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THE THEORY OF CULTURAL LOGIC

*How Individuals Combine Social Intelligence with
Semiotics to Create and Maintain Cultural Meaning*

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————————————ABSTRACT————————————

The social world is an ecological complex in which cultural meanings and knowledges (linguistic and non-linguistic) personally embodied by individuals are intercalibrated via common attention to commonly accessible semiotic structures. This interpersonal ecology bridges realms which are the subject matter of both anthropology and linguistics, allowing the public maintenance of a system of assumptions and counter-assumptions among individuals as to what is mutually known (about), in general and/or in any particular context. The mutual assumption of particular cultural ideas provides human groups with common premises for predictably convergent inferential processes. This process of people collectively using effectively identical assumptions in interpreting each other's actions—i.e. hypothesizing as to each other's motivations and intentions—may be termed *cultural logic*. This logic relies on the establishment of stereotypes and other kinds of precedents, catalogued in individuals' personal libraries, as models and scenarios which may serve as reference in inferring and attributing motivations behind people's actions, and behind other mysterious phenomena. This process of establishing conceptual convention depends directly on semiotics, since groups of individuals rely on external signs as material for common focus and, thereby, agreement. Social intelligence binds signs in the world (e.g. speech sounds impressing upon eardrums), with individually embodied representations (e.g. word meanings and contextual schemas). The innate tendency for people to model the intentions of others provides an ultimately biological account for the logic behind culture. Ethnographic examples are drawn from Laos and Australia.

Key Words ◇ cultural logic ◇ distributed cognition ◇ interpersonal ecology ◇ language/culture interface ◇ social intelligence

The social world is an ecological complex in which cultural meanings and knowledges (linguistic and non-linguistic) personally embodied by individuals are intercalibrated via common attention to commonly accessible

semiotic structures. This interpersonal ecology bridges realms which are the subject matter of both anthropology and linguistics, allowing the public maintenance of a system of assumptions and counter-assumptions among individuals as to what is mutually known (about), in general and/or in any particular context. The shared assumption of particular cultural ideas provides human groups with common premises for predictably convergent inferential processes. This process of people collectively using effectively identical assumptions in interpreting each other's actions—i.e. hypothesizing as to each other's motivations and intentions—may be termed *cultural logic*. The phenomenon of cultural logic assumes an interpersonal *ecology*, emphasizing the interdependence of semiotic and conceptual systems, allowing for tightly organized subsystems of conceptual relations (as found in linguistic structure), as well as more loosely organized systems (as in less systematized cultural concepts and practices), embedded within the overall mass of cognitive/experiential representations. This ecological interdependence is operative across conceptual/experiential systems *within* the realm of the individual, as well as *between* individuals, providing a flow of significance across the community of egos—as if individuals were rock pools on a coastal reef, apparently separate, yet whose internal ecologies are constantly linked by ebbs and flows of sea water and the myriad forms of life they transport.

The individual-oriented factor in this ecological model arises from an assumption that individuals personally embody *private representations* (whether mental, or sensorimotor, or whatever). I borrow loosely from Whorf (1956: 164–5) in making a distinction between *external* (or *projected*) and *egoic* (or *introjected* or *internal*) fields of experience. Terms such as *cognitive*, *mental*, and *psychological* are overly restricted, referring to only part of the broader and more fundamental *personal realm*, where we may find the whole gamut of 'sensations and experiences'—including thought and knowledge—with which 'the observer or ego feels himself, as it were, alone' (Whorf, 1956: 164). The present model posits a semiotic component as the bridge between these egos. Only *mediating structure*, or signs which connect individuals, can allow for private representations to be aligned and intercalibrated among individuals. We must assume equal importance and co-dependence of individuals (and their personal realms), on the one hand, and the signs that allow individuals to be linked, on the other. Thus, the stuff of both language and culture is at the same time individually (psychologically and bodily) seated, and semiotically grounded; both individuated, and distributed. And importantly, while practices are individually embodied, and may or may not be conscious or articulated, they also must be emicized, and made conceptually manipulable in abstraction, allowing people to handle (cooperatively/interactively, and collectively) the *concepts* of practices as cultural categories. Actual practices are meaningful only when they can be interpreted with reference to recognizable *categories* of practices.

Culture emerges from the irresistible tendency for individuals to build convention and to establish stereotypes and other kinds of precedents, so as to form personal libraries of models and scenarios which may serve as reference material in inferring and attributing motivations behind people's actions, and behind other mysterious phenomena. This process of establishing conceptual convention depends directly on semiotics, since groups of individuals rely on external signs as material for common focus, and, thereby, agreement. And language is the part of culture that has the greatest semiotic presence. Ceaseless presentation of linguistic signs provides the highest opportunity for creating convention, and entrenchment of socially relevant meanings. The force that binds signs in the world (e.g. speech sounds impressing upon eardrums), with individually embodied representations (e.g. word meanings and contextual schemas), is the human propensity for social intelligence. The innate tendency for people to model the intentions of others provides an ultimately biological account for the logic behind culture.[1]

1. Private Representations

I assume that people carry *private representations*; thoughts, concepts, and sense/sensorimotor images (in many possible forms) that are structured, and can be recalled and privately manipulated.[2] For example, we may watch an eagle in flight, and then later represent (i.e. 're-present') it by replaying it in the mind (and/or body). An individual may manipulate this visual private representation by means of various abstractions, for example by taking different perspectives on the scene (e.g. ignoring specific aspects such as the background, or focusing only on the way the bird's wing tips are used to control flight), or by altering aspects of the scene (e.g. by holding a 'still' image in mind, or by imagining the bird were a different colour). Private representations may similarly involve sound (a siren, a cock's crow), vision (colour of blood, shape of a feather), smell (burning clutch, cut grass), taste (salt, chilli), or sensorimotor images (manual force required for cracking an egg, grip of a G chord on the guitar). People no doubt may also privately represent their embodiment of whole configurations of such bodily images, which in specific combinations collectively form whole multi-sensual scenes typical of particular complex cultural events. Consider the sensual complexes—sight, sound, taste, smell, touch—which would form the familiar 'vibe' of a rock and roll concert, a traffic jam, a public execution, or an art exhibition, and so on.

Private representations may take the form of propositional thoughts (e.g. *This rock is heavy*, or *If I step on this branch it will break*) as well as more complex 'frames', 'scenarios', or 'scripts' (e.g. the steps in baking a cake or building a fire, the components of having a meal in a restaurant, the

theory of how a thermostat works; Holland and Quinn, 1987). Certain private representations can literally provide scripts for complex courses of action in daily life, as well as a range of beliefs, values, ideals, myths, and principles, distributed (mostly by socialization routines and mundane conversation) among social associates.

2. The Private World Assumes Others: Social Intelligence

While private representations are literally contained within the individual's own body/mind/brain, human intelligence is inherently social. It is well established that our intelligence has evolved in response to the selective pressures of a creatively cooperative social system (Goody, 1995b). As Goody explains (1995a: 206–7):

> Recent ethological research argues convincingly that primates are on many measures highly intelligent, and that this can be best explained as a product of social interdependence. Higher primate species appear to have a progressively greater capacity to cognitively model responses of others. For convenience this modelling of alternative contingent responses to others' actions can be termed *anticipatory interactive planning* (AIP.) ... This creates a premise that problems will be resolved by modelling and managing others' reactions to our own actions. One might call this a *dyadic premise*. Social intelligence means that problem-solving schemata have a slot for modelling the responses of a social Other.

Thus, while we have our own individual private worlds, full of private representations, we are also compelled to consider the private worlds of *others*, full of *their* private representations. In dealing strategically with the behaviour of our social associates, we have developed an aptitude for transposition, imagining the view from *their* private world, by which we attempt to infer what they 'must be thinking', what they 'must be intending' by their actions, or what they 'must be about to do next' (Schelling, 1960). As Good puts it, 'any area of human activity which involves actual or potential interaction with other humans (and that might mean all of human life) can be seen to have characteristics which reveal an anticipation of how others will view and respond to one's actions' (1995: 139). In turn, we understand that *we* are subject to the same calculations made by others, who imagine themselves in *our* private world. And we take that, too, into account, in planning our own moves, and interpreting the moves of others: I take into account what I think you are taking into account; I know that you know this, so I assume you are taking into account the fact that I am taking into account what I think you are taking into account; and so on (see Buvac, 1995; D'Andrade, 1987; papers in Goody, 1995b; Green, 1995; Lewis, 1969; Schelling, 1960; Schiffer, 1972). And what emerges throughout the course of that interaction in turn becomes part of what is further assumed and/or taken into account.

The dyadic premise can also provide an account for cultural beliefs about the supernatural, whether that involves faith in a god or gods, attribution of personality and intention to inanimate objects, or belief in the power or authenticity of religious practices like prayer and divination. In Goody's words (1995a: 207),

> The [dyadic] premise itself is invisible in ordinary social life where problem-solving concerns real people. The social Other slot is occupied by grandma, or the milkman, or 'the government'. Occasionally the premise of a social Other is revealed where an individual is relating to the non-social world.

Similarly, Zeitlyn notes that 'AIP may also explain why gods behave like people' (1995: 203). He refers to Horton (1982), who 'has argued that gods, spirits, deities of all kinds have been ascribed human-like attributes so that we may interact with them' (Zeitlyn, 1995: 203). Accordingly, Goody's point is that the dyadic premise then becomes 'visible' exactly because the 'Other' in this case is *not* human.

3. Cultural Logic: Use of Private Representations in Making Sense of Situations, Events, and the Behaviour of Social Associates

In order to make these transpositional calculations about what 'must be' going on in any one situation, we need to make reference to certain *heuristics*, as Levinson (1995) has put it (cf. Schelling, 1960; Schiffer, 1972). These take a range of forms and may be best viewed in general as *accounts* for the way of the world. To quote Goody once again (1995a: 207):

> The symbolic power of language multiplied the levels of complexity in the mental representations necessary for AIP strategies, particularly through the capacity for naming, leading to classification. To this is linked the ability to represent, to ourselves and to others, *accounts* of how the world is—of what is happening, has happened, will happen, should happen—leading to cultural accounts of how to understand, how to behave and what to teach. Such accounts create a new kind of reality for past and future time, for intention, obligation, and causality, and for representation of dreams, the dead and spiritual forces. They come to have a separate identity as beliefs, myths and religions.

I take Goody's 'accounts' to be basically propositional private representations which are shared across a community, and assumed by members of the community to be so shared (Clark, 1996). Along with simple logical principles, they serve as syllogistic premises, and form the basis of *cultural logic*. I adopt Levinson's (1995) view that people strive to comprehend what is going on by means of 'backwards syllogisms', reasoning from situations or events—'effects'—to their causes. These 'causes' are premises which make up much of what can be considered cultural, and what many would call *common sense*. (As such they also provide motivations for action.) Such premises are often not considered as cultural, since they seem so basic. Thus, if you walk into a shop and somebody behind a counter asks

Can I help you?, you infer they are an attendant, and not another customer. Someone who enters a chemist with a sawn-off shotgun and a stocking over their head is unlikely to be there to buy cough lollies. This is not 'common sense', but *cultural* sense, in that the shopkeeper–customer scenario is not *naturally* comprehended. It is constructed by, and learned from within, a cultural context.

People are evidently quite logical in their thinking (although not in a strictly mathematical sense). There are natural principles of logic (such as the logical operators 'if', 'can', 'not' and 'because' found in all natural languages; Goddard and Wierzbicka, 1994), and people consistently use these in logical, but not necessarily conscious, ways. The reason different interpretations may occur is that the premises used in argumentation may be different—they are provided by culture. Cultural logic is the interpretation of one's world using natural logical principles, and with reference to premises provided by, and usually specific to, particular cultural settings (cf. Hutchins, 1980). From this point of view, one task of anthropology is to characterize the premises whose inter-recursive shared-ness defines any human group.

Consider the different ways in which an Australian and a Lao would typically interpret the sight of someone riding a motorcycle in the day with the headlight on. Australian traffic authorities widely recommend that bikers put their headlights on at all times, for reasons of safety (so that they can be seen clearly by car drivers). For Australians in general, the sight of a motorcycle headlight on in the day is unnoteworthy. The explanation is widely distributed throughout the Australian 'community of minds' (Hutchins and Hazlehurst, 1995), in similar or effectively identical propositional private representations. In Laos, the situation is different. Lao traffic authorities may (technically) *fine* you if you are seen riding in the day with your motorcycle headlight on. It would indicate that you are *khòò thaang* 'requesting (the) roadway', and one needs a good reason to do so (for example, to be in an emergency vehicle, or a convoy of VIPs). This information is carried by Lao people as a propositional private representation. Thus, a Lao sees a motorcycle headlight on in the day as the *marked* case, and if the rider is not in a VIP convoy or obviously rushing to hospital, the private representation that says 'headlight on in day means driver is requesting roadway' feeds a cultural logic by which one concludes that the driver must not mean to have their light on. Let us explicitly compare (fragments of) the different cultural logics for making sense of the scene of a person riding a motorcycle in the day with their headlight on.

(1a) A fragment of Australian cultural logic:
 i I already carry private representation p ('light on in day is a recommended safety measure, makes rider easily visible to car drivers').
 ii I assume other (Australian) people carry p, and I assume that I am assumed by them to carry p. (Thus, p is also a cultural representation; see §5, below.)

   iii I surmise rider is a 'normal' (Australian) person, and so assume (by ii) rider carries p.
   iv I see rider has light on.
    v I conclude rider is taking normal safety precaution.

(1b) A fragment of Lao cultural logic:
     i I already carry private representation q ('light on in day indicates "requesting roadway", typically for VIPs or emergencies').
    ii I assume other (Lao) people carry q, and I assume that I am assumed by them to carry q. (Thus, q is also a cultural representation; see §5, below.)
   iii I surmise rider is a 'normal' (Lao) person, and so assume (by ii) rider carries q.
    iv I see rider has light on.
     v I surmise rider is neither a VIP nor in an emergency.
    vi I conclude rider does not mean to have light on.

Those who come to conclusion (1b(vi)) are often moved to act, by trying to point out to the rider that his light is on. The Australian in (1a) would *not* be led by cultural logic to tell the rider that his/her light was on, since by the 'logical' conclusion (1a(v)), the rider is well aware already. The fact of the light being on is literally unremarkable.

There is no shortage of examples in which people are compelled to act by their cultural logic. Another example from Laos concerns water-drinking behaviour at mealtimes. It is usual among Lao people to not drink while eating a meal, but to drink plain water once one has completely finished eating. Thus, when you drink water, having been eating for a while, people conclude by cultural logic that you are finished, and will often be compelled therefore to ask whether you really are full, and whether you really won't have any more food. An example from Australia of compulsion to act due to culturally logical inference concerns brand label/price tags on clothing. In October 1998, I conducted an informal experiment in Canberra, whereby having bought a pair of shoes, I intentionally did not remove the paper tag specifying price, brand name, etc., attached to one shoe at the point of sale. As I wore these shoes around town, many people, including friends and strangers, apparently could not resist pointing out to me that there was a paper tag 'still' on my right shoe. None of them pointed out that the shoes were white, or that the shoelaces were tied, or that my pants were long, or any other apparently unremarkable facts. People inferred by cultural logic that I was unaware of the presence of that tag— *if* I had been aware, *then* I would have removed the tag already. Why? Because of a cultural representation, a premise, that 'people take the tags off new articles of clothing after they buy them and before they wear them'.

4. *The Public World: Distribution and Intercalibration of Private Representations via Mediating Structure*

By definition, private representations are constructed within the bodies/minds/brains—the egoic realms—of individuals. We may form private representations on the basis of practices we engage in and are led to engage in, from things that happen to us, from things we are told, from scenes we observe. Now, there is no *direct* physical connection from one egoic realm to another, such that we can actually *know* what is in another's mind, or carry literally *the same* private representations. As Reddy (1979) has argued, I do not literally 'put an idea in your mind' when I tell you something, ideas do not literally 'pass' from speaker to speaker in communication. Rather, I am giving you 'instructions' by which you may put together, in *your* mind, an idea approximating mine. When I talk to you, I am putting things in your environment (i.e. patterns of sound waves, visual cues), on the basis of which I hope you can/will (privately) know, or construct, 'what I am saying to you'. (This assumes the prior establishment of conventional meanings for many of the signs which are used as 'instructions' for ideas.)

In spite of there being no literally direct channel for the 'transmission' of private representations between carriers, we nonetheless *do* successfully coordinate private representations, as entailed by our achievement of social alignment with common reference to cultural symbols and semantic categories of language, as well as our successful common reliance on effectively identical private representations in cultural logic (as described in (1), above). How is this consistency of private representations among individuals possible? Following Hutchins and Hazlehurst (1995), I adopt a 'no telepathy assumption', namely that 'no individual can influence the internal processing of another except by putting mediating artefactual structure in the environment of the other' (Hutchins and Hazlehurst, 1995: 64). The crucial notion here is *mediating structure*; 'external' structure—*signs*—of any kind which may serve as a target of more than one person's common conceptual focus. Private representations are distributed across the 'community of minds' via coordinated focus on this mediating semiotic material—this may include gestures, proxemics, haircuts, people's faces, melodies, cultural artefacts, odours, plants, animals, clothing, meteorological phenomena, among just about anything else that two people can coordinate attention on. (See Sperber, 1985 for a description of this distribution of representations as analogous to epidemiology.) With a high enough level of coordinated attention to some mediating structure, two individuals can form, via a process of mutual/interactive exposure, feedback, and revision, very similar private representations. This allows us to be deluded that the contents of private representations actually exist publicly, beyond the limits of our egoic realms, and it is therefore easy to imagine that the process of
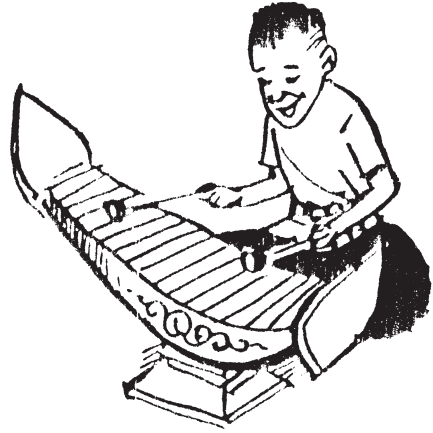
forming a private representation from mediating structure is a teleological one—e.g. we learn the meaning of a word by finding out 'what it is' (as if it exists in the dictionary or anywhere else independent of anyone privately representing it). (Thus, the Saussurean notion of *langue*, while useful in description and analysis, is derivative, not generative, of *parole*, not just for linguists, but more importantly for speakers; cf. Hopper, 1987; Le Page and Tabouret-Keller, 1985.) But what we are in fact doing as individuals is *creating a version*, or perhaps better, a *theory*, of that word's meaning. The subsequent public presentation of mediating structure created on the basis of this version or theory (e.g. one speaker putting sound waves in the environment of another when he 'articulates that word') in turn feeds back into the process of perpetuating a high level of interpersonal *convergence* or *intercalibration* of private representations, sustained by the ongoing communal task of maintaining 'public' ideas.

The view I outline here is incompatible with a view of meaning as literally encoded in signs themselves, since I see meaning residing *exclusively* in people's egoic realms, and not in some disembodied communal lexical repository. But for the purpose of semantic description symbols can be treated *as if* they literally contain fixed meanings, since they *effectively* do so. This is because of the powerful inertia of consensus, with respect to the convergent theories of any word meaning which individuals carry. In other words, the evidence from other speakers' use of a symbol virtually forces one to attribute to it a certain specific meaning. Thus, when I say that the Lao word *dii* means 'good', I mean that people who have a private representation of the Lao phonological string /dii/ (derived from phonetic strings like [di:]) conventionally link it to the concept 'good' (a private representation). But this is not because they all adopt a certain pre-existing (or Platonic) connection between signifier and signified. It is because—for very practical reasons—they all partake in a tacit agreement to construct that sign in just that way, converging upon a like structure. To challenge the consensus (e.g. to say *dii* when one wants the addressee to think 'toothbrush') is usually not likely to work.

Suppose I want to tell you about a traditional Lao musical instrument called the *lanaat*. Another way to put it is that I want to share a certain private representation (which is related to the phonological category /lanaat/, in turn derived from phonetic strings like [laˈna: t]). In order to do this, I must present you with some mediating structure, say some linguistic and visual material (e.g. I tell you some things about the *lanaat*, and show you a picture):

(2) A *lanaat* is a traditional Lao musical instrument, which is a bit like a xylophone in that it has a row of keys which give a range of notes when you beat each one. People sit down on the floor to play it, as part of a traditional musical group. You see *lanaat*s on sale in tourist shops in Laos, and being played in certain hotels and restaurants, and occasionally at more traditional local occasions.

(2) presents mediating structure on the basis of which one may construct a private represen-tation about the *lanaat*. This may be new to you. By exposing you to this mediating structure (a 'key' to which is the phonological string /lanaat/, itself framed in an abstract system extrapolated from numerous events of sound waves impressing upon your eardrums), I 'influence your mind', by encouraging you to form a private representation something like mine. (Of course, the mediating structure in (2) is highly complex in itself, consisting of a large number of constituent mediating structures, which are already con-ventionalized, and systematically related to private representations I assume are already carried by speakers of English.) Over the course of time, and through prolonged exposure to similar or identical mediating structure, people's respective conceptual 'theories' of the *lanaat* are refined, and their private representations converge more and more, especially if the *lanaat* often figures in interaction. The private representa-tions, with respect to a phonological structure /lanaat/, become effectively the same.

This process entails, for any individual, the *formation* of a private rep-resentation on the basis of some mediating structure. If one individual puts the mediating structure in the environment of the other, this may be termed *presentation*. The two-part process of presentation of mediating structure by one, and subsequent separate formation of private represen-tations by another, more faithfully represents the overall means of distri-bution of private representations (of linguistic and cultural nature), often termed *transmission*. It is difficult to talk about this process without importing the ubiquitous 'conduit metaphor' (Reddy, 1979), which sees meaning as 'packaged', 'sent', and then 'unpacked' at the other end. The present model differs fundamentally (and owes a lot to Reddy's 1979 insights). The process of presentation and subsequent formation forms the basis of all conceptual 'exchange', from gossip to debate, from teaching to showing off, from the proclamations of law and order to the range of subtle (and not so subtle) mechanisms of ground-level linguistic and cultural socialization.

5. *Cultural Representations: Private Representations Inter-recursively Assumed*

Once two people 'share' a private representation due to coordinated focus on some mediating structure, then they may also each know that the other carries the private representation, and, further, may also each know that they are each known themselves by the other to carry it. This presupposition of the distribution of private representations is the essence of what we may call 'culture', or the commonalities and empathies we may consider 'cultural'. It is also the essence of the public symbolism which constitutes linguistic semantics. I will refer to a private representation which is assumed, and assumed-to-be-assumed, in this way, as a *cultural representation*. (Green's 1995 'normal beliefs' are a subset of these, and my definition of cultural representation is compatible with her view.) As D'Andrade (1987) has pointed out in different terms, we can consider as 'cultural' (i.e. as a cultural representation), for, say, John and Mary, a private representation which both John and Mary carry, if and only if (a) both John and Mary carry the private representation; (b) John and Mary each assume that the other carries the private representation; (c) John and Mary each assume that the other assumes that they themselves carry the private representation.[3]

We may formally represent this *inter-recursive* representation (as I will henceforth term it), as follows:

(3) $CR(p) \leftrightarrow PR(p).[carry(x,p)]_q.[carry(y,p)]_r.[assume(x,r)]_s.$
      $[assume(y,q)]_t.[assume(x,t)].[assume(y,s)]$

(3′) p is a cultural representation *if and only if* p is a private representation, *and* p is carried by both x and y, *and* both x and y assume the other carries the private representation p, *and* both x and y both assume they themselves are assumed by the other to carry the private representation p.[4]

Mediating structure is entailed in (3), since only mediating structure can provide an individual with evidence for making assumptions about another's private representations. Also note that all symbolic and linguistic semantic categories are cultural representations, but not all cultural representations correspond directly to simple or pre-packaged symbolic categories. Examples of cultural representations without simple labels include the likes of Clark's (1996: 344) 'conceptual conventions' (e.g. 'cars drive on the right side of the road', 'floors of buildings are counted starting from ground level'), as well as a range of other things people can inter-recursively 'know (about)', such as the content of rumours ('an election will be called any day'), generalizations ('Westerners always keep appointments', in Laos), myths ('dogs shouldn't be fed chicken bones', in Australia), superstitions (e.g. in Laos, small children are not called 'cute' or 'loveable', lest the spirits agree, and take them away—thus, cute children are praised as

'ugly' and 'hateful') and so on. (See Adams and Lloyd, 1983 for attempts to give labels to some as-yet-unnamed cultural representations.) The nature of cultural representations demands broad-ranging study, given that there are surely numerous types, depending on numerous parameters, including in particular (a) the nature of the relevant mediating structure (intentionally versus unintentionally presented, manner of presentation/perception, etc.), and (b) the nature of the relevant private representations (propositional thoughts, sensorimotor representations, etc.).

6. *'Transmission' of Cultural Representations: from Personal to Communal*

Any particular cultural representation can be shared between anywhere from two people to all people.[5] Recognizing this, Clark (1996) makes a distinction between 'communal common ground' and 'personal common ground'. Cultural representations which may be assumed as 'communal common ground' are established by common exposure to some kind of publicly available mediating structure in socialization, education, media and so on. The dominant form of mediating structure for transmission of cultural representations which form communal common ground is language. Thus, as soon as my perception of certain phonetic material allows me to surmise that an interlocutor is a native speaker of Australian English, and I figure that my interlocutor has surmised the same of me, we assume inter-recursive carriage of a massive amount of common cultural representation. Of an American speaker, I must assume less, but I can still assume a great deal. Also often associated with 'the language people speak', but below the level of socio-political categories like 'English', 'German' or 'Lao', are the cultural representations associated with 'subcultural' distinctions such as profession (mechanics, doctors), vocation (hackers, movie buffs), social identity (environmentalists, punks) and millions of others. As Clark points out, those who share private representations at this level cannot inter-recursively assume that they do (by which assumption the private representations become cultural representations) until they establish the relevant background of common exposure to the relevant mediating structure, essentially by semiotic means (e.g. you tell me you are a mechanic, I gather you are a sportsman from your appearance, things come out in conversation, are revealed by turns of phrase, actions, displayed ability and so on). However, even in the case of two closely related individuals who share many private representations (Clark's 'personal common ground'), the fact that they do must still be ascertained each time they interact, on the basis of indicative semiotic mediating structure, namely their physical bodies. Mary only knows she is speaking to John because John's body, especially his face, constitutes mediating artefactual structure

which creates visually perceptible light waves in her environment. That is, Mary sees the sign of John. On the basis of this semiotic material, Mary knows not only that someone is there, but that it is John, and not someone else. Once John is identified, the common ground already known to be shared between John and Mary then comes into service in their interaction. Essentially the same process takes place when Jane identifies Bill (whom she has just met) as a generative grammarian. She learns from some sign(s) that he is one (e.g. he tells her), and then certain common ground already known to be shared among generative grammarians may come into service in their interaction.

Cultural representations massively cross-cut the population. They emerge via mediating structure which may be restricted to very particular sociocultural contexts. For example, for speakers of English, there are cultural representations associated with the word *chess*. If all I know is that you are an English speaker, I can assume that you know *something* about the game 'chess', and this barest possible common private representation about 'chess' would be a cultural representation constituting a theoretical definition of the word. But I would have to surmise that you have had deeper exposure to mediating artefactual structure associated with 'chess' (i.e. be part of the chess 'culture') before I could assume your carriage of the cultural representations denoted by terms such as *opening*, *fork* and *pin*. In the same way, I can assume that the import for an English speaker of the expression *Flying planes can be dangerous* consists at least of the constituent semantic cultural representations, i.e. the lexical items and the grammatical structures combining them. But if I also know that you have studied generative grammar, I can assume that you are familiar with this string as a well-worn stock example of a certain kind of syntactic ambiguity (relating to the 'underlying form' of the noun phrase *flying planes*). For certain members of the population (and this is not restricted to English-speaking linguists), the string has this added significance. (And strings like *Juggling girlfriends can be confusing* do only derivatively.) Thus, rather than trying to understand 'subcultures', or 'communities' of people sharing cultural representations, via a metaphor like 'nesting', such as Clark (1996) suggests, I prefer to adopt a metaphor along the lines of Sperber's (1985) 'epidemiology of representations'. People 'catch' cultural representations via personal exposure to the relevant mediating artefactual structure. I use the term *carrier groups* for those who share a given cultural representation or cluster of cultural representations. Importantly, these groups are *to be defined* by their sharing certain cultural representations (Lewis, 1969; Schiffer, 1972: 131). In other words, do not ask 'What cultural representations are shared by group X?', but rather, 'What group can be defined by their sharing cultural representation X?'. This crucial distinction alone can save the anthropologist from portraying culture as 'monolithic' (where a large and defined set of cultural meanings are supposed to be carried in entirety by a large and defined set of people).

The whole set of cultural representations a person may carry is not a randomly organized or unsystematic collection. Within an individual's personal or private cultural world, cultural representations may form tightly organized systems (or subsystems), such as many of those typically found in linguistic structure (and these systems may or may not be consciously comprehended—cf. consciously calculable systems of kinship terms versus unconscious but systematic phonotactic constraints in language). At the same time, a cultural representation may be part of some loosely systematic cluster, or less cohesive structure of symbolic relationships, as one would find among elements of complex cultural models or schemas (e.g. simple taxonomies, trends in naming cars or rock bands).

Further, no individual's whole set of cultural representations exactly matches another's. And it cannot be the case that whole groups of individuals share each other's whole clusters of cultural representations. Each individual has a unique overlapping set of cultural representations with each other individual. Further, for each conceivable grouping of individuals, there is a unique pattern of overlapping cultural representations among them. And this is indeed unique from moment to moment, since cultural representations are eternally forming, if only by virtue of time passing. If 'cultures' were to be defined by exactly what is or can be inter-recursively assumed among a given set of individuals, then since the cultural representations of each conceivable 'set' of individuals would not only overlap in different ways, but change from moment to moment, 'cultures' would theoretically cohere and dispel millions of times a day. Each such coherence—for example, when John, Mary and Mary's new friend Jane sit down together for lunch—may be considered a *cultural scene* or *block*, a transient arrangement of cultural representations among a specific group of individuals, inter-recursively assumed on the basis of all the available signs those individuals register and know to have been registered amongst them in that context. And at the close of such a scene, the 'culture' of John, Mary, and Jane has been altered and redefined by the unfolding of the scene itself, and all the brand new cultural representations created therein.

Stable carrier groups, or 'cultural communities' or what have you, cannot be delineated in terms of co-carriage of their *entire* cultural representation complexes, nor in terms of subsystems delineated by simplistic criteria like geography. It would appear that the *usual* identification of individuals as part of 'the same culture' is never made in terms of the totality of inter-recursively shared cultural representations, but rather, dependent on *salient diagnostics*, which are cultural representations in themselves, and which have (often overrated and/or arbitrary) folk status as indicators of cultural or linguistic identity (see §9, below).

I do not consider here Clark's (1996) 'personal common ground' to be qualitatively distinct from 'communal common ground', if this distinction is meant to identify different 'kinds' of cultural representation. The crucial

thing in both cases is that individuals in carrier groups share similar or effectively identical private representations due to common exposure to some mediating structure. In this sense, it doesn't matter if the common ground (i.e. the assumed-to-be-assumed-to-be-shared private representation in question) between John and Mary relates to something that happened between only the two of them, say, alone in Grandma's attic, or if it consists of the basic cultural representations of, say, generative grammar, as taught in undergraduate courses in different corners of the globe. In either case, there is commonality in the mediating structure that has been presented to both John and Mary, and that has provided a basis for each of them to individually form their similar or effectively identical private representations. In a case where Jane and Bill, who have just met, share a background in generative grammar, this would mean that both Jane and Bill had been directly exposed, albeit in separate circumstances, to (among other things) exactly the same arrangements of black ink on the pages of certain books (Chomsky, 1965; etc.). One *apparent* difference is that personal common ground, by virtue of its being established in the *co-presence* of the mutual carriers (e.g. John and Mary in Grandma's attic), would seem to be *automatically* registered as a cultural representation for them, while 'communal common ground' may consist of mutually carried private representations which do not yet have cultural representation status between two carriers, since, say, John and Mary may not yet have found out that the other has had exposure to the relevant mediating structure (e.g. the subject matter of generative grammar). However, the 'automatic' knowledge of what is shared between two people by co-present common personal experience is still not literally automatic. It remains the case that, every time John and Mary meet, they still must establish what common ground is shared, on the basis of the available signs. (As noted above, the most important signs are John's and Mary's *physical bodies*, especially their faces.)

Indeed, in many cases the distinction between 'personal' and 'communal' common ground is not clear. What should we make of the common ground by which John and Mary regularly chuckle to each other when they see someone driving a *Pajero* brand car, both knowing that the word in Spanish means 'wanker'? What about Jane and Bill, who meet for the first time at a party of non-linguists, each learn that the other has a doctorate in generative grammar, and moments later exchange wry smiles when one of their party innocently says *Flying planes can be dangerous*? Would these private jokes be based on 'communal' or 'personal' common ground?

7. Cultural Practices and Cultural Representations

One may observe endless examples of mundane cultural practices which apparently differ arbitrarily from group to group, simply by virtue of their

being held to be 'what people do'. Why, for example, do the Lao organize bundles of paper money by folding every tenth note over the end of the others, and then tying stacks of ten bundles with rubber bands, while in India each bundle is stapled? Why do the Lao refrain from drinking water during a meal, waiting only until they are full, while Australians drink throughout their meal? Why do Lao children eat cucumbers like Australians eat apples, while almost no Australian child would? Why don't Australians eat the skin of kiwi fruits? Why don't they eat chicken's feet or heads, while others all over the world wouldn't hesitate? Why do many Australians not feed chicken bones to dogs, believing it to be harmful, while a Lao wouldn't think twice? Why do people go to church? Why do people bury their dead? Why do people sing 'Happy Birthday'? These things are so because there exist cultural representations that define (for certain carrier groups) 'what people do' and 'what people don't do'.[6] This crucially includes an element of identity (or anti-identity) assertion, since by 'people' here I do not mean 'all humans', but rather 'people of whom I am one'.

Since these ideas of what 'people' do or don't do are cultural representations (i.e. since all carriers know that they themselves are known by all carriers to carry the private representation), then to behave as if one doesn't carry the cultural representation—when one is also claiming membership of the relevant group—is to knowingly and openly breach a convention, or, effectively (though not *actually*; cf. Bourdieu, 1977; Taylor, 1995: Ch. 9; Wittgenstein, 1953: §185ff.), a 'rule'. For example, if an Australian feeds chicken bones to her dog, she does it knowing that observers might object, or think of her as someone who puts her dog at risk. (Not so for a Lao.) Or if she eats a chicken head, she does it knowing that people are likely to consider her revolting or crazy or un-Australian or whatever—certainly unusual. She would probably be considered to be doing it with the intention to shock or offend (or 'be different'). Many of these prohibitions or prescriptions or norms lack any real explanation (e.g. that paper money is bundled this way and not another way), while others may include a certain rationale (however sound it may be; cf. the Australian myth that dogs will choke on chicken bones if they eat them—a strange belief given that dogs are virtually designed to eat flesh and bone). Other more relentlessly demanding and virtually unconscious ritual practices are assiduously followed, and to refrain from or flout those practices is truly prohibited. No matter how much of a rebel you claim to be, you cannot live with others without assenting to perform certain of the most mundane ritual practices (for example, routines of greeting and parting; Firth, 1972; Goffman, 1967, 1971; Laver, 1974, 1981). Similarly, many conceivable actions (in the wrong context, especially) would have such dire social consequences that no one would ever perform them (unless they were insane, or were prepared to be regarded as insane).

The cultural practices we engage in are emicized by cultural representations, which are always semiotically grounded. The mediating structures which are instruments in the inculcation of cultural practices/representations may include observable exemplary behaviour (you see people peeling kiwi fruits and discarding the peel, and you figure 'that's what people do', *and they must have a reason!*), description/suggestion (*People do it like this …, I like to do it like this …, You could do it like this …*) and explicit teaching or prohibition, typical in socialization of children (*Do this, Don't do that, It's good/bad to do this*). These rules do not necessarily apply generally across whole 'cultures' (see §9, below), but may be specific to any one of a range of carrier groups. And any individual may carry conflicting or contradictory cultural representations, which apply in mutually exclusive contexts (and sometimes even in the same context). (People's tolerance for contradiction is a fascinating area for study, since it is ubiquitous and yet so obviously 'illogical'; cf. Zeitlyn, 1995, on how contradiction in discourse may be resolved by retrospective reinterpretation and reanalysis—cf. also Strauss and Quinn, 1997.)

Private representations, especially with relation to cultural practices, are not merely 'cognitive'. Practices are to a great extent, and perhaps primarily, *embodied* (Bourdieu, 1977; Foley, 1997; Varela et al., 1991). Many practices must be learned by the body—consider what is involved in driving a car, plucking a chicken or dancing. Private representations belong in the egoic realm in general, they are not restricted to the so-called mind/brain. As already suggested, while sensorimotor representations (I will call them *propriocepts*) are private, they are of course not 'mental'.

However, for private representations to be effectively shared among carriers (i.e. for cultural representation status to be achieved) there must be a *conceptual* element. In the first place, for sharing of private representations to be established, there needs to have been *some* mediating structure for mutual attention. This may consist first of one's perception of others engaging in the practice, second of the physical manipulation one may be subjected to as one learns a practice (e.g. a child being bodily guided in some activity), and third, the ways in which practices are described and talked about (especially when one is learning, during which process people's talk may be specifically aimed at directing, regulating or refining one's performance). This *does* entail that there are 'mental' or conceptual aspects associated with all practices as *cultural* practices. (This is because one's own sensorimotor representations or propriocepts cannot be directly displayed to or accessed by others; they cannot serve as mediating structure themselves.) There is also an important element of *ostension* involved in the mediation/'transmission' (i.e. presentation and formation) of culturally represented practices, namely the presentation of performance of a token of the practice itself as mediating structure, with the commentary: 'It's done *like this*'.[7]

In Laos, there is a way of dancing to traditional Lao *lam* music which involves holding the elbows to one's side, with hands in front of one's chest, turning and twisting the hands slowly and expressively, while swivelling the shoulders slowly and lightly from side to side, and gently moving around in a ring of people doing the same dance. Even a good linguistic description could never suffice as mediating structure for the dance as a true cultural representation. The dance has a (sensorimotor) private representation for the dancer, as well as (visual, and rhythmic) private representations for any observer. Mediating structure for formation of a private representation in this case must be *the dance itself*, which a young Lao witnesses, and is physically led in performance of, long before s/he ever independently performs it. (I have seen Lao babies under six months of age being physically guided in holding their hands in the traditional dancing posture, before they can even crawl.) This, however, does not mean that the dance, as a practice, is not emicized by conceptual and linguistic categories.

In finishing this section, I should mention the reluctance of Bourdieu and others to acknowledge that cultural knowledge and/or assumptions are consciously or explicitly built up by individuals. As Layton (1997: 200) has recently put it,

> Participants have what Bourdieu termed a *practical mastery* of tact and appropriate behaviour. Elaborate rituals which explicitly spell out people's status, although loved by anthropologists, are actually rare. It is misleading for anthropologists to devote too much space to such exotic rituals in their ethnographies and they should rather concentrate on the implicit routines of daily life.

However, while 'exotic rituals' may indeed be rare, it is quite clear that the 'implicit routines of daily life' remain replete with elaborate ritual, as has been shown most notably by Goffman (e.g. 1967, 1971) and associates. Through such mundane and incessant but potent culture-specific ritual behaviour (greeting, parting, proxemics, socialization routines, etiquette, phatic communion, discourse conventions, etc.), cultural knowledge and/or assumptions are indeed explicitly (but not always consciously) spelled out. It is their extreme ordinariness that makes them obscure to observers, and virtually invisible to insiders.

8. 'Language' and 'Culture'

One reason people like to keep 'language' and 'culture' apart may be found in the historical background of the western social sciences, and the traditional distinction between anthropology and linguistics (not to mention divisions between these and psychology, cognitive science, sociology, etc.). Hill and Mannheim (1992: 385) refer to the separation and identification of 'language, thought, and culture with the institutional fields of linguistics, psychology, and anthropology' as a 'category error', based on 'scholarly

folklore'. We are led to believe that the separate disciplines of linguistics and anthropology deal with separate phenomena, and indeed they conduct their work in different ways. But it is impossible to distinguish the subject matter of the two such that they can be independently described and accounted for. One could perhaps try to do so by insisting that language inheres in 'what people say', while culture inheres in 'what people do' (perhaps related to what they think, want, feel, etc.). But since people can do things by saying things (Austin, 1962), and also can say things by doing things, then such a distinction does not look viable. As Helen Fraser has commented in personal communication, we never directly encounter 'language' or 'culture' as such. Our raw data may be people speaking, or people doing things, but each of these always accompanies the other.

Needless to say, language is a rich and amazingly productive semiotic system. The mechanisms of linguistic communication are directly constituted by cultural representations, as defined in (3), §5, above. These involve, first, the encoded semantics of linguistic signs (such as lexical items, grammatical morphemes, morphosyntactic constructions and idioms), however these may be defined. Second, communication relies heavily on discourse conventions, or ways of speaking, essentially involving cultural representations about 'how people say things'. Third, processes of culturally logical inference, directly informed by the assumed background knowledge imported by cultural representations, lead to context-specific construals of linguistic utterances. This is where cultural logic feeds straight into linguistic communication. What we usually call 'language', i.e. the system of lexical and grammatical signs in which semantics are encoded, is a proper subset of culture, but as is increasingly acknowledged, a view of language without the interpretative 'accounts' provided by cultural representations is too poor to account for the facts of linguistic communication (cf. Levinson, 1995, among other Neo-Griceans referred to therein).

It should be noted that an individual's set of cultural representations is to a large extent linguistically constituted, in both encoded semantic structures, and in 'rules' for linguistic practices (i.e. constraints on how the language is actually used). Linguistic structure and linguistic practices figure in the processes of inculcation of most, if not all, cultural practices, *qua* culturally represented practices. Further, most, if not all, of the folk concepts and theories we may regard as cultural are directly embodied in the semantics of language, or at the very least linguistically 'transmitted' (i.e. presented as phonetic mediating structure, to allow individual formation of corresponding private representations). Thus, I take an interconstitutive view of language and culture, and do not consider their true separation possible (not even for purposes of proving that a 'link' between them exists; cf. Enfield, 2000; Hill and Mannheim, 1992; Lee, 1996). Culture and language are not just intimately connected, but are part of one and the same egoic-semiotic ecology. Flow in this ecological system is

across borders between the private and the public, and between the linguistic and the cultural.

9. 'Cultures' and 'Languages'

An account of culture and language does not necessarily account for 'cultures' and 'languages'. While it is occasionally convenient to talk of 'a culture', identified with 'a language' or race or nation-state (as in 'Lao culture' or 'Chinese culture'), it is both misleading, and impossible to justify theoretically, if by such 'a culture' one meant an extensional, absolutely definable entity. Such overarching categories present 'cultures' as clearly delimited entities, coherent whole systems of beliefs, practices, symbols or whatever, with a definable set of 'members'. In the terms outlined here, there is no hope for a clear statement of 'a culture' along these lines. It would be theoretically possible to characterize the whole set of private representations of one individual at one moment in time. But this would not coincide entirely with those of any other individual. (See discussion in §6, above.) What would *define*, say, the complex whole of 'Chinese culture', such that all who we identify (or who identify themselves) as 'Chinese' would qualify? Evans (1993: 20–1) discusses Ward's (1985) work on Chinese Tanka fishing people in Hong Kong, in which she outlines discrepancies between what is emically 'Chinese' for different groups (e.g. Cantonese vs Tanka), and what is *etically*, or observable as, 'Chinese'. (I dispute any claim, however, that a category such as 'Chinese'—as it is currently used—could ever be 'etically' defined.) This, however, involves people's own *models* of 'the culture', not 'the culture' itself. The model may of course coexist with rather different realities (cf. Buddhists of lowland Laos whose religion is said to prohibit hurting or killing animals, and yet whose daily market-place practices can be very cruel).

This idea of 'a culture' is itself a cultural representation, something constructed and presented as an ideal, and often a simplistic one. It is especially associated with the modern rhetoric of nationalism, and perhaps the most important thing about membership is the very fact of *identifying* oneself or another as a member (or not). This makes crucial reference to *salient diagnostics*, cultural representations which are referred to in folk determination of membership in 'a culture', or in the group of speakers of 'a language'. Salient diagnostics are usually overrated diagnostic features (from among many possible choices), but they may be very potent in their apparent ability to bring quite disparate groups together under a single identity. (Again, consider the range of groups who identify as 'Chinese', due to, say, their practices of worship, or exclusive use of Chinese characters in art and writing.) These diagnostics are *conventions*. And particular conventions gain the salience they do because people naturally converge repeatedly

upon them in creating reliable and easily accessible solutions to recurrent coordination problems (Lewis, 1969; Schelling, 1960; Schiffer, 1972). The 'coordination problem' in this case is the collective establishment of the identity (or identities) of social associates and participants in discourse.

People are especially *conscious* of the emblematicity of salient diagnostics. In Laos, for example, certain foods are particularly salient as diagnostics of identity, as emblems of 'being Lao'. If you eat glutinous rice as your staple diet, you must be 'Lao', whether you live in Laos or not. Thus, it is common to hear the Lao saying of neighbouring groups like the people of Isan in north-east Thailand, or the people of Sipsong Banna in south-western China, that they 'really' are Lao people, 'because they eat glutinous rice'. There are of course many other 'very Lao' things to eat, but not all of these have achieved the conventionalized emblematic and culturally diagnostic status of glutinous rice.

Similarly, turning to 'languages', it is impossible to define what is, say, 'English', in terms of a precise definition of the common set of relevant private representations (i.e. phonological contrasts, lexical items, grammatical devices, discourse conventions, etc.) that any and all individual English speakers must carry. 'Languages' are associated with sociopolitical entities, and as such are subject to reification, abstraction and invention, particularly through literacy and language standardization (for recent review and references on the relevant literature, see Foley, 1997: 398–416). For sociocultural and political reasons, names for 'languages' come into use, and these are crucially tied to identity of speakers, and particularly, identification (or anti-identification) with neighbours who share many of the same linguistic representations (i.e. speak 'dialects' or related 'languages'). (Accordingly, in the context of Aboriginal Australia, Rigsby and Sutton [1982: 19] have argued that '[l]anguage is emblematic of clan identity in a system akin to clan totemism'.) Terms like *English*, *German*, or *Lao* do not represent extensionally definable and consistent linguistic systems which accord exactly with what each and every member of a certain population of speakers (e.g. geographically delimited) has in their heads. They represent secondary abstractions.

Thus, there is no qualitatively distinct line between a case in which two people are speaking two separate languages and a case when they are speaking varieties of one language or the very same language. Deep down, linguists have always recognized this, but for practical purposes have pressed on as if there really are objects called 'languages' (independent of individuals carrying them). Granted, we can distinguish cases in which two speakers can't comprehend a word the other says from those in which the two are in total fluent understanding. But is this a distinction between speaking, and not speaking, 'the same language' (in the sense of 'English' versus 'Lao')? Or is it simply a matter of how much *overlap* there is of linguistic cultural representations (e.g. lexical items, grammatical morphemes,

morphosyntactic constructions) among individuals? (See Hockett's 1987 'idiolectal intercalibration', cited and discussed in Lee, 1996: 227–8.) The phenomenon of code-switching (Gumperz, 1982; Milroy and Muysken, 1995) is illustrative in this case. When bilinguals freely switch between 'languages', why do we say that they are speaking *two languages*? Are they not simply utilizing a broader range of linguistic signs, whose carriage by interlocutors happens to be inter-recursively assumed in the context?

The borders set by terms like *English* or *Lao* do not correspond to those that actually delineate what linguistic signs we can or cannot use in real contexts. When we 'speak the same language', we restrict ourselves to linguistic signs which are cultural representations in that context (i.e. linguistic signs whose carriage is assumed and assumed-to-be-assumed-to-be-assumed in that context), and we don't normally go into territory where certain private representations relating to certain mediating structures are not known to be inter-recursively shared, whether that concerns the use of technical terminology, dialect, slang or words from 'another language'. Thus, this sentence is not written in Russian, since neither Russian linguistic semantic categories nor their signifiers are assumed to be carried by the reader in the present context.

In discussion of linguistic relativity, Clark (1996) has rightly questioned the utility of the notion of 'a language', arguing that Whorf's doctrines of linguistic relativity and linguistic determinism are problematic in that he was 'thinking of broad languages and not communal lexicons—of English, Hopi, and Nootka, and not legalese, baseball jargon, or chemical nomenclatures' (Clark, 1996: 340). Clark's argument is that among these latter 'communal lexicons' linguistic relativity can also be found. He writes (1996: 340):

> To test Whorf's version of linguistic determinism, we would need to identify a specifically English-language lexicon—a lexicon for the community of English speakers that is separate from all other communal lexicons. Is there such a lexicon? Do we ever classify our interlocutors merely as English speakers? I suggest that we do not. ... [Thus,] it will be difficult to distinguish entries in the English-language lexicon from those in other communal lexicons.

Clark's point is an important one, applying not only to lexicon, but also to grammar. The upshot of it is that Whorf's claims are good for *language*, but not for *languages*. This is because 'languages', in the sense we have been discussing here, do not represent the actual systems *individuals* embody, conceptually represent and deploy in everyday interaction (Hockett, 1987: 157–8 n.).

The consequence of this view of language and culture, involving the inter-recursive sharing of private representations, with ever finer cross-cuts linking members of carrier groups, is that every individual embodies a distinct linguistic and cultural system. Indeed, this is entailed by the uniqueness of biography. But it remains possible to talk about what may be shared

among people, since our egoic realms of private representations, while unique to individuals, require maintenance by means of social interaction, and therefore depend on a high degree of convergence. The level of grain at which we conduct our analysis (i.e. where we draw the lines between our cultural or linguistic 'groups', or 'nests', or 'communities', or whatever) is essentially arbitrary, but there are levels which are more natural, probably because they are more useful.[8] Thus, English is not a language in the sense that I am concerned with here. The very idea of the English language is a cultural and metalinguistic artefact. So when we work with categories like *English* or *Lao*, this must be kept in mind. And the same goes for 'Anglo' or 'Lao' *culture*. What we are really talking about is some set of cultural representations—private representations which are carried, assumed-to-be-carried and assumed-to-be-assumed-to-be-carried—among some carrier group. And as anthropologists we can only generalize with reference to the particular cultural representation(s) we are discussing, and to the identity of the relevant carrier group. In this way, we are less in danger of slyly roping into our generalizations either (a) some cultural representations which are not actually carried by the people we are talking about, or (b) some members of a community—geographically or politically defined— who do not actually carry the cultural representation(s) in question. This is what Evans is alluding to when he points out, 'It is hard to imagine how one could speak simply of Indian Culture given the ethnic and linguistic divisions in that country as well as the elaborate hierarchical ones of caste' (1993: 21). Nonetheless, the *idea* of 'Indian Culture' persists.

Let me summarize by reiterating two points. First, 'cultures' (like 'languages') are not defined by objective facts, but rather by conventional ideas and stereotypes about the practices and identities of human groups, labelled as 'Lao', 'Chinese', 'Australian', 'gravedigger', 'cricket player' or whatever. And membership is a matter of judgement. The second point, of great methodological consequence, is that if we really want to characterize what cultural representations unite groups of people, we had better start with the cultural representation in question, and ask what group of people are united by their sharing it, rather than starting with some group (i.e. an identity, not extensionally defined), and asking what cultural representations are shared among members.

10. Applying Cultural Logic

Consider the following scenario I observed in Vientiane, Laos, December 1997. A young Lao man is riding a motorcycle along a village track at 8 a.m. An old man walking in his direction tosses his head as if greeting or signalling the young man, and points animatedly to his own eye as the young man approaches. Thus, the young man realizes his motorcycle headlight is

on, turns it off, tosses his head in acknowledgement to the old man and drives on. This minimal exchange utilizes gesture, linguistic categories, relatedness between multiple meanings of a linguistic sign, cultural representations and the social intelligence that all of these enable. Let me sketch a simple analysis of how this exchange works.

The old man's animated pointing gesture to his own eye is clearly meant to signal something to the young man. This is related to a cultural representation about the pointing gesture itself—'if someone points at something, they are selecting this thing for some kind of special attention (i.e. they want to say something about it; they want someone to know something about it)'. The old man gives this emphasis, conventionally, by the physical urgency of his gesture. The young man, using his social intelligence, tries to attribute some purpose to the old man's action, some motivation behind it. He cannot imagine the old man wants him to know something about his eye in that context. No ready premise derives it as a logical conclusion. The young man is thinking /taa/, the phonological string which signifies the concept 'eye' in Lao. Because of this, he can think of other concepts signified by the same phonological string. These include, among others, 'headlight of a vehicle'. This linguistic representation is a cultural premise which allows the young man to conclude by means of cultural logic that the old man wants him to think about the headlight on his vehicle (in that context). No other meanings of *taa* may serve as premises for a culturally logical conclusion (again, in that particular context). The young man carries a propositional private representation that says 'sometimes I forget to turn my motorcycle headlight off in the evening, since when I turn the engine off, the headlight goes off automatically; so, some mornings, by daylight, I don't notice my headlight is still turned on, and at these times [by (1), §3, above], people tell me to turn it off'. Thus, he understands that the old man's gesture *has to* mean 'Hey, your light is on!', and he is compelled to turn it off (by the cultural logic discussed in §3, above). This application of cultural logic was successful because the old man was able to assume (a) that the young man would carry the relevant premises for following the required line of reasoning; and (b) that the young man would be socially intelligent—i.e. that he would actually put two and two together, and *make* the required line of reasoning.

Thus, culture emerges and is subsequently maintained, through the active role (both conscious and unconscious) of individuals in combining semiotic material with social intelligence. People embody private representations—as concepts or propriocepts, whether in or out of awareness—and transport these wherever they go, to be put into service as required. Private representations become cultural representations in any context in which they are inter-recursively assumed. The theory of cultural logic, with its three elements of (1) representations or meanings, (2) signs or mediating structures, and (3) the social intelligence that bind these, encourages

scholars of culture to describe those elements of cultural meaning which are commonly carried by some group of individuals, and which are regularly employed in social interpretation among them. Anthropologists may attend to positive characterization of these socially applied cultural meanings, avoiding the folly of trying to describe 'culture monoliths', while providing an antidote to flimsy anthropology which doesn't dare to make falsifiable claims about what actually defines cultural representations in particular cases. The study and description of cultural logic also allow linguists, who have increasingly denied their place in the field of anthropology, to make a primary contribution. This is because included in 'culture' are linguistic signs with currency in given social contexts. Language has a central place in anthropological theory and description, being qualitatively the same in relevant respects as other public aspects of culture. Of all the things we may term 'cultural', mundane rituals of linguistic behaviour have the greatest presence, they are practised in the greatest volume, repeated over and over, throughout every day, in virtually every context. Further, most of our non-linguistic cultural representations are also stitched into the semantics of both lexicon and grammar, and in the 'rules' of usage, reiterating culture in the linguistic code. Themes populate the personal worlds of people, and the inter-recursive sharedness of these themes allows people to practise cultural logic, applying the centripetal force of convention, in the ceaseless work of creating and maintaining commonality.

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NOTES

1. Sources of many of the ideas in this essay should be clear, with a particular debt to Goody, 1995b. The following are relevant, among many others: Bourdieu, 1977; Chafe, 1994; Clark, 1996; Duranti, 1997; Foley, 1997; Goffman, 1967, 1971, Grice, 1975; Holland and Quinn, 1987; Hopper, 1987; Hutchins, 1980, 1995; Keesing, 1979; Langacker, 1987, 1990, 1994; Le Page and Tabouret-Keller, 1985; Leach, 1976; Lee, 1996; Levinson, 1995; Lewis, 1969; Sapir, 1994; Schelling, 1960; Schutz, 1970; Sperber, 1985; Strauss and Quinn, 1997; Whorf, 1956; Wierzbicka, 1996.

2. I am aware of objections to the notion of 'representation', and especially 'rule', as a faithful description of what underlies or 'generates' linguistic and/or cultural phenomena (Bourdieu, 1977; Fraser, 1992; Taylor, 1995; Wittgenstein, 1953; inter alia). However, for descriptive purposes I find the notion irresistible, since I believe that at the very least we can posit conceptual and other internal/personal abstractions specific to individuals. The idea of 'representation' as I intend it here may yet require clarification.

3. I use *carry* here to mean '(be able to) privately represent', and in the case of propositional private representations, the term is in no way meant to imply that s/he who carries the private representation is supposed to abide by it, or approve of it, or believe it or whatever. For example, I may carry as a private representation the schema of 'weeding the garden' (i.e. that people remove certain plants from their garden, because they think these plants are undesirable and don't belong there), even though I may disagree with the practice, and may have never personally engaged in it. As Green puts it, '[i]f everybody believes that everybody believes that it is normal to believe P, then belief in P is a normal belief [i.e. in Green's technical sense, analogous with my *cultural representation*—N.E.], EVEN IF NOBODY ACTUALLY BELIEVES P' (Green, 1995: 13, original emphasis).

4. Obviously, this model allows a cultural representation to exist among only two carriers. I do not regard 'communal common ground' versus 'personal common ground' to be the fundamental distinction it is for Clark (1996). See §6, below.

5. One example of a private representation inter-recursively assumed by *all* people has been suggested by Anna Wierzbicka (personal communication): 'People don't want bad things to happen to their children.' In her terms, this is a 'universal cultural script'.

6. This is in no way meant to detract from the sound rationale or heartfelt conviction apparently motivating some of these practices. Nevertheless, when one goes deep into questioning any of these, one ultimately comes down to *some* article of faith or another. Parents exasperated with children playing the 'But why?' game reveal this when they resort to the likes of *Because that's just how it is*, or *Because that's what people do/think/believe* (or, more desperately, *Because I say so!*).

7. This foreshadows an interesting problem for Wierzbicka's (1996) approach to describing linguistic/cultural representations, in which it is claimed that the proposed 'universal semantic prime' LIKE can account for the meaning of certain ostensive categories. In this context, Alan Rumsey (personal communication) invokes Wittgenstein's musings about ostension—if A is defined as being 'like' B, how do we know *in what way* it must be like B?

8. Consider in this context Maurice Gross's (e.g. 1975) work on word classes, showing that if we take very seriously the notion of morphosyntactic behaviour as a way of establishing lexical classes, the natural conclusion is that we have as many 'classes' as there are words in the language. At the level of finest grain, it is perhaps impossible to find two verbs with *exactly* the same morphosyntactic/combinatoric behaviour. Similarly, we cannot find two individuals in the world who share the same set of cultural representations. Grant Evans (personal communication) has pointed out that this should not entail that our descriptive categorizations in anthropology or linguistics are then *arbitrary*, since our decisions can be based on motivated principles. It remains the case, however, that one's choice of *which* principles to apply emerges more

from what one is *interested* in, than from any inherent groupings present in the data.

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