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### Explicit and implicit assumptions in Noam Chomsky's theory of language

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Abstract

The author identifies selected implicit or not fully explicit assumptions made by Noam Chomsky in his theory of language. Through careful lecture of Chomsky's work, she aims to expose the solutions this linguist proposes with respect to two fundamental questions: the question of methodology and the question of the ontological status of language. This paper consists of two main parts. In the first one, the author reviews the most central postulates of Chomsky's methodology and the basic theses regarding language that can be found in his works. In the second part, she turns to the problem question that is mentioned in the title of this paper, that is, the reservations regarding the assumptions underlying his works.

#### **Introductory Remarks**

The methodological assumptions as well as preliminary answers that were introduced by Noam Chomsky as he was laying the foundations for 20c linguistics have long been

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considered a classic element of the reflection on the basic problems in the philosophy of language. In particular, whenever the questions of language acquisition, language innateness or methods of the study of language are raised, his theories are customarily quoted either as a starting point for further discussion or, at least, as a reference point for the author's own views. Nevertheless, the classic status of Chomsky's texts is no help in their lecture. Numerous comments, both by his supporters and opponents, together with the evolution of his standpoint make the tasks of clarifying the basic notions and sorting out its theses all the more difficult. Chomsky's works and the problems addressed therein have been of significant importance from the point of view of the philosophy of language, and the philosophical efforts for putting Chomsky's linguistic conception in order derive from the enormous interest generated by these works and problems. Consequently, a critical examination of his approach is a result of the desire to understand his conception that is fundamental for further study of natural language. Thus, it appears all the more important to pin down those of Chomsky's assumptions regarding language that seem to be either incompatible with the larger body of his theory or not fully sound.

The task that I have set myself in this paper is as follows: I would like to identify selected implicit or not fully explicit assumptions that are made by Chomsky, as well as isolate the basic notions connected with language and look into the consequences of their use in different contexts. This pertains to the philosophical assumptions, which I take to include the theses related to the terms that are deeply entrenched in the philosophical tradition, but also the theses that concern well-known philosophical problems. My aim, as a philosopher interested in the problems of the philosophy of language, is to identify in Chomsky's theory coherent solutions to two fundamental questions: the question of methodology (which includes the author's awareness of his assumptions, as well as setting forth his theoretical objectives), and the question of the ontological status of language. Determining what language, as an object of one's study, actually is has vital consequences not only with respect to the clarity of the theses put forward within the framework of one's own theory, but also with respect to the possibilities for arguing about specific aspects of the properties of language; and such controversies can be cognitively productive only on condition that the parties are agreed on some basic description of language<sup>1</sup>. In other words, it is important to ask whether the questions that a given controversy generates can be fitted into a common cognitive structure, since only then will the disputing parties respect each other's arguments.

I would like to emphasize that the objective behind the analyses conducted in this paper is more than just to report. My goal is to place Chomsky's theory on the axis of the controversies regarding language acquisition. In my opinion, the lack of agreement on the basic issues of ontology and methodology, observable in debates in a variety of research areas, stems largely from the parties' entering the discussion with certain implicit metaphysical assumptions already taken for granted. By "metaphysical assumptions" I mean such theses that are accepted on the strength of an arbitrary decision (mostly resulting from the person's more general philosophical outlook) as clear and self-evident, and that concern the most fundamental phenomena in a given theory. Frequently, they are treated as statements that have to be accepted by the opponents of the theory as well. Such assumptions are necessarily found in all theories (as there is no theory without assumptions); however, the more of them are made explicit by the researcher, the more mature the theory is. It must be emphasized here that the fact that certain philosophical assumptions are implicit need not mean they should be rejected. Still, making them explicit makes it possible to reveal the actual cognitive means and ends that inhere in the complex formulas of every conception that attempts to describe the phenomenon of natural language. It also makes it possible to

<sup>&</sup>lt;sup>1</sup> Chomsky is well known as an ardent polemicist and a critic of opposing theories. Suffice it to mention here his polemic with F. B. Skinner or W. Van Orman Quine, as well as with the Wittgensteinian version of the argument against private language.

demonstrate the relativity of the theory in regard to its presupposed theses. This concerns in particular those theories that proclaim neutrality and objectivity, understood as a "purely empirical" or "purely rationalist" starting point, where the notions of rationality and "empiricality" are taken to be absolutely unequivocal. I will not answer here the question of whether tracking down implicit metaphysical assumptions or inconsistencies in the use of basic notions disqualifies Chomsky's theory or merely casts doubt on its peripheral statements.

One could ask whether considering the problems dealt with in this paper is substantiated, given that over the years, Chomsky has modified its theory, reformulated some of its premises, and introduced new theses. As a result, it seems that the doubts presented here do not apply to the same degree to Chomsky's views from different periods of his intellectual activity. What is more, one could successfully argue for a distinction into "early Chomsky" and "later Chomsky". Thus, his position as presented in Syntactic Structures (1957) is purely linguistic, devoid of any overt philosophical statements. It is only later, during the development of his Standard Theory, that Chomsky becomes an advocate of clearly expounded philosophical views (including nativism, with which he is typically associated). It must be added that his recent theory is related to the minimalist program and its distinct connections with cognitive science (Chomsky 1995). When speaking of the evolution of Chomsky's views what one usually has in mind is the particular conclusions and they way in which they are presented. In an analysis of his ideas on the level of assumptions or theses of a philosophical nature (explicit – in his later works, or implicit – in the early works) it is easy to notice that the bulk of his core beliefs have remained unchanged, an observation that finds confirmation in numerous interviews (Stone, Davies 2002: 276). It is those core beliefs that are addressed in the present text.

#### Chomsky's Methodology: What and How we Study When We Study Language?

If one undertook to summarize Chomsky's methodological postulates by means of a list of headwords, this would yield the following sequence of "isms": realism – naturalism (of a biological sort) – rationalism (nativism) – empiricism (as a starting point for the method of study) – cognitive psychology (as the proper domain of linguistic study). The following list of entries does not, in and of itself, have an explanatory function and requires supplementation with further comments, but it allows one to illustrate the complexity of the theory with respect to the philosophical dimension of the quoted concepts and theories laden with historical tradition. This complexity is the main reason why a number of terms used by Chomsky can be difficult to understand. Since Chomsky himself takes these terms to be unambiguous, no further explanation of them is offered in his texts. This topic will be discussed in more detail further in the text.

The objectives of the theoretical activity of a linguist or a philosopher can be derived from the above headwords. Namely, the goal of the analyses undertaken by a researcher of language is the description of language forms that are hidden on a deeper level – the basic, universal structure of language. One needs to abstract the principal rules lying at the foundation of specific rules in particular languages – the focus put mostly on syntactic rules – and show how those rules are inherent in, and can be applied to, the genetic makeup of the child (Chomsky 2002: 93). Chomsky's biologically-minded rationalism results in specific consequences to the treatment of the philosophical study of language. First of all, capturing the essence of the functioning of language consists in explicating its structure and the ways of generating expressions (understood here as portions of information), not in investigating the sources of the meaning the expressions are endowed with. Thus, semantics, understood classically, i.e. as the subdiscipline of linguistics or semiotics that deals with the relation of signs to what they represent, is beside the scope of this account. What is more, the sacred traditional assumptions regarding the ways of describing language need to be discarded. The belief about the holistic character of natural language, the ascription of explanatory and constitutive functions to the rules, and the emphasis on the conventionality of language and the theoretical role of public language – can all serve as examples.

To Chomsky, language is a unique biological capacity which he calls *the language organ*, or *the faculty of language*, FL (Chomsky 2000a: 85). In his later work, he distinguishes between *the faculty of language in the broad sense*, FLB, and *the faculty of language in the narrow sense*, FLN. The former is comprised of the inner computational core connected to two internal systems: the sensorimotor system and the conceptual-intentional system; the latter is the computational core itself, independent from the other systems to which it is linked or with which it interacts (Chomsky, Hauser, Fitch 2002: 1570). Humans posses this unique capacity as a result of their particular evolutionary history as a species, and thanks to a particular configuration of the genes. Particular natural languages (Polish, English, etc.) that linguists investigate, are the states of FL (Chomsky 2000a: 86-87). To put it differently, the language faculty is a distinct state of the mind/brain, whose initial state is common to the entire species. In its narrow sense (FLN), this faculty constitutes a characteristic and unique system specific to the human species.

The possession of the faculty of language has to be manifested. That is, a basic requirement that language as understood by Chomsky must meet, is that individual speakers be able to use it (Chomsky 2002: 118). For language to be possible to use, its expressions (whose number is taken to be infinite) have to be implementable in the biological cognitive system of humans. Language use is possible, to the same degree, thanks to the appropriately pre-programmed human sensorimotor system and to the conceptual organization in the mind and the language of thought itself (particular mental states). Language does not have to meet

any other, "external", requirement or criteria, such as being representational, referring to the world, having an informational function or subserving communication, to name just a few (Chomsky 2002: 108). It can be studied only with respect to its adaptation to the biological or computational systems in which it is implanted as a biological organ.

The language that constitutes the proper object of linguistic study is *internalized language* (*I-language*), distinguished by Chomsky from socially shareable, public "external" language used within a given community (*E-language*). The former is individual, internal, intensional language specific to each individual person, constituting a part of their mental endowment; it is comprised of computational procedures and a lexicon. The latter is simply an idealized object, commonly called Polish, English, Chinese, etc., that has no ontological status of its own (is just a characteristic epiphenomenon). Grammar in this context is a linguistic theory which object is I-language. (Smith 2004)

The task of the researcher of language is to establish the zero state of the language faculty and determine the conditions under which the transition to the full development can take place. From this perspective, language is a system of generative grammar, that is, a recursive system in which the rules for creating expressions are specified and definite.<sup>2</sup> It comprises: a set of basic rules of a limited character, a set of transformations mapping the deep structures, formed according to the basic rules, on the surface structures, and a set of phonological rules. To put it differently, a generative grammar is a formalized system of rules which base on the lexicon to generate the sentences of a given language and assign to each of them a structural analysis.<sup>3</sup> The universal grammar is "the system of principles, conditions,

<sup>&</sup>lt;sup>2</sup> According to generative grammar, language consists of two kinds of structures: deep and surface, connected with each other in a particular way. Surface structures are formed from deep structures, mostly abstract, by the use of certain type of transformations (Chomsky 1968: 5). Because of numerous misinterpretations, Chomsky has abandoned the distinction into deep and surface structures in his later work.

<sup>&</sup>lt;sup>3</sup> It should be observed at this point that Chomsky's theory has undergone an evolution: the Standard Theory from *Aspects of the Theory of Syntax* has changed into Extended Standard Theory, then Revised Extended

and rules that are elements or properties of all human languages not merely by accident but by [biological] necessity" (Chomsky 1975: 29). It is part of the human genotype, universal for all humans.

## The Doubts Regarding Selected Assumptions on Language Made in Chomsky's Theory

Chomsky, following the scientific tradition of making the terms used maximally exact, criticizes the opacity of the philosophical use of such notions as "metaphysical", "language", "common language", "public language" - to name only a few. In addition to this, he claims that because of their specificity (inhering in a speculative context with no reference to empirical facts) it is impossible to use them with the proper exactness (Chomsky 1968: 411). Therefore, their application within a theory is illegitimate, given that their ontological status remains undefined and their use is obscure, unclear, and undetermined (Chomsky 2000a: 77-78, Kasher 1991: 10). At this point, it is worth noting that there is no clarity nor full consistency in the way in which Chomsky himself understands the notions to which he refers in his theory. This concerns, in particular, such notions as "thought", "empirical" (as opposed to "theoretical"), "empirical study", "fact", "abstract". I do not propose that each of the notions that finds application within a theory should be defined and made painstakingly exact; what is more, I doubt whether this could be achieved. Still, in the context of methodological assumptions made by Chomsky and his appeals for the precise ("scientific", as he calls it) use of notions, it is prudent to examine whether the recommendations he issues for other theories are observed with respect to terms he himself uses. I will now take a closer look at some of such notions, as well as the assumptions that are founded on them. To this end, I will make use of several examples.

Standard Theory, later to become Government and Binding Theory. I will not address here any of the nuances related to this evolution.

## **Example One: Empiricality**

As has been already observed, Chomsky advocates a strict adherence to the facts according to the methodology of the natural sciences (Chomsky 1968: 25). While it is stressed that naturalistic methodology does not have a privileged status, still it is considered to be the most adequate tool for studying language (Chomsky 2000a: 77). This consists, roughly, in the analysis of an empirically accessible phenomenon, which is given in the form of the knowledge of language possessed by children. This phenomenon, in the theory discussed here, has been well defined, and idealized to a sufficient degree<sup>4</sup>. Chomsky also claims that the problem of the acquisition of the foundations of the knowledge of language is an open empirical question, that is it cannot and should not be decided by means of a priori argumentation or pure conceptual analysis. In his famous critic of Skinner's view he writes: "I have intended this review not specifically as a criticism of Skinner's speculations regarding language, but rather as a more general critique of behaviorist (I would now prefer to say "empiricist") speculation as to the higher mental processes. (...) The conclusion that I hoped to establish in the review (...) was that the general point of view is largely mythology and that its widespread acceptance is not the result of empirical support (my underline - A.D.), persuasive reasoning or the absence of a plausible alternative." (Chomsky 1967: 142). Hence, linguists and biologists (in the important domains of psychology and anthropology) should abandon counterproductive theoretical debate and concentrate on more collective efforts focused on the analysis of particular component parts of the language faculty (Chomsky, Hauser, Fitch, 2002: 1578). At the same time, Chomsky advocates specific theoretical

<sup>&</sup>lt;sup>4</sup> In the context of the earlier reflections of Chomsky, especially these in *Syntactic Structures*, one can speak of some form of evolution. This is because Chomsky had considered linguistics to be a theoretical science that can be pursued by strictly formal methods.

analyses in his opposition to behaviorism and traditional empiricism. Chomsky is a well known critic of Quine, who – according to Chomsky, utterly mistakenly – champions a systematic rejection of the study of mental structures. In his numerous works he postulates that linguists should not rely strictly on behavioral evidence and criteria. According to the rationalistic standpoint he subscribes to, whatever it is that meets the standards of rational thinking can benefit theoretical linguistics. Empiricism with behavioral equipment has to be rejected also for political reasons, since it pretend its techniques to be neutral in reference to the oppression and control (Chomsky 1988: 244).

Here, one faces the obvious problem of deciding what counts as "good" as opposed to "bad" empirical evidence. What is worthwhile empirical research and how to conduct it, and when does advocating its necessity result merely from earlier presuppositions stemming from too rash empirical methodology? How to distinguish theorizing that is mere speculation devoid of any cognitive benefit from theorizing that is based on reasoning akin to that used in logical and mathematical procedures? One could ask whether the knowledge of language can be studied at all without making numerous prior assumptions regarding its nature and ways of its manifestation? Chomsky's approach appears to be rather unclear. In a considerable number of his texts, Chomsky expresses a belief that theoretical linguistics functions, and should function, on a high level of abstraction, so that its psychological reality should not be subject to evaluation (Chomsky 1957). At the same time, he decides the validity of all of the questions that are posed in theories of language on the basis of their empirical reality, factuality that must be assumed to be confirmable on some neutral grounds. He clearly rejects something he calls empiricism, but not empirical methods as such, which initially can produce a difficult task of separating one from another (McGilvray 1999: 32-33). Chomsky appears to be a covert proponent of the view that there exists the one and only paradigm of empirical adequacy, applicable to all theories, thanks to which it is possible to decide in advance (regardless of the given theory's objectives, scope of concepts, and accepted assumptions) what an indubitable empirical verification consists in; to put it simply, it could decide what may or may not count as empirical evidence for some thesis (Clark 2003: 18). From the perspective of the debates that take place in contemporary philosophy of science, or the descriptions quoted by the historians of science, such a standpoint is both naïve and unfounded. In particular, one cannot ignore the fact that numerous experiments conducted in the many disciplines that study the origin and development of the faculty of language, e.g. by scrutinizing the mental processes of infants, require interpretation, and their results are very far from unequivocal (Hitchcock 2004, Pickering 1992, Haith 1998).

The notions of the empirical and related categories are connected with yet another notion important for Chomsky's theory; I would like to address it with a short comment. What I mean here is the category of explanation, which Chomsky treats with considerable optimism. In *Language and Mind*, Chomsky holds that it is possible to provide an exhaustive physicalist explanation for the totality of the mental phenomena, since such explanations become available for an ever-increasing number of phenomena previously considered as inexplicable within a physicalist framework (Chomsky 1968: 25). Such a belief seems largely arbitrary, being based on a conviction about the reality of progress in explication in the natural sciences that is not necessarily universally supported; likewise for the hopes for physics and related fields being able to explain an increasingly broad spectrum of problems from a wide array of domains of human existence. Not mention the problem with the content of explanation, which is not as obvious at it seems to be.

Let me a bit be more specific about Chomskyan methodology and provide one example. Chomsky's texts lead its readers from insistence on the abstract description of language or brain to the requirement of doing the considerations on empirical grounds (Kasher 1991: 15). On the one hand linguist assumes that mind/brain contains formal

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universals (a kind of abstract characteristics), on the other hand, she should be able to explore these innate features empirically. There is no obvious contradiction in the task described above, but there is a certain methodological tension. The argument that specific features have to be attributed to the mind in order to "make language possible" is nondemonstrative. (Piattelli 1979: 273). As a matter of fact we can provide some observations from empirical studies which will illustrate the hypotheses of universal grammar, but they will by no means prove them. Supposing that brain is structured in a certain way can be unproblematic claim as long as we do not try to translate it into some observational criteria taken from the natural science. And only the latter task, rightly so, seems to be of Chomsky's interest. In order to make such a translation we have to face complex, multilayered, sophisticated machinery taken from given theory in the natural science, where we are not able to avoid the dependence on specific concepts, suitable methodology, and all which counts as the empirical. Taken this move into account, we have to agree that the initial unproblematic claim and all other theoryrelated assumptions become a moot point. As it has been mentioned before, we can see that studying the history of science.

## **Example Two: Communication**

Chomsky's assumptions on the status of human communication are a rich source of interpretational problems for his readers. Let us recall that the study of human communication against the background of animal communication is one of the tasks Chomsky sets for linguists. In his 1968 book, *Language and Mind*, Chomsky asserts that human language is entirely different from all other systems of animal communication, a belief that is echoed in some of his most recent works (Chomsky 1968: 4, Chomsky 2002: 63). The crucial difference consists in the ability of language to generate an infinite number of thoughts, intentions,

feelings. To be precise, FLN is a uniquely human capacity, demonstrating a distinct profile thanks to which it stands out from all other communication systems (Chomsky, Hauser, Fitch 2002: 1571). At the same time, Chomsky stresses that FLB is strictly compatible with animal communication; it is a human adaptation for language, constitutes a complex system for effective communication and has an inalienable genetic component. According to him, there exists evidence supporting the thesis of biological continuity between humans and animals with respect to speech; for example, evidence on animals possessing and being able to use abstract concepts (such as tool, color, geometric relation, digit), as well as on their having a theory of mind (the concept of self, the ability to represent beliefs). Chomsky does not expound in detail his understanding of communication, so it is not clear whether communication in humans is similar to that in animals or uniquely different, or whether communication (related to FLN and FLB, respectively) covers both those possibilities depending on the content of a particular concept. Moreover, Chomsky himself in his Architecture of Language declares that there are no criteria of comparison between different communication systems in animals. How, then, can one face the task of describing human communication in relation to other forms of animal communication, a theoretical maneuver that was aimed at illustrating the specificity of the former?

A philosopher is inclined to ask at this point about the general nature and criteria of establishing what is similar and what is different. Such questions are central from a methodological point of view, when one attempts to illustrate the validity of the theses about the similarities and differences between human and animal communication (Chomsky 1968: 405). Let us recall that Chomsky argues for the view that despite every child having different experiences (in the contact with the external environment) and being confronted with different data, the system, or mechanism, of acquiring language is the same for all human children, as members of the same biological species *Homo sapiens*. Furthermore, Chomsky claims it to

be an empirical fact that under normal circumstances those acquiring the first language do it in a strikingly similar manner. Still, why should this environment be a factor promoting divergence rather than convergence? One could risk a thesis that children grow in similar family environments, surrounded by their relatives who care for them in similar ways (they feed them, put to sleep, comfort, cuddle, etc.). This strikingly similar way of acquiring language would on that account have more to do with the similar type of stimulus accessible to the child. Once again, both the hypotheses formulated by Chomsky and those I quoted above need a more precise statement of the criteria of similarity; at least to the extent sufficient and possible within the given theory.

A possible reason why Chomsky shuns a precise explanation of what communication is may be his conviction that the communicative function is not the basic function of language. To him, language is comprised of numerous modules and functions, and none should be granted a privileged status. The function of language is not only to inform, but also to establish interpersonal relations, to express thoughts, to have fun, to understand, etc. Still, the above conviction does not exempt a researcher from the task of making the category of communication precise. What is more, an additional accusation, often quoted in the literature, seems to be applicable here, namely that about ignoring the social dimension of language use. As has been observed, to Chomsky, only I-language constitutes a proper object of linguistic scrutiny, while the shared, public language is merely an epiphenomenon, called into existence by philosophers. Let me note, however, that the functions that I have enumerated above following Chomsky seem to require taking into consideration the presence of other persons in the functioning of language. A considerable number of researchers stress the fact that when communication is understood as the exchange of information with individuals similar to the subject, psychologically it is a vital truth that language cannot be acquired one one's own. In this respect, universal grammar described by Chomsky can only be said to constitute a grossly insufficient account of natural language. It is merely a simplistic idealization, since it is restricted to the study of the speaker in abstraction from the fact that it is surrounded by other individuals (Burge 1989: 174-177).

#### **Example Three: Language: an Abstract Entity or a Biological Token**

To a philosopher, the problem of the ontological status of language is inevitable to emerge in the process of refining the details of any particular theory of language, and especially when the theory one deals with has a naturalistic profile. This is so, because under this approach, in one of the possible ways (since in contemporary philosophy we are faced with many different "naturalisms"), physicalistically understood existence becomes distinguished and is treated as an obvious starting point<sup>5</sup>. It is not easy to notice that from a philosophical point of view such a strategy is largely arbitrary and always requires an appropriate spelling out. Chomsky as a realist proposes that language be approached in a scientific way (as opposed to being an object of metaphysical speculation), which precludes understanding it as some sort of artifact or abstract object. By the same token, a linguist should be concerned with natural facts, not artifacts. Language is something real in the sense that, thanks to its specificity (see below), it constitutes a valid object of productive study. Thus, all controversies regarding the description of language should be decided on the level of discussion about facts, not on the level of highly speculative philosophical disputes that breed such entities as "public language", "common language", "national language", etc. (Chomsky 1968: 25). Chomsky maintains that language (qua I-language) has, by definition, no objective

<sup>&</sup>lt;sup>5</sup> Arguably, a separate work could be devoted to tracking down the profusion of approaches that are termed "naturalistic", or to identifying the theses they all accept. It seems that one has to agree with Putnam, who states that naturalism is an unclear and ill-defined notion, and that the successive attempts at introducing order to its application lead only to the discovery of still other differences between the so-called naturalistic theories rather than to pointing to some element common to all of them (Putnam 2004: 59-70).

existence except in the form of its representation in the mind. The mental, key to the way in which Chomsky understands language, is regarded as one of the several aspects of the world (alongside such aspects as the mechanical, the chemical, the optical, the organic, etc.), so it is not contrasted with the physical. This is the case also because no well-defined and consistent notions of "body", "matter", or "the physical" have been developed, which severely limits their theoretical usefulness. As a result, Chomsky denies that the mind/body problem has any sensible conceptual status. This problem is impossible to formulate in precise terms, as there exists no unambiguous understanding of what body is, nor what mind is, and so the relation between them cannot be studied. In this manner, Chomsky evades classical ontological questions, since he assumes that whatever exists, exists physically, and yet "the physical" can manifest itself in a variety of ways. It can be said that biological is one of them.

Let us recall that in Chomsky's theory the notion of public language is rejected as too abstract for it to be specified. At the same time, I-language mentioned above is treated, on the one hand, as an abstract object, but on the other, as a collection of biological facts. Hence as any given biological object, language can be studied in respect of: a) its function, b) its structure, c) the physical substrate on which it is based, d) its development, understood ontogenetically, e) its evolutionary development (Chomsky 1980: 227). Regarded in this way (points c, d, e), linguistic study becomes to a considerable extent a part of cognitive psychology (Chomsky 1965). The ability to use a natural language is considered to be an ability that can be at least partly explained by means of investigating the mental structures of linguistic representations (generated according to grammatical rules) whose character is internal. A perspective for such a study is set by the research on communication in animals (including humans) (Chomsky 2002: 63). Language must necessarily be biological in order for it to be a viable object of study outside the subjective mind of a particular individual. Still, if it is supposed to be accessible for theorizing, it must be able to be isolated and recorded in a symbolic format. An abstract status is a property of deep structure, whose features are to be discovered in the theory of language acquisition, where one should be able to explain how the knowledge of hidden language forms and their governing rules is acquired<sup>6</sup>. A natural language is a function characterizable with structural descriptions, and the particular grammars are instances of universal grammar whose parameters have been set to optimal values. Grammars, so understood, are real in the sense that they exist in the brains of individuals, while ethnic languages are not: not only is their structure unspecified, but also their ontological status is unknown (cf. the abstract character mentioned above). Their existence is purely secondary and epiphenomenal. How should abstractness be understood in this context? Chomsky does not provide an exact definition; what is known with certainty is that "the abstract" does not have a physical character. But if so, what is the ontological status of abstract objects if existence can only be physical (if in a number of different ways)? How can such a dualistic understanding of language as an object of study be made consistent in his theory, if at the same time one wants to remain unaffected by the accusations of philosophical speculation, introducing entities of a dubious status, etc.?

#### **Example Four: Innateness**

Let us now turn to the most famous and most controversial of Chomsky's (hypo)theses, that is those regarding language innateness and its universality. I have mentioned before that the human language capacity, considered from this perspective, is innate in the biological sense and remains invariant across cultures, being the same for all humans. In 1960, Chomsky suggested that the faculty of language is innate, substantiating this

<sup>&</sup>lt;sup>6</sup> There are researchers who claim that the problematic character of most of the theories of language acquisition consists in the fact that what they aim to describe is the final product rather than the process that takes place along the way to the acquisition of language (Clark 2003: 18).

claim with three observations regarding the functioning of natural language that were meant as specific support for his thesis. To simplify, they were as follows. Firstly, the syntax of a natural language is too complex for children to learn it from the forms they hear. Secondly, adults, when talking to children, supply them with fragmentary and often incorrect language data (in spite of which children master the full ability of correct communication in their native language). Thirdly, children learn language very fast (compared to the acquisition of other skills), which seems to attest to the fact that this ability relies on some underlying innate capacity (Clark 2003: 399). Innateness hypo(thesis) can be treated as a consequence of Chomsky's rationalism and as an element of Chomsky's methodology is visible in at least two aspects. The one concerns the cognitive endowment of humans as a biological species displaying linguistic ability, the other, closely related, regards the properties that are ascribed to language itself. Both aspects are considered by Chomsky from a biological perspective (Chomsky 2002: 1). Generally speaking, Chomsky believes that there exists human nature that remains unchanged regardless of what takes place in the environment of a given person. The only possible changes are the changes to the biological species itself. So considered, language – as an element of human cognitive endowment – is immutable; this also means that all particular languages are similar to one another on a deeper level, imperceptible at first glance.

Chomsky often simplifies and trivializes the problem of innateness. In one of his interviews, he puts forward the following statement. To claim that language is not innate is to claim that when one takes a stone, a rabbit and a grandmother, and places them in an English-speaking community, they will all end up learning English (Chomsky 2000b). Nevertheless, such a take on this problem fails to show the explanatory power of the innateness (hypo)thesis – all the more so that in the above formulation it is not at all clear what is in fact innate. Similarly, the said stone, rabbit, and grandmother, when placed in a human civilization, will

have different ways of building houses, but can one take it to demonstrate that constructing skyscrapers counts as innate? Chomsky quite often repeats that innateness is not problematic when understood as a principle, it becomes problematic when one wants to prove it using some empirical criteria (Piattelli 1979: 53). But that is something which we want to do in our considerations, to dress abstract claim in the empirical suit. It must be noted again that, as a matter of fact, in the innateness controversy the most important is the answer to the question of what is actually innate. This answer appears to constitute the crux of the matter, not so much polarizing the researchers into opposing camps, but generating a certain continuum of positions in regard to what may or may not qualify as innate. Chomsky himself agrees that there is no general innateness (hypo)thesis and he makes his best to show the specificity of the universal grammar. He also makes efforts at specifying his answer by introducing the categories of universal principles (e.g. distinctive phonological features, material universals, noun, past tense). The violation of those principles, even in the case of an artificially constructed system, would render it impossible to learn. Therefore, it is crucial to identify these principles, as well as to specify the methods with which they can be captured. What universal traits are dictated by the biological faculty of language, and does their presence in at least the majority of (if not all of) the world's languages count as enough evidence for their innateness? Nevertheless, one could as well maintain that it is certain indispensable cognitive skills, and not language, that are innate – certain cognitive endowment that allows language to evolve (Tomasello, Bates 2001: 304-305).

More fundamental questions emerge at this point. Is the thesis about the innate character of language a proven thesis, or simply a hypothesis? Does it explain anything? Does it give us more information about language as such? Frequently enough the innateness thesis appears in the form of a hypothesis that serves to explain two problems: the problem of the universality of grammatical rules, and the question of the child's abilities to construct the

grammar of its native language based on the utterances that it hears. This hypothesis can be reformulated in the following way: there is no reason not to suppose that children are born with exquisite knowledge of universal grammar that they make use of to acquire their native language (Chomsky 1968: 434). Accordingly, the innate schema is postulated as an empirical hypothesis that explains the homogeneity, specificity, richness in detail, and structural elaboration that characterize the grammars that are used by proficient speakers (Chomsky 1968: 410). The homogeneity mentioned above proves, or at least suggests, the existence of such a schema. The hypotheses of similar sort are, however, very difficult to verify; although they are fully admissible as conjectures, their status is not in any way privileged over the hypotheses from competing theories of language. A large group of researchers strongly oppose the innateness hypothesis on a number of specific grounds<sup>7</sup>. Empirical research is quoted to question the validity of both the second and the third of Chomsky's observations: adults provide children with speech that is characterized by a high level of grammatical correctness, and children need a relatively long time to master the use of syntactic structures (Clark 2003: 399).

From philosophical point of view one can state that innateness controversy beautifully points out metaphysical and even ethical assumptions taken both by the adherents of innateness and by its opponents. If one listen to the dispute between them, one can easily find out that there is no such view as pure radical empiricism or pure radical rationalism. There is a kind of spectrum of views where accents on what is acquired and what is innate have been put differently.

# 5. Concluding Remarks

<sup>&</sup>lt;sup>7</sup> The opponents of the innateness thesis include E. Bates, B. MacWhinney, M. Tomasello, D. Slobin, R. Langacker, A.E. Goldberg. See Tomasello, Bates 2001: 8.

In 2004, a second edition of Chomsky's *Language and Politics* (Chomsky 1988) came out, substantially extended by the inclusion of a great number of interviews that had been made with Chomsky over the years of his intellectual activity. That the discussions concerning language, its origin, theories of its acquisition, and its philosophical and psychological contexts are placed alongside the interviews on the current socio-political issues – is not accidental. This is the case because to Chomsky, the political and philosophical questions are interconnected. On a number of occasions, Chomsky expressed a conviction that behind the claims of a non-innate character of language there are particular political views, related to specific interests. One example could be the belief in the possibilities of manipulating human minds: if one sees the human to be a *tabula rasa*, it is susceptible to any influences, or at least there exist good grounds for exerting such influence.

particular philosophical conceptions theoretical In there are numerous interdependencies that may not be readily visible at first glance. This applies to Chomsky's theory as well. His own beliefs, too, are embedded in a broader and not always sufficiently explicated context of assumptions that are made in order to develop particular theses. It seems that the most essential of his theses is the one regarding the existence of human nature that can be characterized and explained using a biological vocabulary. Its formulation requires such categories as empirical confirmation, facts (as opposed to artifacts), and "the natural" (as opposed to entities that are socially constructed); these categories are presupposed to be transparent and unequivocal. In this text, I have undertaken to show that their acceptance stems from certain philosophical or, strictly speaking, metaphysical judgments. These include, notably, the most basic one, about the exclusively physical character of existence (whatever this could mean); and the only worthwhile study concerns itself only with the entities that exist in this way. If the only really existing language is the internal system of lexicon and rules implemented in the brain of the individual speaker, then such a conception of real existence harbors assumptions that do not always find support in what is "factual", "natural", or "empirically verified". This reality is derived from rationalistic and realistic philosophical presuppositions. They allow Chomsky to state that there exists a biologically shaped rationality characteristic of immutable human nature; that experiences and external environment have negligible effect on the shape of the language faculty; that the study of shared public language is relatively unimportant for the description of this faculty; that the capacity for using language, implemented in the human brain, can be studied by means of the increasingly advanced methods of the natural sciences; and so on. Such statements are compiled not only on the basis of empirically confirmed theses, but also arguments that had been accepted prior to any confirmation process; these include the arguments which served to establish what forms an empirical proof or confirmation could take in this case. All of this should be borne in mind when setting out to evaluate the validity of particular judgments within the remarkable theory of Noam Chomsky.

## References

- Burge, T. 1989, "Wherein is Language Social", in George A. (ed.) *Reflections on Chomsky*. Oxford: Basil Blackwell, pp. 175-191.
- Chomsky, N. 1957, Syntactic Structures, The Hague: Mouton.
- Chomsky, N. 1965, Aspects of the Theory of Syntax, Cambridge, Mass.: MIT Press
- Chomsky, N. 1967, "Review of B.F. Skinner 'Verbal Bahaviour'", in Jacobovits L., A., Mirron M. S. (eds.), *Readings in the Philosophy of Language*, New Jork: Prentice Hall, pp. 142-143.
- Chomsky, N. 1968, Language and Mind, New York: Harcourt Brace Jovanovich.
- Chomsky, N. 1975, Reflections on Language, New York: Pantheon Books.
- Chomsky, N. 1979, Language and Responsibility, Sussex: The Harvester Press.

- Chomsky, N. 1980, Rules and Representations, New York: Columbia University Press.
- Chomsky, N. 1988, Language and Politics, New York: Black Rose Books.
- Chomsky, N. 1995, The minimalist program, Cambridge, Mass.: MIT Press.
- Chomsky, N. 2000a, *New Horizons in the Study of Language and Mind*, Cambridge: Cambridge University Press.
- Chomsky, N. 2000b, The Architecture of Language, New Delhi: Oxford University Press.
- Chomsky, N. 2002, On Nature and Language, Cambridge: Cambridge University Press.
- Chomsky, N., Hauser, M., Fitch T.W, 2002, "The faculty of language: what is it, who has it, and how did it evolve?", *Science* 298, pp. 1569-1579.
- Clark, E. V. 2003, First Language Acquisition, Cambridge: Cambridge University Press.
- Haith M. 1998, "Who put the cog in infant cognition? Is rich interpretation too costly?", *Infant Behaviour and Development* 21 (2), pp. 167-179.
- Hitchcock, Ch. (ed.) 2004, Contemporary Debates in Philosophy of Science, Oxford: Blackwell.
- Kasher, A. (ed.) 1991, The Chomskyan Turn, Oxford: Basil Blackwell.
- McGilvray, J. 1999, Chomsky. Language, Logic and Politics, Cambridge: Polity Press.
- Piattelli-Palmarini M. (ed.) 1979, Language and Learning. The debate between Jean Piaget and Noam Chomsky, London: Routledge.
- Pickering, A. (ed.) 1992, Science as Practice and Culture, Chicago: Univ. of Chicago Press.
- Putnam, H. 2004, "The Content and Appeal of 'Naturalism'", in: Macarthur, D., de Caro, M. (eds.) *Naturalism in Question*. Cambridge, Mass.: Harvard University Press, pp. 59-70.
- Smith, N. 2004, Chomsky. Ideas and Ideals, Cambridge: Cambridge University Press.
- Stone T., Davies M., 2002, "Chomsky Amongst the Philosophers", *Mind & Language* 17, pp. 276-289.

Tomasello, M., Bates E. (eds.) 2001, Language Development. The Essential Readings, Oxford: Blackwell.