'Even if most linguists, however, are not yet primarily or very deeply concerned with semantical question, it seems to me pretty obvious that at some not very distant date, linguistics must begin to deal with these questions much more extensively than it is doing today,....'

H. Putnam (1975:85)

'From Chomsky's Nativistic Theory to Sociolinguistics' is a discussion of an attempt to connect Chomsky's nativistic program with sociolinguistics as presented in Pateman (1987). Pateman suggests that the link between two approaches should be Stephen Stich's 'syntactic theory of mind' (STM). The questions discussed in the article are: 1. Is Chomsky's nativistic program adequate as a cognitivistic base for linguistics? and 2. Can a link between nativism and social sciences be a syntactic theory of mind? The answers given are: 1. Chomsky's nativistic program is not an adequate base on which social theories can be elaborated. He resists making meaning part of his theory, he gives no place to content and does not mention truth and reference at all in specifying the basic problems in semantics. Since sociolinguistics deals with (conscious) contentful beliefs about language forms, it is wrong to take Chomsky's nativistic program as a cognitivistic base for social sciences. 2. If
the nativistic program should include content and Stich's program is actually based on mental states and processes which exclude any mention of content, then the gap between nativism and sociolinguistics cannot be bridged by using just syntactic theory of mind as a link.

A plausible possibility of connecting mind and society is a model that gives an adequate role would be given to mental states which are not only syntactic (Devitt 1989). Only a psychological theory which explains cognitive states on the base of their content can serve as a base for developing a sociolinguistics theory. Psychological theory which is concerned only with syntactic properties of mental processes cannot play the role that this particular approach assumes.

I

We can say that there is a certain antagonism present in linguistics today between those who, on the one hand, see linguistics as a natural science and others who take linguistics to be primarily a social science.1 According to respective persuasions each group gives two kinds of explanations for linguistic phenomena. There have been attempts in recent times to deal with and/or to bridge the gap that this dichotomy implies. One of them is by an Oxford philosopher Trevor Pateman in his book Language in Mind and Language in Society (Oxford, Clarendon Press, 1987). There is an attempt to connect Chomsky's nativistic program with the assumptions advocated for in social sciences, sociolinguistics being a representative example of the latter attitudes within linguists. The link between the two approaches would be Stephen Stich's syntactic theory of mind (STM).2

Chomsky's program in linguistics is taken as a framework within which one has to justify and explain the conscious and collective aspects of language studied by sociolinguistics.

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1 This paper was presented at the conference 'Truth and Reference' held at the Inter-University Center in Dubrovnik, 10-15 Sept. 1990. I would like to thank Michael Devitt (Univ. of Maryland) for his most helpful written comments and criticism of this paper.

2 One more attempt to connect psychological and social in language based on the empirical material can be found in Hurford 1987 where in the preface has says that his book is a 'contribution to linguistic theory. It offers a view of language which brings together considerations of individual psychology and of communication within a speech-community'.
II

_I shall try to do the following in this article. First to present the assumptions and argumentation of the suggested program. Second to say why Chomsky's nativistic program in linguistics is inadequate as a cognitive base for linguistics and third to question the choice of cognitive link from nativism to social sciences based on a syntactic theory of mind._

The two levels (mental and social) of the investigation of language phenomena can best be represented with the difference that Chomsky makes between externalized E-language and internalized I-language. Linguistics concerned with E-language which goes back to structural tradition is mainly oriented towards collecting, describing and systematizing languages and their properties. E-language is a set of sentences 'understood independently of the properties of the mind/brain' and 'a grammar is a collection of descriptive statements concerning the E-language' (Chomsky 1986:20). Language facts are described with structures and patterns. I-language is tied to what a speaker knows about language. Language is conceived as an inner property of the human mind/brain. Grammar is described with principles and parameters. Chomsky's linguistics is a move from the study of E-language towards the investigation of I-language, that is from the outer system towards the system represented in the mind/brain of every speaker. Grammar presents a description of speaker's knowledge, of his competence and not the production of this competence, i.e. performance. Grammar is definitely, by this approach, tied to the properties of the human mind/brain. Thus with the help of I-language we study the mind/brain and not the context in which the communication is conducted. The latter is the domain of E-language where language is studied as a social phenomenon tied to the situation of speaking. Here an important role is given to, for example, the social status of the speakers. The stress is on communicative behavior and not on the psychological element. Thus sociolinguistics, pragmalinguistics, discourse analysis belong to the study of E-language. As stated in Cook: 'The opposition between these two approaches in linguistics has been long and acrimonious; neither side concedes the other's reality. It has also affected the other disciplines related to linguistics...E-linguist despises the I-linguist for not looking at "real" facts; the I-linguist derides the E-linguist for looking at trivia' (Cook 1988:13).

The argument is that we should be looking for the reconciliation of these opposite views. But let us proceed slowly.
The aim is to show that from nativism one can arrive and explain social language practices. The assumption is that it is not enough to know the grammar, i.e., to possess language knowledge or competence and that together with it we still have to know much within the framework of communicative competence.

I shall claim that knowing grammar is not enough even on the level of the mental (nativism deals with the mental) because grammar omits semantics, that is links to the world.

Here are some nativist theses. I state them here since I need them for my argumentation. 1. The Growth Claim. This claim says that the development of language is a process which goes on on the subpersonal level of the organism. Grammar is represented as something to which the organism (or the brain) is liable. The grammar grows in us; we do not learn it. 2. The Underdetermination Claim. The claim is that mentally represented grammars cannot be derived from speech input to which they are connected (grammars are led by language growth on the level of the organism). 3. The Claims for Universal Grammar where Chomsky's 'principles and parameters' account defines the 'core grammar'. Thus Chomsky says: '... a core language is a system determined by fixing values for the parameters of UG, and the periphery is whatever is added on in the system actually represented in the mind/brain of a speaker-hearer' (1986:147). 4. The Modularity Claim. This claim consists of the thesis that language is separated from other forms of representations in the brain. Modularity thesis says that the brain is divided into modules and every module is responsible for different aspects of mental life. Universal grammar is then a theory of language module which has its set of principles different from other modules. The modularity thesis is widely accepted although it has its opponents. 5. The Critical Period Claim presupposes that there is a certain critical period in which language develops. When the period is over, language acquisition (like perceptual ability) is not possible any more. 6. The Steady-State Claim. This is the claim that mentally represented grammars develop to the point after which they cannot be modified or changed any more.

The main argument is the following: Speakers have the knowledge of language in the shape of mentally represented grammars but they also have beliefs and wishes about language which lead them to modify the output of their mentally represented grammars. These modifications are studied by sociolinguists. The so-called adaptive rules have social values of extralinguistic reality. This places adaptive rules (A-rules) on the level of the person (speaker) and not on the subpersonal level of the organism. A-rules are formulated in the context of the subjects' beliefs and wishes about their position in the society.
Summing this up: 1. Adaptive rules modify the output of the grammar. Grammar is already developed and fixed (it is in a steady state Ss). 2. Adaptive rules are developed consciously on the basis of beliefs about desirable and undesirable language forms and not through the unconscious processes of language input. In other words, a speaker has a conscious aim and he tries to implement the changes which are present in his consciousness. The speaker develops his beliefs on the basis of his mentally represented grammars and he changes his language.

III

What is the connection between nativistic theory and sociolinguistic theory? How is sociolinguistics successfully connected to a cognitive theory of mind, that is, a theory which uses the idea of non-introspectible computational operations over such objects which are considered representations. We saw that there is the difference between personal and subpersonal levels of human organism and on this level, better at this point, we are to solve the disagreement between cognitivists and anti-cognitivists. There are normative social practice which we discover by introspection and non-introspective, that is intuitive, mental representations. This distinction presupposes the division of labor between the social scientists and cognitivists. The former are interested in the activities such as the ascription of beliefs to persons and the latter ascribe states and processes to organisms.

The theory on which this connection between these two domains is based is the syntactic mental theory of mind which ascribes non-introspective subpersonal representation and computations which take into account only their formal that is syntactic properties. The organism has subdoxastic states and not beliefs. The main features of the theory are borrowed from the work of the American philosopher Stephen Stich. According to Stich, the virtue of syntactic theory of mind is that it does not use imprecise and inherently social concepts of folk psychology. This is strictly a theory of an individual organism and that is what Stich believes psychology has to be. Thus Stich says: '....., STM theories are able to characterize the cognitive states of a subject in terms appropriate to the subject rather than in terms that force a comparison between the subject and ourselves' (1983:158).

Stich's main argumentation is found in his book From Folk-Psychology to Cognitive Science (1983). He offers his syntactic theory of mind (STM) where all folk psychological concepts are rejected and especially the notion of content and which assigns to the nonintrospective subpersonal representations only formal,
syntactic properties. The basic idea is that cognitive states which are responsible for the behavior are systematically tied to the abstract syntactic connections. Thus Stich says that the central idea of the syntactic theory of mind - the idea which makes it syntactic - is that generalizations which describe causal relations between hypothetical neurological states must be specified indirectly through the formal relations between syntactic forms. Nothing in the syntactic theory of mind requires that theories that rely on the content of beliefs should be imitated. Syntactic theory of mind avoids all mention or reliance on content.¹

Syntactic processes which Stich is describing present the autonomous subpersonal level in distinction to beliefs and wishes that come on a higher, personal level. What is being claimed is that although subpersonal and personal levels have relative autonomy of operations, autonomous operation of the subpersonal processes which are characterized as inaccessible to introspection have consequences for a kind of belief which we can plausibly assign to the subject on the personal level and they are the cause of the variations in beliefs. In other words, although the content of beliefs is assigned only on the personal level, the processes that fix beliefs are not processes on the personal level.

IV

I now raise the following questions: Firstly, why is Chomsky's nativistic program the most adequate base on which social theories can be elaborated? I claim that it is not. Secondly, why a cognitivistic theory which is primarily engaged with formal, syntactic or computational properties of the mind and which denies the existence of contentful beliefs is the best linking theory on which it would be possible to integrate social approaches?² In other words, why would such a theory be the most adequate one for the connection between nativism and sociolinguistics? I argue that it is not.

³ Pateman's presentation and argumentation of Stich's theory of mind is very short (1987:116-119) so my elaboration in not found in Pateman.

⁴ Pateman's argumentation for choosing STM theory over other is sketchy and mainly relies on Putnam-Burge criticism of individualism in semantics. It seems to me that Putnam-Burge criticism of a cognitive theory applies equally to Fodor's and Stich's theories of mind. Fodor's RTM theory cannot be characterized as a 'semantic theory of mind' (Pateman 1987: 117, note 7) because he is mainly interested in formal, syntactic and non-semantic properties of mental representations although he tries to implement some folk psychological notions in his RTM.
1. Why is Chomsky's nativistic program the base on which social theories can be elaborated? Chomsky's nativistic program, that is his linguistic theory is primarily concerned with questions about the organizational structure of grammar. But knowing grammar is not enough because grammar omits content, i.e. semantics, that is links to the world.

I shall proceed in such a way as to see if the nativistic claims exclude content, i.e. semantics from their considerations. I shall argue on the examples of a couple of nativistic theses that Chomsky is not clear on this point. He is actually inconsistent and although it might seem that he includes content it becomes rather obvious that semantics does not actually play a significant role in his theory.

One of the claims, the growth claim, about the mentally represented grammars includes the processes which are going on on the subpersonal level of the organism and is contrasted to the learning which is tied to the intentional language of the person. But the growth does not seem only syntactic and contentless. First, for the growth of grammar (as advocated by Chomsky) we need trigerring from the speech community. A right sort of stimulus must be present and that is certainly contentful. The growth of grammar is going on on the subpersonal level and we do not have accessibility to the processes which establish the type of grammar (apart from intuition). But although we do not have the access that does not mean that the processes are devoid of content and that they can be explained only syntactically. Chomsky says: '... Suppose we accept a "principle-and-parameters" model, which supposes (to overstate the point for simplicity) that the child in effect approaches the language with a 'questionnaire' (Are you a null subject language? Are you head-initial or head-final? etc.).' (in Pateman 1987: 86, note 10). It seems clear that the processes of acquisition or grammar growth are not only syntactic. If, metaphorically speaking, a child has a questionnaire which he/she uses to acquire language it is not only of formal nature. The speaker is using semantic information to learn a language. These remarks would lead us to believe that competence in language is primarily the linking of some inner ability and relating it to the world.

But, as has been noted a number of times Chomsky's claims are inconsistent. So in his writings we also find that he believes that social triggering necessary for the formation of grammar or language acquisition is of very minor importance since the acquisition in not happening on the personal level but it is primarily and most importantly seen as a biological growth. The idea is, as I said before, that there is a subjectless language growth. The organism is led by discovery processes and although Chomsky at times talks about the content of the discovery procedures they are at the same time defined as computational and purely syntactic.
Universal grammar claim also seems to indicate that mental states have content. Chomsky changed his characterization of the nature of UG and the newest version is based on the fact that the knowledge of language does not consist of rules as such but of underlying principles and parameters from which rules are derived. This is the main conceptual change in the theory. Rules must be explained as interaction of principles and lexical properties and not in the sense of their independent existence (Cook 1988:24-25). Thus if a rule includes principles and lexical properties then it certainly includes content. Here are a couple of quotations. Chomsky for example says: 'A conception of UG is a virtually rule free system. The representations that appear at the various levels are those that can be predicted from semantic properties of lexical items in such a way as to accord with the various principles of UG with their parameters set' (1986:93). Also: 'There has been a gradual shift of focus from the study of rule systems, which have increasingly been regarded as impoverished,... to the study of systems of principles, which appear to occupy a much more central position in determining the character and variety of possible human languages' (1982:7-8). Although Chomsky speaks about the strictness which the principles have in their connections with the evidence, it is not openly implied that such principles would be without content. But at the same time we can also find places where it is claimed that syntax seems to be all there is in the deep structure. So for example: '... but all of this is internal to the theory of mental representation; it is a form of syntax. There seems no obvious sense in populating the extra-mental world with corresponding entities, nor any empirical consequence or gain in explanatory force in doing so. Insofar as this is true, the study of the relation of syntactic structures to models, "picture" and the like, should be regarded as pure syntax, the study of various mental representations, to be supplemented by a theory of the relation these mental objects bear to the world or to the world as it is conceived or believed to be... Thus the shift toward a computational theory of mind encompasses a substantial part of what has been called "semantics" as well... (1985:45). Thus again the statements about content are ambivalent.

Speaking of competence Chomsky says: 'By "grammatical competence" I mean the cognitive state that encompasses all those aspects of form and meaning and their relation, including underlying structures that enter into that relation, which are properly assigned to the specific subsystems of the human mind that relates representations of form and meaning' (1980:59). The important sentence for our discussion is that Chomsky seems considers cognitive states to include aspects both of form and meaning but he still characterizes it as "grammatical competence". On the other hand we can find equally strong statements in which Chomsky is strongly opposed to even the possibility of semantics. Here is a longish quotation: 'Why then raise the question of the possibility of universal semantics which would provide a complete and accurate representation of every
sense of each lexical item, and the rules which determine the meaning of expressions in which these items appear? There are, I think, good reasons to be skeptical about such program. It seems that other cognitive systems - in particular our system of beliefs concerning things of the world and their behavior - intervene in our judgments of sense and reference in an extremely intricate manner, and it is far from clear that it would make sense, even in principle, to try to separate these different elements of what an informal usage or even in technical discussions we call the "sense of a linguistic expression". I believe that one cannot separate semantic representation from knowledge of the world (Chomsky & Ronat 1977:147-8) (emphasis in the original).

One could go on for a rather long time juxtaposing in such a way almost contradictory assumptions about meaning in Chomsky's theory. We can say here that Chomsky's position on semantics is to say the least very sceptical. He views meanings as inseparably bound up with extragrammatical fact and belief and hence a matter to be treated outside sentence grammar. Philosophers, especially Putnam (1975) and more recently Devitt (1987) have argued very convincingly that there is no evidence that content/semantics plays any role in Chomsky's theory. Although Chomsky (as seen from some of the quotations) seems to assume that states have content he does not give content any role in his theory. Chomsky has nothing useful to say about semantics. His talk of semantics is merely 'epiphenomenal' doing no theoretical work. In his critique of Katz's theory of meaning for example Putnam stated: 'The problem of semantic theory is to get away from the picture of the meaning of a word as something like list of concepts; not to formalize that misguided picture' (1975:146). That this picture is perpetualized is evident from some rather recent Katz's assumption where he claims that 'the acquisition of semantic structure is the same as the acquisition of phonological structure: in both, the acquisition of lexical information is a matter of the realization in the dictionary of an element from a space of possible concepts' (Katz 1980:23). Philosophers' major objection to the grammarians' theory of meaning is that it ignores the central problem: language-word relations, and with that they ignore truth and reference as central notions in the theory of meaning that can carry theoretical significance. 'At bottom, the grammarians do not explain meaning but take it for granted. For their primitive concepts are nothing but unexplained meanings' (Devitt 1987:102). This discussion, of however great importance that it is because it raises the fundamental question of what linguistics really is, would lead us away from the main concern of this paper. Strong arguments of what linguistics is about can be found in Devitt and Sterelny (1989).

Summing it up, Chomsky's nativist program is not the adequate base on which social theories can be elaborated. He resists making meaning part of his theory, he gives no place to content and does not mention truth and reference at all
in specifying the basic problems of semantics. Consequently since sociolinguistics deals with (conscious) contentful beliefs about linguistic forms, it is wrong to take Chomsky's nativistic program as a cognitivistic base for social theories. My claim is even stronger: the whole program seems inadequate as a linguistic theory because it excludes content from its consideration and thus ignores links to the world. Consequently, it is equally inadequate to make Stich's syntactic theory of mind a cognitivistic link between the tacit knowledge of the language and sociolinguistics. This is my second argument.

1. How does Stich's program serves as a link to social theories? So the answer to the question: Can Stich's theory in any way be a cognitivistic link to sociolinguistic explanations? is negative and I shall try to give a couple of arguments why this is an implausible project.

As we have seen from the short exposition of his views, Stich thinks that there are no beliefs but only their syntactic analogues ("B-states"). Furthermore states like beliefs and the contents of such beliefs should be eliminated from serious science since they are indeterminate, arbitrary and dependent on many other factors. Folk psychological ascriptions should be eliminated from the syntactic model which does not contain semantic properties, i.e. content has to be excluded.

Stich thinks that generalizations that contain folk psychological reliance on content are imprecise and tied to the context. Let us look into some more detail into Stich's 'principle of autonomy'. The basic idea of this principle is that states and processes for which psychology should be interested in are those that supervene on internal, physical states of the organism. Thus the psychological theory must neglect those differences between organisms which are not visible (noticeable) in their internal states. Namely, according to the principle of autonomy the facts that organisms have different pasts and that they are in different surroundings is not relevant for the psychological theory (apart from the fact that such differences could have influence on the inner states). Putting it more strongly, the principle of autonomy does not allow generalizations in the terms of contentful sentences since

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5 Here we have to stress that we cannot deal with the question of the plausibility of Stich's theory of the mind since we are primarily interested in the question of Pateman's selection of such a theory as the most adequate one for the connection of nativism and sociolinguistics. Nevertheless the argumentation is actually a criticism of Stich's theory of mind. Anyone interested in the philosophically-excellently argued article against STM theory of mind can see D e v i t t (1989). For the discussion of content see F o d o r (1981), P y l y s h y n (1980) and G o l d m a n (1986), especially the chapter "The Problem of Content".
in that case the content sentences are tied to reference and causal links of individual subjects and through that to sociolinguistic environment in which subjects are found. If the principle of autonomy forbids any mention of external factors on which semantic properties depend and in order to remove the indeterminacy, the cognitive scientist must adopt a taxonomy which is not sensitive to sociolinguistic setting or to the causal history of the terms the subject uses' (1983:147), then Stich's theory cannot be a link between nativism (even assuming, which I do not, that nativism is right) and sociolinguistics.

Actually Stich himself seems to be saying that it is not possible to combine these two things because of his conviction that cognitive psychology must exclude any premise of folk psychological type. Folk psychology can satisfy itself with explanation that include personal level of the kind that we find in sociology, sociolinguistics and also ideology. Here are a couple of quotes: 'Thus the folk notion of believing that p is an amalgam of historical, contextual, ideological and perhaps other considerations... These further factors can surely be studied by various disciplines. But they have no place in a science aimed at explaining behavior (1983:170).

We could ask: How processes which are only computational and contentless can generate contentful beliefs which sociolinguistics relies upon (and other social science too)? It does not seem plausible (clear) in which way syntactic processes which do not include semantics can satisfy sociolinguistic dimensions (beliefs that are tied to indeterminacy). What does it mean to have mental processes without content apart from a metaphor of something that does not exist. An answer would have to be given to the question of how psychological states which do not postulate any other subject to which states like beliefs are ascribed can serve as a base from which intersubjectivity will be included which is sine qua non of sociolinguistics and other social sciences?

If I have showed that nativistic premises should include content and Stich's program is actually based on mental states and processes which definitely exclude any mention of content then the gap between nativism and sociolinguistics cannot

6 Devitt has argued against Stich with the argumentation that a theory of mind has to go beyond syntax. It must include links to sensory inputs and outputs and has to ascribe some content (meaning). Thus he says: 'Talk of syntax of the mental sentences is quite inadequate because syntax does not include links to sensory inputs' (1989:382). Devitt presents an alternative theory under the name of "Narrow representational theory of the mind".

7 Let us note that the subtitle of Stich's book in which he presents his views is 'A Case against Belief'. Stich says: 'I am strongly inclined to think that the right thing to say is that there are no such things as beliefs. (1983:23).
be bridged by using just syntactic theory of mind as a link. I conclude that Stich's
time of mind cannot be a connection between nativism and sociolinguistics in a
way envisioned by Pateman.

A plausible possibility of connecting nativism and sociolinguistics is a
model in which an adequate role would be given to mental states which are not
only syntactic. Only a psychological theory which explains cognitive states on the
base of their content can serve as a base for further elaboration of a sociolinguistic
time. Psychological theory which is concerned only with syntactic properties of
mental processes cannot play a role which Pateman would like to give it. Syntactic
description of the brain structure cannot tell us more about mental states than a
description of the position of the tongue or the vibration of the vocal cords could
tell us about the meaning of our utterances.

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D. JUTRONIĆ TIHOMIROVIĆ: FROM CHOMSKY’S ... RFFZd (20)(1990/91)

Dunja Jutronić-Tihomirović: OD CHOMSKIJEVOG NATIVIZMA DO SOCIOLINGVISTIKE

Sažetak

U članku se raspravlja o jednom pokušaju povezivanja Chomskyevog nativističkog programa sa sociolingvistikom (Pateman 1987). Autor preispituje prijedlog da veza između nativizma i sociolingvistike bude sintaktička teorija uma kako je predstavljao američki filozof Stephen Stich. Dajem odgovore na sljedeća dva pitanja: 1. Može li Chomskyev nativistički program biti adekvatna kognitivistička osnova u lingvistici; 2. Može li veza između nativizma i društvenih znanosti biti sintaktička teorija uma. Argumentira se zašto Chomskyev nativistički program nije ispravna osnova na kojoj se mogu elaborirati društvene teorije. Chomsky ne pridaje semantici/sadržaju adekvatno mjesto u svojoj teoriji i ne spominje istinu i referenciju u određivanju osnovnih problema s kojima se suočavamo u semantici. Pošto se sociolingvistika bavi (svjesnim) sadržajnim vjerovanjima o jezičnim oblicima, autor smatra da je pogrešno uzimati Chomskyev nativistički program kao kognitivističku osnovu za društvene znanosti. 2. Ako nativističke premise treba da uključuju i pitanje sadržaja a Stichev program se zapravo zasniva na mentalnim stanjima i procesima koji u potpunosti odbacuje pozivanje na sadržaj, onda se most između nativizma i sociolingvistike ne može uspostaviti služeći se sintaktičkom teorijom uma kao vezom.

Plauzibilna mogućnost povezivanja uma i društva trebao bi biti model koji daje stvarnu ulogu mentalnih stanjima koja nisu samo sintaktička. Samo ona psihološka teorija koja objašnjava kognitivnu stanja na osnovi njenih sadržaja može poslužiti kao osnova na kojoj se može nadograđivati sociolingvistička teorija. Psihološka teorija koja se bavi samo sintaktičkim svojstvima mentalnih procesa ne može imati ulogu koja joj se pridaje u ovom određenom pokušaju i pristupu.