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However, it should not be taken for granted that many are still enchanted by the ideas put forth by structuralism including descriptive linguists who in the recent years have displayed a tremendous penchant for allowing their mode of description to be affected by insights from typological studies. So in this way descriptive theories can also manifest explanatory power (ibid.).

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same token, he rebukes the data on which the Chomskyan I-view is based (Bresnan, 2004).

The focus of the present study, the lexicon-syntax interface, operates along the same lines: no strict theory of the structure of the lexicon can afford to get along without at least some theory of lexicon, in the same way as no serious theory of syntax can afford to overlook the lexicon (Schoenfeld, 2001). This is simply because in most linguistic theories the lexicon serves the function of providing all the necessary materials out of which syntactic and semantic structure is formed. As one begins to investigate the goals, devices, and claims of the competing theories, it turns out that there are various ways in which there could be articulated a division of labor between the lexicon and the syntax (ibid.).

Though the present study derives one to a bias towards a lexicon-dominated interface between lexicon and syntax where information from lexical items takes precedence over syntactic principles in construction of linguistic structure, one should struggle for making a brave effort and for being unafraid to build bridges between a purely distribution-based theory and that of generative grammarians, as we think it will be more fair and correct to say that the difference between the opposing views in this respect is one of stress and degree than of kind. So there is a continuous argument, on the part of some fairly realistic linguists such as Dryer (2003) concerning a need for both descriptive and explanatory theories. On the grounds of the false contrast many linguists observe between description and theory, and because of the intense prestige associated with the concept of *theory*, many often disregard any efforts made by distribution-based basic linguistic theory as "merely" descriptive.

Harris follows Sapir's classic observations about speaker intuitions which is absolutely Chomskyan perspective on the relationship between semantics and syntax during the 1960s (Huck & Goldsmith, 1996: that meaning is no business of syntax, but that a thorough grammatical analysis will have probably much to offer to neighboring disciplines concerned with meaning and logic.

Correspondingly, Robert Longacre (2002) remarks on Harris's reluctance to link to a distribution-based analysis of corpora information regarding the meaning of it. In our credo, Harris moves along the same lines as did Carnap and Bloomfield in, as Bar-Hillel (1970) suggests, striving to go on without fuzzy semantics- and to reconstruct their fields on a purely structural basis. A most known modern statement of a distribution-based idea of grammatical analysis is from Maratsos and Chalkley (1980) who closely follow Bloomfield (1933) and Harris (1951). They suggest that children could sort words into grammatical categories by noting their co-occurrences with other morphemes and their privileges of occurrences in sentences. Thus, *-ed* follows verb and *the* precedes noun. They assert that children carry out such analyses even in the absence of fostering semantic evidence.

Antagonistic psychologists though deprived of the tools to develop what is or is not a suitable noun preponder, can easily assert that "nouns" simply are not the most frequent article-followers but that *adjectives* and *adverbs* are. That is why the computational linguists today struggle to develop as similar as the traditional linguistic labeling regarding the categorization of words into patterns. Goldsmith (2005) alike many others criticizes Harris's E-view as being too meager disregarding many linguistic facts. However, by the

because he believed that this is the only basis on which one could establish a comprehensive linguistic theory.

Harris' work from the very early to the end was on the basis of the view that linguistics was a science of external facts (such as corpora) rather than a science of internalized knowledge as Chomsky asserted. As Morris Halle (2004) notes, it was the increasing awareness of the committive view to a rationalist hypothesis, different from Harris's empiricist view, which led to the intellectual alienation between Harris and Chomsky despite their close coalition up until 1960. One could come up with important subfields of linguistics that stay involved with an empiricist view of linguistics ranging from corpora linguistics and the most contemporary computational linguistics in a close association with connectionists' view of linguistics (see e.g. MacWhinney, 1998).

Goldsmith (2001) is also of the credo that an up-to-date version of Harrisian conceptions acts as a firm foundation for the working linguists with regard to the current rationalist view. The image emerging out of Harris's view, according to him, is one that regards a radical disintegration of linguistics from psychology and biology. A radical move that will be a curse to quite a few leading theoreticians in linguistics from Ronald Langacker and George Lakoff to Ray Jackendoff and, of course, Noam Chomsky all of whom advocate an affiliation of linguistic structures with human cognitive structures. To the reverse, Harris's determined view was to adhere to an autonomous science of linguistics not involved with the methodological and conclusive concerns of any other discipline for he regarded predictions as being outside the techniques and scope of descriptive linguistics and that linguistics offers no way of them.

become, to a lesser degree, educationally grammar-oriented, i.e. rely on the grammatical points and rules as the knowledge of language. Given the demographic differences among the individuals, this fact seems to be true especially with those whose knowledge of English language, when coming up to the university, happens not to exceed beyond the high school education, leading to an obviously wrong attitude towards the nature of the English language to be learnt.

### *Conclusion*

Here it is deemed crucial to understand the philosophical standpoints laying behind the idea of the integration or disintegration of meaning and form with an eye to the closely affiliated conception of the integration between lexicon and syntax.

Therefore, in the first place, it is important to understand the challenge that is implicit in developing the Harrisian versus Chomskyan perspective.

Harris's work must be situated in terms of the conflict between two visions of linguistic science: the mediationalist view which according to Goldsmith (2005) regards the aim of linguistic research as discovering how natural languages associate form and meaning, and the distributionist view, seeing how discrete pieces of language (e.g. word and structure) connect to each other in a way that defines each individual language. Harris in contrast to Chomsky had no idea of how mediationalist conceptions could contribute to linguistics as the former's goal was to show that the only priority in a linguistic analysis could be defined in terms of the distribution of components



justify their decisions, at a higher rate with respect to concurrent reports, by appealing to grammatical rules and conventions they seemed to be consciously aware of, and to have encountered in their rule-based course books for instance in resolving on their choices of verb tense, subject/verb agreement and word order. The fact could be somehow related to the conscious efforts made by the subjects to resolve the disagreements which quite logically led to the frequent references to the conventions they were obviously aware of due to the nature of the educational policies and concerns as to what students of the mostly lower education should be provided with. So the rate of appealing to the rules and analogies seemed higher in proportion with the same rate as to the same feature in the concurrent sessions. The logic behind this fact might have to do with Krashen's (1981) continuum of the acquisition/learning distinction where at the left extreme lies the chomskyan claim of unconscious acquisition of language.

At the same time, the groups resorted to intuition or conviction quite frequently. These findings appear to support Odlin's (1994) claim that appropriate intuitions appear to reflect a developing competence in the target language.

Instances where no justifications were proposed or students simply disabanded with 'I think' ...might be owing to this fact that they were not accustomed to articulating their justifications (Swain & Lapkin, 1995) or may not be that proficient in the second language. Sorace (1985), as an instance, offers the claim that it demands an ability of high order to verbalize rules and conventions. It is however the researchers' credo that any appeal to the analogical conventions is to a great extent due to the simple fact that these students have

Accordingly, the two tables the researchers came up with provide the readers with information concerned with the frequency of the learners' concern as well as the justifications they expressed overtly or implicitly as to their choice of a peculiar feature.

The results attained from the two types of the procedures the subjects went through, correlated highly, to the effect that, the retrospective reports corroborated some of the discussions put forth at the end of fractions accommodating concurrent reports.

Due to the nature of the cloze task and the autonomy with which the subjects verbalized their conscious thoughts, it could not be anticipated that all the features of concern were attended to at the same rate. It would rightly be more sensible to recruit a large number of subjects who will produce copious reports at least ten times as many as the ones present in the study. Despite this, the results obtained contribute largely to the claims effected by a unitary account of GB theories regarding especially the valency properties of the content words, and sentence structure not to mention the rest. These two points of concern lie at the crossroads of interaction between the nuts and bolts central in describing a language, for which there seems to exist no logical answer in a meaning-free word-by-word approach to, let us say, text-reconstruction. Accordingly, the groups ventured beyond the single word and considered the entire sentence and the relationships between ideas in the text. What was perhaps more perplexing to the researchers were the justifications the students supplied to speak up for their grammatical decisions. Such justifications and explanations tended to be offered only when disputes (e.g. repairs) arose or where confirmation requests were made. The findings seem to indicate that the subjects attempted to

demonstration of their arguments versus the approach according to which the structures are formulated in the syntax rather than lexically-oriented.

The claims afforded by both approaches were challenged through the protocol techniques adopted. The peculiar methodology was to use the frequency-driven data as indicators of the extent to which syntactic structure is determined or constrained by lexical choices. Although the data admit a range of interpretations, they unequivocally suggest a lexicon-syntax interface which is more strongly restrained by lexical choices and that syntax is more often accommodated to the demands of some lexical items than vice versa (Schoenefeld, 2001). Here, the effects of frequency were key contributors to the GB claims of the lexical-syntactic interface, though those who are unable or unwilling to put data from protocols ahead of formal argumentation might find the discussions tough going.

The results are further utilized for a lexically-dominated interface, with frequency having a much greater importance than in many standard theories, in which these effects are relegated to "mere performance".

Schoenefeld (2001) undertakes a notoriously laborious task of a similar kind: that of applying psycholinguistic data as a way of putting various linguistic theories to test. According to her at least in North American linguistic circles, there is a long-lasting reluctance to allow one's theory to become too indebted to facts from the corpus as to linguistic behavior. But she hopes that others will follow in the line of experimental investigations that she unblocks.

The exchange begins with A making obvious efforts to reconstruct a sentence. At the same time she expresses her uncertainty as to the grammaticality and meaningfulness of the sentence. B accepts this construction, but obviously finds it difficult to articulate the reason for that. Therefore, he resorts to his intuition that the construction sounds right.

### *Discussion*

Many various aspects of syntax have been investigated in SLA research primarily within the American structuralist tradition. L2 syntax has been looked at within the frameworks of the UG theory in the course of the last 30 years quite variously (Cook & Newson, 1996). The chief implication lying in the bedrock of such studies, including the present study, is that when one acquires the L2 as a natural language, one does not need to learn the central areas of syntax (Cook, 1998).

The proper characterization of the lexicon-syntax interface, closely affiliated with the concerns of the above-cited studies, is a central question of not only structuralist theoreticians, but any theory that seeks to explain even the most basic properties of any linguistic relation. The main question of the concern of the present study, about the interface between lexicon and syntax is if and to what extent there exists an association between the lexical-semantic properties of predicated and the syntactic frames in which they appear. Abstracting away from details, here we deal with two types of hypotheses whose concerns we hoped to be touched upon by the subjects involved with the question under scrutiny: the so-called valency-based projectionist approach, according to which 'verbs' lexically specify the

A: Now I explain... The mayor of Oakland ...*of* is used here to show possession...that Oakland possesses this mayor...

In this example, the application of the preposition *of* is justified on the basis of the semantic explication.

One problem with the characterization of a category like 'preposition' is that, according to Abney (1987), they are to some extent anomalous; that they seem "to straddle the line between functional and thematic elements" (p.63). The only point to be discussed here is that the prepositions so unequivocally carry with them a lexical and not a grammatical meaning.

*Sample 12 (word order)*

A: 'Former governor of California' or 'California's former governor'?

B: Yeah, this governor belongs to California. So the two sentences are correct.

In this excerpt, A is unsure about the choice of the correct structure and expresses uncertainty. However, B shows his acceptance of both of the expressions justifying this preference on a semantic basis.

*3- Intuition: statement which reflects sense of what sounds /seems right and what does not*

*Sample 13 (word order)*

A: That the police report...report...has powerful information about crimes. Does it make sense?

B: Well I don't know the rule...I only know ...sounds...nothing is missing...yes the structure...the order is correct...

A: Yeah... 'will be able to' is in harmony with the verb 'can'...so we need future marker....will soon be able to know about all the crime statistics.

This exchange begins with A offering her version of the sentence. B continues by alluding to the rule that the present tense should not be used instead of a future tense. This exchange digresses to a discussion of comparison between verbs but resumes again to the need for the use of the future marker 'will'.

*Sample 9 (subject/verb agreement)*

A: Let me explain... 'police do identify the crimes'. We said *police* is plural so we use plural verb 'do'.

In this excerpt, A justifies the choice of a better alternative, namely, 'plural' verb alluding to the rule that a simple plural verb accompanies a plural noun.

*Sample 10 (article)*

A: We say 'all *the* crime statistics' because these crimes happen in this city so they are definite...we use 'definite article'...

What is so perplexing as to the accomplishment of a retrospective task is the conscious efforts made on the part of the subjects to justify the choices, attending more to the superficial aspects or better still the fundamental categories of the sentence.

*2- Meaning: appealing to semantics or meanings of words in the text*

*Sample 11 (preposition)*

*Sample 6 (verb tense)*

A: Can read...

B: Yes...can read...because something new is going to happen...they will soon be able to do...to read the internet...I mean statistics. So here we use can.

*Sample 7 (subject/verb agreement)*

A: Police *do* identify...*does*?

B: We use *do* to intensify.

A: No *do* but we can use...ok but not *does* because police is plural. So police *do* intensify the crimes.

*Retrospective reports*

The remainder of the data were later analyzed for the justifications and explanations, if any, that the subjects offered as to: first, the kind of grammatical features of the concern of the learners and second, the strategies and procedures taken by different groups to deal with and resolve such concerns. Based on the learner's overt statements or on the implications in such statements, a taxonomy of justifications was drawn up. The following examples from the transcripts illustrate these categories of justifications:

*1. Grammar: justifications which refer to rules or categories**Sample 8 (verb tense)*

A: The mayor of Oakland will soon be able to...we use the *future tense* to show that...

B: Well this is not happening just now

moves, one has to know its underlying structure captured by the propositional meaning.

*Sample 5 (pronoun)*

A- Ok, he is the former governor of California, yes? Can we say 'he was'?

B- Ok, he was the former

C- In the text...*the past sentence*...the mayor of Oakland talks about *he*...so this is the ...about the governor...also he is alive...so he is the former governor of California.

In this excerpt, the pronoun *he* is claimed by C to refer to the same entity articulated in close vicinity in the previous sentence, namely, *the mayor of Oakland*. This fact reminds one of the Chomskyan idea that pronominals such as *he* in what is expressed by C "do not have antecedents that are nouns within the same clause" (Cook & Newson, 1996, p.63); in other words, this pronominal is free within the local domain or the clause to which it belongs (*ibid.*). The mere discussion of pronouns dealt with within the principles and parameters theory, integrating the Binding principle with the lexical entry, is conspicuous evidence for the idea of lexicon-syntax interface.

Though there were presented no explicit allusions to the route through which the subjects came up with the two aspects of the inflectional phrase IP, namely subject/verb agreement and verb tense, the researcher came up with a great deal of helpful data where such concerns were dealt with lexically-dominated based on the content of the lexical entries carrying the concepts of tense and agreement; as one can note in the following samples:



complement, the former representing X'' together with the head of the phrase and the latter formulating X' along with the head.

A merely list-based linear system of sentence construction can make no contribution to explicating such a process and falls evidently short of an adequate explication, though there were 10 cases where the subjects based their explanations on the traditional sense of the sentence construction. However, what kind of justification one could bring forth as to the lack of determiners as such?

*Sample 4 (passive)*

A- The project of ...

B- Crime statistics...no...putting the city crime statistics...

A- Yes...on the web...

B- Who put no promoted...the project...

C- Maybe governor of California

A- Ok. So make it passive... the ...a ...project was promoted to put...

C- Statistics...

A- Crimes statistics on the web.

The rule stating how to produce passives is not just a matter of counting words in a linear sequence in the traditional sense (i.e. that the object in the active sentence is to move to the beginning of the sentence to be the subject of the passive; that the active subject moves after the verb...and so on) . According to Cook and Newson (1996), any movement requires the movement of a right element in the right phrase, one introduced as the major aspect of the principle of structure-dependency. In order to know which element of the sentence

As so explicitly manifested, the spoken thoughts verbalized ad lib go absolutely against a methodological analysis which regards no affiliation between the two integral elements of lexicon and syntax. The latter operates along the same lines as Travis's (1984) valid suggestion that the  $\theta$ -making parameter specifies the word order of arguments in relation to their predicates.

There were many instances, in the data, of the cases where within the sentences reconstructed by subjects were NPs void of the specific article acting as the specifier of an NP. This, it appears, had no effect on the subjects' conceiving of the meaning of the sentences. Let us flesh this out through the following sample:

*Sample 3 (article)*

A: The mayor of Oakland will soon be able to ...know...

B: Or...either

C: To know about all crime statistics...

A: Crime statistics is enough...ha?

C: Yes it makes sense.

One can so evidently observe, in this sample, that there is a mutual agreement between A and C in generating a phrase void of an article. The evidence as such bears the following interpretations: a) determiners including article carry little essential propositional meaning; b) meaning plays a crucial role in determining the phrase structure of the sentence; and c) the examples touch upon the X-bar theory claims that all types of phrase, including Noun phrase, share and require the two internal levels of structure, specifier and

B- No... the total of that....phrase 'political pressure created to lead to good results'.

It is so unequivocally stated that V requires and expresses the meaning relationships between some entities known as subject and object in the traditional sense. The object is decided to be the whole phrase 'political pressure created to lead to good results'. Though there are no further details stated, it could be argued that the Projection Principle entails sentence (1) cannot have the structure in (2).

(1) The mayor believes the political pressure created to lead to good results.

(2) The mayor believes [<sub>NP</sub> the political pressure created] [<sub>S</sub> to lead to good results].

The NP is the subject of the embedded sentence at the level of D-structure, so it has to be analyzed as its subject at all syntactic levels of representation, even though it has objective case.

*Sample 2 (word order)*

A- Yes the former governor of California ...project...promote...crime statistics.

B- This project ...yes

C- The former governor of California...what?

B- You know...we can say the former governor of California promotes the project of crime statistics... I think...it makes sense because who promotes?...the governor...what?... the project

A- Yes... it has good sense...

<i>Grammatical Features</i>	<i>Grammar</i>	<i>Meaning</i>	<i>Intuition</i>	<i>Other</i>
001	7	3	0	2
002	5	2	0	0
003	5	0	0	0
004	1	7	2	-
005	0	7	4	0
006	0	3	0	0
007	0	0	0	0

### *Concurrent reports*

It turns out that the grammatical features codified as 007, 005, and 001 representing vocabulary, word order and verb tense respectively in table I, gave rise to further number of exchanges while articles, subject/ verb agreement, passives and pronouns (002, 003, 004 and 006 correspondingly) seemed to be taken less heed of:

The very delicate path the subjects took in reconstructing some sentences in groups reminds one of the ways Chomsky claims as to how the lexical entry projects the elements of the entry progressively onto a whole phrase.

### *Sample 1 (vocabulary)*

A- Now....we have...mayor believe political ....

B- Ok '*believe*' is the verb and mayor ...subject. X believes Y. X is 'the mayor' and Y is ...I think.....political pressure....will create....to create...no...

A- It is the 'political pressure created to lead to good results'

C- So you mean 'political pressure' is *object* of verb....

and whether these exchanges had been initiated concerned with a content-based or function-based grammatical feature. The purpose was to discover features of more importance to test takers, i.e., to find out whether the students were mostly grammar- or lexicon-oriented dealing, in particular, with tasks such as text reconstruction. Other descriptive reports involved information on the justifications and reasoning the students were to present as to the preference of a particular grammatical feature. A particular choice might call for syntactic, semantic (content-based), textual or other explanations and justifications as to its adoption. The data incorporated within the tables in the next page explicitly clarify the point under investigation:

*Table I: Descriptive statistics concerned with think- alouds*

<i>Grammatical Features of Concern</i>	<i>No. of exchanges generated in think-alouds</i>											
	Group 1		Group 2		Group 3		Group 4		Group 5		Group 6	
	<i>C</i>	<i>H</i>	<i>C</i>	<i>H</i>	<i>C</i>	<i>H</i>	<i>C</i>	<i>H</i>	<i>C</i>	<i>H</i>	<i>C</i>	<i>H</i>
001	2	1	0	1	0	3	1	2	2	0	1	2
002	0	2	0	1	0	3	0	1	0	2	0	1
003	1	0	2	1	0	0	3	0	1	2	0	4
004	1	0	0	1	2	0	0	1	1	0	2	0
005	3	1	2	0	2	0	3	2	1	1	2	2
006	2	0	0	0	1	0	2	0	1	0	1	0
007	5	1	0	2	0	4	3	1	4	1	2	2

*C=Chomskyan*

*H=Harrisian*

*Table II: Justification as to a particular preference in retrospections*

furthermore, did a sample sentence completion task on the board to give the subjects information as to how they were supposed to accomplish the test task by inserting appropriate function words, inflectional morphemes, etc.

The subjects then worked on the test task in groups of 3 members. Every member was required to think aloud his/her thoughts while working on the test task and provide his/her reasoning concerning a particular choice, or refutation of others' choices and ideas. Each group was supposed to work on the cloze test producing a syntactically accurate and semantically meaningful text. These completed versions of the original text were then discussed separately in groups in a subsequent testing session. Members were to retrospectively justify and explain their ideas including disagreements concerned with a particular choice. The task took about 20 minutes to complete.

### ***Data Collection and Data Analysis***

The process began with tape recording, containing essentially all the auditory events that occurred during the sessions. The collected data were then transcribed by the researchers and an EFL graduate student who possesses a noticeable fluency in the English language. At the next step, the processed segments were encoded into the terminology of the theoretical model. The researchers needed to compare the set of statements implied by a weaker hypothesis, here Harrisian structuralism, with the statements implied by the competing generativist processes. The data so analyzed provided detailed descriptive reports concerning think-alouds and retrospections in terms of the number of involvement of students in group discussions

can stand alone as a semantic unit. The cloze task contains only content words. These content words represent the underlying structure of sentences where no transformations have yet been applied (Keyser & Postal, 1976). Content words which "are mainly nouns, verbs, prepositions and, adjectives" (Cook & Newson, 1996, p.48) have lexical meaning.

Accordingly, the aim of using the cloze task as well as the protocol techniques was to detect which processes the test takers adopted in constructing a sentence while they verbalized their thoughts. In other words, if the subjects, according to the Projection Principle, projected the syntactic properties of the content words onto the surface structure of sentence by first adhering to the lexical meaning of content words and went through the same processes, as Chomsky asserts, in constructing a sentence (Cook & Newson, 1996) or stuck to the time-honored grammatical rules in their traditional sense?

### *Procedures*

The subjects were given initial warm-up problems to get acquainted with the situation of the study and accustomed to the microphones and tape recorders. The individuals were briefed on what was required of them, and explained the procedures that were to be used: non-mediated concurrent and retrospective think-aloud. For this reason they were given some practice tasks to become familiarized with the techniques and follow the appropriate procedures.

The subjects were familiarized with the two types of words and morphemes, function and content words, by studying closely a brief list of the word types they were provided with. The researchers,

### *Methods*

Concurrent and retrospective thinking-aloud are two techniques adopted in this study whereby we probe the learner's internal states by verbal methods. The procedural variation adopted concerned with the concurrent think-aloud is of a non-mediated type in that the individual is prompted only when s/he pauses for a period of time. The prompts tend to be as non-intrusive as possible (e.g. keep talking).

### *Participants*

A total of 18 last-year students majoring in English language and literature, equally selected from both sexes, studying at the English Department of Foreign Languages and Literature in Shiraz University were chosen as subjects at the researchers' convenience. To ascertain the equivalence of the subjects as to their language proficiency, the researchers pretested them by applying the first sample of ARCO TOEFL test (Sullivan, P. N. & Grace- Yi- Qiu-Vhong, 1997). The rationale behind the choice of these subjects had to do with the researchers' supposition that they would be better capable of performing concurrent and retrospective thinking-aloud verbalizing their thought processes as they comprehended the passage. The subjects were all native speakers of Persian language coming from various provinces. Their ages ranged between 23 and 34.

### *Instruments*

The subjects were provided with a cloze task, derived from a just-assigned reading text, which is a short paragraph in length and



it bases syntax on categories that tie in with the *lexicon*"( Cook & Newson, 1996, p.135 ).

Binding theory, taken as an instance, as Cook and Newson (1996) state, is typical of the approach in several ways. First, it is an exemplification of the intimate relationship between lexicon and syntax seen in the Projection Principle; a full knowledge of Binding theory in the speaker's mind incorporates the interaction of syntactic and lexical knowledge. Syntax and vocabulary should be taken as not distinct but interwoven domains; abstract principles relate to actual lexical items. Second, it drives home that the theory is not about isolate rules but integrated principles. Binding theory is not just concerned with 'himself', or with reflexives; it applies to many areas such as pronominals, nouns, and so on. Third, "binding demonstrates the interconnectedness of the theory"(ibid, p.67). Structure-dependency comes into play, e.g. as the speaker is in need of relating structural constituents in the sentence.

Now with regard to these conceptions, the study aims at collecting some empirical evidence to see whether these two aspects of language, namely lexicon and syntax, are distinct or integrated as the subjects are anticipated to follow either a pure rule-based structuralist or a GB meaning-based direction. More specifically, the study aims at providing an answer to the following question: is text-reconstruction (as a linguistic activity which resorts to the knowledge of grammar and vocabulary for accomplishment) lexicon-based or grammar-based?

child and/or second language learner acquires a massive set of vocabulary items, each with its own pronunciation, meaning, and syntactic restrictions. "So a large part of language acquisition is a matter of determining from the presented data the elements of the lexicon and their properties" (Chomsky, 1986, p.8). Also the Lexical Learning Hypothesis (Wexler & Manzini, 1987) claims that parameters, and not principles, belong to lexical entries. "It reduces all language acquisition to learning of lexical properties. Meanwhile, rules are considered as artifacts of interaction between the principles and the lexicon; rather than existing in their own right" (Cook & Newson, 1996, p. 120).

Within this system, proposed as a T-model by Chomsky and Lasnik in 1977 (a) the D-structure does not represent the semantic component of the grammar, (b) lexicon comes to take an upper position and (c) the theory of X- bar syntax replaces the phrase structure rules (Karimi, 1997). In this model, grammar is supposed to consist of several generative devices, each capable of characterizing a numerous number of structures and their associated terminal strings. Lexicon is part of the interface system functioning to tie the several independent components, here syntax and semantics, together. Lexical items typically (but not always) have a function in both the syntax and the semantics, and to be well-formed, the semantic value of each lexical item that figures in an expression must be discharged in the semantic component and its syntactic category discharged in the syntactic component (Sadock, 2003). "X-bar syntax replaces large numbers of idiosyncratic rewrite rules with general principles; it captures properties of *all* phrases, not just those of a certain type; and

previously thought (Willis, 1990). Chomsky asserts in what he calls the Projection Principle that the properties of lexical items project onto the syntax of the sentence meaning that speakers know what the words in their language mean, how they sound and how they may be used in sentences. The cruciality of this principle is that it emphasizes the lexical items of the mental lexicon, implying important notions including that lexical items are the representatives of syntactic rules or restrictions and that syntax observes subcategorization properties of each lexical item (Cook & Newson, 1996). Hereby, the Projection Principle is supposed to not only include subcategorization information, but, crucially argument structure and thematic information as well. Because the verb *bite* for example requires a two-place argument structure, the thematic roles written into the verb's thematic grid must be 'projected' to the syntax (ibid.).

The importance of lexical items is to the extent that they draw upon their syntactic and semantic properties to determine the 'word order' of a language as well (Shapiro, 1997).

Taking a look at the assumptions underlying the Universal Grammar theory associated with Noam Chomsky (1986), one is provided with a better way to the conception of the nature of lexicon as well as the fact that lexicon should be inseparably integrated with syntax. It is anticipated that Universal Grammar sees the knowledge of grammar in mind as having two components- principles that all languages have in common (Cook & Newson, 1996), and parameters on which they vary (Shapiro, 1997). These principles and parameters, that make the basis of all languages, constitute the core grammar. In addition to the core grammar, which is genetically pre-determined, the

grammarians see parts of speech as often identifiable through their position in sentences (Glauner, 2000).

The greatest so-called gift that structural grammarians have given to the world of English grammar is constituents. Constituents are the pieces and parts that fabricate sentences. Subject, predicate, and direct object would be a few of the basic constituents (Glauner, 2000). The constituents are merely another way for the structural grammarians to describe the forms that make-up sentence structure. Since the late 1950's, structural grammar has been challenged by transformational grammar (Liles, 1972). This new theory also consisted of very new ideas. The generative grammar was, in the first place, concerned with overcoming the inadequacies of certain theories of phrase structure modeled partly on procedures of constituent analysis in structural linguistics and partly on formal systems devised for the study of formal languages (Chomsky, 1980). The procedures and results of structural grammar have been absorbed into transformational grammar where they appear in base component (especially the branching rules) (Cattell, 1969). Many of the transformational grammarians believe that meaning is an integral part of linguistic description and that it is impossible to analyze a sentence apart from the underlying meaning associated with it (Liles, 1972). The structuralist assumptions about meaning persisted through the Chomskyan revolution and into the early 1970s. In fact, it persists even today in teaching methods and standardized instruments for assessing language skills of a wide variety of sorts.

However, there is now a growing awareness that lexical knowledge is both more complex than it appears and more fundamental to learners' overall knowledge of a given language than

something different from *the carpet sat on the dog* as word order contributes to meaning and *carpet* and *dog* are not the same words within the system. In a system as such English word order has a particular structure: subject-verb-object; you might have heard of this funny sentence that *The adjectival noun verbed the direct object adverbially*.

The structural linguists of the Bloomfieldian era defined the meaning of a linguistic form as the situation in which the speaker utters it and the response it calls forth in the hearer (Bloomfield, 1933). So they obviously ignored "the association of meaning with linguistic utterances" (ibid, p. 153).

Though Bloomfield's limiting assumption was certainly not accepted by all linguists and was severely criticized, his way of thinking has had an unfortunate effect on language teaching for decades. The commitment to a meaning-less linguistic analysis was strengthened by Zellig Harris (1951) whose own thinking was apparently very influential in certain similar assumptions of Noam Chomsky, his student (Oller, 1979).

Structural grammarians are most famous for their descriptive approach to grammar. Descriptive tendencies in grammar can be recognized as a convention correlating some words in the language with types of situations (Olszewsky, 1969). A simple example of this is the knowledge of where specific words belong in a sentence, such as where the noun, verb, and adjective within a sentence belong. Using the descriptive tendencies it becomes a bit clear, and actually only takes the ability to talk to be able to figure it out. Structural

almost ignored or taken for granted whereas phonology and syntax have received most of the attention of theorists and language teachers alike" (Harley, 1995, p.17). This follows the fact that structural linguists initially contended that language was primarily syntax-based and that meaning could be dispensed with. This theoretical view asserted that language could break down into so many little pieces such as vocabulary and grammar. There was no question of whether language could be treated in this way without destroying its essence. Structuralists, including Harris, believed that the underlying structures which organize units and rules into meaningful systems are generated by the human mind itself, and not by sense perception. As such, the mind is itself a structuring mechanism which looks through units and files them according to rules. This is important because it means that for structuralists the order that we perceive the language is not inherent in the world but is a product of our minds (Tyson, 1999).

The idea of linearity is also of importance for structuralists because it shows that language operates as a linear sequence, and that all the elements of a particular sequence form a chain. The easiest example of this is a sentence, where the words come one at a time and in a line, one after the other, and because of that they are all connected to each other. Saussure according to Tyson (1999) remarks more about how he thinks the structure of language operates: he considers everything in the system as being based on the *relations* that hold between the units in the system. The most crucial kind of system, according to him, is a *syntagmatic* or what Saussure calls a linear relation. Since language is linear, it forms a chain by which one unit is linked to the next. A good example of this is the simple fact that in English word order governs meaning. *The dog sat on the carpet* means

adopted in this study. The findings take side with a lexicon-dominated integration-oriented approach to text-reconstruction

**Key words:** Lexicon, Syntax, Subcategorization, Projection Principle

## Introduction

"In the recent past, competing hypotheses about second language ability have been put forward based on differing assumptions as to the nature and structure of linguistic and communicative competence...backed up more or less by strong empirical evidence " (Vollmer, 1983, p.3). However, there seems to be no answer possible in the near future to the question: "what exactly is the structure of foreign language ability"(ibid., p. 3)?

Along the same lines, a long-lasting question in describing the nature of language which has still remained unresolved is whether it is possible, according to the old assumptions of structural linguistics, to isolate the knowledge of lexicon and grammar. This is while Bolinger (1975) claims: "There is a vast amount of grammatical detail still to be dug out of lexicon- so much that by the time we are through there may be little point in talking about grammar and lexicon as if they were two different things" (p. 299). Furthermore, the latest trends in linguistics as avowed most brilliantly in Chomskyan Universal Grammar (Cook & Newson, 1996), emphasize the importance of lexicon as the building blocks of any language, as well as the integration of vocabulary and grammar.

Despite this, it can not be ignored that lexicon, though traditionally regarded as one of the three essential elements of language learning along with phonology and syntax, "has often been

# **Iranian EFL Learners' Approach to Text Reconstruction: Lexicon-based or Grammar-based?**

**F. Sadighi & Azam Karimi**

## **Abstract**

The plethora of the hypotheses put forth as to the nature and structure of second language ability, in particular concerning the lexicon-syntax interface, have one face with an apparently formidable problem still to be resolved. Various structuralist hypotheses put one on the horns of a dilemma. On the one hand, one could come up with such pure structuralist hypotheses as Harrisian which attach little or no significance to the very delicate role played by lexicon as an essential element of language learning, isolating the knowledge of the mental lexical items and syntax. On the other, a latest trend of linguistic assumptions as asserted so brilliantly by linguists of the caliber of Chomsky, not turning a blind eye to the magic of lexicon in bridging the gap between and associating the lexical items and syntax, emphasizes the integration of the two.

Accordingly, the present study aims at collecting some empirical evidence to see whether these two integral aspects of language, namely lexicon and syntax, are separate or integrated. More specifically, the study aims at providing an answer to the following question: is text-reconstruction (as a linguistic activity which resorts to the knowledge of grammar and vocabulary for accomplishment) lexicon-based or grammar-based? A total of 18 last-year students majoring in English language and literature took part in the study. Concurrent and retrospective thinking aloud were the two techniques