

Keith Allan*

Linguistics and communication

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Abstract: This essay begins by identifying what communication is and what linguistics is in order to establish the relationship between them. The characterization of linguistics leads to discussion of the nature of language and of the relationship between a theory of language, i. e., linguistic theory, and the object language it models. This, in turn, leads to a review of speculations on the origins of human language with a view to identifying the motivation for its creation and its primary function. After considering a host of data, it becomes clear that, contrary to some approaches, the primary function of human language is to function as a vehicle of communication. Thus, linguistics studies what for humans is their primary vehicle of communication.

Keywords: language, social interactive behavior, message, human beings, linguistic theory, the relation of theory to data, the origins of language

1 Overview

To examine the relationship between linguistics and communication we first need to identify what communication is and what linguistics is. The characterization of linguistics leads to discussion of the nature of language and of linguistic theories and the relation of linguistic theory to the object language it models. In turn, this leads to a review of speculations on the origins of human language with a view to identifying its motivation and primary function. After considering a host of data, it becomes clear that the primary function of human language is to function as a vehicle of communication. Thus, linguistics studies what for humans is the primary vehicle of communication.

Section 2 of this essay defines and describes communication. Section 3 defines and describes linguistics and its object of study, human language(s). Section 4 reviews the conditions on theories of language, i. e. linguistic theories, and their relation to the object that they model. Section 5 surveys speculations on the origins of human language from the time of Plato until the present day with a view to

*Corresponding author: Keith Allan, Monash University, Melbourne, Australia,
E-mail: keith.allan@monash.edu

discovering hypothetical motivations for human language and its primary functions. Section 6 sums up the evidence.

2 Communication

Meanings given for the Latin verb *communicare* are “share; share/divide with/out; receive/take a share of; receive; join with; communicate, discuss, impart; make common cause; take common counsel, consult” which is essentially identical with the meanings of the current English verb *communicate*. Communication is the act of conveying a message from one entity (or set of entities) to another (others) through the use of semiotic phenomena such as signs, symbols, and various kinds of biosemiotic data among lower animates like bacteria (Winnans and Bassier 2008), insects (Leonhardt et al. 2016), plants (Elhakeem et al. 2018; Karban 2015), and fungi (Cottier and Mühlischlegel 2012). Communication among lower animates is not random or accidental but motivated: consider bee-dancing or the exchange of pheromones among various species of insect. Going beyond communication among organic life-forms, I am doubtful that natural events like wildfire and the onset of rain can truly be said to communicate even though they accidentally motivate somewhat predictable responsive behaviors in certain organisms (including humans). Thus, although non-human communication is relevant to linguistics insofar as it suggests comparisons that throw light on human communication, I will more or less ignore it hereafter to focus on human communication.

When humans communicate using language, we can normally identify in the act of communication the following components (1)–(8).

1. A motive for sender (speaker, writer, signer) to communicate with recipient(s) (audience, hearer, reader, viewer).
2. Assessment of common ground¹ with recipient (this is rarely a conscious effort).
3. Need to compose the content and form of a message to be communicated.
4. Choice of medium for communication (signing, speech, written text – digital or otherwise).
5. Transmission of the message (taking account of possible interference from “noise”).
6. Cognitive and contextual factors that affect the ability of the recipient to receive the message.
7. Getting the recipient to interpret the illocutionary point of the message intended to be communicated by the sender.

¹ See Allan 2013b; Clark, Schreuder and Butterick 1983; Stalnaker 2002.

8. An acknowledgment or response from recipient to sender such that the recipient becomes a reciprocal sender.

Arguably, all these components fall within the scope of linguistics; however, traditionally, linguistics has focused on (3). The transaction between sender and recipient defines the act of communication (in this case an act of languaging) as a species of social interaction that is a kind of social behavior.

3 Linguistics and human language(s)

Linguistics is the study of the human ability to produce and interpret language in speaking, writing, and signing (for the deaf). All languages and all varieties of every language constitute potential data for linguistic research, as do the relationships between them and the relations and structures of their components. A linguist is someone who studies and describes the structure and composition of language and/or languages in a methodical and rigorous manner (Allan 2016: 1). Language has physical forms to be studied. You can hear speech, see writing and signing, and feel braille. The forms can be decomposed into structured components such as sentences, phrases, words, letters, sounds, syllables. These language constituents are expressed and combined in conventional ways that are largely (if not completely) rule-governed.

Human languages are important because of the meanings they convey. It is a bonus that the sound of a human voice is comforting, or that beautiful calligraphy delights us: these are by-products of the main function of language. As already mentioned, language is manifest as a physical object or physical event (right now, you can see language in the print before your eyes). Language as a physical object or physical event is language uttered at a particular time in a particular place – giving it spatiotemporal coordinates. The physical manifestations of language are manifestations of something abstract and intangible. English, for instance, is not just all that is written and spoken in English; it is also something abstracted from people and times and places, it is something that speakers of English are able to use in order to say something that has never ever been said before – consequently it must exist independently of any particular speakers. In order to use a language, you must know it: so, language must also be a cognitive or psychological entity. And, to get to the nub of this essay, language exists as a vehicle for communication between people; in other words, language is a manifestation of social interactive behavior. Social interaction includes flirting and passing the time of day, as well as the exchange of information and the expression of opinions and points of view. It involves the use of language for

entertainment in factual historical anecdotes and in fictional narrative. Social interaction is of primary importance within human communities, and language is the principal means of social interaction (cf. Clark 1996). Whether or not language was motivated and developed for this purpose (in Section 5 I argue it was), its grammar is certainly influenced by the fact that it is a means of social interaction, a technique for revealing one's thoughts and perceptions to others. Language is an essential tool for cementing human bonding and for displaying it to others, both at the individual and the community level.

4 Theories of language

Both Hittite and English exist (in some sense of this verb) independently of speakers of these languages; that is, they are abstractions. A linguist's model of Hittite, English, or any other language, therefore models an abstract entity. Saussure's notion of *langue* as a social contract (Saussure 1931) presupposes that a language exists independently of an individual speaker; thus, necessarily, language is an abstraction. Chomsky's notion that a grammar of language L should model the ideal speaker-hearer's internalized knowledge of L (Chomsky 1965, 1986) presupposes that L is the object of the speaker-hearer's knowledge and therefore it exists independently of the speaker-hearer (cf. Katz 1981). In my view, Chomsky's claim renders language an abstraction, but because Chomsky has challenged this conclusion, I shall discuss it in some detail. It is barely controversial that emic categories (phonemes, morphemes, lexemes, etc.) and other such theoretical constructs are abstract. The inductivist linguistics of the American structuralists (Bloomfieldians) foundered on the impossible task of deriving emic from etic categories that have spatiotemporal existence (phones, morphs, etc.) using the approved distributional and classificatory criteria.² So how are emic (abstract) categories discovered? Einstein wrote:

The concepts and fundamental principles which underlie [a scientific theory] are free inventions of the human intellect which cannot be justified either by the nature of that intellect or in any other fashion *a priori*. ("On the method of theoretical physics" [1934] Einstein 1973: 266)

The concepts and fundamental principles are not out there in Nature waiting to be discovered; they are invented by human intellect. Einstein's description "free inventions of the human intellect" needs qualifying:

² The inductive method assumes that there is an intrinsic structure to natural phenomena that can be discovered by inspection. 'The only useful generalizations about language are inductive generalizations' (Bloomfield 1933: 20).

The liberty of choice [...] is of a special kind; it is not in any way similar to the liberty of a writer of fiction. Rather, it is similar to that of a man engaged in solving a well-designed word puzzle. He may, it is true, propose any word as a solution; but there is only *one* word which really solves the puzzle in all its parts. It is a matter of faith that nature – as she is perceptible to our five senses – takes the character of such a well-formulated puzzle. The successes reaped up to now by science do, it is true, give a certain encouragement for this faith. (“Physics and reality” [1936] Einstein 1973: 287)

Within a given theory, it is not the case that anything goes: theoretical constructs are constrained by the characteristics of the natural phenomenon being modeled. If the theoretician does a good job, we recognize a harmony between the theoretical constructs and the natural phenomena they model.

There is no logical path to these laws [of the natural phenomena being modelled], only intuition resting on sympathetic understanding of experience can reach them. (“Principles of research” [1934] Einstein 1973: 221)

It is “intuition resting on sympathetic understanding of experience” that guides the “free inventions of the human intellect.”

The theoretical idea [...] does not arise from and independent of experience; nor can it be derived from experience by a purely logical procedure. It is produced by a creative act. (“On the generalized theory of gravitation” [1950] Einstein 1973: 334)

So, the abstract constructs of a theory of a natural phenomenon such as human language arise through a creative act. The theory and its constructs are created by human intuition originating in (evoked by) a sympathetic understanding of our experiences of the natural phenomenon being investigated.

There are, of course, problems when claiming that the truth of a scientific theory consists in its correspondence to those facts that constitute its data:

- A. It is difficult to perceive the data without prejudice; it is not humanly possible to avoid taking a point of view.
- B. What limits have to be placed on the database before the theory is constructed? If the database keeps expanding, so might the theory.
- C. The so-called “truth” claims³ made by a theory are not necessarily exhausted by what it has to say about its database; for instance, a theory of grammar can use sentences of L as its input, but the theory may also make claims about the learnability of L.

³ I have put “truth” in quotes because proponents of the theory may claim that certain propositions are true, whereas opponents may claim the same propositions are false or indeterminably true or false. This is the case with recent Chomskyan theories, as we shall see.

Despite these problems, I assume that every constructor of a linguistic theory (i. e. a theory of language) should seek to demonstrate that the constructs of the theory are in harmony with what is known about human language.

Willy-nilly, a model of language is constructed on the basis of the linguist's intuitions about the structure of language; it is not derived directly from language data. Nevertheless, the intuitions must be guided by scrupulous observation of the data. Thus, the task of collecting and classifying language data is necessarily prior to the construction of a hypothetico-deductive model based upon it.⁴ But the process of classification will not serve as a source for satisfactory inductive generalizations about the nature of language, even though such generalizations will doubtless prove useful for all sorts of purposes: after all, Newtonian dynamics is still used by engineers; and Ptolemy's astronomical charts could still be used for navigation. The contribution to linguistics of inductivists such as Bloomfieldian linguists was considerable, and (I believe) a necessary precursor to hypothetico-deductivism. But a theory of language must, if it is to be consistent, coherent, and efficacious, be a hypothetico-deductive theory. Because such theories are constructed on the basis of a linguist's scholarly intuition about the structure of language, there are potentially as many theories as there are theoreticians. For this reason, we need an evaluative procedure to select the best among them. A theory of language should comply with conditions (A)–(L) below.

- A. Be a theory of language and not of something else, such as a theory of mind or human behavior. This raises the dispute between the realists and the conceptualists, which will be examined below.
- B. Have ontologically determinate constructs in the sense of Botha 1980. (This will be discussed.)
- C. Have constructs that are independently motivated and predictive.
- D. Have the means to distinguish any genuine utterance in the object-language from any other thing.

⁴ A hypothetico-deductive model is the inverse of the inductivist model; it is "top-down": in language analysis, start with the sentence and analyze it into its successive constituent structures until its phonological form is resolved. Ideally, hypothetico-deductivism postulates an abstract general theory of the phenomena in question in terms of a defined vocabulary consisting of a specified set of symbols with an interpretation specified for each vocabulary item; there will also be an explicit syntax consisting of a set of axioms and rules for combining the vocabulary items; and a set of axioms and rules for interpreting theorems (i. e., sentences) of the metalanguage. Such machinery expresses the fundamental theoretical concepts and relations to be used in modeling the phenomenon, and is the means for deducing the characteristics of particular instances to be found in the data. These ideal criteria explain the preference for mathematical models of natural phenomena.

- E. Be comprehensive and be applicable to every utterance, part of an utterance, or combination of utterances in the object-language.
- F. Be consistent and coherent: conclusions should follow from premises; all parts of the theory should be compatible with one another.
- G. Be concise and succinct in its metalanguage; and therefore readily interpretable by users. (This is a desirable, but not a necessary, criterion.)
- H. Be explanatory in the sense that the meaning and structural description it assigns to any expression of the object-language should accord with a native speaker's intuitions about the reasonableness of such an ascription. (There are bound to be individual differences of opinion on this score.) Harvey J. Gold in *Mathematical Modelling of Biological Systems* writes:

The result of a mathematical development should be continually checked against one's intuition about what constitutes reasonable biological behavior. When such a check reveals a disagreement, then the following possibilities must be considered:

- a. A mistake has been made in the formal mathematical development;
- b. The starting assumptions are incorrect and/or constitute a too drastic oversimplification;
- c. One's own intuition about the biological field is inadequately developed;
- d. A penetrating new principle has been discovered.

Alternative d is, of course, what everyone roots for, but acute embarrassment lies in wait if the first three are not carefully checked. Agreement between intuition and the mathematics is certainly no guarantee of correctness, but disagreement should always be regarded as a danger signal. (Gold 1977: 15)

- I. Be explanatory in the sense that it shows (or can be caused to show) reasons for assigning a particular meaning and structural description to an expression in the object-language.
- J. Explain what is common to all languages.
- K. Be in harmony with an account for the learnability of languages.
- L. Explain how language functions as a practical means of communication.

I said earlier that language can be viewed from at least four perspectives: as manifest in physical objects and physical events; as social behavior; as the object of knowledge; and as an abstract object. The last one mentioned is fundamental. My view is similar to, but not identical with, the "realist" view of Katz 1981; Katz and Postal 1991. For realists (Platonists), language and the theoretical constructs of a linguistic theory are abstract objects which exist independently of human beings. According to Katz and Postal 1991: 518, natural language sentences are "things which, like numbers in mathematics, are not located in space-time, involved in causal interaction, or dependent for their existence on the human mind/brain." Plato's Ideas (Forms) are not sensible to mankind, but exist in an immortal world separate from ours, and humans can access them through their immortal souls:

They say that the human soul is immortal; at times it comes to an end, which they call dying, at times it is reborn, but it is never destroyed [...] As the soul is immortal, has been born often and has seen all things here and in the underworld, there is nothing which it has not learned [including Ideas]; so it is in no way surprising that it can recollect the things it knew before, both about virtue and other things. (*Meno* 81b,c)

Judging Plato's account by today's criteria it is metaphysical; but for Plato the Ideas were "natural", being categories of *physis* which we humans have only imperfect and possibly illusory apprehension of. This doctrine of *anamnesis* offers a solution to the perennial puzzle posed by universals (e. g. *all circles*), or impossible objects (e. g. *a perfect circle*), or even the lexeme *circle*: how can we know the meanings of such expressions on the basis of experiencing just a few instances of (necessarily) imperfect circles? Yet we do. If we are loath to accept Plato's metaphysical explanation, various updates on the machinery exist; but no one has offered a solution which is essentially different and at the same time satisfactory. Katz 1981; Katz and Postal 1991 are at least as mysterious as Plato on where (Platonic) abstract objects exist (how they can properly be said to "exist" is a mystery if they are atemporal and aspatial, but we will let that verb pass). Katz 1981: 181ff flatly denies that they are human constructions, but I think he is wrong. According to Katz 1981, we apprehend abstract objects (all kinds) not through our immortal souls, but through intuition – which Katz distinguishes from introspection, perception, and reasoning. But Katz's refurbishment of the immortal soul is unconvincing because language exists as a form of human behavior; it also exists in people's heads.⁵ Therefore, if language and its constructs are abstract objects, it is because we human beings abstract them from physical language events. This is directly contrary to Katz 1981, who regards the products of such abstraction as "idealizations", and writes: "In contrast, abstract objects are not idealizations at all. They do not represent anything physical or psychological" (Katz 1981: 56).

Although I claim that language and its constructs are abstract objects, I hold that they are abstracted from spatiotemporally located physical, psychological, and social manifestations of language events (contra Itkonen 1978, for instance). I do not believe, as the conceptualists do, that linguistic theory is a theory of the mind/brain (see Botha 1992 for extensive discussion).

To know a language is to be in a certain mental state, which persists as a relatively steady component of transitory mental states. (Chomsky 1980: 48)

Chomsky has long claimed that linguistic theory should model the ideal speaker's knowledge of the language, K_L ; consequently, a model of K_L , Ψ , will be a model of a

⁵ I do not wish to extend this argument to other abstract objects such as the constructs of mathematics and logic, about which I am agnostic.

mental state which purports to be a theory of language L . This cognitive aspect of language is what led Saussure to claim that language is concrete and not abstract; but I think he was wrong. Note that Ψ is not directly a model of L ; this is a point I will take up very shortly. A theoretical construct, ϕ of Ψ , would model some mental representation which is an element of this knowledge. Chomsky claims, “We attribute ‘psychological reality’ to the postulated representations and mental computations” (Chomsky 1976: 9); but Botha 1980; 1982 demonstrates that such claims are vacuous because the theoretical entities Chomsky postulates are ontologically indeterminable, which renders his theory unfalsifiable. So, despite Chomsky’s claims to the contrary, ϕ is not itself a psychological entity, i. e. it is not a construct of the (ideal-speaker-hearer’s) mind which has knowledge of language. It is in fact a construct of the theory of knowledge of language, and therefore a construct of the theoretician’s mind.⁶ By parallel argument, it is no help to a Chomskyan to become more biologicistic, and to argue that what were once regarded as mental states are now to be regarded as brain states (see Chomsky 1986). Gilbert Harman argues that we need to consider what aspects of a theory correspond to natural phenomena and which are theoretical constructs.

Geography contains true statements locating mountains and rivers in terms of longitude and latitude without implying that the equator has the sort of physical reality that the Mississippi River does. (Harman 1980: 21)

Latitude, longitude, and the equator are useful theoretical constructs. So are grammatical (and other linguistic) categories – or so they should be! They are concepts from a theory and they can be profitably employed in the analysis of a language and in the conscious learning of languages; but they are not language (which is the object of the theory and its constructs). Nor are they concepts in the minds of a majority of language users (as Baker 1770: v recognized). Suppose scholar α claims that the grammatical structures assigned by a particular model of K_L , Ψ^1 , have psychological reality; and scholar β develops a notational variant of the same grammatical structures in another theory of K_L , Ψ^2 ; then, on the conceptualist theory, Ψ^2 manifests a different psychological reality from Ψ^1 . This unwelcome (not to say absurd) consequence will not arise if we recognize that Ψ^1 , ..., Ψ^n are abstract rational models of K_L , and each is independent of K_L . Chomsky appears to respect this independence:

When I use such terms as “mind”, “mental representation”, “mental computation”, and the like, I am keeping to the level of abstract characterization of the properties of certain physical mechanisms, as yet almost entirely unknown. (Chomsky 1980: 5; see also Chomsky 1975: 32)

⁶ As are the M[agritte]-representations of Burton-Roberts and Carr 1999.

An abstract characterization necessarily utilizes theoretical constructs which are abstract objects, no matter what is being modeled – be it mentalistic, neurological, or inorganic. Chomsky’s hypothetico-deductive model is, like any other, an abstraction; it presents an abstract representation of K_L . By definition, neither a model of language processing ability nor a model of a cognitive state is a model of language. The problem with a mentalistic theory of language such as Chomsky’s is in relating the products of the theory to products of the mind rather than with direct manifestations of language, because no Ψ is directly a theory of language. This suggests that Ψ should be evaluated by psychologists rather than linguists, and consequently that Chomskyan theory is psychology rather than linguistics.

This is not disciplinary chauvinism. The argument that the linguist should model K_L is a strong one. Yet if every human science that involves cognition is to be subject only to mentalist theories, then philosophy, applied mathematics, and many other disciplines to a greater or lesser extent, will join Chomskyan linguistics as branches of psychology. *Pace* Jerry Fodor, but this is not the “Right View” – even if he dubbed it that. Fodor wrote:

An adequate linguistics *should explain why it is that the intuitions of speaker/hearers constitute data relevant to the confirmation of grammars*. The Right View meets this condition. It says ‘We can use intuitions to confirm grammars because grammars are internally represented and actually contribute to the etiology of the speaker/hearer’s native judgments’. (Fodor 1985: 152 [sic])

We do not presume that, within a theory of esthetics, the intuitions of artists constitute data relevant to the confirmation of their esthetic decisions; we examine the structure and form of their artistic products. If Fodor’s “Right View” is indeed the right view, then – by parity of argument – we should expect a theory of aesthetics to be modeling the internal representations of aesthetes! Presumably the same argument could be extended to every phenomenon we have theories of. This is not a wise approach to theory construction. As Barry J. Blake has reminded me (pc December 2018): “Speakers intuitions are iffy, but if speakers consistently judged a sentence to be unsatisfactory, one would have to take that into account. I [BB] say ‘satisfactory’ because the distinction between grammatical, idiomatic, appropriate is not always clear.”

The object of analysis for linguistic theory should be language, and although there is no doubt that Chomsky’s view of where language resides is one well-justified view, it is not the only one. In *Reflections on Language*, Chomsky wrote:

There is [...] a very respectable tradition [...] that regards as a vulgar distortion the ‘instrumental view’ of language as ‘essentially’ a means of communication, or a means to achieve

given ends. Language, it is argued, is ‘essentially’ a system for the expression of thought. (Chomsky 1975: 56f)

The last sentence clearly reveals what lies behind Chomsky’s mentalism: his belief that language is essentially a system for the expression of thought (a view shared with Leibniz 1765 and Herder 1772, 1799). But the objection to what he calls the “instrumental view” of language is unsound. There is the trivial objection that Chomsky apparently contradicts himself here. For the sake of argument, let’s grant him that a major function of language is the expression of thought: then for Chomsky this is the “given end” which language achieves. But he says in the previous sentence that language should not be seen as achieving given ends! We might charitably conclude that this is an infelicity of expression, but we must doubt the clarity of Chomsky’s thinking here. When he writes, “Language [...] is ‘essentially’ a system for expression of thought”, Chomsky implies that language is a vehicle for the expression of thought – that is, the communication of thought to someone else. Chomsky does, of course, recognize that thought is independent of language, and thoughts don’t have to utilize language or be communicated through language (Chomsky 1975: 57). He also recognizes that language serves a communicative function and that one can expect “significant connections between structure and function” (Chomsky 1975: 56). In his view language exists primarily for the expression of thought; human communication is a by-product. Yet if language is not primarily for the purpose of communication, it is hard to see why anyone should wish to learn a foreign language except as a mental exercise, and it is puzzling what the evolutionary value of language to humans (and other species said to have language) could possibly be. My own view (Allan 1986/2014; 2001; 2013a, b; 2015; 2018; 2020) is that language conventions are a proper subset of the conventions governing social interactive behavior and therefore that language should be approached within a communicative framework rather than a mentalistic one. Interestingly, Chomsky’s claim that “Actual investigation of language necessarily deals with performance, with what someone does under specific circumstances” (Chomsky 1980: 225), taken together with other things said about “performance”, suggests that he himself recognizes that at least one source for language data is the act of utterance, in other words, language used for communication.

The point of this discussion about the essential function of language (which gives a reason for its existence) is that it offers an alternative point of view about the object of analysis for linguistic theory. Rather than modeling the idealized speaker-hearer’s knowledge of language, which is a mental state K_L , a linguistic theory should directly model a language L , which is the abstract object that K_L is knowledge of. This same abstract object L is what is used in the social contract

between interlocutors that Saussure spoke of. The language data that form the object of analysis are public, whereas mentalistic data are not (even if their manifestations sometimes are). The language data, which are normally the product of communicative acts between language users, can be directly compared with products of the theory of language.

The view that language data are typically the product of communicative acts between language users is compatible with the view that language is a system for the expression of thought. Some people think in visual images, so language is not a prerequisite for solipsistic thinking. But, beyond the simplest level, language is absolutely essential for the expression of thought to others. Whether and how one expresses a particular thought to a particular other is determined, more often than not, by a judgment of the desired effect on the hearer or reader. Within human society, the kind of food you eat, the clothes you wear, the things people know that you own, your religion and ideology are components of cultural expression that communicate information to others about you and are therefore of potential interest to semioticians. We speak of “natural language” because human language has evolved with the species and not been consciously constructed. Nevertheless, natural language uses non-natural signs in the sense that there is no natural connection between form and meaning. For example, none of the translation equivalents *ájá* (Yoruba), *cane* (Italian), *dog* (English), *Hund* (German), *kare* (Hausa), *mbwa* (Swahili), *pies* (Polish) is naturally representative of dogs or of their distinctive properties. Thus Grice 1957 refers to language meaning as “non-natural meaning” or “meaning_{NN}”. Natural signs are referred to in nostrums like *Where there’s smoke, there’s fire; Those clouds mean rain; Red sky at night, shepherds’ delight; red sky in the morning, shepherds’ warning*. Natural signs needn’t involve language at all: wet pathways outside your house mean that it has been raining. The study of signs, natural and non-natural, is semiotics and many people believe that linguistics is a part of semiotics. I assume that language is an aspect of culture and cultural transmission; but so too are gender roles, clothing, chattels, and food. On many occasions language is best interpreted in the context of the speaker’s (or writer’s) cultural background, i. e. in the light of his or her belief system and probable assumptions (cf. Allan 2018). The physical and social distance maintained between interlocutors, where their gaze is directed, the management of terms of address and reference to others, notions of appropriate discourse, the perception of silence, the indicators of intention to speak, voice quality – all these are (sub)culturally conditioned and vary between speech communities even within one society (cf. Tannen 1990). The cultural norms guide behavior, and so a speaker’s observation or modification of them communicates by contributing to meaning in human languages.

5 The origins of human language

In this section, I embark on a different tack: what light do the origins of human language throw on the motivation for creating language? I conclude that the best evidence suggests it was to facilitate communication among human beings in social interaction.

It is probable that human beings have speculated on the origin of language since prehistoric times. On the basis of sound symbolism, Socrates in Plato's *Cratylus* (c. 385 BCE) attributes the creation of language to a wordsmith, *nomothetēs*, or name-maker, *onomatourgos*; but he concludes by throwing doubt upon the plausibility of such a hypothesis (Cooper and Hutchinson 1997). Epicurus (341–270 BCE) rejected the idea of the name-maker, suggesting instead that humans at first uttered cries as other animals do in reaction to their experiences of the world; later, social pressures coerce humans to communicate purposefully with each other by distinguishing referents using conventional symbols, but they also make recourse to analogy and onomatopoeia enabling us to speak of absent entities (Epicurus 1926). Like Epicurus, Lucretius (c. 95–55 BCE) believed that humans are naturally predisposed to use language. It is in the nature of humans to vocalize in order to achieve some goal; just look at the behavior of human babies and other (non-human) creatures. Unlike Epicurus he explicitly denies that language was invented by a single person (Lucretius 1951). Jumping forward to the seventeenth century, inquiry into the nature and origin of human language grew from two principal sources: interest in the nature of human reason and the search for a scientific explanation for the accrued facts about human language. Although belief in God remained strong throughout the period, the Genesis 11 story of the tower of Babel was less and less taken at face value. The doctrine that “God gave man languages” was altered to “God made man, and man invented language”. Descartes had remarked that man was not merely the only rational being on Earth, but also the only one with language (Descartes 1968: 74f [1637]). Both claims need hedging. There seems little doubt that some animals are capable of limited reasoning, and a few even have communication systems that may warrant the label *language*. However, human reasoning abilities and human language are undoubtedly far more complex than anything found among animals. Descartes did not, of course, have access to all the twentieth century research on animals that demonstrates their abilities (e. g. Byrne 1995; Cheney and Seyfarth 1990; Dunbar 1996; Whiten and Byrne (eds) 1997). In his *Essay Concerning Humane Understanding*, Locke 1700 presents the motivation for language as arising from the sociable nature of humans; but what characterizes human language is that it is used to communicate ideas, and not merely to indicate objects in the situation of

utterance. Continuing to improve on Epicurus, Locke suggests that part of the evidence for this is the human ability to use general (generic) terms, universals, and also to speak of what does not exist and/or is absent. Condillac 1746, Rousseau 1755, 1782, and Herder 1772, 1799 all believed that the force that generates language also generates thought. Humans share with beasts the ability to make utterances; the difference is that human reason has assigned functions to certain forms of utterance and so humans have developed artificial vocal gestures as conventional symbols. Herder apparently believed that thought needs language, as did Leibniz (1646–1716) and the German Romantic Johann Hamman (1730–88) (Brown 1967: 58–61); subsequently, Chomsky 1975: 56f and Chomsky 1980 229f, 239 reached a similar conclusion.⁷ Herder 1799 wrote that thinking is *innere Sprache* “inner speech”; and talking is thinking aloud. There is something of this in the twelfth century remark of Peter Abelard: “*sermo generatur ab intellectu et generat intellectum*” “language is generated by the mind and creates understanding” (Müller 1861: 41 and Joseph 1996: 365, inter alios⁸). In Herder’s view “man is a listening, a noting creature, naturally formed for language” (Herder 1953: 765) and “without language man can have no reason, and without reason no language” (Herder 1953: 758f).

For most of the twentieth century, linguists eschewed speculation on the origin of language. Interest revived with the interchange of information among the fields of linguistics, primatology, palaeoanthropology, evolutionary biology, neurology, and psychology at the end of the century. Human language is certainly different in kind from animal communication in its complexity, its media (speech, writing, signing), and perhaps its cooperative constraints. There is little doubt that animals are cognizant and store information about the world around them. The evolutionary foundations of semantics and pragmatics

lie in the internal mental representations that animals have of the things, events, and situations in their environment. [...] Rudimentary concepts, ideas, and situations in the world, can reasonably be said to exist in animals’ minds, even though they may not ever be publicly expressed in language, or indeed in any kind of communication whatsoever. (Hurford 2007: 5).

Judging from areas of brain activity, animals re-run episodes from past experience in rapid eye movement (REM) sleep, just as humans do. There is also the fact that many animals hide and later retrieve food. Like humans older than three, some higher animals are able to reason their way through the invisible displacement task: what

⁷ By way of contrast, Humboldt 1836, Saussure 1931, Sapir 1929; 1949, and Whorf 1940; 1941 all believed that thought is shaped by language.

⁸ I have been unable to find this quote myself in any work by Abelard. Everyone cites Müller.

happens is that an object in sight of the animal is placed inside a box which is then moved behind an obstacle at which time the object is removed; the animal is shown the empty box which causes it to look behind the obstacle for the missing object.⁹ Furthermore, animals “are capable of proposition-like cognition” (Hurford 2007: 88). They not only recognize different kinds of predators but have different alarm calls for them; and even chickens are smart enough not to bother making alarm calls when there are no conspecifics around! There is some evidence that individual animals modify the sounds and gestures they make to differentiate themselves from others (Hurford 2007: 181). “[I]t is probable that uniquely complex human language could not have evolved without the social ritualized doing-things-to-each-other scaffolding found in many other social species, including our nearest relatives, the primates” (Hurford 2007: 185). As already emphasized in this essay, despite Chomsky’s belief that language is primarily a system for the expression of thought, all evidence points to its primary function being a medium of communication for the establishment and maintenance of social interactive behavior among members of large communities. Human society demands long-term cooperation and communication which is partly motivated by the difficulties of human childbirth¹⁰ and the long childhood dependence to allow for brain development and skills learning. Cooperation requires trust; consequently, gossip about who is trustworthy is valuable within the community. “The integration of deixis and symbols is the basis of declarative information-giving. The growth of symbolic vocabulary, and the increase in deictic/symbolic integration, can only take off if the animals concerned are disposed to give each other information.” Which is what must have happened among our remote ancestors (Hurford 2007: 242). The meaningful aspect of human language had firm foundations before *Homo sapiens* developed.

Primates display many pre-language capabilities which would presumably have been present in early hominids. They vocalize and use gestures that invite reciprocation – but do not vocalize in the absence of emotional stimulus (Corballis 2003: 202). Chimpanzees seem to have a “theory of mind”; that is, they can recognize three or even four levels of intentionality such as “X is trying to deceive me into believing that *p*” or “X is trying to deceive me into believing that X believes that *p*” – which is about what a four-year-old human can manage (Dunbar 1996: 83–101). In captivity, primates can be taught to associate abstract symbols with entities or actions, but apparently don’t do so in the wild. In experimental situations they are capable of simple syntactic structuring (Savage-Rumbaugh et al.

⁹ It is thought that children logically deduce the answer whereas animals associate the last seeing with a certain location and go looking in that location. This is a task that must use mental representation of relative location/space in memory rather the scene directly perceived.

¹⁰ A function of the narrow birth-canal that results from bipedality.

1998). Primates certainly recognize social relationships (Worden 1998: 152) and know how to establish joint attention (Hurford 2003: 47) – which is a prerequisite for language use (Clark 1996: 274–82). Importantly, they display cooperative behavior such as reconciliation and peacemaking for the maintenance of group cohesion; and group bonding is achieved through grooming. Primate social groups that devote too little time to grooming fragment and are liable to dissolve (Dunbar 1996, 1998). Non-human primates do not, however, have the respiratory, phonatory, and articulatory ability to speak; nor do they have the cognitive specialization for language. The consensus seems to be that from c. 500,000–400,000 BP, *Homo erectus* and *H. sapiens neanderthalensis* could probably speak after a fashion, using what Bickerton 1998 calls “protolanguage”, in which “there might have existed only two types of linguistic entities: one denoting thing-like time stable entities (i. e. nouns), and another one for non-time stable concepts such as events (i. e. verbs)” (Heine and Kuteva 2002: 394). As early as 170,000 BP *H. sapiens* or as late as 50,000 BP *H. sapiens sapiens* would have had linguistic abilities similar to those of today’s human beings.

There is much controversy over the part that gesture plays in language; McNeill and Levy 1982 show that gestures used when speaking are precisely synchronized with speech, suggesting that speech and gesture form an integrated system. This leaves to be explained why human language is primarily vocal. The most convincing explanation is that of Dunbar 1996: hominid language replaced the kind of grooming found among other primates. Primates spend 10 to 20% of their time grooming one another. It is usually one-on-one, occasionally two or more on one. What it cannot be is one groomer to many gromees. There is a link between neocortex size and social group size that applies to humans as well as to other primates: human neocortex capacity correlates with a group of about 150 members, which turns out to be the normal size of communities that share good knowledge of all group members in both traditional and post-industrial societies (Dunbar 1998: 94f). Social understanding seems to be an innate predisposition: “whilst our genes do not determine our ability to understand and interact with other people, they play a strong role in the development of social understanding, and, via this, may ultimately exert a long term and pervasive influence on many aspects of our social lives” (Hughes and Plomin 2000: 61). A cross-cultural comparison shows that, like other primates, humans spend on average about 20% of their waking hours in social interaction. In order to maintain the bonds that our fellow primates maintain through grooming, humans use language for communication; this enables one-to-many bonding as a speaker addresses a number of hearers. So, the grooming hypothesis is a very plausible motivation and explanation for the development of spoken language. There is added plausibility in the fact that the primary functions of language are social interactive. Reviewing

situations in which children create a language where there was none before, Jackendoff 2002: 100 concludes: “Evidently a community is necessary for language creation, but a common stock of pre-existing raw material is not.”¹¹ Exchange of information is secondary, though extremely valuable. And information exchange normally has social interactive accompaniment and modifiers. Whereas other species depend on direct personal observation for information about their fellows, by using language “humans can find out very rapidly about the reliability of an ally or about a friend’s good or bad behavior via third parties” (Dunbar 1998: 96). Once again, this confirms the social interactive value of language use for communication among human beings.

6 Linguistics and communication

We have seen that the scope of *communication* is much greater than language; even *human communication* extends beyond human language. I have presented evidence that the primary function of language is to be a vehicle for communication among humans. I leave it to the reader to recognize that communication between humans and animals, plants, or metaphysical entities such as gods is parasitic on this. So, language is a proper part of communication, but because human language is one of the properties that define what it is to be human and our extensive use of language distinguishes us from other creatures, human language is easily the salient category of communication for human beings. Communication is defined by pragmatic spatiotemporally realized acts; certainly, linguistics studies these, but in addition – as I have argued in Section 4 – linguists theorize about language as an emic or abstract entity. Linguistics develops tools that we use to gauge correctness, appropriateness, grammaticality, political correctness, common ground, and so on, in human communication. If we gloss *linguistics* as the study of the human ability to produce and interpret language then its importance within communicology is as the study of the salient category of communication among humans – which is, of course, of primary importance to us anthropocentric members of *H. sapiens sapiens*.

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¹¹ Jackendoff is an acolyte of Chomsky, but here he reveals himself to believe that a primary motivation for language is communication.

comments. I did not always take their advice, so all remaining infelicities are mine alone.

References

- Allan, Keith. 1986/2014. *Linguistic meaning*. 2 vols. London: Routledge and Kegan Paul. [Reprint edn, Beijing: World Publishing Corporation, 1991. Reissued in one volume as Routledge Library Editions: Linguistics Volume 8, 2014].
- Allan, Keith. 2001. *Natural language semantics*. Oxford & Malden MA: Blackwell.
- Allan, Keith. 2013a. Referring to 'what counts as the referent': a view from linguistics. In Alessandro Capone, Franco Lo Piparo and Marco Carapezza (eds.), *Perspectives on linguistic pragmatics*, 263–284. Cham: Springer.
- Allan, Keith. 2013b. What is common ground?. In Alessandro Capone, Franco Lo Piparo and Marco Carapezza (eds.), *Perspectives on linguistic pragmatics*, 285–310. Cham: Springer.
- Allan, Keith. 2015. A benchmark for politeness. In Jacob L. Mey and Alessandro Capone (eds.), *Interdisciplinary studies in pragmatics, culture and society*, 397–420. Cham: Springer.
- Allan, Keith. 2016. What is linguistics? In Keith Allan (eds.), *Routledge handbook of linguistics*, 1–16. Abingdon: Routledge.
- Allan, Keith. 2018. Getting a grip on context as a determinant of meaning. In Alessandro Capone, Marco Carapezza and Franco Lo Piparo (eds.), *Further advances in pragmatics and philosophy. Part 1. From theory to practice*, 177–201. Cham: Springer.
- Allan, Keith. 2020. The semantics and pragmatics of three potential slurring terms. In Kerry Mullan, Bert Peeters and Lauren Sadow (eds.), *Studies in ethnopragmatics, cultural semantics, and intercultural communication: Ethnopragsmatics and semantic analysis*, 163–183. Singapore: Springer.
- Baker, Robert. 1770. *Reflections on the english language*. London: J. Bell.
- Bickerton, Derek. 1998. Catastrophic evolution: The case for a single step from protolanguage to full human language. In James R. Hurford, Michael Studdert-Kennedy and Chris Knight (eds.), *Approaches to the evolution of language: Social and cognitive bases*, 341–358. Cambridge: Cambridge University Press.
- Bloomfield, Leonard. 1933. *Language*. New York: Holt Rinehart & Winston.
- Botha, Rudolf P. 1980. Methodological bases of a progressive mentalism. *Synthese* 44(1). 1–112.
- Botha, Rudolf P. 1982. On Chomskyan mentalism: a reply to Peter Slezak. *Synthese* 53(1). 123–141.
- Botha, Rudolf P. 1992. *Twentieth century conceptions of language: The metaphysics market*. Oxford: Basil Blackwell.
- Brown, Roger L. 1967. *Wilhelm von Humboldt's Conception of Linguistic Relativity*. The Hague: Mouton.
- Burton-Roberts, Noel & Philip Carr. 1999. On speech and natural language. *Language Sciences* 21(4). 371–406.
- Byrne, Richard W. 1995. *The thinking ape: Evolutionary origins of intelligence*. Oxford: Oxford University Press.
- Cheney, Dorothy L. & Robert M. Seyfarth. 1990. *How monkeys see the world: Inside the mind of another species*. Chicago: University of Chicago Press.
- Chomsky, Noam. 1965. *Aspects of the theory of syntax*. Cambridge MA: MIT Press.
- Chomsky, Noam. 1975. *Reflections on language*. New York: Pantheon Books.

- Chomsky, Noam. 1976. On the biological basis of language capacities. In R.W. Rieber (eds.), *The neuropsychology of language: Essays in honor of Eric Lenneberg*, 1–24. New York: Plenum Press.
- Chomsky, Noam. 1980. *Rules and representations*. New York: Columbia University Press.
- Chomsky, Noam. 1986. *Knowledge of language: Its nature, origin, and use*. New York: Praeger.
- Clark, Herbert H, Robert Schreuder & Samuel Butterick. 1983. Common ground and the understanding of demonstrative reference. *Journal of Verbal Learning and Verbal Behavior* 22(2). 245–258.
- Clark, Herbert H. 1996. *Using language*. Cambridge: Cambridge University Press.
- Condillac, Étienne Bonnot De. 1746. *Essai sur l'origine des connoissances humaines. Ouvrage où l'on réduit à un seul principe tout ce qui concerne l'entendement humain*. 2 vols. Amsterdam: Pierre Mortier.
- Cooper, John M. & Douglas S. Hutchinson (eds.). Plato: Complete works. 1997. Indianapolis: Hackett.
- Corballis, Michael C. 2003. From hand to mouth: The gestural origins of language. In Morten H. Christiansen & Simon Kirby (eds.), *Language evolution*, 201–218. Oxford: Oxford University Press.
- Cottier, Fabien & Fritz A. Mühlischlegel. 2012. Communication in fungi. *International Journal of Microbiology*. 1–9, 351832. <https://doi.org/10.1155/2012/351832>.
- Descartes, René. 1968. *Discourse on method and meditations*. Transl. by F.E. Sutcliffe. Harmondsworth: Penguin. [Discours de la methode first published 1637, Meditations de Prima Philosophia first published 1641].
- Dunbar, Robin I.M. 1996. *Grooming, gossip and the evolution of language*. London: Faber and Faber.
- Dunbar, Robin I.M. 1998. Theory of mind and the evolution of language. In James R. Hurford, Michael Studdert-Kennedy & Chris Knight (eds.), *Approaches to the evolution of language: social and cognitive bases*, 92–110. Cambridge: Cambridge University Press.
- Einstein, Albert. 1973. *Ideas and opinions*. Laurel edn. New York: Dell. [First published 1954].
- Elhakeem, Ali, Dimitrije Markovic, Anders Broberg, Niels P. R. Anten & Velemir Ninkovic. 2018. Aboveground mechanical stimuli affect belowground plant-plant communication. *PLOS One* 13(5). e0195646. <https://doi.org/10.1371/journal.pone.0195646>.
- Epicurus. 1926. *Epicurus: The Extant Remains*. Short critical apparatus, translation, and notes by Cyril Bailey. Oxford: Clarendon Press.
- Fodor, Jerry A. 1985. Some notes on what linguistics is about. In Jerrold J. Katz (eds.), *The Philosophy of linguistics*. New York: Oxford University Press.
- Gold, Harvey J. 1977. *Mathematical modeling of biological systems - an introductory guidebook*. New York: John Wiley & Sons.
- Grice, H. Paul. 1957. Meaning. *Philosophical Review* 66. 377–388.
- Harman, Gilbert. 1980. Two quibbles about analyticity and psychological reality. *Behavioral and Brain Sciences* 3(1). 21–22.
- Heine, Bernd & Tania Kuteva. 2002. On the evolution of grammatical forms. In Alison Wray (eds.), *The transition to language*, 376–397. Oxford: Clarendon Press.
- Herder, Johann G. Von. 1772. *Abhandlung über den Ursprung der Sprache*. Berlin: C.F. Voss.
- Herder, Johann G. Von. 1799. *Verstand und erfahrung, eine metakritik zur kritik der reinen vernunft*. Mannheim: Bei Johann Friedrich Hartknoch.
- Herder, Johann G. Von. 1953. *Abhandlung über den Ursprung der Sprache*. In Karl-Gustav Gerold (eds.), *Johann gottfried herder: Werke in zwei bänden*, 733–830. München: Carl Hanser Verlag.

- Hughes, Claire & Robert Plomin. 2000. Individual differences in early understanding of mind: genes, non-shared environment and modularity. In Peter Carruthers & Andrew Chamberlain (eds.), *Evolution and the human mind*, 47–61. Cambridge: Cambridge University Press.
- Humboldt, Wilhelm Von. 1836. Einleitung. Über die verschiedenheit des menschlichen sprachbaues und ihren einfluss auf die geistige entwicklung des menschengeschlechts. In *Über die Kawi-Sprache auf der Insel Java. Erster Band*. Berlin: Druckerei der Königlichen Akademie der Wissenschaften.
- Hurford, James R. 2003. The language mosaic and its evolution. In Morten H. Christiansen & Simon Kirby (eds.), *Language evolution*, 38–57. Oxford: Oxford University Press.
- Hurford, James R. 2007. *Language in the light of evolution 1: The origins of meaning*. Oxford: Oxford University Press.
- Itkonen, Esa. 1978. *Grammatical theory and metascience: A critical investigation into the methodological and philosophical foundations of 'autonomous' linguistics*. Amsterdam: John Benjamins.
- Jackendoff, Ray S. 2002. *Foundations of language: Brain, meaning, grammar, evolution*. Oxford: Oxford University Press.
- Joseph, John E. 1996. The immediate sources of the 'Sapir-Whorf hypothesis'. *Historiographia Linguistica* 23(3). 365–404.
- Karban, Richard. 2015. *Plant sensing and communication*. Chicago: University of Chicago Press.
- Katz, Jerrold J. & Paul M. Postal. 1991. Realism versus conceptualism in linguistics. *Linguistics and Philosophy* 14 (5). 515–554.
- Katz, Jerrold J. 1981. *Language and other abstract objects*. Totowa: Rowman and Littlefield.
- Leibniz, Gottfried W. 1765. *Oeuvres Philosophiques latines et francoises de feu Mr. De Leibnitz*. Amsterdam: Rudolf Raspe.
- Leonhardt, Sara D, Florian Menzel, Volker Nehring & Thomas Schmitt. 2016. Ecology and evolution of communication in social insects. *Cell* 164(6). 1277–1287.
- Locke, John. 1700. *Essay concerning humane understanding*. 4th edn. with large additions. 4 vols. London: Awnsham and John Churchil et al. [First edn, 1690].
- Lucretius, Titus. 1951. *On the Nature of the Universe*. Transl. by Ronald Latham. Harmondsworth: Penguin.
- McNeill, David & Elena Levy. 1982. Conceptual representations in language activity and gesture. In Robert J. Jarvella & Wolfgang Klein (eds.), *Studies in deixis and related topics*, 271–295. Chichester: John Wiley.
- Müller, F. Max. 1861. Lectures on the science of language, delivered at the *Royal Institution of Great Britain in April, May, & June 1861*. London: Longmans Green & Co.
- Rousseau, Jean-Jacques. 1755. *Discours sur l'origine et les fondemens de l'inégalité parmi les hommes*. Amsterdam: Marc Michel Rey.
- Rousseau, Jean-Jacques. 1782. *Les confessions de J.J. Rousseau, suivies des rêveries du promeneur solitaire*. 2 vols. Geneve: Société Typographique.
- Sapir, Edward. 1929. The status of linguistics as a science. *Language* 5(4). 207–214. Reprinted in *Selected Writings of Edward Sapir in Language, Culture and Personality*, ed. by David G. Mandelbaum, Berkeley: University of California Press. 1949. 160–66. Also in *Culture, Language and Society: Selected Essays*, ed. by David G. Mandelbaum, Berkeley: University of California Press. 1956. 65–77.
- Sapir, Edward. 1949. *Language: An introduction to the study of speech*. New York: Harcourt, Brace & World. [First published 1921].

- Saussure, Ferdinand De. 1931. *Cours de linguistique générale*. Publié par Charles Bally et Albert Sechehaye avec la collaboration de Albert Riedlinger. 3rd edn. Paris: Payot. [First edn published 1916].
- Savage-Rumbaugh, Sue, Stuart G. Shanker & Talbot J. Taylor. 1998. *Apes, language, and the human mind*. New York: Oxford University Press.
- Stalnaker, Robert C. 2002. Common ground. *Linguistics and Philosophy* 25(5/6). 701–721.
- Tannen, Deborah. 1990. *You just don't understand: Women and men in conversation*. New York: William Morrow.
- Whiten, Andrew & Richard W. Byrne (eds.). 1997. *Machiavellian intelligence II: Extensions and evaluations*. Cambridge: Cambridge University Press.
- Whorf, Benjamin L. 1940. Linguistics as an exact science. *Technology Review (M.I.T.)* 43. 61–63, 80–83. Reprinted in Benjamin L. Whorf. *Language, thought, and reality: Selected writings of Benjamin Lee Whorf*. Cambridge MA: MIT Press. 1956. 220–232.
- Whorf, Benjamin L. 1941. The relation of habitual thought and behavior to language. In Leslie Spier (eds.), *Language, culture and personality*, 75–93. Menasha WI: Sapir Memorial Publication Fund. Reprinted in Benjamin L. Whorf. *Language, thought, and reality: Selected writings of Benjamin Lee Whorf*. Cambridge MA: MIT Press. 1956. 134–159.
- Winnans, Stephen C. & Bonnie L. Bassier, (eds.). 2008. *Chemical communication among bacteria*. Washington, DC: ASM Press.
- Worden, Robert. 1998. The evolution of language from social intelligence. In James R. Hurford, Michael Studdert-Kennedy & Chris Knight (eds.), *Approaches to the evolution of language: Social and cognitive bases*, 148–166. Cambridge: Cambridge University Press.

Bionote

Keith Allan

Monash University, Melbourne, Australia

keith.allan@monash.edu

Keith Allan MLitt, PhD (Edinburgh), FAHA. Emeritus Professor, Monash University and Honorary professor at University of Queensland. Research interests focus mainly on aspects of meaning in language, with a secondary interest in the history and philosophy of linguistics. He has published on the topics of censorship, discourse analysis, dysphemism, euphemism, grammaticalization, jargon, language policy, linguistic metatheory, morphology, politeness, pragmatics, prosody, psycholinguistics, semantics, sociolinguistics, speech act theory, syntax, and taboo. Homepage: <http://users.monash.edu.au/~kallan/homepage.html>.