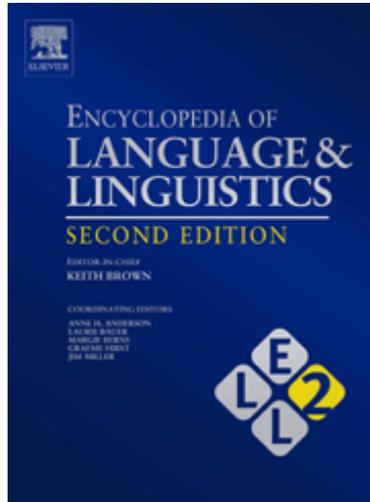


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## Bibliography

- Brinton D M, Snow M A & Wesche M B (1989). *Content-based second language instruction*. New York: Newbury House.
- Cantoni-Harvey G (1987). *Content-area language instruction: approaches and strategies*. Reading: Addison-Wesley.
- Chamot A U & O'Malley J M (1991). *The CALLA handbook*. Reading: Addison-Wesley.
- Cloud N, Genesee F & Hamayan E (2000). *Dual language handbook*. Boston: Heinle & Heinle.
- Coelho E (1982). 'Language across the curriculum.' *TESL Talk* 13(3), 56–70.
- Crandall J A (1993). 'Content-centered learning in the United States.' *Annual Review of Applied Linguistics* 13, 111–126.
- Crandall J A (ed.) (1987). *ESL through content-area instruction: mathematics, science and social studies*. Englewood Cliffs: Prentice Hall.
- Cummins J (1980). 'The cross-lingual dimensions of language proficiency: implications for bilingual education and the optimal age issue.' *TESOL Quarterly* 14, 175–187.
- Curtin H & Dahlberg C (2004). *Languages and children: making the match* (3rd edn.). Boston: Allyn & Bacon.
- Echevarria J, Vogt M E & Short D (2004). *Making content comprehensible to English learners: the SIOP model* (2nd edn.). Boston: Pearson Allyn & Bacon.
- Faltis C & Wolfe P (eds.) (1999). *So much to say: adolescents, bilingualism and ESL in the secondary school*. New York: Teachers College Press.
- Gibbons P (2002). *Scaffolding language, scaffolding learning*. Portsmouth: Heinemann.
- Hajer M & Meestringa T (2004). *Handboek taalgericht Vakonderwijs*. Bussum: Coutinho.
- Harklau L (1994). 'ESL versus mainstream classes: contrasting L2 learning environments.' *TESOL Quarterly* 28(2), 241–272.
- Lemke J (1990). *Talking science: language, learning and values*. New York: Ablex.
- Met M (1991). 'Learning language through content: learning content through language.' *Foreign Language Annals* 24(4), 281–295.
- Mohan B A (1986). *Language and content*. Reading: Addison-Wesley.
- Mohan B, Leung C & Davison C (eds.) (2001). *English as a second language in the mainstream*. Harlow: Pearson.
- Richard-Amato P A & Snow M A (2004). *Academic success for English language learners: strategies for K–12 mainstream teachers*. White Plains: Longman.
- Sheppard K (1995). *Content-ESL across the USA, vol. I: Technical Report*. Washington, DC: National Clearinghouse for Bilingual Education.
- Short D J (2002). 'Language learning in sheltered social studies classes.' *TESOL Journal* 11(1), 18–24.
- Short D (1993). 'Assessing integrated language and content instruction.' *TESOL Quarterly* 27(4), 627–656.
- Snow M A & Brinton D (1997). *The content-based classroom*. White Plains: Longman.
- Snow M, Met M & Genesee F (1989). 'A conceptual framework for the integration of language and content in second/foreign language instruction.' *TESOL Quarterly* 23, 201–217.
- Spanos G, Rhodes N, Dale T & Crandall J (1988). 'Linguistic features of mathematical problem-solving: insights and applications.' In Cocking R & Mestre J (eds.) *Linguistic and cultural influences on learning mathematics*. Hillsdale: Erlbaum. 221–240.
- Stoller F (2004). 'Content-based instruction: perspectives on curriculum planning.' *Annual Review of Applied Linguistics* 24, 261–283.
- Straight H S (1998). *Languages across the curriculum*. Washington, DC: Center for Applied Linguistics.
- Stryker S & Leaver B (1997). *Content-based instruction for the foreign language classroom: models and methods*. Washington, DC: Georgetown University Press.
- Teachers of English to Speakers of Other Languages (1997). *ESL standards for pre-K–12 students*. Alexandria, VA: Teachers of English to Speakers of Other Languages.
- Thomas W & Collier V (2002). *A national study of school effectiveness for language minority students' long-term academic achievement*. Santa Cruz, CA: Center for Research on Education, Diversity & Excellence.

## Context and Common Ground

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People talking to each other take much for granted. They assume a common language. They assume shared knowledge of such things as cultural facts, news stories, and local geography. If they know each

other, they assume shared knowledge of earlier conversations and other joint experiences. And if they are talking face to face, they assume shared knowledge of the scene around them. 'Common ground' is the sum of the information that people assume they share. Although the notion is often treated informally, it has a formal definition that has been essential to the study of semantics, pragmatics, and other areas of language.

## History

'Common knowledge' as a technical notion was introduced by David Lewis (1969) to account for how people coordinate with each other. Suppose A, B, and C agree to meet at city hall at noon. The three of them take it as common knowledge that they intend to go to city hall at noon if and only if: (1) all three believe that the agreement holds; (2) the agreement indicates to all of them that they believe the agreement holds; and (3) the agreement indicates to all of them that they intend to go to city hall at noon. In Lewis's terminology, the agreement is the 'basis' for A, B, and C's common knowledge that they intend to go to city hall at noon. Common knowledge is always a property of a community of people, even though the community may consist of just two people.

The notion of 'common ground' was introduced, in turn, by Robert Stalnaker (1978), based on Lewis's common knowledge, to account for the way in which information accumulates in conversation:

Roughly speaking, the presuppositions of a speaker are the propositions whose truth he takes for granted as part of the background of the conversation... Presuppositions are what is taken by the speaker to be the **common ground** of the participants in the conversation, what is treated as their **common knowledge** or **mutual knowledge** [p. 320, Stalnaker's emphases].

In this view, people in conversation take certain propositions to be common ground, and when they make assertions, they add to this common ground. When A tells B, *George arrived home yesterday*, A takes it as common ground with B who George is, what day it is, and where George lives. A uses the assertion to add to their common ground the proposition that George arrived home the day before. Common ground therefore also includes common (or mutual) beliefs, and common (or mutual) suppositions (Clark and Marshall, 1981; Clark, 1996).

Common ground is a reflexive, or self-referring, notion (Cohen, 1978). If A takes a proposition as common ground with B, then A takes the following statement to be true: A and B have information that the proposition is true **and that this entire statement is true**. (*This sentence has five words* is reflexive in the sense that **this sentence** refers to the sentence that contains it.) Because of the self-reference, people can, technically, draw an infinity of inferences from what they take to be common ground. Suppose A takes it that A and B mutually believe that George is home. A can infer that B believes that George is home, that B believes that A believes that George is home, that B believes that A believes that B believes that George is home, and so on *ad infinitum*. In

practice, people never draw more than a few of these inferences. These iterated propositions are therefore a derivative and incomplete representation of common ground. The reflexive notion is more basic (Lewis, 1969; Clark and Marshall, 1981; Clark, 1996).

## Bases for Common Ground

In conversation and other joint activities, people have to assess and reassess their common ground, and to do that, they need the right bases. These bases fall into two main categories: community membership and personal experiences (Clark, 1996).

### Communal Common Ground

Common ground is information that is common to a community of people. Some of these communities are built around shared practices or expertise, such as the communities of ophthalmologists, New Zealanders, or English speakers. Once A and B mutually establish that they are both ophthalmologists, New Zealanders, or English speakers, they can take as common ground everything that is taken for granted in these communities. Even if A and B mutually establish that A is a New Zealander and B is not, they can take as common ground everything an outsider would think an insider should know about New Zealand. Common ground based on community membership is called 'communal common ground.'

Everybody belongs to many communities at the same time. Some of these communities are nested (e.g., North Americans, Americans, Californians, San Franciscans, Nob Hill residents), and others are cross cutting (Californians, lawyers, football fans, Christians). Both nesting and cross-cutting communities lead to gradations in common ground. Any two Californians might readily presuppose common knowledge of the Golden Gate Bridge on San Francisco Bay, but only two San Franciscans would presuppose common knowledge of Crissy Field right next to it.

People have both direct and indirect ways of establishing which communities they jointly belong to. When people meet for the first time, they often begin by exchanging information about their occupations, residences, hobbies, and other identities. They display other communal identities indirectly – in their choice of language, dialect, and vocabulary; their choice of dress and accoutrements; and their age and gender. It is remarkable how many cultural identities people can infer as they talk and how useful these are in establishing communal common ground.

### Personal Common Ground

The other main basis for common ground is joint experience. The joint experience may be perceptual. When A and B look at a candle together, they can take their joint experience as a basis for certain mutual beliefs – that there is a candle between them, that it is green, that it smells of bayberry, that it is lit. Or the joint experience may be linguistic or communicative. When A tells B (on April 8), *George arrived home yesterday*, and once they mutually establish that B has understood A, the two of them can take it as common ground that George arrived home on April 7. Common ground that is based on joint perceptual or linguistic experiences between two people is called their ‘personal common ground’. It often holds only for the two of them.

Conversations and other joint activities depend on the orderly accumulation of personal common ground. Suppose A and B are assembling a television stand together. To succeed, they need to establish as common ground what each is going to do next. Part of this they accomplish linguistically, in their spoken exchanges, as when A proposes, *Let’s put on this piece next*, and B takes up the proposal, *Okay*. But other parts they accomplish perceptually, as when A hands B a board, screw, or screwdriver, or when A holds up a board and they examine it together. Most face-to-face conversations depend on a mix of linguistic and perceptual bases for the accumulation of personal common ground. Telephone conversations depend almost entirely on linguistic bases.

### Language and Communal Common Ground

Communal common ground is fundamental to account for the conventions of language, what are termed the ‘rules of language’. These include conventions of semantics, syntax, morphology, phonology, and pragmatics (Lewis, 1969).

Speakers ordinarily try to use words that their addressees will understand, and that requires a ‘shared lexicon.’ The problem is that every community has its own ‘communal lexicon’ (Clark, 1996). Once A and B jointly establish that they are both speakers of English, they may presuppose common knowledge of a general English-language lexicon. But because other communities are nested and cross cutting, so are the lexicons associated with them. There is a nesting of communities that speak English, North American English, New England English, and Bostonian. Although words such as *dog* and *in* are common to English in general, others are common only to one or another nested community; in Bostonian, for example, a *barnie* is a Harvard student.

Indeed, every community (Californians, lawyers, football fans, ophthalmologists) has a specialized lexicon. The lexicon for lawyers includes *tort*, *mortmain*, and *ne exeat*. The lexicon for ophthalmologists includes *tonometry*, *uweal*, and *amblyopia*. To use *barnie* or *mortmain* is to take as common ground a Bostonian or legal lexicon. Communal lexicons are sometimes called jargon, dialect, patois, idiom, parlance, nomenclature, slang, argot, lingo, cant, or vernacular; or they consist of regionalisms, colloquialisms, localisms, or technical terminology (see **Jargon**).

Speakers also try to use syntactic constructions, or rules, that they share with their addressees. For example, in English generally, it is conventional to mention place before time (*George is going to London tomorrow*); yet in Dutch, a closely related language, it is conventional to mention place and time in the reverse order (*Pim gaat morgen naar London*, ‘Pim goes tomorrow to London’). The rules of syntax, however, vary by nested communities. It is conventional to say *He gave it me* in British English, but not in English generally. It is conventional to say *My car needs washed* in Western Pennsylvania English, but not in North American English. Many rules of syntax are tied to specific words in a communal lexicon, and these vary from one community to the next.

Speakers also try to use, or adapt to, the phonology of their cultural communities. Indeed, pronunciations vary enormously from one community to the next. The vowel in *can’t*, for example, changes as one goes from British to North American English, from northern to southern dialects of American English, and even from one social group to another within a single school. Also, the same person may pronounce *singing* as ‘singing’ in an informal setting but as ‘singin’ in a classroom or a court of law.

### Discourse and Personal Common Ground

Personal common ground is essential to the processes by which people converse. To *communicate* is, according to its Latin roots, to *make common* – to establish something as common ground. To succeed in conversation, people must design what they say (1) against the common ground they believe they already share with their interlocutors and (2) as a way of adding to that common ground (Stalnaker, 1978). Two consequences of trying to make something common are ‘information structure’ and ‘grounding.’ ‘Information structure’ is a property of utterances. When A tells B, *What the committee is after is somebody at the White House*, A uses the special construction to distinguish two types of information (Prince, 1978). With the Wh-cleft *What the committee is after*, A provides information that

A assumes B is already thinking about. It is one type of 'given information.' In contrast, with the remainder of the utterance 'is somebody at the White House,' A provides information that A assumes B doesn't yet know. It is 'new information.' Given information is assumed to be inferable from A and B's current common ground, whereas new information is not. New information is, instead, what is to be **added** to common ground. The way people refer to an object in a discourse (e.g., the committee, somebody, of the White House) depends on whether they believe that the object is readily evoked, known but unused, inferable, or brand new in their common ground for that discourse (Prince, 1981).

'Grounding' is the process of trying to establish what is said as common ground (Clark and Schaefer, 1989; Clark and Brennan, 1991). When A speaks to B in conversation, it is ordinarily not enough for A simply to produce an utterance for B. The two of them try to establish as common ground that B has understood what A meant by it well enough for current purposes. In this process, B is expected to give A periodic evidence of the state of his or her understanding, and A is expected to look for and evaluate that evidence. One way B can signal understanding is with back-channel signals such as *uh-huh*, *yeah*, a head nod, or a smile. Another way is with the appropriate next contribution, as when B answers a question asked by A. But if B does not manage to attend to, hear, or understand A's utterance completely, the two of them will try to repair the problem. One way is illustrated here:

A (on telephone): Can I speak to Jim Johnstone, please?

B: Senior?

A: Yes.

B: Yes.

In turn 2, B asks A to clear up an ambiguous reference in A's question, and in turn 3, A does just that. Only then does B go on to answer A's question.

Turns 2 and 3 are called a 'side sequence' (Jefferson, 1972). Grounding takes many other forms as well.

Common ground is central to accounts of language and language use. It is needed in accounting for the conventions, or rules, of language and to explain how people contribute to conversation and to other forms of discourse.

*See also:* Context, Communicative; Contextualism in Epistemology; Conventions in Language; Information Structure in Spoken Discourse; Jargon; Pragmatic Presupposition; Presupposition.

## Bibliography

- Clark H H (1996). *Using language*. Cambridge: Cambridge University Press.
- Clark H H & Brennan S A (1991). 'Grounding in communication.' In Resnick L B, Levine J M & Teasley S D (eds.) *Perspective on socially shared cognition*. Washington, DC: APA Books. 127–149.
- Clark H H & Marshall C R (1981). 'Definite reference and mutual knowledge.' In Joshi A K, Webber B L & Sag I A (eds.) *Elements of discourse understanding*. Cambridge: Cambridge University Press. 10–63.
- Clark H H & Schaefer E R (1989). 'Contributing to discourse.' *Cognitive Science* 13, 259–294.
- Cohen P R (1978). On knowing what to say: planning speech acts. Ph.D. diss., University of Toronto.
- Jefferson G (1972). 'Side sequences.' In Sudnow D (ed.) *Studies in social interaction*. New York: Free Press. 294–338.
- Lewis D K (1969). *Convention: a philosophical study*. Cambridge, MA: Harvard University Press.
- Prince E F (1978). 'A comparison of Wh-clefts and It-clefts in discourse.' *Language* 54(4), 883–906.
- Prince E F (1981). 'Towards a taxonomy of given-new information.' In Cole P (ed.) *Radical pragmatics*. New York: Academic Press. 223–256.
- Stalnaker R C (1978). 'Assertion.' In Cole P (ed.) *Syntax and semantics 9: Pragmatics*. New York: Academic Press. 315–332.

## Context Principle

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It is a near truism of the philosophy of language that a word has meaning only in the context of a sentence; this principle is sometimes formulated as the claim

that only sentences have meaning in isolation. This is the context principle, first emphasized in Western philosophy by Frege (1884), endorsed early on by Wittgenstein (1922: 51), and sanctioned more recently by Quine (1951: 42), among many others. The Principle and several different ways of understanding it seem to have been foreshadowed in classical Indian philosophy. (See also Matilal and Sen, 1988.)