

## Making the Implicit Explicit: Language as nature, culture, and structure

MARTIN RENARD  
THE UNIVERSITY OF CAMBRIDGE

The modern field of linguistics is ripe with polarising theoretical debates, and perhaps even more so than other disciplines because of its inherent interdisciplinarity. Nevertheless, once all debated topics are stripped away, there seems to be a residual consensus concerning the core nature of human language. This general agreement arises, it seems, not because one hegemonic theory managed to impose its views, but rather because it concerns a set of basic facts about human language that are *true* in an absolute and objective sense. Thus, I believe that most (if not all) linguists today would uncontroversially agree with the three statements in (1) below.

- (1) a. Human language is a biologically-determined physico-cognitive human ability.
- b. Human language is a form of social behaviour constrained by cultural norms.
- c. Human language is a structured formal system composed of regular patterns.

By accepting these facts, linguists implicitly subscribe to the same view of *language as an inherently tripartite entity, constituted of a natural aspect, a cultural aspect, and a structural aspect*. It is this implicit view that this squib attempts to make explicit. My hope is that fully spelling out what is (to my mind) such a crucial trichotomy might help gain a clearer picture of linguistic theory and, most importantly, of the nature of human language itself.

These three aspects of language are visible in the works of Edward Sapir (1884 - 1939), one of the founders of modern linguistics and anthropology. Consider the quote below in (2).

- (2) It is precisely because language is as strictly socialized a type of human behavior as anything else in culture and yet betrays in its outlines and tendencies such regularities as only the natural scientist is in the habit of formulating, that linguistics is of strategic importance for the methodology of social science. (Sapir 1929: 213)

The message here is clear. For Sapir, language is simultaneously a type of socio-cultural behaviour, and a highly regular product of the human mind. Crucially,

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though, these two components are for him not equally central to the nature of language, as he considered the sociocultural aspect of language more significant than its biological aspect. Although Sapir (1929: 214) acknowledged that the ‘regularity and formal development [of language] rest on considerations of a biological and psychological nature,’ he stressed that ‘language is primarily a cultural or social product and must be understood as such.’

The essentially sociocultural nature of language allows him to suggest that linguistics belongs to the social rather than the natural sciences. As we can see in (2), it is precisely the duality of language which makes it an interesting object of study for the social sciences. That is, the systematic and structured nature of a sociocultural object such as language, derived from its biological basis, suggests the existence of a great degree of regularity in all other areas of sociocultural life, ‘which is just as real as the regularity of physical processes in a mechanical world’ (Sapir 1929: 213). Thus, emphasising the biologically-motivated systematicity of language is a way for Sapir to show that the social world is structured to the same extent than the physical world (albeit in a very different way), enabling him to legitimise the social sciences, and especially linguistics as a social science, in the context of the domination of the natural sciences.

Just as Sapir argued that it is the biological basis of language, by virtue of its regularising and systematising force, that makes it interesting for the social sciences, I want to suggest that the reverse is also true: It is the sociocultural aspect of language, by virtue of its inherent diversity, that makes it interesting for the natural (here, cognitive) sciences. This idea has already been hinted at by Evans & Levinson (2009), who claim that it is precisely the diversity of human languages, reflecting various historical, psychological, and (crucially for our purposes) cultural functional factors, that make them crucial for the cognitive sciences. They then go on to propose a new theoretical approach to language as a ‘bio-cultural hybrid’, that is a highly variable cultural historical product in which no true universals can be found, except in the sense that it is supported by the same universal domain-general human cognition (Evans & Levinson 2009: 445-446).

The point is that the conception of language as a dual entity, with methodologically distinct but theoretically interdependent cultural and biological aspects, has pervaded linguistics from Sapir to the present day. This view is effectively the application to the study of language of the nature-culture divide, a central (although sometimes implicit) tenet of ‘classical’ anthropological theory (e.g. Boas 1932), which arguably has its roots in the nature-nurture debate initiated by Plato and Aristotle, and continued by Leibniz and Locke. Although this distinction has been increasingly challenged by modern anthropologists, especially the proponents of the so-called ‘ontological turn’ (e.g. Holbraad, Pedersen & de Castro. 2014), we will see that it remains useful for our purposes. Beyond references to these two aspects of language, Sapir’s work also provides illustrations of the third perspective identified at the beginning of this article, that is, the idea that language may be approached as a formally complete and self-contained structured system. The quote in (3) makes that clear.

- (3) The outstanding fact about any language is its formal completeness. (...) The world of linguistic forms, held within the framework of a given language, is a complete system of reference (...). (Sapir 1924: 153)

The Saussurean (1916) flavour of this statement is unmistakable: Languages are structured systems, which are by definition always formally complete synchronically, irrespective of recent or ongoing diachronic changes. The next logical step, characteristic of Saussurean structuralism, is to claim that language viewed as this formal system (i.e. *langue*) is logically distinct from its actual contextualised use (i.e. *parole*). Linguistics, it is argued, as the science of *langue*, thus can and should study it independently from *parole*. Sapir did not completely follow Saussure in that direction and declare language an *autonomous* formal system, as he viewed the sociocultural context too central to the nature of language to accept any attempt at separating these two dimensions, even if merely methodologically. Nevertheless, the crucial point for our purposes is that Sapir's writings contain references to the three approaches to language identified at the start of this article.

It is time to make explicit the idea that has underlain much of our discussion so far. It seems to me that language, as an object of study, may be approached from three different standpoints. First, language may be seen as a *natural object*, that is, as a biologically-determined physico-cognitive human ability (1a). Second, language may be seen as a *cultural object*, that is, as a form of social behaviour constrained by cultural norms (1b). Third, language may be seen simply as a *structural object*, that is, as a structured formal system composed of regular patterns (1c). This trichotomy of language as a whole applies equally well to individual instances of language use, in the sense that every speech act simultaneously has a natural dimension (i.e. it is the product of cognitive processing and the acoustic or gestural realisation of sounds or gestures), a cultural dimension (i.e. it is a social action embedded in a cultural context), and a structural dimension (i.e. it is, in the overwhelming majority of cases, an instance of a well-formed morphosyntactic and phonological structure that respects the internal rules of the language system). Conceptually, the natural and cultural approaches are symmetrical equivalents, as they refer to the study of language from diametrically opposed sides of the nature-culture divide, and are both equally distinct from the structural approach, which focuses exclusively on language in its own terms and for its own sake.

Contrary to Sapir's position, I believe that these three approaches are equally valuable to an adequate understanding of the phenomenon of human language. They are complementary rather than mutually exclusive, because languages are necessarily defined by these three aspects, and their being defined by one does not make them less defined by another. That is, there is no meaningful sense in which one of these aspects is quantitatively more crucial to the nature of language than another, because it is a trivially undeniable fact that language is equally and simultaneously a natural, cultural, and structural object. All and only objects composed of the union of these three aspects really are languages. It is this tripartite nature that makes language so complex (and thus arguably so interesting), and motivates the interdisciplinarity of linguistics.

This trichotomy seems necessary for two reasons, one theoretical, and one meta-theoretical. First, as we have seen, it constitutes a true theoretical statement about language as a simultaneously natural, cultural, and structural object. This is in a sense what [Evans & Levinson \(2009: 445-446\)](#) were aiming at when characterising language as a ‘bio-cultural hybrid’, although I find it useful to add a third distinct structural dimension to this dual approach, for reasons that will become clear below. Second, it is a useful tool for making sense of linguistic theories, which can be classified and characterised in its terms. Admittedly, this trichotomous framework can only provide a thematic rather than chronological overview of these theories, and will necessarily overlook significant nuances in their development, to the extent that capturing the core tenets of complex theories in terms of three categories involves no small dose of essentialism.

However, this should not be a problem, as my objective here is not to provide a detailed account of the history of linguistics, but rather to present an approach to language as an essentially tripartite entity. Thus, the theoretical motivation (i.e. language is indeed a natural-cultural-structural object) for this trichotomy is primary, while the metatheoretical motivation is secondary, and derives from the theoretical one (i.e. it is only insofar as language is indeed constituted of these three aspects that it is useful to classify theories in terms of which one(s) they focus on). Note that I am framing this trichotomy as an a priori assumption about the nature of language, rather than as a hypothesis awaiting empirical confirmation. This is because I believe that (1) it is inherently built as trivial and hence uncontroversial, as we have seen above, and (2) sufficient theories providing valuable insights into the nature of language can be relatively straightforwardly categorised as focusing on one or more of these three aspects, or alternatively on the relationships between them. This will be made clear below.

As the discussion of Sapir’s oeuvre above will have hopefully shown, I am not claiming this trichotomy as my own theoretical innovation. These three aspects of language and the distinctions between them have been common topics of linguistic inquiry throughout the history of the discipline, although sometimes mostly implicitly. I am merely trying to make this trichotomy explicit, as I believe that, despite its apparent triviality, it provides an insightful synthesis of the nature of language. So as to make it clearer, I will, in the rest of this article, attempt to develop in more detail what is meant by each aspect, as well as situate major theoretical approaches within this framework.

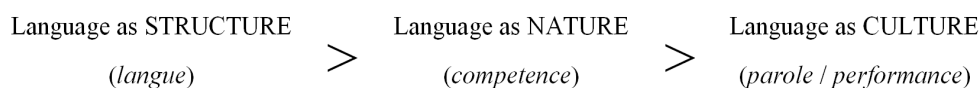
Let us begin by examining what is meant by *language as a natural object*. Language, like any other type of human behaviour, ultimately relies on biologically-determined cognitive and physical abilities. More precisely, the acquisition, knowledge structures, processing, production, and perception of language, that is everything that gives language its potential as a non-natural (i.e. structural and cultural) object, are critically supported by natural (i.e. cognitive and physical) abilities. Note that this is a trivial statement, and as such should be non-controversial. I am merely stating that language depends on biologically-determined cognitive and physical functions. Importantly, this holds irrespective of the outcome of debates

concerning the purported innateness, modularity, and domain-specificity of these functions.

We saw that another approach was to look at *language as a cultural object*. This implies that language is a form of social action like any other type of human behaviour, and as such is constrained by a similar set of social norms. Moreover, because language is a form of sociocultural behaviour, there is necessarily a residue of cultural influence in its composition. Thus, at least a language's lexicon will be partly conditioned by which concepts are used and which are not in the sociocultural context in which it is embedded. Again, this should be fairly unproblematic, because it is only a basic assumption about the nature of language, which is agnostic when it comes to stronger claims such as the Sapir-Whorf Hypothesis. That is, this statement, just as the two others in this trichotomy, is meant as a pre-theoretical assumption that remains true independently from scientific debates on language.

Finally, I mentioned that it is possible to investigate *language as a structural object*. On a certain level, language can be approached as a completely self-contained and complete formal system made up of regular patterns. On this level of analysis, natural (e.g. functional factors) and cultural (e.g. meaning) considerations are totally irrelevant, and only the formal structure of the linguistic system (i.e. the abstract patterns of 'form') matters. This approach is possible (and, I would argue, necessary) because the formal patterns constitutive of linguistic structure are typologically unique. That is, they are found nowhere else in the natural and cultural world. The basic tenet of this perspective, then, is that language can be studied entirely independently from non-linguistic considerations. Again, this approach is believed to remain constantly valid irrespective of later theoretical choices, because it merely claims that an analysis of language as a purely structural object is possible, and does not endorse one specific analysis of linguistic structure over another.

One could argue that the structural level corresponds to the [Saussurean \(1916\)](#) concept of *langue* (i.e. underlying linguistic system), instantiated in speakers' minds by the [Chomskyan \(1965\)](#) concept of *competence* (i.e. underlying mental knowledge of *langue*), which is associated with the natural level. Natural competence would be in turn instantiated on the cultural level by *parole* ([Saussure 1916](#)) or *performance* ([Chomsky 1965](#)), that is the socioculturally contextualised use of language. This can be graphically represented by the diagram in [Figure 1](#) below.



**Figure 1** A Simplistic View of the Interrelations Among the Three Aspects of Language (> : is instantiated by).

It seems to me that this characterisation is overly simplistic, because language as a natural object is not restricted to competence, nor is language as a cultural object restricted to performance. Drawing on [Carnap's \(1947\)](#) distinction between *intension* (i.e. the definition of a concept through a set of individually necessary and jointly sufficient conditions, that is by capturing its underlying essence) and

*extension* (i.e. the definition of a concept by listing all the referents it applies to, that is by capturing its surface manifestations), I want to propose instead that within these two approaches exists a basic distinction between an *intensional level* (i.e. the characterisation of the *underlying* and *potential* linguistic system, capturing the classic notions of *langue*, competence, and I-language), and an *extensional level* (i.e. the characterisation of the *surface* and *actual* instances of language use, capturing the classic notions of *parole*, performance, and E-language).

On the natural level, we thus have a distinction between the *natural intension of language* (i.e. the underlying cognitive knowledge structures) and the *natural extension of language* (i.e. the actual psychological and physical implementation of this knowledge). As for the cultural level, we see a dichotomy between the *cultural intension of language* (i.e. the underlying linguistic system as a cultural resource), and the *cultural extension of language* (i.e. actual speech as a social practice). Here, the structural level is again different from the two other approaches, as its major subdivision seems to be rather between *synchrony* (i.e. the characterisation of the formal system at a given point in time) and *diachrony* (i.e. the evolution of the formal system through time), following [Saussure's \(1916\)](#) famous dichotomy.

It is time to link the various approaches identified above to actual linguistic work. Natural intension is the object of study of psycholinguistics, which tries to characterise our cognitive linguistic knowledge, whatever the actual theoretical approach (e.g. emergentism vs modularity). However, it is most iconically associated with the generative enterprise, from *Aspects* ([Chomsky 1965](#)) to the Minimalist Programme ([Chomsky 1993](#)), whose explicit purpose has always been to characterise speakers' competence, that is their underlying cognitive system of linguistic knowledge, as based on an innate Universal Grammar. This is all the more obvious in the definition of this approach as *bio-linguistics* ([Di Sciullo & Boeckx 2011](#)), and an even more telling example is [Boeckx & Piattelli-Palmarini's \(2005\)](#) article titled 'Language as a Natural Object - Linguistics as a Natural Science'. Consider also the quote in (4) below, which nicely sums up my entire trichotomous framework as presented here, as well as the position of generativism in it.

- (4) Language and its use *have been studied from varied points of view*. One approach, assumed here, takes *language to be part of the natural world*.  
([Chomsky, 2014 \[1993\]](#): 153, emphasis added)

As for natural extension, it is arguably the object of study of specialists on language acquisition, who investigate how our linguistic knowledge is acquired, (other) psycho- and neuro-linguists, who study how it is processed, and phoneticians (or sign language specialists), who look at how it is physically realised and perceived as sound (or gestures).

We may now turn to the structural approach. Needless to say, its diachronic dimension is by definition the realm of historical linguistics. When focusing on synchrony, however, this approach is closely associated with structuralism, most iconically of the European kind initiated by [Saussure \(1916\)](#). This framework may be defined by (1) a theoretical distinction between surface language use and lan-



guage as an underlying self-contained formal system composed of structural relationships between grammatical elements (i.e. *langue*, *competence*, or *I-language*), and (2) a methodological view of linguistics as ideally focusing only on language as such an underlying formal system, and ignoring functional external considerations derived from surface language use as irrelevant to the internal logic of the system. The following quotes from Saussure in (5) and (6) respectively capture these ideas.

- (5) La langue est un système dont toutes les parties peuvent et doivent être considérées dans leur solidarité synchronique.

[Language ('langue') is a system in which all parts can and should be considered from the point of view of their synchronic interdependencies.]

(Saussure 1916: 124, my translation)

- (6) *La linguistique a pour unique et véritable objet la langue envisagée en elle-même et pour elle-même.*

[Linguistics' only true object of study is language ('langue') considered in itself and for itself.]

(Saussure 1916: 317, emphasis in the original, my translation)

European structuralism arguably belongs to the wider class of formalist approaches, which try to characterise the formal relationships between grammatical elements purely in language-internal terms, and independently from any functional considerations. These can focus on any structural level in the linguistic system as traditionally defined, such as phonology, morphology, and syntax. Note that the actual validity of the distinction between these traditional structural levels (especially concerning the status of morphology) is a matter for empirical investigation and theoretical discussion, and is logically independent from the general validity of the approach to language as a structural object. Formalism also includes American structuralism (e.g. Bloomfield 1933), which is well-known for focusing on language structure as a system of formal relationships between grammatical elements, characterisable without reference to their meaning.

Under some analyses, formalism also encompasses generativism. Although Chomsky (1968) explicitly dissociates himself from structuralism (which, as we have seen, is characteristically formalist), Newmeyer (1986: 4) argues that 'one can, with good reason, refer to Chomsky as a "structuralist"', in the sense that his approach is still based on 'Saussure's great insight that at the heart of language lies a structured interrelationship of elements characterizable as an autonomous system.' Generative syntax, from traditional phrase-structure rules to bare phrase structure, and phonology, whether traditional rule-based SPE or constraint-based Optimality Theory, are in this sense merely a set of technical developments based on this core structuralist tenet. Generativism (Chomsky 1965) differs from structuralism only in approaching language as a natural object, that is as a cognitive system of knowledge, thus explaining why proponents of this theory tend to reject Bloomfield's

(1933) behaviourism, as well as Saussure's (1916) view of language as a system of arbitrary social conventions, located at the level of the community rather than of the individual. Crucially, thus, it is only in the *location* of language, and not in its *characterisation*, that generativism fundamentally departs from structuralism. The two quotes in (7) and (8) below make very clear the contrast between Saussure's and Chomsky's views of language as a respectively social and cognitive object.

- (7) [La langue] est un trésor déposé par la pratique de la parole dans les sujets appartenant à une même communauté, un système grammatical existant virtuellement dans chaque cerveau, ou plus exactement *dans les cerveaux d'un ensemble d'individus*; car la langue n'est complète dans aucun, *elle n'existe parfaitement que dans la masse*.

[Language ('langue') is a treasure deposited through the practice of speech ('parole') in the subjects belonging to a same community, a grammatical system which exists virtually in each brain, or more exactly *in the brains of a group of individuals*; for language ('langue') is complete in none of them, *it exists perfectly only in the group*.]

(Saussure 1916: 30, emphasis added, my translation)

- (8) Dominant linguistics paradigms in the first half of the twentieth century had centered their attention on Saussurean 'langue', a social object of which individual speakers have only a partial mastery. Ever since the 1950s, generative grammar shifted the focus of linguistic research onto the systems of linguistic knowledge possessed by *individual speakers*. (...) In this perspective, *language is a natural object*, a component of the human mind, physically represented in the brain and part of the biological endowment of the species.

(Chomsky 2002: 1, emphasis added)

Thus, recast in the terms of our trichotomy, Chomskyan generativism may be defined as an approach *characterising* language as a *structural* object, and *locating* it in the *natural* world. That is, this theory aligns with our structural approach with respect to its characterisation of language, but with our natural approach with respect to the location of language that it advocates. It is inter alia this essential structural-natural duality, I believe, that has made generativism such a successful approach to language, which has remained dominant since the 1960s, as (admittedly often valid) criticisms from all sides have only led to refinements of the formalisms, but not to changes in the core ideas underlying the theory. Generativism has thus often been criticised for ignoring the sociocultural aspect of language. This critique, it seems to me, is misplaced, because this is precisely what generativism has never set out to focus on (in general, it makes little sense to criticise a theory for failing to achieve an objective it never set out to achieve, unless this objective logically follows from the rest of the theory). It is tempting, due to the structure of our trichotomy, to argue that Saussurean structuralism was in a sense the mirror image of modern generativism, that is, that it *characterised* language as a *structural*



object as well, but *located* it in *culture* as opposed to *nature*. It is true that [Saussure \(1916\)](#) often emphasised the social aspect of language, but his approach remained mostly structuralist proper (i.e. structural, in our terminology), and did not devote enough attention to the implications that follow from considering language as a truly *cultural* object, to warrant classifying it as a hybrid theory in the same sense as generativism.

Functionalism, a set of approaches which is diametrically opposed to formalism, can interestingly be captured in terms of the relationships between the elements of our trichotomy: it basically contends that language *structure* is partly determined by external functional factors which fall into one of two categories, either deriving from the *natural aspect of language* (i.e. cognitive biases, such as economy), or from its *cultural aspect* (i.e. influence of language use on language structure, such as information structure). There are many different sub-theories within functionalism, but [Martinet](#) (e.g. 1962) works are a good starting point. Crucially, contrarily to what is (or rather used to be) often said, these two approaches are not contradictory, but actually complementary ([Newmeyer 1998](#)). The quote from Sapir in (9) makes this point rather eloquently.

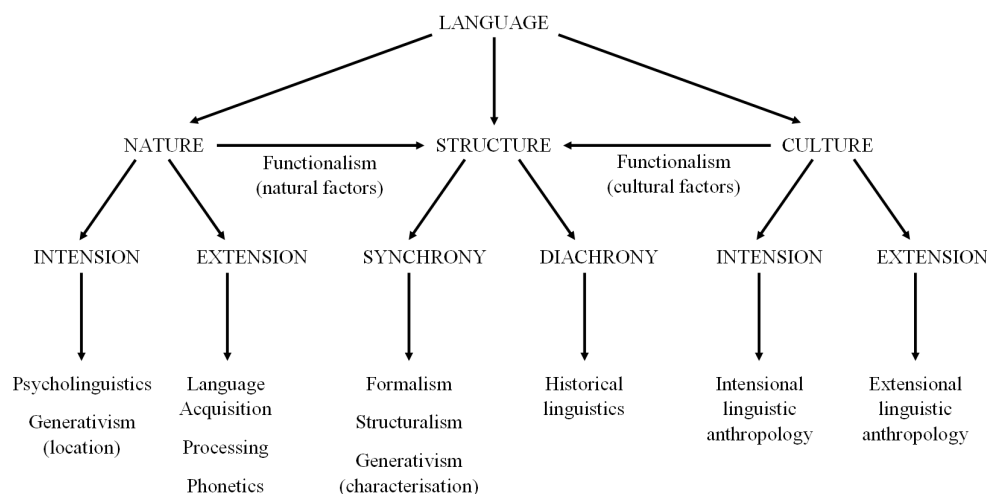
- (9) To say (...) that the noblest task of linguistics is to understand language as form rather than as function or as historical process is not to say that it can be understood as form alone. The formal configuration of speech at any particular time and place is the result of a long and complex historical development, which, in turn, is unintelligible without constant reference to functional factors. ([Sapir 1924](#): 152)

Let us finally focus on the cultural approach. It is the traditional object of study of linguistic anthropology, defined by [Duranti \(1997: 2\)](#) as ‘the study of language as a cultural resource and speaking as a cultural practice’, which tellingly parallels my own distinction between the cultural intension and the cultural extension of language. This seems to suggest a distinction between intensional and extensional linguistic anthropology. Let us first look at the former. It encompasses the traditional subfields of semantics and pragmatics, because while the structural approach can be said to focus on linguistic form, the study of cultural intension is concerned with linguistic meaning, in the sense that ‘language as a cultural resource’ ([Duranti 1997: 2](#)) is essentially a meaning-making system embedded in cultural views. In other words, all linguistic meanings are *ultimately culturally-determined*. On the one hand, this implies that they are *non-structural*, that is, they by definition do not belong to the formal linguistic structure. On the other hand, they are *non-natural*, that is, they are not ‘natural objects’ in the same sense as our brain and vocal tract are, as can be seen in the fact that, contrary to these two natural objects, there seems to be no principled boundary as to the content that human concepts can assume (e.g. we humans cannot process more than one level of embedding, nor can we articulatory produce velar trills, but there seems to be no such limit on the linguistic meanings that we can produce and understand). Thus, linguistic meanings belong to the cultural aspect of language, and this may be seen as supporting semiotic anthropological theories (i.e. which view culture as essentially a system of meaning),

such as Lévi-Strauss (e.g. 1963) structuralism or Geertz's (e.g. 1973) interpretivism, although this is not directly our concern here. The cultural intension of language also functions as the locus of the historically first and most (in)famous type of linguistic relativity, namely the so-called 'Sapir-Whorf Hypothesis' (e.g. Whorf 1940, 1941), which focuses on the influence of the structural properties of the *underlying linguistic system* on culture, defined as collective patterns of habitual thought.

We may now turn to the cultural extension of language, that is socioculturally embedded language use (i.e. *speech*). It is the locus of a second type of linguistic relativity, focusing instead on the relationship between culture and *surface language use*, more precisely on the varying ways in which languages simultaneously presuppose and construct the sociocultural contexts in which they are used through their different indexical resources. This idea has been most significantly developed by Hymes (e.g. 1966), who suggests that different cultural systems lead to different patterns of language use, and Silverstein (e.g. 1976), who claims that semantico-pragmatic meaning constitutes only one level of linguistic meaning (i.e. corresponding to our *structural level*) alongside *indexicality* (i.e. corresponding to our *cultural level*), that is the function of some linguistic elements which index a socio-cultural meaning, which differs between languages depending on the patterns of use. It is also on this indexical level that most of sociolinguistics, especially of the variationist type (i.e. the study of the statistical correlations between linguistic elements and social groups, and of the social implications of these correlations), is located. Think, for instance, of Eckert's (2008) idea (following Labov and Silverstein) that certain linguistic forms *index* membership in certain social groups. A third type of linguistic relativity, proposed by Sidnell & Enfield (2012), also belongs to this domain, as it considers the ways in which the different expressive resources of various languages condition their speakers to perform different kinds of social actions through language. Finally, another approach which falls in this category is Pike's (1967) 'Unified Theory of the Structure of Human Behaviour', whose basic tenet is that speech is fully integrated with other modes of human social behaviour.

Thus, we have seen that human language is a tripartite object, with a natural, cultural, and structural aspect, all of which can be further subdivided in terms of intension - extension and synchrony - diachrony, which gives us a useful framework for understanding the perspective of specific theoretical approaches to language. Let me repeat that *I am not claiming this trichotomy as my own theoretical innovation*. These three approaches to language are, as I have tried to show, implicit in much theoretical work in the field of linguistics, from Sapir to Chomsky, and most likely beyond. I have merely attempted to *make explicit this implicit trichotomy*, which I believe to be the very foundation on which linguistic theory is built. It is my hope that, by making explicit and hence strengthening this foundation, linguistic theory may be granted renewed impetus to continue its progress in a sane fashion. Below in Figure 2 can be found a final diagram which should usefully summarise my argument.



**Figure 2** The Trichotomous Approach to Language.

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Martin Renard  
The University of Cambridge  
[mear2@cam.ac.uk](mailto:mear2@cam.ac.uk)