



## A note on epistemics and discourse analysis

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Discursive Psychology has the great merit of having introduced discourse analysis (DA) to social psychology and to have contributed to DA itself by its study of the expression of 'psychological' notions in text and talk. Within this perspective, this paper presents some elements of a proposal to study the expression of knowledge in discourse. Beginning with a brief summary of our multidisciplinary approach to knowledge, followed by a summary of discourse structures that express knowledge, the main argument of the paper is that we not only need to take discourse seriously in the study of knowledge, but cannot ignore their cognitive underlying structures if we want to describe and explain many properties of discourse, such as all implicit or presupposed knowledge, as well as the interactional and contextual management of old and new knowledge in text and talk.

One of the major contributions of Discursive Psychology (DP) has been to persuade social psychologists to take discourse and discourse analysis (DA) seriously. Indeed, many of the traditional objects of study in social psychology, such as prejudice, attitudes, attribution, and social identity, among many others, are routinely displayed in many forms of text and talk. In addition to the usual laboratory experiments, therefore, their study may be advanced through the sophisticated methods of detailed and explicit DA.

Beyond such a mere methodological renewal, DP proposed that instead of 'looking in the head', we should rather study these phenomena as they are socially performed in discursive interaction (among many DP publications, see especially Edwards & Potter, 1992). In this brief paper, I shall elaborate on this proposal by examining some of the properties of the relations between discourse and knowledge – arguably the most fundamental of the cognitive phenomena studied in psychology. I hope to show that such an analysis cannot be reduced to mere DA, but needs independent cognitive analysis of the representations and processes underlying the production and comprehension of discourse. In other words, it is argued that social psychology should not only take discourse seriously, both theoretically as well as methodologically, but also refrain from abandoning the principles of the cognitive paradigm.

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## Knowledge

It is strange to observe that such a fundamental phenomenon as socially shared knowledge does not occupy a central position in the field of social psychology and generally was left as an objective of study to cognitive psychology. Yet, virtually all phenomena studied in social psychology presuppose such knowledge as the basis of social perception, interaction, and communication.

This is not the place to detail our multidisciplinary theory of knowledge, so we shall only briefly summarize some of its tenets that are relevant for this article (see, e.g., Van Dijk, *in press*, and further references on this project on my website [www.discourses.org](http://www.discourses.org)). First of all, I do not share the traditional definition of knowledge in epistemology, namely as 'justified true beliefs' (for further references of this tradition in epistemology, see, e.g., Bernecker & Dretske, 2000). Such a definition presupposes a context-free, universalist conception of truth. Epistemic DA needs a more contextualized, relativist, and pragmatic conception of knowledge in terms of the beliefs shared by the members of epistemic communities and their socially and culturally variable justification criteria. In short: knowledge is belief that members call and presuppose as knowledge. Note though that such relativism is itself relative, as it should be in a consistent relativist theory: for members of the same epistemic community, their beliefs are 'true' – and hence knowledge – for all practical purposes.

Secondly, members of epistemic communities acquire such knowledge through various sources and types of learning, such as perception, experience, and especially discourse. The discursive acquisition of knowledge, generally ignored in epistemology, specifically allows the acquisition of abstract and generalized knowledge needed as the crucial presupposition of all social interaction, including discourse itself. Concrete personal experiences, today usually defined in terms of mental models stored in Episodic Memory (Van Dijk & Kintsch, 1983; Johnson-Laird, 1983), first need to be abstracted from, for example, by decontextualization, generalization, and social normalization before they can be used effectively in future social interactions of individual members of epistemic communities.

Without much further philosophical or social analysis of the concept of knowledge, cognitive psychology and Artificial Intelligence of the last decades have proposed that knowledge is represented in Semantic Memory, and strategically activated in the construction of the intensional meanings (propositions) and extensional interpretations (mental models) involved in the production and comprehension of discourse (for detail, see, e.g., Graesser, Gernsbacher & Goldman, 2003). For instance, knowledge thus plays a role in the establishment of local discourse coherence through the derivation of 'missing links' between propositions, on the one hand, and in the construction of semantic macrostructures that define the global coherence as well as such notions of 'topic' and 'gist' of discourse, on the other hand (Van Dijk & Kintsch, 1983; Kintsch, 1998). Although details of the processes involved are still unclear (e.g., how much knowledge needs to be activated at each point of discourse processing), this is more or less standard theory in cognitive psychology.

Finally, current debate, stimulated by the vastly increased interest in neuropsychology, also has revived theoretical explorations into the nature and organization of knowledge representation in memory and the brain. Traditionally defined in terms of hierarchical systems of concepts, prototypes, schemas, or scripts, current approaches emphasize the 'embodied' and multi-modal nature of knowledge, as derived from various sensory experiences as they are processed by the brain. For instance, our knowledge of

cars is not (merely) an abstract, symbolic structure of concepts (CAR IS VEHICLE, etc.), but also features sensorimotor information derived from the experience of car driving, visual information based on our way of seeing cars, auditory information derived from our experience of hearing cars, and emotional information derived from our pleasure of driving a car (or our fear of cars as pedestrians) (for detail, see, e.g., the work of Barsalou, e.g., Barsalou, 2008).

No doubt much of our conceptual system has been acquired by such experiences, that is, by abstraction from mental models of multi-modal experiences. Yet, vast parts of our knowledge are not based on such experiences, but on discursively communicated higher level concepts. Thus, we may more or less directly experience cars, but not such more abstract, higher level concepts as traffic or transportation, which need at least several experiences (mental models) and an operation of abstraction that precisely needs to abstract from the multi-modal particularities of concrete experiences. Moreover, such experiences are subjective and may be variable between individual persons. The experiences of cars as construed by drivers are quite different from those of pedestrians. Similarly, our knowledge of furniture is quite different, more conceptual, from our embodied experiences with chairs and pianos, and different for movers or personnel of furniture sections in department stores. And abstract concepts, such as democracy and inequality, no doubt correspond to few concrete embodied experiences.

Thus, despite differences of embodied personal experiences, all members of the community must share a generic notion of car so as to be able to interact in traffic and to understand discourse about cars among members of a community. It is this generic notion that is not only acquired by the generalization, abstraction, and decontextualization of mental models of personal experiences, but especially also through the gradual construction of concepts through social interaction, in general, and through language and discourse, in particular. It is only discourse that enables the explicit expression, and hence, the social reproduction of generic concepts in the epistemic community. It is at this point where cognitive psychology, social psychology, and discourse studies should meet in order to formulate new empirical theories of knowledge, its acquisition by individuals as well as its social reproduction in society. DP correctly emphasizes this fundamental role of discourse and interaction in the use and reproduction of knowledge in society.

## Discourse and knowledge

It is quite generally accepted in psychology and discourse studies today that the production and understanding of discourse requires the activation and application of vast amounts of socio-culturally shared knowledge. Indeed, discourses are like icebergs of which we only see or show new information or knowledge, but of which the larger part of the information remains hidden as implied or presupposed knowledge. Such implicit information is theoretically accounted for by assuming its presence in the mental situation model of the discourse, but not in its semantic representations as explicitly expressed by its sentences.

More generally, because of its contextually or socially shared nature, by pragmatic rule of redundancy, knowledge need not be made explicit in discourse at all. The theoretical and methodological question then arises how we can study such knowledge *if it is not explicitly formulated in discourse in the first place*. Hence, we must conclude that any approach to epistemic discourse study that limits its analysis to actually displayed

text and talk cannot go beyond the investigation of the (few) discourse genres in which shared generic knowledge is made explicit – as is the case in the expository discourse of textbooks – or discourses with new specific event knowledge as is the case for news reports and conversation. Similarly, such an approach is unable to properly define such notions as implicit, presupposed, or indirect meanings because it has no way to represent such meanings in the first place. Indeed, where *are* such meanings if they do not show up in text or talk?

In other words, a fully fledged epistemic analysis of text and talk cannot be limited to the ways knowledge is shown in discourse, but also needs an independent cognitive analysis, for example, in terms of underlying mental models that represent the full meaning of discourse as subjectively assigned by speakers and hearers and as inter-subjectively based on socio-culturally shared knowledge.

Such a broader approach to discourse epistemics also explains that, why and how experiences as mental models are not only and not always presupposed or implied in discourse, but more generally may also be socially presupposed in other forms of (inter)action. Hence, discourse epistemics should be part of a more general approach to interactional epistemics and based on a theory that explains how knowledge is acquired and reproduced – and then presupposed – by community members and their social practices. This also guarantees that cognitive discourse epistemics are not circular: we do not merely derive knowledge and its properties from their expression in discourse, and then use this insight to explain the production of knowledge. On the contrary, we need independent theory and evidence to show the fundamental role of (implicit) knowledge that precisely is *not* expressed or displayed in text and talked, as is the case for implications and presuppositions.

One element of such a theory is the account of the pragmatics of context, again in cognitive terms. Members' current, dynamic, ongoing representation of the communicative situation, as represented in their context models, features hypothetical (strategic) assumptions about the specific or general knowledge of the recipients. Hence, context models filter out the interactionally 'known' information assumed to be present in recipients' situation models of events talked about, and thus make the discourse appropriate in the current communicative situation.

We see that besides a theory and description of the epistemic strategies actually shown in discourse, we need a complex cognitive theory of the role of knowledge in discourse processing in order to be able to account for some fundamental properties of discourse, such as local and global coherence, implicit versus explicit information, presupposition, and more generally all the ways meaningful and appropriate discourse is related to prior knowledge of language users in specific communicative situations.

We have seen that in that case the paradoxical situation arises that if we want to study socially shared knowledge through DA much of such knowledge is not actually expressed or formulated, and rather should be located in the *cognitive conditions* and *consequences* of text and talk. Theoretically and methodologically, there is nothing mysterious about such a situation. Many fundamental phenomena described in science are not directly observable but only inferred from the conditions or consequences of observable phenomena.

This alone is a powerful argument to reject an interactionist or 'discursivist' (if not behaviourist) approaches that reduce the account of knowledge to their 'observable' manifestations in discourse or interaction 'itself' – and that deem 'thought' or 'mind' outside the scope of a theory of discourse, even in psychology. Unfortunately, because

of their criticism of traditional social and cognitive psychology, at least some earlier DP publications tend to throw away the cognitive baby with the bathwater, and more generally have a problematic relationship with cognition, for example, because of its alleged individualist, non-social, dualist (mind vs. body), and non-observable nature. Current work in DP seems to be somewhat more open to 'cognitive' approaches (te Molder & Potter, 2005). For instance, it examines the role of knowledge in conversation – though not in cognitive terms but in conversation analytical terms (Potter & Hepburn, 2008).

The obvious advantage of a discursive perspective, as advocated by DP, is that an empirical theory of knowledge is forced to study in detail how or what kind of knowledge *is* actually displayed, formulated, or expressed in discourse – whether or not such knowledge also needs to be accounted for in independent cognitive or neurological theories.

Hence, let us summarize a few of the ways knowledge profoundly influences the structures and strategies of discourse besides the ones mentioned above, for instance as follows (without the vast number of references that would be needed for each of these research fields):

**Discourse phonology: Stress.** In English (and many other languages), stress tends to be located on the later parts of the clause or sentence, usually associated with information that is new or in focus. This is one of the ways language use marks the distinction between textually or contextually 'given' knowledge, already assumed to be shared by the recipients, and new knowledge to be added to mental models about an event, or generic knowledge about a concept (initial stress has different functions, e.g., marking contrast or identifying unknown subjects of known predicates, e.g., *JOHN did it*).

**Syntax: Word order.** As just explained, in many languages earlier parts of sentences tend to express given knowledge (often objects or persons already mentioned) and later parts new knowledge (unknown properties of these objects or persons, or newly introduced persons or objects).

**Syntax: Definite expressions.** Many languages distinguish between definite and indefinite Noun Phrases (e.g., signalled by definite and indefinite articles) referring to entities that at the moment of their expression refer to entities that are supposed by the speaker to be known (or knowable by inference) and unknown to the recipients, respectively.

**Syntax: Pronouns.** Instead of 'full' noun phrases, pronouns are typically used to refer to objects or persons already known or identified by previous text or the current context – if these are still mentally accessible and cannot be confused with other accessible referents.

**Syntax-Semantics-Pragmatics: Deictic expressions.** Deictic expressions (such as *I, you, today, here, next week, or modern*) refer to known parameters of the communicative situation as represented in the shared context model of the participants: Setting (Time, Place), Participants, Action, Aims, and Knowledge of Participants.

**Semantics: Propositional structure.** Meaningful clauses and sentences express underlying propositions whose canonical organization is organized by the structure of our experience as represented by mental models: Spatiotemporal Settings, Agents in different participant roles and relationships, Events or Actions and their

Conditions, Goals and Consequences. This means that incomplete clauses and propositions may be interpretatively completed by their interpretation as mental models representing the specific event knowledge of what is going on. More generally, we simply say that an expression is meaningful if language users are able to construe a model for it.

**Semantics: Modality.** Events may be known about with variable degrees of (un)certainly, typically expressed by modal expressions (*may, might, must, possibly, necessarily*, etc.).

**Semantics: Evidentials.** Sources of knowledge about events may be variably expressed in discourse, such as empirical observations (*I saw it*), discourse (*Mary told me; I saw it on TV*), or inference.

**Semantics: Local coherence.** Discourse is structurally incomplete and incoherent if only its propositions actually expressed are taken into account, and not the propositions that may be inferred by the recipients on the basis of their contextual or socio-culturally shared Common Ground knowledge, as they are projected into their (mental) situation model of the discourse.

**Semantics: Sequential order.** The order of propositions in discourse may reflect the 'natural' order or structure of situations, events, or actions, such as cause-consequence and whole-part relations as they are represented in our generic knowledge about such situations and events. Inverted order thus may have special functions (e.g., focus, contrast, explanation, or justification).

**Semantics: Global coherence.** Discourse not only has local meaning, but also global meanings such as topics or gist, represented by hierarchical semantic macrostructures. However, often such global meanings are implicit (unless expressed in headlines, titles, summaries, etc.) and only characterize the structure of mental models of discourse. The derivation of global meanings from local meanings during discourse comprehension presupposes knowledge about the structures of situations, events, and action.

**Pragmatics: Speech acts.** Many speech acts are appropriate only given specific epistemic conditions. Thus, assertions that *p* presuppose that the recipient does not know that *p*, whereas questions whether *p* presuppose that the speaker does not know that *p*, and that the recipient does know whether *p*.

**Pragmatics: Self-presentation.** Among many other phenomena of discourse defined in terms of known context parameters, such as the relationships between the participants, strategies of self-presentation have the goal to influence the knowledge and the opinions of the recipients (as represented in their context models) about the speaker.

**Interaction/Conversation: Sequential knowledge construction and pre-supposition.** As is the case for clauses in all discourse, turns in conversational interaction in principle are organized by the pragmatic rule that what has been asserted/assessed before by the speaker is known to the recipients after such an assertion and hence may be presupposed in next turns.

**Interaction/Conversation: Epistemic rights of (first) assessment.** Among the many interactional strategies controlled by the distribution of information or knowledge among the participants of conversation, speakers who have (had) more access to states of affairs have more rights to (first) assess such information than others, and such differences may be negotiated (upgraded and downgraded) and expressed, for example, by tag questions, negative interrogatives, *ob*-prefaces,

etc. – it is this topic DP has been paying attention to (see, e.g., Potter & Hepburn, 2008).

This incomplete list of the role of knowledge in discourse first of all shows that, at all levels of text and talk, the relations between the knowledge of speakers/writers and recipients play a fundamental role. This is not surprising when we accept that, among many other functions, discourse serves to communicate knowledge among participants. Both contextually as well as sequentially, thus, the discursively marked difference between ‘known’ and ‘unknown’ (or maybe forgotten) information among recipients is crucial. As a general epistemic strategy, presupposed to be known is (1) now relevant generic knowledge – and inferences based on it – of the epistemic community of which the participants are (now) members, and (2) personal or social (mostly specific, event) knowledge that has been asserted in previous text or talk in the current or previous communicative situations. The more detailed (low level) the old information and the larger the temporal distance with previous first assertions of such information, the more strategies of repetition, recalling, or reminding may be necessary to bring recipients ‘up to date’ – since such ‘known’ information may actually have been forgotten.

The expression of (new) knowledge in discourse is subject to a complex set of interactional and epistemic conditions, constraints, and rules, such as:

- (1) Speakers/writers must have had direct or indirect access to the state of affairs they assert, for example, by reliable observation (personal experience), reliable sources (text, talk, communication), and/or reliable inference from knowledge acquired that way. They may formulate these knowledge conditions as evidence or proof of their knowledge so as to affirm their credibility.
- (2) If participants in a conversation (or another type of discursive interaction) have differential (complete, partial, no) knowledge of a state of affairs, they also have differential rights of (first) assessment, and such rights may be interactionally negotiated (granted, disputed, upgraded, or downgraded). Something similar takes place in the role of ‘scoops’ (and scoop disputes) in the mass media, and the originality (and originality disputes) of scientific ideas or findings and the function of references (ratified earlier authors) in scholarly discourse.
- (3) Knowledge acquisition and discourse are both sequential and hierarchical: sentences as well as whole discourses presuppose or repeat old/given knowledge or add related knowledge supposed to be unknown to the recipients. At all levels of discourse and with many different linguistic means (stress, definite articles, pronouns, topic-comment, focus, word-order, etc.), the distinction between old and new knowledge is marked so as to facilitate comprehension and (new) knowledge acquisition by the recipients.
- (4) The epistemic structures of discourse are contextually controlled by the knowledge and beliefs of the speakers about those of the recipients, as represented in their context models. Such (mutual) knowledge is based on (1) shared present or earlier experience/perception of specific situations or events, including the current communicative situation and (2) shared socio-cultural (historical, political, generic) knowledge of the epistemic community (often informally referred to as Common Ground).
- (5) The discursive organization of knowledge not only pragmatically reflects the communication of (new) knowledge by speakers or their acquisition by the recipients, but also various structures of knowledge itself, such as the structures of mental

models of situated events in storytelling or news reports, or conceptual structures in expository discourse, for example, in definitions (A is an X), descriptions (A has p, q, r, etc.), examples (B is an example of A), metaphors, etc.

## Conclusion

The epistemic analysis of discourse is a fascinating, interdisciplinary field of study. At all levels of text and talk, structures strategically express the (lack of) knowledge of the speaker/writer and guide the recipients to add new knowledge to old knowledge as it has been acquired as members of the same epistemic community, in previous contexts, or in the current (con)text. All rules, conditions and constraints of the appropriate expression, presupposition and management of (old and new) knowledge in discourse, as discussed above, feature theoretical terms that cannot be reduced to the structures of text or talk. Thus, old versus new knowledge, mutual knowledge, access to knowledge, rights and authority to assess and divulge knowledge, originality, structures of episodic or generic knowledge, among others, on the one hand require independent *cognitive definition* in terms of (semantic) episodic models of personal experience, (pragmatic) context models of communicative situations (featuring beliefs about recipient knowledge), and the organization of generic knowledge. On the other hand, they require *social-cultural definition* of epistemic communities, culturally variable knowledge criteria (experience, discourse, or inference – and hence of conditions of evidentiality), interactional rights, authority, power, priority, etc. in assessing, and claiming knowledge. In other words, also epistemic DA requires a triangular approach in terms of Discourse, Cognition, and Society.

DP has provided important contributions to the discursive and interactional dimensions of this triangle. A sophisticated cognitive dimension may further provide insights into – and hence explain – the ways epistemic structures of text and talk are controlled by underlying cognitive structures during discourse production and comprehension.

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