DE GRUYTER OPEN

STUDIES IN LOGIC, GRAMMAR AND RHETORIC 36 (49) 2014

DOI: 10.2478/slgr-2014-0001

John R. Searle
University of California, Berkeley

THE STRUCTURE AND FUNCTIONS OF LANGUAGE[1]

Abstract. This paper will discuss the nature of language. I find the present state of the subject, the Philosophy of Language, and the present state of Linguistics to be both, for different reasons, unsatisfactory. The problem with the Philosophy of Language is that its practitioners tend to lose sight of the psychological reality of language, i.e. of speaking and writing. Historically this is because the Philosophy of Language began with Frege's logic and has continued to the present day to be heavily influenced by considerations of formal logic. Logicians need not be interested in the psychological reality of logical systems. Frege's logical system is much more powerful than Aristotle's, but for all I know Aristotle may be closer to the way people actually think. It does not matter to logicians.

Keywords: meaning, intentionality, language, speech acts, commitment

Philosophers of language have tended to assume that the mapping of some linguistic phenomenon onto a formal system will give a solution to a philosophical problem and give us great insight of the operation of language. Russell's Theory of Descriptions is one of the most famous cases of this, but there are numerous contemporary examples as well. Possible worlds semantics seems to be a classic case: one domain that seems puzzling is mapped onto another domain, and if some type of formal equivalence is achieved, i.e., the truth conditions are the same, then this is assumed to provide an explanation. In my opinion this is incorrect. An adequate philosophical insight cannot be obtained merely by means of a mapping that provides an equivalence. This would be akin to suggesting that in order to properly understand the sentence, 'all ravens are black', one must realize that what it really says is, 'all non-black things are non-ravens.' The two sentences are logically equivalent in that they are true or false in exactly the same set of circumstances, but the second does not give you an analysis of the psychological reality of saying 'all ravens are black.' Much contemporary Philosophy of Language seems to operate in this manner. For example, let us

- 10.2478/slgr-2014-0001
ISBN 978–83–7431–402–2 ISSN 0860-150X

consider Russell's famous Theory of Descriptions. How does Russell achieve uniqueness of reference? In Russell's example, to say that the King of France is bald is to say that there is at least one x such that x is *a* King of France and for each thing y, y is a King of France only if y is identical with x. This, however, is psychologically unrealistic. Our notion of an object is already one of a unique object. It is not necessary to consider the entire universe, or even the domain under discussion, in order to achieve uniqueness. The problem with much of the contemporary Philosophy of Language has been the supposition that it is sufficient to obtain an equivalence, i.e., that if the truth conditions on each side of a biconditional are the same, then an adequate explanation has been achieved. In general, however, I do not believe this to be the case; psychological reality ought to play a much greater role. Perhaps surprisingly, it seems that Frege, the inventor of contemporary logic, was more "psychologically real" than his successors, such as Russell, because he attempted to reach an intuitively plausible distinction between *Sinn* and *Bedeutung*.

Putting aside the question of philosophers' work with formal mechanisms, let us consider linguistics. The work of Chomsky and his entire movement have, in my opinion, been disappointing as well. This disappointment can be illustrated by the fact that after 50 years of searching for an adequate system of generative grammar, no system has yet been produced that has satisfied all or even most competent linguists. It is a remarkable sociological fact that, at least in the United States, Chomsky continues to dominate the field – not in the sense that everybody agrees with his answers, but that in general they accept his questions, which is a much more profound influence. Linguists continue to respond to his questions and to his answers, and it may seem surprising that no "Young Turks" have come to overthrow him. Perhaps this is because Chomsky is his own Young Turk, in the sense that every few years he changes direction entirely and overthrows much of his previous work.[2]

Neither the philosophy of language nor technical linguistics offers what I believe an account of language should provide. Let us try to answer the question, put very broadly, of what language is. Standard textbook accounts of language state that language has three components: a phonological, a syntactical, and a semantic component. The phonological and syntactical components are idiosyncratic, i.e., the words in the syntactic structures of one language are not the same as in another language, although perhaps if one could observe them through a sufficiently distant telescope they would appear alike. Chomsky has said that if a Martian linguist came to Earth it would seem to him that we all speak the same language; the vocabularies

differ, but essentially it is all one language. While this may or may not be fully accurate, it is an interesting idea that all languages do share some commonalities.

It is worth noting that the idiosyncrasies of the syntactical and phonological components of different languages are not supposed to apply to the pragmatic component, which is considered to be a further necessary component, in addition to syntax, phonology and semantics. This fourth component has to do with how the language is used. The rules of the pragmatic component are presumed not to be specific to any particular language, but rather are very general rules of rationality. The most famous statement of the principles of the pragmatic component would be Grice's Maxims of Conversation. These are not supposed to be specific to any language, but rather apply generally to all forms of human communication because they are supposed to be very general principles of rationality.

Thus, according to the orthodox conception of language, it consists of phonology, syntax and semantics, to which a pragmatic component may be added that is presumably universal, not confined to any one language. A crucial feature of language is absent from these accounts, namely the notion of commitment. Human languages are characterized by a type of commitment which is not found in other forms of human and animal interactions. If such commitment exists among animals, it would appear to be present in a far lesser degree than in human languages.

The method I will use to develop an account will be a kind of genetic account, in which we will imagine how language might have evolved. It is a remarkable fact that there was a time in the history of our planet when beasts that looked very similar to human beings today did not have language, but sometime later their descendants, beasts of similar appearance, did have language. We do not know, and may never know, what led to this change, because there is no fossil evidence. Most anthropological prehistories rely on fossil evidence, e.g., the examination of a jaw bone, but fossil evidence does not reveal how language evolved. Physical anthropologists rely to an enormous extent on fossils. For instance, the anthropologists have claimed that the human community living in Tautavel four hundred fifty thousand years ago must have had language because their brains were large enough to support Broca's area and Wernicke's area. This inference appears to be quite fragile, as these people left no visible signs of having had a language. In contrast to this approach, I will ask how language might have evolved. While this may appear to be an attempt at a speculative history of the development of language, in fact it is a sort of logical analysis, in which we ask what pre-linguistic animals similar to ourselves possess,

and what they additionally require in order to attain a language more or less like human language. Thus we will treat the question as a genetic one, but it is not speculative historical biology because we do not know how language did in fact evolve; despite numerous interesting speculations, hard evidence is lacking. We can, however, raise an interesting logical question: what would hominids with pre-linguistic intentionality need in order to attain language?

It should first be noted that pre-linguistic intentionality in animals is in fact quite rich, as the pre-linguistic animal can discriminate and remember a wide variety of features of its environment, and even make short-term plans regarding its future contact with or behavior in the environment. In other words, the pre-linguistic conscious animal with a certain degree of intellectual capacity has a fairly large number of cognitive categories both in perception and thought. Many of the traditional (Aristotelian and Kantian) categories, including the category of an object, of a property, of change, of identity, of causation, and of time and space exist in large numbers of conscious animals. We can see this by observing our own pet dogs, for example, with which we can carry on "conversations" of a pre-linguistic kind. While some philosophers may claim that animals cannot think, it is clear that dogs have thoughts, with different degrees of intelligence. Davidson claims that animals cannot have beliefs, as they cannot distinguish between a true belief and a false belief. That seems to be plainly false. Anyone who owns a dog will be aware that the dog sometimes changes from holding a false belief, for example, that the cat is up the tree to the true belief that the cat has gone to somebody else's yard. It annoys animal ethologists that philosophers typically appeal to their household pets rather than to the best research, so if you want to see some research, there are several useful books on animal cognition.[3]

Let us assume that there are conscious animals that have many of the Aristotelian categories and Kantian categories. They can recognize causal relations because they cause things themselves. They can identify other consciousnesses: a dog behaves differently towards people or other dogs than towards stones or trees. Even as a puppy it does not bite its owner or another puppy as hard as it bites a bone. Thus it seems that animals have an awareness of other minds. What must be added to this pre-linguistic intentionality in order that the animal can develop a language? It must be kept in mind that this has actually occurred; it happened in the case of human beings, and to a lesser extent with certain other animals as well. Perhaps the most famous example is bee language, which is interesting because it appears to have a type of syntax; there appear to be syntactical differences

in the varying amounts of information conveyed by the waggle dance, as the bee communicates to its fellow-bees in the hive.

Now let us imagine these humanoids to be developing a language. They already have a rich system of consciousness and human intentional states. These typically have a structure that includes both a propositional content and a psychological mode. For example, the belief that it is raining, the intention to move over there and the fear that an intruder is approaching. It has these states in a psychological mode which I represent by the letter "S" and the propositional content I represent with the letter "p." So a typical psychological state, such as a belief that it is raining, would be of the form S(p). One psychological mode can be perception, e.g., the animal sees someone approaching. Then, on the basis of seeing someone approaching, the animal comes to believe that someone is approaching. The pre-linguistic animal biology already contains structures that are intentional states having both a psychological mode and a propositional content.

Furthermore, biology allows for a distinction between the way the mind relates to reality when the task of the mind is to determine how reality actually is (perceptions and beliefs), and how the mind relates to reality when the task is to change reality to make it come to match the contents of the mind (intentions and desires). I refer to these two cases as different "directions of fit."[4] Belief, whose task is to match how things are, have the "mind-to-world" direction of fit, represented by a downward arrow, while desires and intentions, whose task is to change the world to match the contents of the mind, have the "world-to-mind" direction of fit represented by an upward arrow. Thus we can contrast desire and intention on the one hand with belief, perception and memory on the other. This is crucial, because human languages have these features; they have propositional contents with what Austin called a certain illocutionary force. The structure of the speech act is going to be very like the structure of the intentional state. Thus one can believe that it is raining, can see that it is raining, and can state that it is raining. We can use the letter "F" to represent the illocutionary force. The speech act thus have the structure F(p).

There is a crucial difference between intentional states and speech acts, in that the former are actual, biologically given, mental phenomena, while the latter are actions; one must do something in order to produce a speech act. How does the animal get from possessing intentional states to being able to perform speech acts? What does the animal need, in addition to what it has by virtue of its psychology, in order to make a statement, make a promise, or ask a question? Let us assume not only that the animal has many of the Aristotelian and Kantian categories built into its consciousness,

but that the structure of its mental life is able to distinguish between the content of the states and the type of states that they are. The animal must also be able to coordinate these; if it desires food then it must be able to recognize food when it encounters it, to eat the food intentionally, and to recognize that it has eaten the food.

This introduces an additional notion: when a propositional content in a psychological mode has a direction of fit, the intentional state can be said to represent – or in the case of perception, to present – its "conditions of satisfaction", where truth conditions are one kind of condition of satisfaction, and obedience conditions or fulfillment conditions are other kinds. Whenever one of these S(p) structures has an entire propositional content, there is a representation of how reality is or how the animal would like to, or intends to, make it. The task of the sensory nervous system is to achieve the mind-to-world direction of fit, while the task of the motor nervous system is to achieve the world-to-mind direction of fit. The sensory nervous system presents reality, and the motor nervous system changes it. Our basic psychology recognizes this distinction, which is necessary but not sufficient for having language.

The mental states whose task is to represent how world is are belief, perception and memory, while those whose task is to change the world, are typically desires and intentions. These two types of mental state correspond to the distinction between the aspect of our biology that describes how things are and the aspect that changes reality. It is essential that there are two basic ways in which we relate to reality: perceiving and believing how things are on the one hand, and wanting and intending them to be in a different way on the other. Much of life is a matter of coordinating these. For example, one desires to drink water, one intends to drink water, one perceives water – a different direction of fit with the same content – and so one intentionally drinks water. Thus far, none of this is unique to humans. I believe it is clear that primates have this apparatus, as do most mammals, although this has been challenged by certain philosophers.

Furthermore, human beings and some animals have a strong capacity to communicate the state of reality to other animals by making certain gestures or movements. Bees are the most well-known example, because they perform quite sophisticated waggle dances which convey information to other members of the hive. The vervet monkeys are said to convey three types of information by making three types of noises, corresponding to different types of danger, such as a leopard, a hawk overhead, or a snake in the grass. This could be thought to suggest that they have some kind of syntax. A crucial distinction should be made here between expression and representation.

Animal communication is often merely expressive. For instance, when a dog barks angrily at another dog, nothing is being represented; it is only an expression of hostility. Which animal cries are expressive and which are representational is unknown, but the theoretical difference is that expression, as the etymology of the word suggests, is merely a "pushing out" of one's mental state, whereas representation is semantically evaluable, i.e., it can be true or false. If a dog barks angrily, the bark is neither true nor false. But if a human being says, "Rain!" that can be true or false. Although a one-word sentence such as "Rain!" appears to be similar to a one-word sentence such as "Ouch!", they are in fact vastly different. The one-word sentence, "Rain!", represents the state of affairs that it is raining, while "Ouch!" is not a representation, but merely an expression of one's pain. It is, of course, possible to construct a situation in which "Ouch!" would be a representational statement; for example, we can imagine that a dentist says, "If it hurts too much, say 'Ouch!'" Such situations, however, are clearly exceptions. Expressions must be distinguished from representations, and this distinction is crucial for language. From what does human language derive its capacity to represent? As established earlier, if the S(p) structure has a direction of fit and conditions of satisfaction, they are all representations. Intentional states that have a propositional content and a direction of fit are the raw material of language. The question is, what does the animal additionally require in order to produce a speech act, i.e., an illocutionary act? Here I will make my first major theoretical claim, which is that we need to introduce the notion of a "speaker meaning", referring to the situation in which the speaker says something and means something by it. I contend that the speaker meaning in an action always involves producing some movement, sound or gesture with a certain intention. It is a complex intention, unlike ordinary intentions, such as the intention to move across the room; it is the intention to represent.

What constitutes the intention to represent? Let me propose a thesis which captures the essence of speaker meaning. In the case of speaker meaning, the speaker intentionally imposes conditions of satisfaction on conditions of satisfaction. If one raises one's hand, that movement is the condition of satisfaction of the intention to perform it. The intention to raise one's hand will be carried out only if one does in fact raise one's hand. However, if one raises one's hand by way of signaling to another person that he should come, one gestures in the particular way that one typically does to indicate that someone should come. This entails a complexity to the raising of the hand that was absent when it was simply a case of raising one's hand. The raising of the hand, which was the condition of satisfaction of one's intention

to do so, itself has conditions of satisfaction, namely obedience conditions. Or, if a state of affairs is being represented, the conditions of satisfaction are truth conditions. Thus the crucial step in the development of language from pre-linguistic intentional phenomena is the development of speaker meaning, where speaker meaning involves the intentional imposition of conditions of satisfaction on objects, states of affairs, or movements. The difference between saying something and meaning it and saying it without meaning it is a question of imposing conditions of satisfaction on conditions of satisfaction. Consider, for example, the difference between saying something in a foreign language in order to practice pronunciation, and actually meaning it. In the first case one may say repeatedly, "il pleut, il pleut, il pleut", without meaning to say that it is raining. If, however, one says, "il pleut" in order to state that it is raining, then something is meant by it. The difference between saying something and meaning it and saying something without meaning it is that in the first case the utterance is semantically evaluable. It can be true or false, because the speaker has intentionally imposed conditions of satisfaction on conditions of satisfaction, which in this case are truth conditions. It is an intentional act to say "il pleut" even when the speaker does not mean it, but when the speaker means it, he says it with the intention that it should represent the state of affairs, truly or falsely, which is a case of intentionally imposing conditions of satisfaction on conditions of satisfaction. This is the key to speaker meaning. Grice, in his famous analysis of meaning,[5] stated that meaning is a matter of intending to produce beliefs, or other types of perlocutionary effects, in a hearer. I believe that this is mistaken as an analysis of *meaning*, but is instead an analysis of the *communication of meaning*. When there is speaker meaning, with a propositional content having a certain illocutionary force such as that as of an assertion, then the speaker can convey this to the hearer. He does this by causing the hearer to recognize that he was making an assertion, that he was intending to impose certain conditions of satisfaction, and furthermore, that he was intending that his intention should be recognized.

Gricean self-reflexivity requires an intention that the hearer will recognize one's intention but the key concept in Grice's analysis was not meaning, but communication. The meaning of an utterance is created by imposing conditions of satisfaction, and that meaning is communicated by causing the hearer to recognize one's intention to impose conditions of satisfaction on conditions of satisfaction and to recognize one's intention and to recognize that he is intended to recognize the intention. Yet this basic structure and speaker meaning, by which the speaker can intend to produce a meaningful utterance by intending that conditions of satisfaction be imposed on condi-

tions of satisfaction, is still far from sufficient to achieve language. There is no inner structure here. There is, however, a distinction between representation and expression, and the key to understanding language in the human sense is not expression but representation. There are expressive speech acts, such as "ouch!" or "damn!", but the key speech acts are the representational ones, which invariably impose conditions of satisfaction on conditions of satisfaction.

The next crucial element I will introduce is the notion of a procedure. If animals have a procedure whereby they can represent the same type of state of affairs on different occasions, then that procedure can reasonably be called a convention. If animals have standard ways of behaving such that other animals can recognize those standard ways of behaving, then in a particular situation a convention is being invoked, in order to create not simply an act of meaning but an act of communication, where what is communicated is the meaning. The introduction of conventions is the next crucial element of language.

When we have basic intentional structures together with an intentional act, speaker meaning, which is a matter of imposing conditions of satisfaction on conditions of satisfaction, and standard procedures for doing so, which I am calling conventions, these introduce a crucial new element, namely a speaker's capacity to lie. In order to be committed to the truth, one must at least potentially be able to lie. Nietzsche said that what is remarkable about human beings is that they can make promises. I would add that it is also remarkable that they can make deliberately false statements and insincere promises, and that in general they can lie. Animals in general cannot lie; they can deceive, for example when a bird behaves as though it is wounded in order to distract predators from its young, but this is not lying, it is merely deceit. Lying is performing an intentional act which has the mind-to-world direction of fit when in fact the speaker believes it to be false. Frege invented the assertion sign $\vdash$ and we can use it to mark the assertive illocutionary force. Performing one of these acts which represent states of affairs commits one to truth, but it is possible to be committed to the truth of a proposition which in fact one believes to be false. This is what we call a lie.

Given conventional devices for imposing conditions of satisfaction on sounds, movements, and utterances, what more is needed to achieve language? As mentioned above, the traditional Aristotelian and Kantian categories are largely instantiated in human and animal consciousness. The animal has the ability to break up its experiences into objects and their properties, including spatial and temporal relations, movement, and causal rela-

tions. I am supposing that in this device which the animal uses to represent, a distinction can be made between the referring element and the predicating element, i.e., between something corresponding to the noun phrase (NP) and something corresponding to the verb phrase (VP).

We know from experience and from animal studies that animals have the capacity to discriminate objects, to discriminate the same object in different circumstances, and to discriminate the same object as having one property at one time and then a different property at another time. For example, a dog can see that its owner was once in one place, but now is in another place. I believe that the distinction between properties and objects, and the fact that objects possess properties, is given by the biology of animal consciousness. Now let us suppose that the humanoid is capable of performing a speech act of the form F(p); it can make a distinction between the noun phrase and the verb phrase in the syntax of this particular device that expresses the proposition. This is a stunning advance, because in language, unlike pre-linguistic forms of consciousness and intentionality, there are not only representations, but representative devices that can be manipulated. It is the free manipulation of these symbolic devices that gives language its enormous expressive power, because these elements that make up the representation introduce something that corresponds to the inner syntax of a sentence.

Thus we have an utterance with a certain illocutionary force built into its meaning and a distinction between reference and predication, i.e., the difference between referring to an object and saying something about that object, which is now built into the syntax. For example, while a dog can believe that someone is approaching the door, it is not clear how he might believe that the door is approaching someone, or that there might be a thousand people approaching the door, or that he wishes fewer people were approaching the door, because such thoughts require syntactical devices. Inner syntax introduces three components which are absolutely crucial in language: discreteness, compositionality and generativity.

Discreteness

What is significant about these devices is that they preserve their identity under permutations and transformations. Words and morphemes corresponding to reference and predication preserve their identity under changes. A sentence may have eight or twelve words, but it cannot have nine and one half words, as half-words do not exist. An early objection to generative grammars was that generativity was trivial, because, for example, a recipe for baking a cake can be called generative: “add a cup of sugar”, “add a cup

of flour." A recipe, however, lacks the property of discreteness, as the sugar, butter and flour lose their identity when they are baked in the oven and are no longer sugar and flour. Words and morphemes, however, remain the same, despite undergoing various transformations.

Compositionality

The feature of compositionality is also crucial because it enables the animal to produce and understand sentences solely in terms of understanding the meanings of the words or morphemes and the way in which they are combined and recombined. For instance, English speakers understand the difference between "John loves Mary" and "Mary loves John" because although the words are the same, the sentences are composed differently.

Generativity

The feature of generativity is the capacity to constantly produce new sentences in which rules are applied repeatedly. These rules are known as recursive rules. Thus we can have not only a relative clause, but a relative clause attached to a relative clause, and then another relative clause attached to that relative clause, e.g., "I met a man who knew my mother when she lived in Kansas City, where they have a large baseball team..." The number of relative clauses that can be added is indefinite. Owing to these three features, syntax, i.e., the inner syntax of a sentence, is an enormously powerful addition which provides an expressive power inconceivable to animals that can have only representations. The morphemes preserve their identity under transformation, the total unit is compositional, i.e., the meaning of the sentence can be computed from knowing the meanings of the parts in the structure, and normal human language is generative, in the sense that it has recursive rules that can be applied repeatedly. We do not know how it occurred that these three crucial elements appeared so that human beings began to have language. We do know that the following must have evolved in some order: speaker meaning (which some animals have); speaker meaning in representations, not merely expression; conventions; and an inner syntax, i.e., a set of elements which enables us to distinguish between reference and predication and which has discreteness, compositionality, and for fully developed human languages, generativity.

For the mere existence of basic human language, the crucial feature is compositionality. Language users must be able to determine the meaning of new sentences based on the meanings of the elements. Also necessary for human language is an element corresponding to the logical constants. The

animals we have been describing are close to attaining these, because if they have "p" and "q," they will need something that is equivalent to "p and q". At some point a negation symbol must be introduced as well, and once they have conjunction and negation they are close to having logical constants.

This is far from quantified modal logic or proofs in second-order logic, but it is a basic conception of how language could be structured from essentially pre-linguistic elements. The following notions should be remembered here: conditions of satisfaction, pre-linguistic forms of representation, as opposed to merely expression (several animals do have these) and conventions, i.e. standard procedures.

This is a powerful apparatus, because intentional acts performed using a convention introduce a crucial element, namely the notion of a commitment. There are types of commitment for which a language is not necessary, in which one sees someone doing something and counts on his doing it. However, the true commitments that arise from truth claims or promises require conventions. These must be explicit or be made explicit. These require language. The existence of the apparatus described thus far, together with conventions, seems to offer the possibility of types of commitments that are unknown in the animal kingdom, such as promises and various undertakings of obligations.

Human beings have the possibility of an explicit commitment. But they also have another possibilitity; and thus another possibility only known to exist in human languages: to represent something as being the case and to make it the case if others accept those representations. The most famous examples of these are Austin's performatives, in which, for example, one represents the meeting as being adjourned by saying, "the meaning is adjourned," or a clergyman represents a couple as being husband and wife by saying, "I pronounce you husband and wife." What is interesting about these utterances is that they have both directions of fit at once. Someone saying "the meeting is adjourned," thus represents the meeting as adjourned, but if the speaker is the authority and does this properly, then he or she changes reality, thus achieving the upward, or world-to-word, direction of fit by representing the world as already having been changed. Speech acts of this type, in which one makes something the case by representing it as being the case, can be called Declarations. These seem to be unique to human beings. This is significant because it concerns the difference between human civilization and animal societies. Animals have a wide variety of forms of social organization, for example they have alpha males and alpha females, but they lack such phenomena as money, government, football games, private property, cocktail parties, universities, or taxes. This

is because these require the capacity to create a certain type of reality, and this requires language. Human beings, as well as many other animals, have the capacity to use things, where the use is a function imposed by human intentionality. A chimpanzee, for example, may use a stick to extract ants from a hole, birds may use twigs to build a nest, or beavers may use wood to build a dam. Thus the imposition of function is not unique to human beings. Yet there is a certain type of function which cannot be performed in virtue of physical structure, or in virtue of physical structure alone. Human beings have created a wide variety of these functions. One example of these is money. It is money not because of its physical structure but because human beings accept and recognize it as money. This is a type of function that can only be performed in virtue of the collective acceptance of a person or an object as having a certain status. We can call these "Status Functions." This is the distinguishing feature of human civilization. The examples mentioned above, which animals do not have – private property, taxes, cocktail parties, income tax, universities – are all Status Functions.

These functions are created by a special class of Declarations and are maintained by continued representations that have the logical form of a Status Function Declaration. They are initially brought into existence, and then maintained in existence, by representations that have this form. This need not be explicit. For instance, a person in a group can become the boss of the group simply because its members treat her as the boss, recognize her as the boss, and continue to represent her as the boss. This behavior plays the role of the Status Function Declaration. She becomes the boss as a result of repeated representations that accord her these rights.

Human beings create Status Functions because they are sources of power, in order to create power relations. The powers created by Status Function Declarations have names such as (in English) "rights," "duties," "responsibilities," "obligations," "authorizations," and "permission." A general name for these is "deontic powers," from the Greek word for "duty." Deontic powers are significant because they lock into human rationality, in that they provide reasons for acting that are independent of one's desires. Thus the Status Function Declarations create Status Functions, which in turn create deontic powers, and these provide desire-independent reasons for acting. For example, if I make a promise to do something, then I have a reason to do it even if I have no desire to. Innumerable elements of daily life are Status Functions, such as property, money, credit cards, bank accounts, citizenship, or the professions of doctor or lawyer. We can refer to this as institutional reality.

The creation of institutional reality a sense requires language, specifically a certain kind of language that enables the performance of Status Function Declarations. Our intellectual history is characterized by a major error in its theories of social reality, because all of the great thinkers, beginning with Aristotle, took language for granted; their analysis of society assumed the existence of language. Social contract theorists have suggested that human beings with language at some point chose to have a social contract. In fact, if people have a language capable of creating Status Functions, they already have a social contract, because it is built into communication in a common language.

NOTES

[1] This article is pretty much a verbatim transcript of the talk I gave in Warsaw at the 10th ArgDiaP Conference: "Speech Acts and Arguments" (18 May, 2013). It is the continuation of an argument I began in an earlier article, *The Nature of Language*. A more accurate title would have contained the phrase "Some Functions" to avoid any implication that I will discuss all the functions of language.

[2] This was pointed out to me by Robert van Valin.

[3] For example, Vauclair, Jaques. *Animal cognition: an introduction to modern comparative psychology*. Harvard University Press, 1996.

[4] I believe the first person to use this expression was J.L. Austin.

[5] Grice, H. Paul. "Meaning." *The philosophical review* 66.3 (1957): 377–388.