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4 | Common ground

If a lion could talk, we could not understand him.
Ludwig Wittgenstein, *Philosophical Investigations*

Everything we do is rooted in information we have about our surroundings, activities, perceptions, emotions, plans, interests. Everything we do jointly with others is also rooted in this information, but only in that part we think they share with us. The notion needed here is common ground.

Common ground is a *sine qua non* for everything we do with others – from the broadest joint activities (Chapter 2) to the smallest joint actions that comprise them (Chapter 3). For my son and me to act jointly, he and I have to coordinate what we do and when we do it. And to coordinate, we have to appeal, ultimately, to our current common ground. At the same time, with every joint action he and I perform, we add to our common ground. This is how joint activities, from chess games to business transactions, progress (Chapter 2). When my son and I enter a conversation, we presuppose certain common ground, and with each joint action – each utterance, for example – we try to add to it. To do that, we need to keep track of our common ground as it accumulates increment by increment.

Common ground is important to any account of language use that appeals to "context." Most accounts don't say what context is, but rely on our intuitions about the circumstances of each utterance. These appeals are no better than a psychic's visions of next year's stock prices – and less predictive. With an undefined notion of context, as with an indefinite future, anything is possible. What these approaches need is a proper theory of common ground.

What, then, is common ground? What forms does it take? What information does it represent? How is it created, maintained, and incremented?

What is common ground?

The technical notion of common ground was introduced by Robert Stalnaker (1978; cf. Karttunen and Peters, 1975) based on an older family of notions that included *common knowledge* (Lewis, 1969), *mutual knowledge* or *belief* (Schiffer, 1972), and *joint knowledge* (McCarthy, 1990). Two people's common ground is, in effect, the sum of their mutual, common, or joint knowledge, beliefs, and suppositions. There has been considerable confusion about these notions. At issue is how they are to be represented. Three main representations have been proposed, and although they may seem equivalent, they aren't (Barwise, 1989; Clark and Marshall, 1981). Paradoxically, the best-known one is impossible psychologically, whereas the other two are not. I will argue that it is the second and third representations we need for language use.

THREE REPRESENTATIONS

I am at the beach examining a rare conch shell I just found. Although my attention is focused on the shell, I am vaguely aware of the entire situation – the beautiful day, the beach, the sea, the shell, and, of course, myself. It is as if ten meters down the beach there is a gigantic mirror in which I can see all these things reflected. In it I see myself, not as another inanimate object, but as a sentient being looking at the entire situation. I see myself thinking about what I am seeing – including me thinking about all this. If I am agent A thinking about the current situation *s*, we might represent the circumstances as follows:

s includes the beautiful day, the beach, the sea, A, and a conch shell near A.
s includes A's awareness of *s*.

What is represented by the second statement along with the first is a piece of my *self-awareness*.

Now my son walks up, and the two of us examine the conch shell together. How does my representation change? If all I did was add his name to the list in the first statement, that wouldn't do him justice. After all, I am sure he too is vaguely aware of the entire situation – that what he sees in the mirror is analogous to what I see. What I add instead is his version of the second statement, where he is B:

s includes the beautiful day, the beach, the sea, A, B, and a conch shell between A and B.
s includes A's awareness of *s*.
s includes B's awareness of *s*.

The study of traits over the last sixty years has led to the "big five" dimensions of traits (Goldberg, 1993; Krahé, 1992): extroverted vs. introverted; kind vs. selfish; reliable vs. unreliable; emotionally stable vs. neurotic; and creative vs. unimaginative. But classifying by traits is very different from classifying by community – and it is no substitute. In using language, we classify people so that we can identify the conventions and other information we share with them. Traits are no good for this purpose. They are dispositions that people have more or less of, which don't lead to categories. There is also no evidence that we seek to establish mutual beliefs about our personality traits. We would have to if we were to use them as a basis for common ground. Personality traits have little to do with background expertise in actions that require coordination. For establishing common ground, we must classify by communities.

Contents of communal common ground

What information do we infer from community membership? It is useful to think of it organized as a large mental encyclopedia (Clark and Marshall, 1981). The encyclopedia is divided into chapters by cultural communities, properly nested and correlated, and when we want inside information or outside information about a community, we consult the right entry. There has been little research on what this information consists of and how it is organized, yet there is a good deal we can say about it.

HUMAN NATURE

Whenever I meet other humans – adults from anywhere in the world – I assume as common ground that they and I think in the same way about many things. I may be wrong, but I would still draw the inferences, and these would inform my actions as we tried to coordinate with each other. I possess a folk psychology about people in general – about human nature – and, right or wrong, it allows me to get started.

All of us take as common ground, I assume, that people normally have the same senses, sense organs, and types of sensations. If a sound is audible to me, it would normally be audible to others in the same circumstances. People also perceive motion, perceptual depth, pitches, and rhythms, and assume these ways of perceiving to be common ground. Less obviously, people are limited in what they can attend to at once, and the raw perceptual experiences that grab my attention – loud noises or sudden movements – will grab yours too. Certain varieties of perceptual salience are common ground to us all.

We all take it as common ground, also, that everyone knows the basic facts and laws of nature. People universally assume that they live in a world populated by animate and inanimate objects that are subject to gravity, Newton-like laws of motion, and laws of cause and effect. They take certain facts of biology for granted – for example, that animate things are born, take in food and water to live, then cease to function. They suppose that everyone assumes certain social facts – that people generally possess and use language, live together in groups, exchange goods and services, have names, play roles in various institutions, and so on. It is hard to exaggerate the number and variety of basic concepts we take as common ground to everyone.

COMMUNAL LEXICONS

Many inferences are based more narrowly on the language communities we know someone belongs to. If Soonja is a Korean speaker, I assume she takes as common ground to Korean speakers all the conventional features of Korean – its phonology, morphology, syntax, semantics, and pragmatics. This follows from Lewis' characterization of conventions as common knowledge within a community of speakers (Chapter 3). Precisely how these conventions are represented is a fundamental question for students of language, and there are diverse proposals on the table. I also assume Soonja takes for granted certain facts about how Korean speakers speak and understand – that they need more time and effort to deal with some aspects of Korean than others. All this is outside information that I take as common ground about using any language.

In Lewis' account, conventional word meanings hold not for a word *simpliciter*, but for a word *in a particular community*. You can't talk about conventional word meaning without saying what community it is conventional in. Word knowledge, properly viewed, divides into what I will call communal lexicons, by which I mean sets of word conventions in individual communities. When I meet Ann, she and I must establish as common ground which communities we both belong to simply in order to know what English words we can use with what meaning. Can I use *fermata*? Not without establishing that we are both music enthusiasts. Can I use *rbi*? Not without establishing that we are both baseball fans.

Every community has a specialized lexicon. We recognize these lexicons in the terms we have for them in English:

Residence	regional or local dialects, patois, provincialisms, localisms, regionalisms, colloquialisms, idiom, Americanisms, etc.
Occupation	jargon, shoptalk, parlance, nomenclature, technical terminology, academese, legalese, medicalese, Wall Streetese, etc.
Subculture	slang, argot, lingo, cant, vernacular, code, etc.

Most regions have their own dialect, patois, idiom, or regionalisms, with distinctive terms for everything from food to geographical features. Most occupations and hobbies, from physics to philately, have a technical jargon or terminology. So do most subcultures, from drug addicts to high school cliques.

When we think of jargon, slang, and regionalisms, we tend to focus on the words unique to a communal lexicon. *Meson*, *pion*, and *quark* are terms only a physicist could love. But most common word forms belong to many communal lexicons – though with different conventional meanings. In Britain, *biscuits* can be sweet or savory, but in America, they are always savory. In common parlance, *fruit* denotes a class of edible, sweet, fleshy agricultural products; among botanists, it denotes the ripened ovary or ovaries of seed-bearing plants, whether or not they are edible, sweet, and fleshy. Two botanists in conversation would have to establish which lexicon they were drawing on. You and I would be forced to stay with common parlance. It is essential to identify the cultural communities our interlocutors do and don't belong to just to know what vocabulary we can use.

CULTURAL FACTS, NORMS, PROCEDURES

If Sam is an American, I can suppose he takes lots of things as common ground for Americans. Virtually all adult Americans assume a certain background of *facts*: the basics of history, geography, mathematics, science, and literature learned in school; certain current events – including names of prominent politicians, movie stars, television personalities; and certain cultural artifacts – professional football teams, the major television networks, newspapers, and magazines, and the major religious and political groups and their characteristics.

Americans also take for granted among Americans certain *conventions* and *norms* – driving on the right, eating three meals a day, not waiting in queues at bus stops, paying one's taxes, and wearing dark clothes to funerals. If Jack is a middle-class Californian, I suppose he takes it as common ground that most of his group will follow norms about when to arrive at a party, what to wear where, and what are acceptable topics of

conversation when, and will have certain social skills, such as how to argue, how to meet new people, and how to behave toward shopkeepers. They will take for granted certain social roles, such as those of husband, wife, child, neighbor, and how these roles fit into larger institutions, such as the family, the neighborhood, the tennis club.

Much of what people take as common ground may be represented in the form of *procedures* for joint activities. There are the routine actions, such as shaking hands and offering thanks – when, with whom, and how (Galambos and Rips, 1982). There are also the larger "scripts," specifying the expected course of the joint activities that take place in restaurants, doctors' offices, supermarkets (Minsky, 1975; Schank and Abelson, 1975). The script for patronizing a restaurant, for example, specifies certain props, roles, entry conditions, results, and actions, as here:[5]

Script name	Restaurant
Props	Tables, menu, food, bill, money, tip
Roles	Customer, waiter or waitress, cook, cashier, owner
Entry conditions	Customer is hungry
	Customer has money
Results	Customer has less money
	Owner has more money
	Customer is not hungry
Actions	Customer enters restaurant
	Customer looks for table
	Customer decides where to sit
	Etc.

The script proper represents the expected joint activities as a customer goes to a restaurant. Scripts such as this have been shown to influence people's understanding and memory of stories about going to restaurants, attending lectures, shopping for groceries, and visiting a doctor (Bower, Black, and Turner, 1979). To have this influence, they must be assumed to be common ground. When I meet Soonja, I take it as common ground that we have outside information about the scripts for restaurants in America and Korea, but not that we both have inside information. Restaurant scripts may be very different in the two countries. Other scripts vary by local region and social class as well.

[5] Adapted from Bower, Black, and Turner (1979), who adapted it from Schank and Abelson (1975).