research in cognitive science, in the monograph represented by a focus on mental representations (thinking about scenes and events) and complex cognitive processes (dealing with, for instance, problem solving and decision making), and how these can be systematically analysed in the language used by speakers. Drawing on her own extensive research in the field as well as that of prominent scholars, she convincingly presents and discusses the contributions of systematic cognitive discourse studies to cognitive science research, which is typically concerned with the content of participants’ utterances.

In Chapter One (“Background and Scope”), Tenbrink lays the foundation for the following chapters. She does so by explaining the relation between language and thought, warning us against thinking that a straightforward connection exists between the two, although language remains the most important way for us to express our thoughts. In the chapter, she introduces three aspects of the language-thought relation that are relevant to Cognitive Discourse Analysis (CODA), that is, a brief overview of research in the field, ways in which CODA can be applied, and the limitations of linguistic data analysis in relation to thought. In accounting for the study of language and thought, Tenbrink takes her starting point in the understanding that human thought is linked to its environment. This means evoking the concept of embodiment which makes up a core element of the cognitive linguistics paradigm. From this, she discusses how language, even when providing skeletal information, may contribute to the formation of full mental models because we add the missing parts on the basis of our physical and social experience with the world. However, she also continues to argue that language has its limitations and is just one of more input modes, which may evoke different thoughts. Thus, language and thought are not the same, although the mutual influence is strong, as also suggested by the much-debated Sapir-Whorf hypothesis (Whorf 1941) as well as by the early, and seminal, contributions by

Lakoff and Johnson (1980) to the study of metaphor and thought. Tenbrink's presentation of this part of the chapter is exemplary, as she illustrates the interrelation between language and thought by providing everyday examples we can all relate to and fill out on the basis of experience. This, incidentally, is a consistent feature of the book. In the remainder of Chapter One, Tenbrink presents the areas of application for CODA as well as its reliability, generalisability and limits. The former part deals with the linguistic choices we make when talking about our thoughts in particular situations and presents the various features such as syntax, lexical categories, reference types and modality, that this may involve. This is also where Tenbrink introduces the areas of particular interest to CODA, namely, mental representations (how we think about a scene or an event) and complex cognitive processes (dealing with e.g. problem solving or decision making), and how their linguistic realisation may be analysed systematically. According to Tenbrink, the focus on linguistic features is the strong point of CODA, representing a step forward from the recognised method of, for instance, verbal protocol analysis, as proposed by Ericsson and Simon (1993), which has been widely used in cognitive psychology to deal with thought processes connected to problem solving and decision making. Rounding off the chapter, Tenbrink looks into the insights CODA can provide and whether they can be trusted and even generalised.

In Chapter Two ("Language as a Representation of Thought"), Tenbrink moves into more in-depth studies of the research and methodologies associated with CODA, distinguishing between language as a system and language in use. In this chapter, her focus is on approaches that deal with language in use, illustrated by research on spatial language and cognition. She opens her discussion on spatial language by arguing for the importance of space to our thinking and its expression in language in concrete and abstract terms. Using the example of route descriptions, she points out that, as members of the same culture, we share thought processes and produce descriptions on the basis of systematic features, but there are also a number of challenges to this coherence that have to do with the situation in which a description takes place. To address these issues, Tenbrink suggests bringing in CODA, which presents a coherent methodology for analysing discourse to access cognition or, in other words, for analysing how language represents thought. This allows her to move into two neighbouring and well-established traditions, namely, psycholinguistics and cognitive psychology, which both have affinities with CODA, but also differ from it. In the following pages, Tenbrink traces the historic development of these two traditions, explaining in great detail their core attributes and methodologies and using numerous examples from studies to support her arguments. On the basis of this, she concludes that between psycholinguistics and CODA, the differences are subtle, pertaining to the primary object of study (linguistic items in the mind

or linguistic choices per se), whereas in relation to cognitive psychology and its associated method of verbal protocol analysis, CODA may add a layer of linguistic insight to the categorisation of content, which is a much-used approach in this tradition.

As implied by the title, Chapter Three (“Resources”) deals with the approaches and disciplines CODA can draw upon to carry out analyses. CODA is in itself “theory neutral”, according to Tenbrink. In the chapter, she introduces three approaches that are typically associated with doing cognitive discourse analysis: Cognitive Linguistics, Discourse Analysis, and Functional Grammar. As with the previous two chapters, she presents the three approaches in an accessible way, using examples from research to illustrate the main concepts and orientations. For Cognitive Linguistics, which focuses on meaning in accounting for the structures of natural language, this means drawing on the work of, among others, Evans (2009), Wittgenstein (1953), Talmy (2000), Langacker (1986, 2000) and Lakoff and Johnson (1980), and tying together notions such as encyclopaedic knowledge, family resemblance, prototypes and basic-level categories, schemas, trajectory and landmark. In dealing with Discourse Analysis, the chapter looks more generally into methods that are shared across approaches, introducing concepts such as big “D” and small “d” discourse (Gee 2013), co- and context, as well as transcription conventions and their bearing on the reliability of the data. Thus, Tenbrink recognises the relevance of the situational context in the interpretation of language. The final part of this chapter is dedicated to Functional Grammar and draws primarily on Halliday and Matthiessen’s (2014) work. This is concerned with the choices speakers make in relation to three levels of grammar, i.e. the interpersonal level (where the relationship between the speaker and hearer influences grammar), the ideational level (where the content is expressed through grammatical choices), and the textual level (where information structure is addressed). The relevance of the approach to CODA lies in its provision of a toolbox for interpreting instances of discourses that relate to cognitive aspects.

In Chapter Four (“Identifying Cognitive Orientation”), Tenbrink focuses on the kinds of conceptual aspects that can be studied using CODA. She focuses specifically on attention and perspective, that is, what we orient to and how. As in previous chapters, she starts by providing examples from our everyday lives to create an intuitive understanding of the concepts at hand. From here, she moves into a discussion of attention from a cognitive science perspective and a linguistic perspective, first presenting various ways in which attention works, and second, illustrating how linguistic structures, e.g. grammatical choices, reflect differences in how attention is allocated. This is in turn supported by research into eye movements, child language acquisition, and discourse structure, stressing the close connection between

what we look at and representation in language. In the remainder of the chapter, perspective is being discussed both in relation to space and to concepts. In doing so, Tenbrink elaborates on the many different spatial (time, place and identity) and conceptual (deictics, objects and people) aspects that may play a role for the language we use. These discussions are complemented by elaborate examples of CODA applications, drawing on Tenbrink's own work in the field.

Chapter Five ("Identifying Cognitive Depth") discusses the two most important ways in which we can talk about the depth with which we orient towards specific aspects in the world or in our minds, complementing the insights on cognitive orientation in the previous chapter. The two are granularity, that is, the detail with which we think about things, and certainty, that is, the limits to our understanding and knowledge about things. Again, Tenbrink goes to great lengths to illustrate how the two concepts are important to understanding the relation between language, thought and context, and how their associated concepts of scale and elaboration (in the case of granularity) and expertise (in the case of certainty) allow the speaker to express different levels of detail as appropriate for the situation, to elaborate on this as a way to clarify what is being said (and hence, communicate successfully), and, finally, to speak confidently about his/her area of expertise. As in the previous chapter, this is followed by examples of CODA applications from Tenbrink's vast catalogue of research.

In Chapter Six ("Identifying Cognitive Constructiveness"), the two processes of inference and transformation are addressed. These are associated with problem-solving tasks and reflect a more general understanding of the human mind as constructing, rather than representing, reality. A general strategy in many of the previous chapters has been first to introduce the reader to the cognitive aspects of a given concept, then relate it to problem-solving and/or mental representations, which are key focal areas of the book (cf. Chapter 1), and finally, connect this to language use as illustrated by research in general and by CODA studies, in particular. This is a strategy that works well, providing coherence across chapters. In this chapter, the reader is first given an introduction to inference as a cognitive strategy for understanding the world, which involves the application of assumptions and background knowledge to new but similar situations. Tenbrink explains that basing decisions and actions on inferences is a common strategy for humans in that it addresses the complexity of the world and allows us to act quickly by generalising from individual situations. This, however, also entails a number of problems such as jumping to conclusions when filling in too many gaps on the basis of analogy as well as reducing creative thinking and clouding judgement in particular situations. These ideas can be transferred to problem solving as cognitive shortcuts, where conclusions are reached based on

assumptions from previous experience that fit the situation closely enough to lead to desired effects. From here, the author moves on to discuss inference in language drawing on, among other things, Grice's (1975) and Sperber and Wilson's (1986) seminal work on communicative principles and relevance to illustrate the aim of being economic and maximally relevant within the context of the communicative situation. Thus, according to Tenbrink, what is relevant for the speaker is reflected in the linguistic choices (s)he makes. The following part of the chapter deals with transformation, which involves turning observable facts and objects into something else, that is, to go beyond what can be observed and creatively construct a different reality. In this process, language plays a decisive role by representing our thoughts, and therefore, studying linguistic choices may provide access to knowledge about the effect of human thought on the real world. From here, the chapter takes the reader into cognitive science research to demonstrate the ability of the human mind to make transformations, for instance, through mental rotation (of visual objects), followed by further illustrations from Tenbrink's own research into problem solving, involving experiments with participants assembling a doll's house without previous instructions or folding an origami object on the basis of step-by-step instructions. The chapter concludes by summing up the benefits of inference and transformation to acting naturally and efficiently and to identifying meaningful changes.

Chapter 7 ("Using Language to Convey Thoughts") has a slightly different focus than previous chapters as it takes the discussion to the more general level of language use in particular contexts and with particular purposes. A key focus in this chapter is the interaction with partners in the communicative situation, specifically how linguistic choices are affected by who the interaction partners are and what they do. Thus, in line with much research into communication and discourse Tenbrink argues that the relationship with a partner will affect the speaker's linguistic choices, just as their reactions (for instance, back-channelling) or understanding will. However, she also warns against seeing communication as only aiming towards benefiting the addressee, as the primary aim is that of representing our thoughts. Although I appreciate this view, it is difficult to see how communication, and thus representing thoughts, can be successful if it does not consider the interaction with the addressee and his/her characteristics. In what follows, Tenbrink elaborates on the communication between interaction partners to include dialogue and the exchange of ideas and views. This may mean adapting word sounds, using the same words to refer to things, or employing the same syntactic structures, etc., making interaction partners adapt to each other through mutual influence. In her discussion of how this takes place, the author introduces the work of Halliday and Matthiesen (2014) on grammatical mood types to explain the structured exchanges between speakers, as well

as the COR-model (Conversational Roles) developed by Sitter and Stein (1996) to account for what they call recursive networks, that is, the structuring of information-seeking dialogues in sequences. This is followed by yet another example from Tenbrink's own research, which involves the empirical study of natural dialogue between humans on spatial thinking. The remainder of the chapter explores the usefulness of doing CODA when studying verbal protocols connected to problem solving, that is, the verbalisation of cognitive strategies. This is, in fact, the first time when Tenbrink goes into details with how to apply CODA to verbal data, focusing on ways to move beyond identifying cognitive steps, as outlined in Ericsson and Simon's (1993) paradigm, which took its starting point in cognitive psychology and the interest in the content of what people were saying. CODA, in contrast, offers a method for analysing verbalisation strategies from a linguistic standpoint, arguing that the way people say things matters. From here, a number of recommendations are made for doing linguistic analysis, which include, firstly, establishing a focus and identifying the linguistic realisations that assist in answering the research question; secondly, choosing annotation features based on content or linguistic aspects (typically as a combination of predetermined and new features) to ensure the systematic analysis of discourse; thirdly, identifying linguistic indicators that mark the connections between thoughts and actions; and finally, identifying linguistic realisations of conceptual switches or shifts of attention. Rounding off, Tenbrink looks into the relation between cognitive and communicative aspects, pointing to two important areas to consider when doing CODA, namely, that talking with someone else may ease problem solving and that the communicative situation may influence the way we go about a problem and talk about it.

Chapter 8 ("CODA procedures") is devoted to the actual implementation of CODA, that is, the practical aspects associated with the approach. The aim, however, is not to make an elaborate account of existing methods, but to highlight a number of important principles when conducting a CODA study. Thus, the chapter opens with considerations on the suitability of different kinds of linguistic data for the research purposes at hand, followed by the presentation of different types of experimental design and ways in which verbal data can be elicited from participants, particularly in problem-solving and description tasks. The next part deals with data preparation and data analysis, including considerations on segmentation, content analysis, tool support (for instance, the use of Excel), and the operationalisation of linguistic categories. The chapter is concluded with relevant insights into the possibilities and limitations of using either qualitative or quantitative data. Tenbrink presents these matters in great detail and with much insight into potential pitfalls, which makes the chapter relevant and accessible for early career researchers and others, who are not familiar with setting up

and conducting a linguistic analysis along the lines of CODA. And even for more trained researchers, the chapter is a reminder that setting up rigorous and systematic procedures is necessary in order to produce reliable data and analyses.

In the final chapter, Chapter 9 (“Beyond CODA”), CODA as an analysis method is related to other methods which are typically used in combination. Hence, Tenbrink introduces a number of methods that can be used for triangulation to bridge gaps between interactional and cognitive approaches to language and thought. Among these, we find the collection of performance data through, for instance, questionnaires, corpus linguistics, the collection of data below participants’ consciousness, which includes the measuring of reaction times, eye tracking, electroencephalograms (EEG), and functional magnetic resonance imaging (fMRI), and cognitive modelling. A distinctive feature of many of these approaches is that they record cognitive processes that cannot be identified in language, and hence, can be used for supporting findings made through CODA. The remainder of the chapter is dedicated to the discussion of CODA’s applications within and outside academia, which allows Tenbrink to conclude that the applications of CODA are many, with the primary reason being that language is our most important medium for communication. Therefore, which the monograph also seeks to illustrate, a systematic analysis of language use may open our eyes to subtle differences in the thought processes underlying linguistic choices.

Altogether the monograph demonstrates impressive knowledge, rigour and systematicity in a vast and somewhat elusive field of study. By combining insights from cognitive science (primarily psycholinguistics and cognitive psychology) and relevant approaches for conducting linguistic analysis, Tenbrink offers a compelling argument for the study of language in use to understand (more) about the way humans think. However, while the many examples from everyday experience and from research are one of the strengths of the book, it is also one of its challenges. The ambition to cover a vast ground of related research makes the reading dense and may cause the reader to lose track of the overall aim of the book, namely that of providing tools and methods for doing cognitive discourse analysis in the areas of mental representations and problem solving. Likewise, by insisting on CODA being theory neutral, several possible methods for doing linguistic analysis are introduced, but this is done in a somewhat sketchy fashion, and as such, the presentation can only serve as inspiration for the reader, who will have to look elsewhere to be able to carry out a proper analysis. On the other hand, Tenbrink’s extensive knowledge of the field and her ability to convey this in accessible terms makes the book an excellent contribution to the work on cognition, language and discourse, just as it can be used as an inspiration for further exploring particular areas of interest in the field.

REFERENCES

- Ericsson, K. Anders, Herbert A. Simon 1993: *Protocol Analysis: Verbal Reports as Data* (2nd ed.). Cambridge, MA: Bradford Books/MIT Press.
- Evans, Vyvyan 2009: *How Words Mean: Lexical Concepts, Cognitive Models and Meaning Construction*. Oxford: Oxford University Press.
- Evans, Vyvyan, Melanie Green 2006: *Cognitive Linguistics: An Introduction*. Edinburgh: Edinburgh University Press.
- Gee, James Paul 2013: Discourse versus discourse. In: Carol A. Chapelle (ed.) *The Encyclopaedia of Applied Linguistics*. Oxford: Blackwell. <https://doi.org/10.1002/9781405198431.wbeal0332>
- Grice, Herbert Paul 1975: Logic and conversation. In: Peter Cole, Jerry Morgan (eds.) *Syntax and Semantics* (Vol. 3). New York: Academic Press, 41-58.
- Halliday, Michael A. K., Christian M. I. M. Matthiesen 2014: *Halliday's Introduction to Functional Grammar* (4th ed.). London: Routledge.
- ICLA 2020: *About Cognitive Linguistics*. <https://www.cognitivelinguistics.org/en/about-cognitive-linguistics>. ED 8 July 2020.
- Lakoff, George, Mark Johnson 1980: *Metaphors We Live By*. Chicago: The University of Chicago Press.
- Langacker, Ronald 1986: An introduction to cognitive grammar. *Cognitive Science* 10, 1-40.
- Langacker, Ronald 2000: A dynamic usage-based model. In: Michael Barlow, Susanne Kemmer (eds.) *Usage-based Models of Language*. Stanford, CA: CSLI Publications, 1-64.
- Romano, Manuela, Maria Dolores Porto 2016: *Exploring Discourse Strategies in Social and Cognitive Interaction*. Amsterdam, Philadelphia: John Benjamins.
- Sitter, Stefan, Adelheit Stein 1996: Modeling information-seeking dialogues: The conversational roles model. *Review of Information Science* 1(1), 165-180.
- Sperber, Dan, Deirdre Wilson 1986: *Relevance: Communication and Cognition*. Cambridge, MA: Harvard University Press.
- Talmy, Leonard 2000: *Toward a Cognitive Semantics*. Cambridge, MA: MIT Press.
- Whorf, Benjamin Lee 1941: The relation of habitual thought and behavior to language. In: Leslie Spier (ed.) *Language, Culture, and Personality: Essays in Memory of Edward Sapir*. Menasha, WI: Sapir Memorial Publication Fund, 75-93.
- Wittgenstein, Ludwig 1953: *Philosophical Investigations*. New York: Macmillan.