

4 *Communal lexicons*

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For you and me to talk, we must use words we have in common. In the standard view, we do this by choosing the grammar and lexicon of a language we share. The choice is simple if we have only one language in common, and not much harder even if we have more than one. Once we discover we both know English, we can adopt its grammar and lexicon for everything we say. The standard view is taken for granted in most of linguistics, philosophy and psychology.

The standard view, however, has problems. Suppose I tell you, 'You've got a sclerotic aorta, which could well cause a myocardial infarction.' *Sclerotic*, *aorta*, *myocardial* and *infarction* are perfectly good English words, but how can I be sure you know them? Or I tell you, 'The Broncos were in a nickel defense, but the linebackers still weren't able to cover the deep outside routes.' *Nickel*, *linebacker*, and *outside routes* are also fine English expressions, but how can I be confident you share them? Or I say, 'I live on Russian Hill just off Lombard with a view from Telegraph Hill to the Golden Gate.' *Russian Hill*, *Lombard*, *Telegraph Hill*, and *Golden Gate* are also English words, but do you share them? You and I each have a *personal lexicon*, a stock of words we know to varying degrees, and even though we both speak English, our personal lexicons differ. The differences may be enormous.

'Of course our personal lexicons differ,' you might retort, 'but that is an accident of our life histories. The differences are haphazard and have no bearing on theories of language or language use.' But are these differences truly haphazard? I will argue no. Personal lexicons have systematic differences that we keep close track of. These differences help determine what we mean and what we take others to mean. They play an integral role in the formulation and interpretation of utterances. They bear directly on how language is structured and used.

At the core of the argument are what I will call *communal lexicons*. A communal lexicon is the vocabulary associated with a community of people – for example, physicians, football aficionados, San

Franciscans – who are distinguished by their common knowledge of a particular field of expertise – medicine, football, San Francisco. We each belong to many communities – I might be a physician, football aficionado, *and* San Franciscan – and know the lexicons of these communities. The claim is, we keep track of our communal lexicons. When I speak to you, I try to select words from the lexicons of the communities I believe you and I both belong to. You and I cannot communicate successfully without distinguishing among our communal lexicons.

Communal lexicons have several features. First, they are required by the very notion of conventional word meaning. Second, they differ from each other in ways that we keep track of. Third, they are associated with communities of expertise. And, fourth, they mirror the communities they are associated with. In this chapter I will consider these four points. Communal lexicons, I suggest, force us to rethink many traditional issues in language and language use.

1 Conventions

You and I are playing poker when I tell you ‘I’m hot’. To understand what I am saying, you must see what I mean by the word *hot*. I don’t mean ‘sweaty’, ‘spicy’, ‘sexually aroused’, ‘enthusiastic’, ‘radioactive’, or ‘stolen’. I mean ‘lucky’. How do we coordinate on that interpretation? According to the standard picture, you and I each have in our personal lexicons a small number of *lexical entries* for the word-form *hot*. Each lexical entry represents the pairing, or association, of (1) a *word-form*, the pronunciation of the word, and (2) a *lemma*, a meaning.¹ Let me denote this two-place relation as [word-form, lemma]. So for *hot*, there is a list of entries like this (in simplified form):

[word-form, Lemma]
{ <i>hot</i> , ‘sweaty’}
{ <i>hot</i> , ‘spicy’}
{ <i>hot</i> , ‘sexually aroused’}
{ <i>hot</i> , ‘enthusiastic’}
{ <i>hot</i> , ‘radioactive’}
{ <i>hot</i> , ‘stolen’}
{ <i>hot</i> , ‘lucky’}

¹ See Levelt (1989) for the term *lemma*.

In order to understand my use of *hot*, you find all the entries with the word-form *hot*, scan the lemmas associated with them (from ‘sweaty’ to ‘lucky’), and select the lemma most appropriate for that context.

Which of the lexical entries for *hot* do you and I have in common? In the standard picture, the default assumption is that we have them all in common. But if we don’t – and we don’t – how should we represent that? Here, I suggest, we need to examine the notion of convention. In the standard theory, *hot* is associated with a stock list of lemmas, and what makes the lemmas stock is that they are conventional. In using *hot* to mean ‘lucky’, I appeal to a convention I believe you and I share about this word. But once we look more closely at the notion of convention, we discover that it accounts for how people differ in which lexical entries they do and don’t have in common. And we discover that it requires lexical entries to represent more than just a word-form and a lemma. To see this, let us turn to an analysis of conventions by David Lewis (1969).

Properties of conventions

In everyday activities, people often face problems in coordinating with each other, and they have to find ways of solving them. Whenever two men meet, for example, they face a recurrent coordination problem – how to greet. In many parts of North America, they solve the problem by shaking hands. Within this population, almost everyone expects almost everyone to apply this solution to the recurrent problem of how two men are to greet. Shaking hands is a partly arbitrary solution because it could have been otherwise. In other parts of North America, men greet with a so-called high five.

A convention, for Lewis, is a regularity in behaviour (e.g. shaking hands) that has evolved within a population (parts of North America) as the solution to a recurrent coordination problem (greeting). True conventions satisfy six conditions:

A convention is:

- (1) a regularity in behaviour,
- (2) partly arbitrary,
- (3) that is common ground
- (4) in a given population
- (5) as a coordination device
- (6) for a recurrent coordination problem.

Conventions come in all shapes and sizes, helping people coordinate in all sorts of ways. They govern not just how people greet, but how they drive, work, walk, eat, dress, shop, sing, dance, sit, sleep – and

talk. It is easy to overlook Lewis's conditions and what they imply about social activities, so let me highlight several features.

According to condition 4, every convention holds for only a specified population or group of people. A convention to drive on the left holds for the British, but not for continental Europeans or North Americans. A convention for women to cover their heads in church used to hold for Roman Catholics, but not for Lutherans or Baptists. A convention to count the ground floor of a building as the first floor holds for North Americans, but not for Europeans. Every convention is indexed to the population in which it holds. There is no such thing as a convention for an unspecified population.

Also, conventions require specific background knowledge or expertise. In orchestras, violinists are expected to upbow and downbow together, so a convention has evolved for coordinating bowing in ensembles. Not just anyone can acquire, or even understand, this convention, because it makes reference to technical features of both musical notation and violin playing. Only an expert can apply it. So it goes with every convention. The expertise needed varies from one convention to the next. Bowing requires expertise in musical notation and violin playing. Mathematical notation requires expertise in mathematics. Greeting requires expertise in interpersonal relations.

For conventions to work, they have to be common ground in the population in which they are used. What this meant for Lewis – who spoke of 'common knowledge' instead of 'common ground' – is that almost everybody in the population expects almost everybody in the population to know, believe, or assume that people follow the regularity in that population (Clark 1996, Chapter 4; Clark and Marshall 1981). In Britain, almost everyone expects almost everyone to know that people drive on the left. The same goes for numbering floors, covering heads in church, violin bowing, mathematical notation and greeting.

According to Lewis's analysis, conventions have evolved and are maintained for *social* reasons: They solve recurrent coordination problems. If violinists in orchestras weren't expected to bow in unison, they wouldn't have evolved a bowing convention. This makes every convention a *symptom* of a wide-spread coordination problem that needed to be solved in the population. Like good physicians, we should be able to read these symptoms and identify a population's most pressing coordination problems.

Shared needs and shared expertise

These points are important not only for what they say about conventions, but also for what they say about the populations that

maintain them. Conventions should evolve and be maintained within a population only if they are broadly *usable* and *useful* to its members. To be usable, they must rest on expertise that is available throughout the population. To be useful, they must solve coordination problems that are widely shared in the population. For violinists, the bowing convention is both usable and useful.

What about populations? By Lewis's account, for a population to evolve and maintain a convention, its members must share a certain background expertise and regularly encounter a coordination problem they need to solve. Such a population isn't defined by mere location (e.g. all the people in a room), acquaintance (e.g. a group of friends), or personality traits (e.g. all shy people). It is defined by the shared background knowledge or expertise of its members and by their need to coordinate when interacting. So in place of the terms *population* or *group of people*, I will use *cultural community* or, simply, *community*.

2 Communal lexicons

If the stock lexical entries of words are conventional, they should exhibit all the properties of Lewis's conventions, and they do. In using language, people have to coordinate what speakers mean with what addressees understand them to mean. These are coordination problems *par excellence*. One of these recurrent problems is how to denote being lucky. For American English speakers, one solution is to use *hot*. Its use is a regularity, partly arbitrary, that is common ground among most American English speakers as a solution to this problem. But we can conclude more. For American English speakers to maintain [*hot*, 'lucky'] as a convention, they must share a background expertise about what luck is and how it differs from chance, earned rewards, and coercion. And they must have a recurrent need to talk about being lucky.

Hot may seem standard, but other words are not. *Infarct*, *clef* and *stope* are also English words, but their lexical entries are common ground for only subgroups of English speakers. The convention [*infarct*, 'an area of tissue that undergoes necrosis'] holds only for physicians, [*clef*, 'a symbol indicating the pitch represented by one line of a staff'] only for musicians, and [*stope*, 'type of mine cavity'] only for miners. It takes background expertise of these communities to understand how to apply these words. You can explain what *stope* means to a German or Russian or Japanese mine worker in their languages, and they will understand. But try to explain it to most of us, and you will fail because we lack the requisite background.

Expertise and word use

The word *stope* doesn't live in splendid isolation. In underground mining, there are many techniques for boring into the ground, digging out cavities and extracting mineral bearing ore. One of these techniques is called cut and fill stoping. Miners first cut out a vertical shaft, or raise, between two levels of a mine, then cut away successive layers of ore in slanting slices starting at the bottom of the raise, creating a large stope as they move upwards. In mines where cut and fill stoping is used, miners know all of these details and more. They have background expertise. And to talk about these details, they have evolved a special lexicon. It includes not only *stope*, but also *raise*, *cut*, *drift*, *hoist*, *shaft*, *stull*, *rill* and hundreds, perhaps thousands, of other terms. Let me call such a lexicon a *communal lexicon*.

Miners aren't unique. Every community has a communal lexicon that has evolved to suit its particular coordination problems. We recognise these lexicons in the cover terms we have for them in English:

Basis	Names of communal lexicons
Places:	regional dialects, local dialects, patois, idiom, localisms, provincialisms, regionalisms, colloquialisms, Americanisms, Bostonisms, etc.
Occupations:	jargon, shoptalk, parlance, nomenclature, technical terminology, buzz words, academese, legalese, medicalese, Wall Streerese, etc.
Subcultures:	slang, argot, lingo, cant, vernacular, code, etc.

One reason that communal lexicons vary is that communities vary. Like conventions in general, communal lexicons reflect community-wide expertise and community-wide coordination problems.

What does a communal lexicon consist of? If we consider American English speaking miners from Colorado, many of the words they know, from *at* to *zoo*, are common to all American English speaking Coloradans. Their communal lexicon proper consists of only those items that miners would be expected to know but that members of other occupations who are also American English speaking Coloradans would *not* be expected to know. The miners' lexicon might consist of, say, a thousand items – only a fraction of any miner's personal lexicon. And these items fall into roughly three types:

1. *Specialized form-lemma pairings*. These are entire form-lemma pairings that appear in a communal lexicon but not outside it. The entire entries

for *stope* and *stull*, for example, are in the lexicon of miners, but neither part is in the lexicons of other professions.

2. *Specialised lemmas*. These are lemmas that appear in a communal lexicon but not outside it. The word-forms *raise*, *cut*, *drift*, *rill* and *fill*, for example, appear in both the miners' lexicon and the American English lexicon; however, the forms are associated with specialised lemmas in the miners' lexicon. For American English, a raise is an act of increasing something, or an increase in salary. For miners, it is also a vertical cavity (a shaft) between two levels of a mine. The lemma in [*raise*, 'vertical mine shaft'] is unique to miners.
3. *Specialised word-forms*. These are word-forms in a communal lexicon that have roughly the same lemmas as other word-forms outside it. In mining, for example, a hoist is a conveyance for transporting miners and materials from one level of a mine to another. In American English, it would be called an elevator or a mine elevator. For miners, *hoist* is a specialised word-form for elevators in mines.

So communal lexicons consist of more than specialised words like *stope* and *stull*. They also contain specialised lemmas of word-forms well known outside the community, and specialised word-forms for lemmas well known outside the community.

Insiders and outsiders

When I discover that George is a miner, I infer that he possesses the communal lexicon for miners. Beyond that, what I infer depends on whether I too am a miner. If I am, I assume I tacitly know the items in the miners' communal lexicon I expect him to know. If I am not, I assume I know about the broad *types* of information he knows, but only scattered pieces of the information itself. Even if I happen to know the word *stope*, I probably don't have the expertise to distinguish stopes from slightly different mine cavities.

The information people have about a community depends on whether they are insiders or outsiders. Let me contrast two types of information:

Inside information of a community is particular information that members of the community mutually assume is possessed by members of the community.

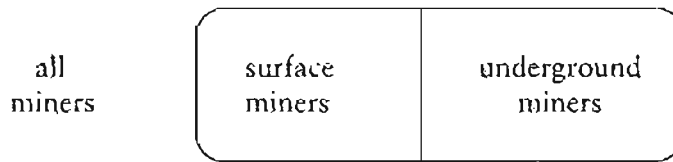
Outside information of a community is types of information that outsiders assume is inside information for that community.

With this contrast, there are two different types of common ground. (1) If George and I establish the mutual belief that he is a miner and I am not, all we can take as common ground is outside information about mining and the miners' lexicon. He and I mutually assume that he knows mining techniques, mining equipment, mine formations

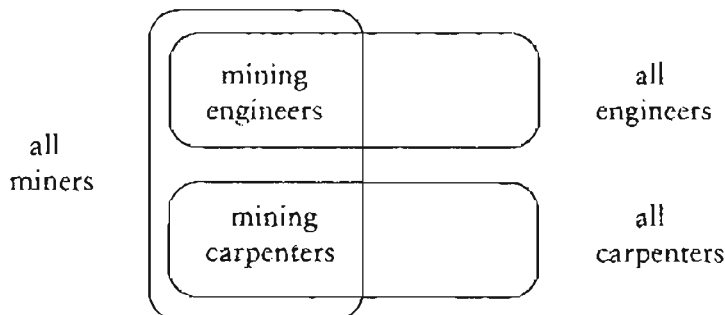
and the terminology for these items. We cannot mutually assume we both know these things, for that is inside information I wouldn't be expected to know. (2) If, instead, George and I establish the mutual belief that we are both miners, we can take all inside information to be common ground. He and I can now mutually assume such information as what raises are, what cut and fill stoping is, and how stamp mills work.

Inside information goes beyond outside information in two ways. First, the types of outside information that outsiders assume about miners cover only a fraction of the types insiders actually have. And second, inside information far surpasses outside information in sheer volume. People like George and me tacitly realise this. If we want to establish a lot of common ground quickly, we look for communities in which we are both insiders.

Insiders, however, vary in their expertise about inside information. One reason for this is that communities are nested. Some miners are underground miners, and others are surface miners; these constitute two communities nested within the broader community of miners, as depicted here:



Whereas underground miners are sure to know a great deal about stopes and raises, surface miners aren't. Another reason is that communities are cross-cutting. Some miners are also engineers, whereas others are also carpenters, as depicted here:



Mining engineers are likely to possess different knowledge from mining carpenters. Miners themselves, of course, know about these nested and cross-cutting communities and realise that individual miners vary in what they know.

Insiders, indeed, have an excellent grasp of these variations. They are remarkably accurate at judging what other insiders are most likely to know. In a series of studies by Fussell and Krauss (1991, 1992; Krauss and Fussell 1991), Columbia University students were shown pictures of 15 public figures and asked to rate how identifiable they would be to other Columbia students. The actors Woody Allen and Clint Eastwood were judged to be highly identifiable; the financiers Carl Icahn and T. Boone Pickens were not. And these judgements were accurate. Columbia students could name Allen and Eastwood 93 and 80 per cent of the time, but Icahn and Pickens only 7 and 0 per cent of the time. The correlation between judgements and actual identifiability was .95. There was a similar correlation for New Yorkers' ability to name New York landmarks, and for men's and women's ability to name kitchen implements, tools, and musical instruments. So insiders recognise that their knowledge isn't all or none, but graded.

Personal lexicons

Recall the standard picture of word use. To choose a word-form, you scan your personal lexicon for the lemma you wish to use (e.g. 'lucky') and select a word-form with that lemma (here, *hot*). To interpret a word-form (e.g. *hot*), you look it up in your personal lexicon, scan its stock lemmas, and choose the lemma (e.g. 'lucky') that is most appropriate to the context. The core notion is personal lexicon, the list or system of word-forms and lemmas that belongs to individual people like you and me.²

We can now describe more precisely what is wrong with that picture: It takes no account of communal lexicons.³ Suppose I am a miner and want to tell you about a stope Ben and I just worked out. According to the standard picture, I would scan my personal lexicon, find *stope*, and tell you 'Ben and I worked out a stope today.' But how could I be sure you would understand me? Just because *stope* is in my personal lexicon doesn't mean that it is in yours. If I think you know nothing about mining, I would think you wouldn't know what *stope* means, and I wouldn't use it. Contrary to the standard picture, I cannot select a word just because it has the right lemma. I must be sure it has the same lemma for you too – and that you will pick that lemma. It must be conventional in a vocabulary you and I share.

Here is where communal lexicons come in. Each entry in our

² What I am calling a personal lexicon corresponds closely to what many would call a *mental lexicon*.

³ For critiques of the standard picture, see Clark (1983, 1991) and Clark and Gerrig (1983).

personal lexicons must be indexed by the most inclusive community it is conventional in – by the communal lexicon it belongs to. Instead of [word-form, lemma] we must have [community: word-form, lemma]. Here are a few entries from my own personal lexicon:

[community: word-form, lemma]

[miners: *stope*, 'mining cavity']

[miners: *raise*, 'vertical mine shaft']

[North Americans: *raise*, 'increase in salary']

[football aficionados: *nickel*, 'a football formation']

[North Americans: *nickel*, 'a US coin']

[musicians: *clef*, 'a symbol indicating pitch on a staff']

[Stanford residents: *the claw*, 'a fountain on the Stanford campus']

[Stanford residents: *Dinkelspiel*, 'an auditorium on the Stanford campus']

[North Americans: *hot*, 'lucky at a game']

In the earlier notation, I would have two lexical entries for *raise*: [*raise*, 'vertical mine shaft'] and [*raise*, 'increase in salary']. But these entries give no hint about who the conventions hold for. In the revised notation, the entries become [miners: *raise*, 'vertical mine shaft'] and [North Americans: *raise*, 'increase in salary']. These accurately represent my further knowledge that the first convention holds for miners, and the second for North Americans.

Lexical entries like these suggest a very different image of how we select and interpret words. When I am talking to you, I don't choose just any word from my personal lexicon. I ascertain which communities you and I mutually believe we are both members of and limit myself to the entries indexed for those communities. Word selection and word interpretation then become social processes. They depend on judgements of shared membership in cultural communities.

If this view is correct, we each create and maintain social profiles of our interlocutors, or we will have problems communicating. A principal ingredient in these profiles is a representation of the communities we and our interlocutors belong to. What communities are these, and how do we represent them?

3 Cultural communities

We can categorise people in many different ways – by their weight and height, their astrological sign, the colour of their eyes. But as bases for communication, criteria such as weight, astrological sign, and eye colour are surely useless. What we need are categories that reflect cultural communities. If a set of people recognise each other as a population (in Lewis's sense) in using the words of a lexicon, then

they constitute a cultural community (in my sense). Any population that adheres to a distinct set of lexical conventions – and other conventions of language and action – is therefore such a community.

Communities of expertise

The communities I suggest are based on shared needs and shared expertise – the twin driving forces behind every convention. Here are some major types of expertise and the communities they define:

Basis of expertise	Examples of cultural communities
Nationality	Americans, Canadians, New Zealanders
Residence	Westerners, Californians, Glaswegians
Education	university students, law students, high school graduates
Occupation	ophthalmologists, plumbers, used car dealers
Employment	Ford auto workers, Stanford faculty, Newsweek reporters
Hobbies	pianists, baseball fans, philatelists
Language	English speakers, Japanese speakers, Gaelic speakers
Religion	Baptists, Protestants, Muslims, Hindus
Politics	Democrats, Libertarians, Tories
Ethnicity	Blacks, Hispanics, Cajuns, Polish Americans
Clubs	Elks Lodge members, Masons, Girl Scouts, Ku Klux Klan
Subculture	rock musicians, cocaine users, teenage gangs
Cohort	teenagers, senior citizens, thirty-year-olds
Gender	men, women

Suppose that after years of training I become a nuclear physicist. I have done more than become an expert in nuclear physics. I have joined a select community – those who share certain beliefs, practices, conventions, values, experiences and know-how. I have become an insider and expect to be viewed as an insider by those who know I am a member of that community. In particular, I expect to apply the specialised lexicon of nuclear physics in talking with other community members.

In this scheme, we all belong to many communities at once. We each have a nationality, residence, level of education, occupation, employment, set of hobbies, set of languages, religion, political affiliation, ethnic affiliation, cohort and gender. Many of these communities are correlated. A Bostonian is likely to speak a Bostonian dialect of English. A professor of psychology is likely to be a psychologist, have a Ph.D. in psychology, and be in his or her thirties or older. Taken together, cultural communities are cross-cutting categories.

Most of these types of communities also form nested sets. San

Franciscans, for example, are a subset of Californians, who are a subset of Western Americans, and so on. Here are several illustrative nestings:

Residence:	North Americans ⊃ Americans ⊃ Westerners ⊃ Californians ⊃ Northern Californians ⊃ San Franciscans ⊃ Nob Hill residents
Education:	high school graduates ⊃ university graduates ⊃ medical school graduates
Occupation:	middle class ⊃ professionals ⊃ physicians ⊃ ophthalmologists ⊃ ophthalmic surgeons
Employer:	Stanford University employees ⊃ Stanford faculty members ⊃ Stanford psychology faculty members ⊃ Stanford professors of psychology
Language:	English speakers ⊃ American English speakers ⊃ speakers of New England English ⊃ speakers of Bostonian English ⊃ speakers of Irish Bostonian English
Religion:	Christians ⊃ Protestants ⊃ Baptists ⊃ Missouri Synod Baptists

It is nestings like these that allow us to draw graded inferences about the expertise people are likely to share. A San Franciscan and a Los Angeleno share inside information for Californians but not for smaller categories.

When we sort people into cultural communities, therefore, we are sorting them according to their background knowledge or expertise. That leads to a nesting of communities, from more general to more specific expertise in an area. And because everyone has multiple types of expertise, it also leads to everyone being members of many communities at once. According to this scheme, we identify people within a system of nested cross-cutting categories.

Person types

Are these categories a real part of our folk psychology? One piece of evidence that they are is found in the names for these categories in English – and in other major languages. We often describe people with what I will call *person nouns*. I might say of Julia that she is a *virologist*, a *football fan*, a *Midwesterner*, a *Democrat*, a *skier*, an *Episcopalian*, a *woman*, and a *Michigan graduate*. There is a wealth of person nouns in English, and most fit precisely the same types as the cultural communities listed earlier.⁴ Here is a sample for each of the types:

⁴ Of course, not all person nouns define cultural communities; think of *brunette*, *Capricorn*, and *nerd*.

Type of community	Nominal descriptions
Nationality	Scot, Frenchman, Spaniard, Finn
Residence	American, Midwesterner, Californian, San Franciscan
Education	college graduate, psychology major, Yale, Oxonian
Occupation	doctor, lawyer, plumber, bricklayer, cowboy, poet
Employment	Stanford employee, Stanford psychologist
Hobby	birder, philatelist, baseball fan, skier, mountain climber
Language	English speaker, Japanese speaker, Francophone
Religion	Baptist, Protestant, Muslim, Catholic, Mormon
Politics	Democrat, liberal, redneck
Ethnicity	Black, Polish American, white, Chicano, gypsy
Clubs	Elk, Mason, girl scout, Klansman
Subculture	rocker, thief, hell's angel, rogue, pothead
Cohort	teenager, senior, baby boomer
Gender	man, woman, boy, girl

It is significant that we have simple nominal descriptions, usually single nouns, for members of these categories.

We ordinarily describe people, not as members of communities of expertise, but as instances of the *person types* defined by their expertise. Here are two ways of describing Julia:

Community membership: Julia is a member of the virology community.

Person type: Julia is a virologist.

Although I *could* use the first description, I am more likely to use the second. We tend to foreground a person's expertise and to background the community of expertise. Nevertheless, to say that Julia is a virologist is to imply that she is a member of the community of virologists – and, therefore, that she knows the communal lexicon for virologists.

Public identities

We can describe people not only with person nouns, but also, for example, with trait adjectives such as *shy*, *reliable*, *extroverted* and *unimaginative* (see Goldberg 1993; Krahe 1992; but also Cole 1992). Person nouns and trait adjectives tell us very different things about people. We reserve trait adjectives mainly for third-party descriptions. In talking to you, I might describe Julia as shy and reliable, but I wouldn't describe you or me that way. Unless we are intimates, it would be face-threatening to say, 'I am shy and reliable' or to ask, 'Are you shy or reliable?' In contrast, person nouns are useful not only in third-party descriptions, but also in *first-* and *second-party*

descriptions. When I meet you at a party, I might well describe myself as a psychologist, or Democrat, or Californian or amateur musician, or ask whether *you* are a psychologist, Democrat, Californian, or amateur musician. This is as it should be. Exchanging person categories helps us establish the communities we are each members of – which is just the information we need for using language. Exchanging personality traits is of no such help.

Viewed differently, person nouns describe a person's *public identity*. If I ask Julia 'Who are you?' she might well give me a list of person categories: 'I'm a virologist, a University of Michigan graduate, an employee of Colorado General Hospital, a Coloradan, and a Denverite. Oh yes, and I'm a skier, a mountain climber, a bicyclist, and a Denver Broncos' fan.' She takes for granted that I can see she is a woman, about fifty, of European descent, and that I can hear she speaks American English with a Midwestern accent. When I ask 'Who are you?', Julia is unlikely to list personality traits: 'I'm rather shy, quite kind, very reliable, not at all neurotic, and tremendously creative and perceptive.' If that is how she views herself, she will keep it private.

The conjecture is this: People consider the sum of these person categories to characterise, perhaps even constitute, their public identities. Why? First, most of the categories describe attributes that people are willing to make public in the right circumstances. Second, the sum of the categories goes a long way in distinguishing each person from every other person. And, third, these categories give others just the information they need for participating with them in joint activities – including communicating with words.

4 Differences in communal lexicons

If the types of communities I have proposed are true cultural communities (in my sense), they should maintain distinct systems of conventions – including distinct communal lexicons. When we think of communal lexicons, we tend to think of the lexicons of entire languages like English, Dutch or Japanese, and these are vast. Recall the three types of items in communal lexicons: specialised form-meaning pairings, specialised word-forms, and specialised lemmas. The lexicon for Dutch has a great many specialised words; for example, the prepositions *op* and *aan* have no exact equivalents in English. It also has a great many specialised word-forms; for example, *hond*, *straat* and *lucht* have lemmas roughly in common with English *dog*, *street* and *air*. It also has a few specialised lemmas, that is, word-forms in common with other languages but with unique lemmas; for example, Dutch *varen*, which is cognate with German *fahren*, 'to go by vehicle', means 'to go by boat'.

Other types of communal lexicons are smaller, and they vary in different ways. It is instructive to look separately at proper names and at ordinary words (everything but proper names).

Proper names

Every communal lexicon has proper names that are specific to that community. Consider these ten categories, which I have illustrated for the community of Americans:

Category of names	Examples (for Americans)
1. Public figures	Hillary Clinton, Jimmy Carter
2. Historical figures	George Washington, Robert E. Lee
3. Writers, authors	Mark Twain, Ernest Hemingway
4. Fictional characters	Huckleberry Finn, Uncle Tom
5. Regions, cities, streets	New England, Boston, Broadway
6. Buildings, rooms, businesses	White House, Oval Office, Disneyland
7. Print media	New York Times, Time Magazine, Playboy
8. Electronic media	CBS, Nightline, Jeopardy
9. Brands	Ivory soap, Safeway, Caterpillar
10. Institutions	Congress, New York Stock Exchange, EPA

If you are an American and you meet other Americans, you expect them to know most of these names – at least on a graded scale. You wouldn't expect a random Japanese, Dutchman or Nigerian to know them, even if they spoke English. Nor would you, as an American, be expected to know the corresponding names in Japan, the Netherlands, or Nigeria.

Communities differ in which of the ten categories of names they have specialised words for. Most communities, for example, have their own public figures, but not all have their own authors or fictional characters. The practical problem is how to identify the proper names in each communal lexicon. My strategy has been to consider three communities (A, B and C) that are of the same type (e.g. hobbies) and yet are as similar as possible in all other ways. I then consider a proper noun to be part of A's communal lexicon if it isn't necessarily expected to be known to the members of both B and C. To take an example, for language-based communities, I considered monolingual French vs. English vs. Polish speaking citizens of Quebec; these three communities have the same nationality, residence, range of professions, etc., and differ principally in the language they speak.

According to this strategy, every type of communal lexicon has proper names. Lawyers, for example, have their own public figures

(e.g. current judges, lawyers, law professors), historical figures (famous jurists in history), authors (writers on law), print media (law reviews, law journals), brand names (legal services) and institutions (bar associations, courts, law firms). They have few if any of their own fictional characters, regions, cities, streets, buildings (perhaps court houses), rooms, businesses or electronic media. Contrasting professional communities are similar. Other types of communities, however, show different patterns. Here are the main categories of names in the lexicons of each type of community:

Type of community	Examples	Category of proper noun									
		1	2	3	4	5	6	7	8	9	10
Nationality	Canada, Australia, US	+	+	+	+	+	+	+	+	+	+
Residence	Seattle, Boston, Denver	+	+	+	+	+	+	+	+	+	+
Education	high school, college, Ph.D.			+	+						+
Occupation	lawyer, miner, physician	+	+	+	+			+		+	+
Employment	Stanford, Yale, UCLA	+	+	+		+	+	+			+
Hobby	birder, bicyclist, baseball fan	+	+	+			+	+	+	+	+
Language	English, French, Polish			+	+			+	+	+	+
Religion	Baptist, Jew, Mormon	+	+	+			+	+	+		+
Politics	Democrat, Republican, Libertarian	+	+	+				+			+
Ethnicity	Chicano, Japanese American, Polish American	+	+	+	+	+	+	+	+	+	+
Club	Elk, Mason, girl scout	+	+	+				+			+
Subculture	drug user, teenage gang member, hell's angel	+					+			+	
Cohort	teenager, thirty-year-old, senior citizen	+	+	+	+			+	+	+	+
Gender	male, female			+	+			+	+	+	+

If every type of community has its own proper names, then it has its own lexicon. Proper names give us evidence that the populations we are looking at are genuine cultural communities – populations with identifiable communal lexicons.

Ordinary words

Most words in communal lexicons are ordinary nouns, verbs, adjectives, adverbs, pronouns, prepositions and so on. Miners, for example, have their own specialised form-lemma pairings such as *stope* and *stull*, their own specialised lemmas for forms such as *raise*, *cut*, *drift*, *rill* and *fill*, and their own specialised word-forms such as *hoist* for 'mine elevator'. The same goes for lawyers and physicians.

For occupations, communal lexicons consist largely of technical vocabulary – of professional jargon. Here is a first attempt to identify the dominant items in the ordinary vocabulary for each type of community:

Type of community	Examples	Main topics of ordinary words in lexicon
Nationality	Canada, Australia, US	politics
Residence	Seattle, Boston, Denver	foods, regional phenomena
Education	high school, college, Ph.D.	literate vocabulary
Occupation	lawyer, miner, physician	technical notions, practices (jargon)
Employment	Stanford, Yale, UCLA	employer's procedures
Hobby	birder, bicyclist, baseball fan	technical notions, practices (jargon)
Language	English, French, Polish	all word-forms, many lemmas
Religion	Baptist, Jew, Mormon	religious notions, artifacts
Politics	Democrat, Republican, Tory	political perspectives
Ethnicity	Chicano, Japanese American, Polish American	ethnic items, traditions
Club	Elk, Mason, girl scout	club rules and activities
Subculture	drug user, teenage gang member, hell's angel	community practices and paraphernalia (slang)
Cohort	teenager, thirty-year-old, senior citizen	age-related goods and services
Gender	male, female	gender-related goods and services

According to these judgements, each type of community has a different distribution of specialised vocabulary. This is further evidence for the reality of both cultural communities and communal lexicons.

Dictionaries

Many communal lexicons are important enough to warrant publication of their own dictionaries, directories and biographies. Look in any sizeable library and you'll find dictionaries for everything from art to zoology – from *The Concise Oxford Dictionary of Art and Artists* to *The Concise Oxford Dictionary of Zoology*. Here are a few of the topics of dictionaries and handbooks I found in the Stanford University libraries. Most of the topics are what is left after stripping 'a dictionary of' from the titles; others come from handbooks and directories such as *Who's Who in America*. I have classified these dictionaries by the type of communal lexicon they reflect:

Type of community	Topic of dictionary
Nationality	who's who in America, American biographical and historical dictionary, councillors of the Indies
Residence	American place-names, English place-names, Spanish place-names of the northwest coast of America, West Bank handbook
Education	quotations
Occupation	botany, Byzantium, drugs, earth sciences, ecology, geography, hackers, hairdressing and wigmaking, mathematics, law, medicine, medical terms, philosophy, printing and bookmaking, psychoanalysis, psychological medicine, psychology and psychiatry, sociology, Wall Street, writers and editors, zoology
Employment	Stanford University directory
Hobby	art and artists, British bird names, cooking terms, English literature, furniture, gems and gemology, literary terms, music, opera
Language	English, Australian English, American English, South African English, English Christian names, current idiomatic English, French, Dutch, Japanese, western Apache, Teton Dakota Sioux, Southern Appalachian speech
Religion	Buddhism, the Christian church, comparative religion, ecclesiastical terms, Islam, mysticism, popes, religion, saints
Politics	American politics, French political leaders since 1870, political leaders in black Africa
Ethnicity	the American Indian, Native American mythology
Club	Freemasonry, girl scout handbook
Subculture	canting crew, criminal slang, modern slang, underworld
Cohort	nursery rhymes, contemporary slang
Gender	womenwords, women's dictionary and encyclopedia, ladies' dictionary

Most of these volumes have tens of thousands of entries. Not everyone in a community knows them all, but they will know them on a graded scale and expect their fellow insiders to know many of them too.

The variety of published lexicons is truly remarkable. There are published lexicons for every type of community I identified earlier, and they suggest an even greater range of communities than we are used to thinking about. Without communities of mystics, cooking enthusiasts, and printers and bookmakers, there couldn't be a *Dictionary of Mysticism and the Occult*, a *Dictionary of Cooking Terms* or an *American Dictionary of Printing and Bookmaking*. Many of the communities represented here – lawyers, Teton Dakota Sioux speakers, women – are surely to be expected, but many are not. Who would have thought there would be dictionaries of Freemasonry, furniture or the underworld?

Communal lexicons are real. They have separate proper names and ordinary words, and are often important enough to be published as dictionaries, directories and handbooks.

5 Mirrors of culture

If communal lexicons are systems of conventions, they should mirror the needs and expertise of the communities they evolve in, and they do. The point can be illustrated from the history of hard rock mining, as well as I can reconstruct it. Miners once used a machine that crushed ore by stamping the ore with large steel posts. It was called a *mill*. When mining companies introduced a new machine that crushed ore with small steel balls tumbling inside a revolving drum, miners were faced with a coordination problem. They needed a name for it – one that distinguished it from the old style mill. They came to call it a *ball mill*, which they contrasted with *stamp mill* for the old machine. The new term was adopted by miners, but by no one else. Why? Because miners were the only ones who shared the *expertise* to understand the new machine and the *need* to coordinate regularly on what to call it. This is an important way in which communal lexicons grow and differentiate from one another (see Berlin 1972).

Proper names and ordinary words reflect this process. The proper names in the lawyers' lexicon – e.g. famous jurists, law journals and courts – are useful and usable in the legal community but not elsewhere. The same can be said for the ordinary words in their lexicon – e.g. *mortmain*, *nonfeasance*, and *amerce*. And so it goes for all of the communal lexicons just examined. But what are the bases for the differences between communal lexicons? I will take up three overlapping bases: community practices, community beliefs and common experience.

Community practices

Many word-forms in the lexicons of large communities have *technical senses* in the lexicons of subcommunities. *Fruit* is a good example. For Americans at large, it denotes the edible, sweet, fleshy form of the ripened ovaries of seed-bearing plants. Yet for American biologists, it denotes the ripened ovaries of seed-bearing plants whether or not they are edible, sweet or fleshy, and that includes nuts, tomatoes and seeds. Now, American biologists realise that Americans at large don't have the technical sense, so at the grocery store they use *fruit* in its nontechnical sense. But when they are with other American biologists, they have an option. At a professional

dinner, they might ask for the bowl of nontechnical fruit while discussing the diseases of technical fruit.

Although the technical senses of words such as *fruit* are based on scientific practices, others are based on other practices. Take the noun *bounds*. For English speakers, it means 'boundary or limit'. Yet in tennis the bounds of a court has a technical sense, as for balls landing 'in bounds'. The technical sense is defined by the rules of the game, which cover singles vs. doubles tennis, serves vs. volleys, balls that land on the boundary lines, net balls and much much more. When tennis players refer to a ball as 'in bounds', they are presupposing knowledge of these rules – common expertise among tennis aficionados. Much the same can be said about sets and intervals among mathematicians who speak of points being 'in an interval' and of items being 'in a set'. Or take the adjective *open*. Among violinists, it applies to strings that are not being fingered at the moment, but among electrical engineers, it applies to certain types of circuits. Technical senses such as these are based on shared practices within a community.

Community beliefs

Other lemmas are more a reflection of community-wide beliefs. One example is the noun *murder*. According to the *American Heritage Dictionary*, it means 'the unlawful killing of one human being by another, especially with premeditated malice'. Let us take that to be a lemma for Americans at large. Yet narrower communities differ in their beliefs about what is unlawful, what is a human being and what is malice, and their use of *murder* reflects those beliefs. Consider six communities:

Armed services. In this community, it is considered lawful to kill enemy soldiers in battle; hence, killing enemy soldiers in battle is not murder.

Pacifists. In this community, it is considered unlawful to kill any human being, whether an enemy soldier or not; hence killing enemy soldiers at any time is murder. Killing a person in self-defense is also murder.

Pro-choice advocates. In this community, foetuses are not considered human beings until some time after conception; hence early abortions are not murder.

Anti-abortionists. In this community, foetuses are considered human beings, 'babies', from the very moment of conception; hence any abortion is murder (see Danet 1980).

Vegans. In this community, it is considered unlawful to kill any living creature, hence killing cattle for meat is murder.

Lawyers. In this community, murder contrasts with manslaughter, 'the killing of one human being by another without express or implied intent

to do injury'. In some states, using a gun in a robbery is considered 'implied intent to do injury', hence killing a person in a robbery is murder, regardless of actual intent.

When pacifists talk to each other, they take for granted their communal view of murder – that killing any human being at any time is murder. Yet they recognise that outsiders define murder differently. They know that army officers don't consider killing the enemy in battle to be murder, and would argue with them on that point. But what is that argument about? It is in part about how to define murder, which rests on deeper beliefs about the justification for killing in and out of battle. The debate between pro- and anti-abortionists is also in part about how to define murder, which rests instead on beliefs about the point at which a foetus becomes a human being.

The meaning of *murder* in the law, in contrast, is better treated as a technical sense, one based more on community practices than on community beliefs *per se*. Lawyers as a group may *not* believe, for example, that using a gun in a robbery is always evidence of 'implied intent to do injury', yet the practice of law may require them to do so. On the other hand, most community practices are based on community beliefs, so the line between the two isn't hard and fast.

Common experience

People in the same cultural community are likely to have common experiences. Miners share the experience of working in closed dark spaces underground. Physicians share the experience of inspecting diseased organs, broken limbs and bloody injuries. Skiers share the experience of cold wind against their face, chilled fingers and speeding downhill. Common experiences like these should help shape lemmas. Cattle ranchers can take for granted that they have all seen cows calve, and that should lead to lemmas for *cow*, *calf* and *calve* that differ from ours. Contrast two cases: (1) One rancher tells another rancher, 'That cow has just calved', and (2) I tell you, 'That cow has just calved'. Surely, what the two ranchers mean and understand by *cow* and *calve* is richer, more detailed, than what I mean and you understand. At least part of that difference is based on their richer common experience.

Is there evidence for the influence of common experience on lemmas? In a study by Schwanenflugel and Rey (1986), monolingual English speakers in Florida were given words for items of 12 categories and asked to rate how typical each item was of that category. They were asked, for example, to rate *robin*, *jay*, *canary*, *owl*, *chicken* and 22 other species of birds for how typical a bird they

were. Another group of English speakers were asked to rate how familiar a bird they were. In general, the more familiar the species, the more typical it was rated to be – at least, moderately ($r = .50$). The same ratings were collected from monolingual Spanish speakers in Florida with such translations as *petirrojo*, *grajo*, *canario*, *lechuza* and *pollo*. For them too, the more familiar the species, the more typical it was of the category ($r = .47$).

Still, the two cultural groups differed in their ratings. For the English speakers, robins were the second most typical bird (out of 27), and canaries were number 16. But for Spanish speakers, canaries were the most typical bird, and robins were number 24. The difference, as Schwanenflugel and Rey argued, was familiarity – a proxy for commonality of experience. Robins were rated by the English speakers as much more familiar than canaries. In contrast, canaries were rated by the Spanish speakers as much more familiar than robins. The point is this: In thinking of birds, English speakers bring to mind robins and not canaries, whereas Spanish speakers bring to mind canaries and not robins. The lemmas for *bird* and *pajaro* may be similar, but they suggest different prototypes.

Communal lexicons, therefore, mirror cultures in predictable ways. They reflect community practices, such as scientific procedures, civil laws and the rules for organised games. They reflect deep-seated systems of beliefs, such as the justification for killing people and animals. And they reflect commonality of experience, as with the familiarity of birds and other categories. It is in these ways that communal lexicons reflect the common concerns and expertise of the communities they belong to.

6 Implications

In the view I have presented, people recognise that the words they know belong to communal lexicons – that they are special to one or another community they are a member of. Some words belong to communities with such broad forms of expertise as knowledge of America or New Zealand. Others belong to communities defined by more arcane forms of expertise – mining, Freemasonry or printing and bookmaking. When two members of a community talk to each other, they take their communal expertise for granted, and that includes their communal lexicon. They choose words from that lexicon and expect their partners to understand them.

The view I have presented poses challenges for many accounts of language and language use. Take lexical semantics. Most treatments take for granted that words have lexical entries that consist only of a word-form and a lemma, or sense, as in [*hot*, 'lucky']. Many of these

treatments (e.g. Cruse 1986) also assume that words may vary in register (*cop* is lower in register than *policeman*), dialect (*vests* are outer clothing in North America, but underclothing in Britain), and field (*amerce* is a technical term in law). Still, none of these accounts index lexical entries by the community for which they are conventional, as in [lawyers: *amerce*, 'punish by imposing an arbitrary penalty']. Nor do they allow for people to differ systematically in the communal lexicons they know, or say how these differences help determine what speakers mean by what they say. An American botanist may mean one thing by *fruit* in talking to other botanists, but quite another in talking to a next door neighbour. The challenge is to represent words and their lemmas in a way that builds in the notion of communal lexicon.

Communal lexicons also force us to change our views of discourse. Ordinarily, two strangers need to establish which communities they are both members of before they can choose words in talking to each other. From all appearances, they look for co-membership in broad communities first and in more specialised communities later. Other times, they choose words from a lexicon to signal what communities they are members of. People appear to have a variety of conversational strategies for displaying and inferring shared lexicons – and other shared practices – and these change with the participants, their purposes, and the circumstances (Clark 1996). The challenge is to characterise these strategies and how they are used.

Communal lexicons also lead to a more complicated view of producing utterances. Most accounts (see Levelt 1989) assume that speakers choose their words independently of who they are talking to. It is tacitly assumed that everyone belongs to a single homogeneous community so that lexical entries need only two parts, the word-form and the lemma, as in [*hot*, 'lucky']. But if lexical entries include an index to the communal lexicons they belong to, as in [North Americans: *hot*, 'lucky'], then speakers must choose their words contingent on the communities they and their addressees have established co-membership in, and that is more complicated. When physicians talk to other physicians, they may choose *embolus*, but in talking to their patients, they may choose *blood clot* instead. The challenge is to say precisely how speakers access words and formulate utterances that fit their audience.

Communal lexicons also complicate accounts of parsing and comprehension. Most standard accounts assume that the first stages are automatic and completed without conscious control. When you hear me say 'I'm hot', among other things you automatically activate the lexical entry [*hot*, 'lucky'], and if it fits the context, you take it to represent part of what I mean. But how do these models work if

lexical entries are indexed to communal lexicons, as in [North Americans: *hot*, 'lucky']. According to the standard accounts, when I listen to a friend speaking Dutch and hear *kist*, I would automatically activate not only [Dutch: *kist*, 'box'], but also [English: *kist*, 'touched with the lips']. Intuitively, this doesn't seem right. We seem able to compartmentalise our Dutch and English lexicons so that we selectively activate Dutch words in listening to Dutch and English words in listening to English. Do we compartmentalise other communal lexicons in the same way? Might lawyers activate their legal lexicon only when listening to other members of the legal community? These are empirical questions, and their answers aren't obvious. The challenge is to discover how – at what point – the process deals with the indices to communal lexicons.

There is no such thing as a word *simpliciter*. Words belong. They belong to particular communities for whom they are conventional solutions to recurrent problems and there is community-wide expertise. And there is a plethora of communities that each of us belongs to. The result? We each have personal lexicons that are structured by the communal lexicons each lexical entry belongs to. The words we share are anything but haphazard, a fact we know and make use of. The challenge is to understand how.

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