INTERLANGUAGE CONFORMITY IN STRATEGIC COMPETENCE: ABILITY TO USE COMPENSATORY STRATEGIES BY SECOND LANGUAGE LEARNERS IN REFERENTIAL COMMUNICATION

By

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In the name of God

To the memory of my father,and to my mother;
most of all,

To my wife, Roya, who has constantly encouraged and supported me to pursue my academic career, and

To my daughters, Pouya and Mona, who have patiently tolerated an always busy father without complaining;
finally,

To all those whose hearts beat for "Love", "Peace", and "Freedom".

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ABSTRACT

This study investigates the use of strategic competence (SC) by L2 learners in referential communication within the framework of "IL-conformity", a process which is believed to be partly responsible for SLA. It explores the extent to which IL SC conforms to the similarities of this competence in the performance of speakers of different native languages (L1s).It also examines whether the IL-conformity,if any, is task-in/dependent and relates to L2 proficiency levels. Strategic competence refers here to the knowledge/ability to use compensatory (problem-solving) strategies to solve communication problems and to achieve the intended goals.

Although studies on SLA have shown that IL conforms to the general (universal) properties of human language, they have focused on the grammatical aspects of language. The communicative aspects of language, particularly SC, have not been touched upon within this framework to date.

In this study,as a point of departure,two hypotheses are tested: (1) IL SC will conform more or less to the general properties (or similarities) of SC observed in the performance of speakers of different L1s across various tasks. That is, if particular strategies are used similarly by the speakers of different L1s in performing a given task, such strategies will be used by IL speakers for the same task to a certain extent,and if task variability causes various performance of SC,IL-conformity will occur across various tasks. (2) Degree of IL-conformity corresponds to the degree of L2 proficiency level.

The performance of SC of 30 English and 3o Persian adult L1 speakers, and two groups of 30 Farsi-speaking ESL university students of different L2 levels was studied. The subjects communicated three different tasks to their interlocutors. The results appeared to be in support of the hypotheses.

The possible reasons for the speakers' strategic language behaviour are discussed along with the theoretical and pedagogical implications for instructed SLA.

CHAPTER ONE

INTRODUCTION

The knowledge or ability to use language for communication,or "communicative competence" (Hymes, 1972,1974; Foster,1990) is a well-known phenomenon in recent studies in language acquisition. The fact that the ultimate goals of language acquisition are to acquire the knowledge or ability to convey the intended meanings effectively is also relatively well-established in language acquisition and language development research. It follows that for effective language communication it is important that one should be able to make correct and meaningful utterances, orally or in writing, and know how to use them accurately and appropriately. It is also equally important that one acquires the necessary knowledge to cope with the problems that arise in conveying the intended meanings.

In second language acquisition (henceforth, SLA) and interlanguage (hereafter, IL) use, regarding the communicative function of language, it is similarly important that one of the ultimate goals of SLA is to acquire the ability to communicate in the target language (TL). Second language (L2) learners, therefore, should learn all the skills required for communicating effectively in the L2. They, like native speakers, have to know how to keep communication going, and how to tackle its problems in the TL, when the linguistic (e.g., lexical) resources necessary for language use are not available to them.

1.1. Critical Definitions and Explanations of the key Terms and Concepts

This study investigates the use of strategic competence (henceforward, SC) by L2 learners in referential communication within the framework of "IL-conformity", a process which is believed to be partly responsible for SLA. So, the study concerns itself with three processes:

"IL-conformity", SC, and referential communication, which are essential to its nature and scope. Understanding them is fundamental to understanding the aims, focus, methods, and findings of this investigation. Before going further, therefore, these basic key terms and other relevant concepts which are intermingled to construct the essence of this investigation have to be clarified. In what follows, such key terms as "referential communication", "communicative competence", "strategic competence", "communication and compensatory strategies", and "IL-conformity" will be critically examined to arrive at a working definition for each concept. Then, I shall explain the specific meanings they have been given in this piece of research.

1.1.1. Referential Communication

It is generally accepted that one of the functions of language is communication (Halliday, 1975; Stevenson, 1993). People use language to transmit information to others about particular referents. The referents, or the things being referred to in communication, might be their desires, feelings, knowledge, meanings, concrete objects, abstract concepts, and so on (Hudson, 1915; Clark et al., 1986). The referents might be determined by the inter-locutors through negotiation and agreement (Long, 1984; Yule and Tarone, 1991), according to their needs, or they may be given, in laboratory or experimental settings, to the speakers to communicate.When speakers attempt to make the intended referents identifiable to the listeners, or they are asked to do so, this is generally called referential communication (Piaget, 1955; Glucksberg, et al., 1966, 1975; Clark and Clark, 1977; Whitehurst, 1979; Dickson, 1981, 1982; Flawel, 1993). Consider the following examples:

Suppose a non/native speaker goes into a shop to buy a "wall-socket" for an electric plug; but s/he does not know or remember the exact word to mention it. To make up for this inaccessible linguistic resource, the speaker

attempts to solve the problem and achieve the goal through some procedures and verbal activities, i.e. the speaker tries to apply some alternative ways to make the intended goal identifiable to the shopkeeper. This type of communication seems to be natural because it happens in a natural situation and according to the speaker's needs. The behaviour is strategic because the speaker is aware of the problem to be solved, plans some strategies, and, finally, executes them to achieve the goal.

Suppose, again, that an ESL teacher, believing that the ultimate goal of language teaching is to enable the learners to communicate in the TL (Brumfit, 1984; Yalden, 1987, Nunan, 1991), draws some communicative tasks into a language classroom. The teacher tries to set up in the classroom the same/similar situation as in the above example with one learner in the role of the speaker (customer) and the other as the listener (shopkeeper). In that situation, the speaker is asked to communicate (buy) the same referent (wall-socket), but the exact L2 linguistic (lexical) resources are unavailable to him/her. The speaker may use some strategies (the same as or different from the first example) to compensate for such lexical deficits to cope with his/her communication problems.

In the second case, the setting is not as natural as the first one, because the referent is not what the speaker actually needs in that situation but something given to him/her to communicate. Yet, in both situations, the problems might be the same from the speakers' point of view; they have both lexical/linguistic problems which should be solved by alternative linguistic means. This type of communication in which the referent is given to the speakers to make it identifiable to the listeners has been specifically termed referential communication.

Whether in the two situations given above the two speakers use the same or different strategies to solve their communication problems will be discussed later. What should be mentioned here is that communication

occurs both in natural and quasi-natural (or artificial) situations, in spite of the speaker's insufficient linguistic resources of the language s/he speaks.

Most of the studies on referential communication both in L1 and L2 have concentrated on the second case mentioned above. In referential communication, speakers are given certain referents and are asked to name, describe,and/or explain them to the listeners so that the latter can identify the intended referents from a set of non-referents. Referents, Asher (1979:175) posits, can be objects (e.g. a red ball, a blue car), locations (e.g. a post office,library), ideas, abstract words/shapes (novel shapes, the concepts of justice, freedom, etc.). In each case the speaker aspires to convey the intended meanings, or the given referents, to the listener and receive some overt responses from the latter to be sure that the latter has identified the referents from non-referents (Whitehurst, 1979; Clark et al, 1986).

Referential communication, according to Glucksberg et al. (1975), refers to the process and activities that "take place in situations in which the participant's task is to construct a message that enables someone else to know what that message refers to" (p.105).

From a general view point, constructing a message to enable the listener to identify the given referent is the requirement of communication in general, not necessarily referential communication. This type of communication has some common features with other types such as giving lectures, conversation, free (unguided) communication, dialogue and so on. It has, nevertheless, some features specific to itself which distinguish it from other forms of communication. For these reasons, the definition given above is seemingly too broad to specify any distinctive features to referential communication.

Dickson (1982), focusing on some features of referential communication, defines the term as follows:

> Referential communication refers to the type of communication involved in such

> activities as giving directions on a map, telling someone how to assemble a piece of equipment, or how to select a specified object from a larger set of objects (p.1).

Note that identification of the referents from non-referents by a listener is crucially important to this type of communication. This allows the speaker to test out his/her hypotheses about the "strategic plans and behaviour" (Clark & Clark, 1977) that s/he constructs and ensures him/her that the intended meaning has been identified by the listener. Furthermore, it enables the investigators to observe and measure the speaker's strategic ability in planning and executing strategies for communication (Faerch and Kasper, 1983a/b; Bialystok, 1990). This implies that one of the characteristics of referential communication is to ask someone else (listener) to make some overt responses such as trying to identify the correct referents (Piaget, 1952:76; Asher, 1979: 176), and/or confirming the identification of the referents. Adding these requirements to Dickson's (1982) definition, the definition becomes more reliable and hence closer to the purpose and scope of this study.

Referential communication, thus, can be distinguished from other forms of communication in that the referents (or topics) are given to the speakers to convey their meanings to the listeners so that the latter can identify them from non-referents. It is, in other words, a kind of guided and controlled communication that allows investigators to control the influencing variables as carefully as possible in observing speakers' strategic ability and behaviour interacting in the given language, i. e. strategies that they use to overcome the problems arising in the processes of actual communication. In this study, referential communication is used in the sense as defined and explained above.

1.1.2. Communicative Competence

The term "communicative competence" was introduced as a result of the inadequacies of Chomsky's (1965)

theory of "linguistic competence". Hymes (1972, 1974) challenged its adequacy and stressed that speakers have systematic knowledge about how to use their linguistic systems to produce utterances and communicate effectively and appropriately according to particular communicative settings. He called this knowledge and/or ability "communicative competence" (see chapter two, 2.2).

Briefly speaking, from all definitions suggested for communicative competence, one can conclude that this competence is a systematic knowledge that enables the speakers to use language effectively and appropriately according to the given situations, and to cope with the problems arising in the process of communication.

1.1.3. Strategic Competence

One important aspect of communicative competence is the speaker's ability to overcome communication problems arising as a result of inaccessible linguistic/lexical resources by using alternative linguistic devices. In theoretical studies of communicative competence and its underlying components (Canale and Swain, 1980; Bachman, 1988, 1990), this ability has been called "strategic competence". The concept, as one of the themes of this study, will be discussed in detail later. Since the term "competence" has been controversial (Frawley, 1985), different people have defined SC differently; so, to arrive at a working definition proper to this study it is necessary to evaluate the present definitions given to the concept. One of the first definitions is that suggested by Canale and Swain (1980), they state:

> ... this competence will be made up of verbal and non-verbal communication strategies that may be called into action to compensate for breakdown in communication due to performance variables or to insufficient competences (p.:30).

According to this definition, using strategies for compensatory purposes in communication constitutes SC, or is one of its prime characteristics. When language users

are not linguistically or communicatively competent enough and encounter communication problems, they resort to strategies to make up for their inadequate knowledge required for communication, and by these means, solve their problems. In other words, communication strategies "as the essence of strategic competence" (Yule & Tarone, 1990:180) are means by which speakers compensate for communication breakdowns resulting from their inadequate linguistic resources.

Both Canale (1983) and Swain (1984) redefine the concept, believing that this competence preserves the ability to use strategies to repair communication breakdown and hence to enhance its effectiveness. Swain (1984) redefines the concept as follows:

> Strategic competence refers to the mastery of communication strategies that may be called into action either to enhance the effectiveness of communication or to compensate for breakdown in communication due to limiting factors in actual communication or to insufficient competence in one or more of other components of communicative competence (p.189).

(the same redefinition has also been suggested by Canale (1983:29-30).

The two definitions quoted above regarding the approaches to the concept are nearly the same, but the functions attributed to communication strategies are slightly different (from the authors' point of view). In the former, strategies are perceived to be functionally compensatory in being "called into action to compensate for breakdown of communication", while in the latter, the "enhancing" functions are also attributed to them. In these definitions, therefore, the strategies are viewed as two-fold communicative devices; they are used either to compensate for breakdown for/in communication or to enhance its effectiveness, and SC is the ability or mastery of using these strategies for such purposes.

One might ask whether the authors claim that SC comprises two types of strategies: (1) compensatory

strategies, or the ones used to compensate for the breakdown of communication, and (2) enhancing strategies, or those used to enhance the effectiveness of communication; or whether they attribute two types of functions to the same strategies: (1) compensatory functions and (2) enhancing functions, assuming that they causally relate to each other, i.e. the former are the means (causes) and the latter the ends (effects). That is, the speakers use these strategies to compensate for the communication breakdown,to bridge the information gaps in communication and thereby to enhance its effectiveness.

It seems to be unwarranted to make distinctions between the two functions of communication strategies, and then consider them as two types of strategies. Rather, they should be looked upon as the same strategies with two interrelated functions, or two-dimensional, functions: compensatory and enhancing. In the first case, one might believe that compensation and enhancement are two separate entities; if so, one has to assume that it is possible to enhance the effectiveness of communication regardless of its breakdown, or without compensating for the breakdown. In the second case, one can assume that it is possible to compensate for communication breakdown without expecting to enhance its effectiveness. Both assumptions are untenable, because it is obvious that every speaker aims to communicate meaningfully and effectively. To do so, one must be able to use language correctly, meaningfully, and accurately. Communication breakdown means lack of meaningfulness and effectiveness in language use (Riley, 1985). When communication breaks down for some reasons, it means that communication is not effective. Consequently, the listener cannot understand and follow the speaker to grasp the meaning. One can therefore assume that to the extent that the speaker's linguistic deficits and communication breakdown are compensated for, it becomes meaningful and effective. Compensation and enhancement are hence interrelated in their functions in language use, i. e. the more

compensatory the strategies are, the more enhancing and effective they will be. In short, compensatory refers to the "type" and enhancing to the "degree"; therefore, degree of compensation of strategies corresponds to the degree of enhancement/effectiveness of the same strategies (see chapter four, 4.3.1.4.).

Based on these arguments, one can reasonably believe that compensatory strategies are at the same time enhancing to the degree that they make up for linguistic deficits, communication breakdown, and to the extent that they are problem-solving for communication. This position has been taken to SC and compensatory strategies in this study. In this view, the term requires a more working and tenable definition.

In most studies, SC has been generally used to mean the ability to use strategies to solve communication problems and convey the intended meanings as effectively as possible (Bialystok, 1993, 1990; Faerch and Kasper, 1983a, 1986; Paribakht, 1985; Kellerman et al., 1987, 1990; Chen,1990, for example). Bialystok (1983) modifying Canale and Swain's (1980) model, considers the concept as the learner's ability to use language effectively by means of effective communication strategies despite their inefficient linguistic knowledge. In her framework (1983, 1984), the degree of effectiveness of strategies is measured via the extent to which they can promote communication processes and enhance achieving its goals (1983:116-117). In her recent considerations of the concept, Bialystok (1990) approaches communication as a problematic process "that involves mastery of*a*specialized set of strategies" (P.145). She calls this mastery "strategic competence" and defines it as "... the ability to use language effectively for communication through analysis and control-based strategies" (ibid). She believes that communication in its nature is strategic because it is problematic, which requires consciously planned problem-solving strategies, and this is true for communicating in L1. "Speaking effectively in a first

language is not less strategic than in the more deliberate experience of attempting to do so in a second language" (1990:103).

Faerch and Kasper (1983a) propose two procedures for L2 learners to use their IL: (1) "unproblematic" use of IL, in which the language is seen from the learners' point of view to be unproblematic in both productive and receptive processes of language.(2) The "problematic" use of IL, in which the learners will have recourse to strategies to cope with the problems. They then conclude:

> One can therefore maintain a distinction between strategic and nonstrategic IL use. Describing communication strategies in IL communication is the same as describing the strategic use of IL system (p.xviii).

In a rather later version of this definition, Faerch and Kasper (1986) contend that SC comprises two types of functionally different and yet interrelated strategies: (1) communication strategies,and (2) learning strategies. They then explain the distinctions as follows:

> Communication strategies are procedures which enable learners to solve problems they encounter when using FL for communicative purposes, ... and in producing or comprehending oral or written discourse. Learning strategies,on the other hand, are designed to solve problems in expanding FL knowledge,and increasing its accessibility ... (p.380).

The view by which the authors approach communication strategies is similar to that employed by Paribahkt (1985:132-133) and Chen (1990:180) who approach SC as an L2-unique phenomenon. Faerch and Kasper (1986, 1987), however, consider L1 SC as a yet untouched upon area and draw researchers' attention to it.

Tarone (1984) sees SC as the ability to convey information to a listener and correctly interpret the information received. In her view, the concept involves the use of strategies to overcome communication problems that arise in the process of conveying the intended

meanings (p.128-9). Tarone (1984), accordingly, suggests two aspects for the concept which should be accounted for separately: (a) The L2 learner's overall skills in successfully conveying information to a listener; (b) the learner's ability to use communication strategies when s/he encounters problems in the processes of conveying information (P.129). It should be noted that the first point mentioned in (a) "the learner's overall skill..." is fundamentally one of the concerns of communicative competence (Foster, 1990; Windows, 1990), rather than SC, as conceptualized in Tarone's second point (b) above. This latter in Tarone's (1984) definition is similar to that perceived by previous scholars. She, too, limits this competence to SLA and L2 learners.

Strategic competence in recent studies on referential communication has been essentially viewed as a general language related concept shared in all languages, and not specific to L2 and IL communication. It was mentioned that Bialystok (1984, 1990) generalises the concept to L1 and L2. Faerch and Kasper (1983a, b) perceive it as a general language property held for L1, L2, L3, ... Ln, all the languages that a speaker happens to know and use. Yule and Tarone (1990) criticise any restriction of this concept to L2 and believe that L1 speakers also have SC, on the assumption that this competence is one component of communicative competence. In their study of SC, they look upon this competence as a substantial requirement of all "acts of reference" (p.180) in referential communication. The competence, they state, "... must involve an ability to select an effective means of performing an act of reference that enables the listeners or readers to identify the intended referent" (p.181).

In some other recent studies, researchers have focused on SC as the ability to use compensatory strategies to overcome the problems in (referential) communication. Faerch and Kasper (1983a,b; 1987) used the

concept in this sense, claiming that compensatory strategies are the manifestations of this competence. Kellerman et al. (1987, 1990) and Bongaerts et al. (1989) following this approach, accounted for the concept as the ability to use compensatory strategies in language use in general, and in referential communication in particular.

In short, from all these and similar definitions, one may apply the concept to studying referential communication in L1 and L2 and define SC as the knowledge and/or ability to use compensatory strategies to solve the problems arising during communication due to insufficient linguistic resources and by these means to compensate for such insufficiency which may cause communication break down and thereby to make the intended referent identifiable to the listener/reader in oral/ written discourse as effectively as possible.

1.1.4. Compensatory Strategies

As mentioned earlier, language speakers employ different strategies to capture their communicative goals despite their linguistic (e.g. phonological, syntactic, or lexical) deficiencies. Corder (1983) considers these strategies as the speakers' means of "risk-running" to achieve the intended goals, and terms them "achieving strategies" as opposed to "risk-avoidance" or avoiding strategies (p.17). Achievement strategies, as the realisation of achievement behaviour in Faerch and Kasper's (1983a) model of strategic planning and use of IL, have been classified as compensatory strategies in that they state:

> We shall refer to achievement strategies aimed at solving problems in the planning phase due to insufficient linguistic resources as compensatory strategies. The compensatory strategies will be subclassified according to what resources that learner draws on in trying to solve his planning problems (p.46).

Note that Faerch and Kasper (1983a,b;1986) attribute two stages or phases to compensatory strategy use: a planning phase, in which IL speakers plan the type of strategies at their disposal with respect to the communicative goals, and an executive phase in which IL speakers execute, or call into action, their plans to achieve the goals.

Compensatory strategies as achieving/goal-reaching means in referential communication are the linguistic devices (plans) that "are typically used when the speaker has to resort to ad hoc solutions to bridge linguistic (e.g.,lexical) gaps without sacrificing the integrity of his intended message" (Kellerman, et al. 1987:100). Bearing the achieving nature of compensatory strategies in mind, Poulisse et al. (1987) hold such strategies as the manifestations of SC but slightly differently from the above scholars. They believe that compensatory strategies are achieving, goal-related means that are consciously used by the speaker "to achieve his intended meaning on becoming aware of problems arising during the planning phase of an utterance due to his own linguistic shortcomings" (p.214).

Based on these definitions and arguments, it becomes clear that SC and compensatory strategies should be looked upon positively, directly relating to language acquisition and use, rather than negatively and as "by-products" (indices) of the SLA process as some people have presumed (Larsen-Freeman and Long,1991:144, for example). They are problem solving and achieving means, planned and used by speakers to capture the communicative goals. In such processes they activate the speaker's learning mechanisms and hence facilitate language acquisition by increasing his/her ability in successful language use. Even Canale and Swain (1980:27) affirm the importance of SC in language learning.They believe that the acquisition of this competence, as the ability to use compensatory strategies, in SLA is as important as the acquisition of

grammatical or other competences underlying communicative competence.

1.1.5. Interlanguage Conformity

Interlanguage,or second language learner's language, (Selinker, 1972, 1992), is a well-known concept in SLA research (see chapter two). The assumption is that in the processes of SLA, an L2 linguistic system is constructed in the L2 learner's mind according to the linguistic input of the target language s/he receives and during continuous exposures. This IL system, like other natural languages (first or primary languages, for example), is a natural linguistic system in its own right, independent of the learner's L1 and the TL to be acquired, though it might have some features of either or both languages. The only difference between L1s and ILs in terms of naturalness, Eckman (1987,1991) suggests, is that L1s are primary languages having native speakers, while ILs are "non-primary" or secondary languages with no native speakers,though they may be used by groups of learners in the IL speakers' community (Adjemian, 1976; Schmidt, 1980). Being a natural language, IL is assumed and expected to obey those language-related processes and principles that are held for other natural languages. In other words, what are commonly held for, or confirmed by, primary languages "as common language-related" phenomena (common language-related phenomena here refer to those principles that are relatively equally held for different primary languages, or L1s, Dipietro, 1968, 1971; Eckman, 1989; Towell et al. , 1994) are also expected to be true for IL, because IL is a natural language, too. Besides, like every natural language that has certain specific features (Dipietro, 1971; Roberts, 1986), IL has certain specific, or "IL-based", features (Adjemian, 1976; Selinker, 1992). To the extent that IL has agreement or conformity with those language-related phenomena, or (typological) language universals (Eckman et al, 1984; Eckman, 1989), IL has conformity with other natural languages, i.e. IL

conforms to those general language-related phenomena. On the basis of these assumptions, I have referred to the consistency of IL with the general language-related properties held for different natural languages as "IL-conformity", and used IL-conformity as a model in studying the performance of SC in this piece of research. The aims are to find out the extent to which IL has conformity with general properties of this competence used in common by the speakers of different L1s in referential communication.

1.2. The Significance of this Study

It must now be clear that SC, in the sense defined and elaborated in this chapter and used later, is a quite recently developed concept in studies on (S)LA. Research into language acquisition and use hence needs to be directed toward studying different dimensions of this concept: the psycholinguistic and sociolinguistic foundations and processes incorporating the development of this competence in FLA/SLA and use, and its operations in dealing with various communicative tasks. It is also essential to search for reliable methodologies for carrying out research on SC in L1 and L2, both within the framework of "IL-conformity" and for comparative studies, and find practical procedures for pedagogical purposes. This study,as a starting point,attempts to draw attention to these goals.Examinations of IL SC within the framework of IL-conformity can shed some light on the nature of this concept: understanding the psycholinguistic and cognitive processes underlying the development of this competence (See Bialystok, 1984:48), and its operation within this framework in the given, or different, tasks and situations. That is, how SC operates in different contexts/tasks to generate appropriate strategies. The findings of such studies will probably have tenable implications for instructed SLA. The study, therefore, endeavours to be significant both theoretically and pedagogically.

1.2.1. Theoretical Significance of this Study

The new trends in language acquisition research postulate that a full understanding of the phenomenon requires a theory that could explain how language learners acquire language knowledge itself, and how they learn to put the acquired knowledge into use. The former more often accounts for the psychological reality of language, or the psycholinguistic processes underlying the construction and development of language knowledge in the learner's mind. The latter, on the other hand, vindicates the social reality of language, or the sociolinguistic factors involved in actual language use. A comprehensive theory of language acquisition, as Stevenson (1988, 1993) suggests,can neither be merely based on psycholinguistics nor on sociolinguistics, but needs to comprise both; a theory that links the psycholinguistic accounts and sociolinguistic vindication of language acquisition and use. It is only psycho-sociolinguistic-based theories of language acquisition that can more fully explain the processes of language acquisition and use. Such theories, thus, will more probably be sufficiently explanatory and all-embracing to explain all aspects of language acquisition, and not merely the acquisition of the linguistic competence which, as Gregg (1984) posits,"is only part of language acquisition and language development and not necessarily all of them ..." (p.90).

In SLA research, it is similarly reasonable to expect that only a psycho-sociolinguistic-based theory of SLA can provide full accounts of the processes concerning SLA and IL communication. To arrive at such a theory, then, SLA research must go beyond the acquisition of merely the linguistic competence,to communicative aspects of language. Within this view, a theory of SLA, for Spolsky (1985:179), "must account for the learning not just of linguistic competence but also for a set of other rule-governed language systems, or subsystems".

Although overcoming the problems of communication is a major motivation of studying SC and speakers',

particularly L2 learners', strategic language use, what is equally, or even more, significant for (S)LA researchers is what they can understand about language acquisition itself from such studies. Learners' language, or IL, according to Candlin (1985), offers researchers "windows" on their covert cognitive behaviour, giving researchers clues as to how they go about thinking about the language that learners are acquiring and using. More importantly, IL speakers' language performance, or the way they put their declarative knowledge into procedural knowledge (see chapter two, 2.3.1.), can be signals and indications of successful acquisition. The data obtained from studies on SC in L1 and L2 are thus diagnostic in that they provide evidence, directly or indirectly, of how speakers attempt to overcome communication problems, and how they create the conditions whereby the linguistic input that they receive is, or can be, transferred into intake and output. Such studies can also provide evidence of how speakers try to employ linguistic resources to perform various communicative tasks in actual language use, and how they tackle the problems that they encounter in such activities.

If this study can provide evidence for IL-conformity with the general principles underlying SC which are held for primary languages (L1s) in common, then it can perhaps be a clue to show the extent to which SLA and IL SC can be explained in terms of these principles. That is, IL SC, as a language phenomenon, has psychological reality to the extent that this competence in other natural languages, or L1s, has psychological reality, and social reality, to the extent that L1s manifest such a reality. In addition,it might be evident that the general principles of a psychosociolinguistic theory of language acquisition used to explain FLA may be used to explain SLA. This study can be a starting point toward these directions with respect to communicative aspects of IL. As a starting point, referential communication was focused upon because it enables us to control variables

and thus make the results more reliable and thereby more generalisable.

1.2.2. Pedagogical Significance of this Study

The significance of the IL-conformity hypothesis in language education, with special emphasis on SC, if it is confirmed, is obvious enough. Second language pedagogy all over the world involves curriculum planning, material preparation, and teaching methodology. It has been generally accepted that one of the major aims behind language pedagogy is to enable learners to communicate effectively in the TL. To achieve this goal, curriculum planners and language teachers have to know which aspects of language should be more fully planned in their curricula, emphasised more in classroom activities, how to prepare teaching materials and which methodology is more appropriate for these purposes. They must also know how learners themselves attempt to communicate in the TL and solve their communication problems resulting from a lack of enough linguistic resources. These, in turn, need enough knowledge about the learner's learning mechanisms and how these mechanisms are activated in actual language use; that is, how IL speakers attempt to put the acquired knowledge into practice to convey the intended meanings, particularly, when the necessary linguistic resources are not available to them.

It has been claimed, on the other hand, that in SLA those aspects of language which have consistency with general principles underlying the language knowledge and are also accessible to L2 learners, are much easier to learn than those which are inconsistent, or are language specific (Comrie, 1984:13; Canale and Swain, 1980:25). Studies on SC of language within the framework of IL-conformity can be useful in finding the features of this competence shared by a set of languages, at least those features shared by, and available to the speakers of, all languages involved in curricula programs, minimally the learner's L1(s), the IL, and the native speaker's of the

TL. Then it will be possible to examine these general features shared by a number of languages and distinguish them from those which are specific to each language, including IL, and design graded course syllabi and classroom teaching materials accordingly.

1.3. The Overview of this Study

In chapter two, the relevant literature,with special references to theoretical and methodological considerations of the field, is critically surveyed. In chapter three, the scope of this study with special references to process/product-oriented approaches to SLA and IL, the most lucid approach to IL as a natural language more appropriate to the aims of the present study, models of studying language universals, and the model relevant to this study are demarcated. In addition, the problems raising the research questions and leading to formulating the hypotheses specifically constructed for this study are stated and briefly explained. Chapter four concerns the methodology used to conduct the study and reports on the results of an experiment carried out to find data for or against the hypotheses. The strategic behaviour of subjects of two different native languages and two groups of IL speakers of different L2 proficiency levels in communicating various elicitation tasks are also discussed. Chapter five will be devoted to a general discussion on the results of the experiments; possible theoretical and pedagogical implications that can be inferred from the experiment are also accounted for. Finally,in chapter six, the conclusions that can be drawn from this study are explained, and some tentative suggestions for further research that may lead us to a better understanding of IL conformity and SC in language communication are offered.

CHAPTER TWO
A REVIEW OF THE LITERATURE

The central theme of this study is to investigate the use of SC in referential communication in SLA within the framework of "IL-conformity". In this chapter, an overview of the state of the art will be presented, and research relevant to this study will be discussed. To provide a proper perspective on the literature, the following issues which seem to be crucially important to this study should be discussed and clarified. First, a short account of research into SLA relevant to this study will be critically made. Second, the emergence and development of the theory of "communicative competence" in studies on FLA and SLA, and different models suggested for various components underlying this competence, namely SC, will also be discussed in more detail. Third, research presented in the literature concerning eliciting the performance of SC in L1 and L2 in terms of the use of communication strategies in general and compensatory strategies in particular will be examined. Finally, the hypotheses of IL-conformity in SLA studies will be stated and the relevant background leading to the hypotheses originally formulated in this study will be examined. Then, I shall show how these hypotheses fit in with the concept of SC in referential communication in SLA.

2.1. Research on Second Language Acquisition

In this section, a short account of the developments in studies on SLA is presented. I shall also examine some of the most conspicuous models of SLA research that have been suggested in the field, with special references to the theoretical and methodological considerations underlying each model.

1.2.1. The Contrastive Analysis Hypothesis

Most researchers agree that the impetus for research into SLA initiated from the contrastive approaches to language pedagogy (Gass, 1989, 1993; Larsen-Freeman and Long, 1991; Ellis, 1994). During the 1950s and 1960s, researchers carried out contrastive analyses, between two particular languages, the learners' L1 and the TL, to identify points of their similarities and differences, "believing that a more effective pedagogy would result when these were taken into consideration" (Larsen-Freeman and Long, 1991:52). This perspective, known as the contrastive analysis hypothesis,as James (1980) explains, was fundamentally a hybrid paradigm: an offshoot of "behaviouristic approaches" to psychology and "structural taxonomic" principles in linguistics (p.6). The former viewed learning as a set of habits gradually formed in individuals in the environment through activities such as imitation-memorization (mim-mem),stimulus-response (S-R), reinforcement, etc...., (Skinner, 1957; Scott, 1974). Language learning was proposed as a series of "Verbal Behaviour" (Skinner, 1957), or verbal habits that are formed in language learners via the general learning mechanisms such as habit formation, cross-association, pattern practice, and reinforcement (see Steinberg, 1983; and Bower et al.,1986, for a full account of this model). Language itself was described, under the influence of Bloomfield (1933) and Bloomfieldian linguists, as a set of discrete points, or units,integrated into larger units via the linguistic, or grammatical, patterns of language (Stagberg, 1971; Palmer, 1971). Since each language was assumed to have its own patterns of linguistic units--phonology, morphology, syntax,and lexis--, languages were considered to be different, albeit similar patterns between certain languages were held to be possible. Learning mechanisms were explained on the bases of behaviouristic psychology.

The central concerns of behaviouristic (learning) psychology were transfer and interference; the former was

a positive learning constraint, the latter negative. Accordingly, the assumptions were that old learning tasks (habits) would influence the subsequent ones both positively and negatively. When the two tasks are similar, old learning would be transferred to the new one and thus facilitate learning. Interference, on the other hand, would happen as a result of differences between the two tasks and hence would hinder new learning tasks. The contrastive analysis (CA) advocates, following these psychological principles, believed that language learning would be facilitated as the result of positive transfer to the extent that two languages are similar. Conversely, it would be retarded as the result of negative transfer or interference to the extent that languages in question are different. Interference was thus the only, or major, source of learner's errors resulting from language differences. Consequently, it was assumed that learners' difficulties and interference errors could be predicted via systematically comparing the two languages (L1 and L2) and determining the areas of language differences. Similarly, such language comparisons would have important pedagogical applications, providing language teachers, textbook writers and syllabus designers with enough information to design effective teaching materials to help learners avoid errors (Weinreich, 1954; Lado, 1957, 1964, 1968; James, 1980). Fries (1945:9) first triggered the claim:

> The most effective materials are those that are based upon a scientific description of the language to be learned, carefully compared with a parallel description of the native language of the learner.

Lado (1957), the central figure of this hypothesis, explains the reasons why language learning, as well as teaching materials are thought to be more effective when based on CAs:

> We assume that the student who comes in contact with a foreign language will find

> some features of it quite easy and others extremely difficult. Those elements that are similar to his native language will be simple, and those elements that are different will be difficult ... (p.vii).

Then, he continues:

> The individuals tend to transfer the forms and meanings and the distributions of forms and meanings of their native language ... to their foreign language both productively and receptively... (p.2).

Moreover, doing CAs between two languages, according to Stockwell and Bowen (1965) and Stockwell (1968), could enable educators to put the learners' areas of difficulties in schemes of hierarchical orders "from the most difficult problem to the easiest ones" (Stockwell,1968:21), and prepare teaching materials accordingly. In short, identification of learning, or learner's, difficulties and errors by means of language contrasts and focusing on interference as the only, or major, source of errors were significantly important to the CA advocates. These also explain why research on SLA was focused at that time only on L1 and L2 comparisons. Language learners and their learning capacities as important factors played no, or little, role in the CA model of SLA.

2.1.1.1. The Inadequacies of the Contrastive Analysis Hypothesis

As a result of more developments in SLA research,the CA hypothesis started losing ground and gradually was proven to be untenable both in its predictive powers, and theoretical (linguistics and psychology) bases; then, its pedagogical applications were proven limited (Kuhlwein, 1981; Ellis, 1985a).

A: Empirical Problems and Loss of Predictive Power: The predictive power of the CA hypothesis was questioned by later empirical studies.Researchers rejected interference as the only, or major, source of error predictions when they began "to examine language learner language in

depth " (Ellis, 1985a:27); L1 interference was known as the least source of errors (Schuman and Stenson, 1974; Richards, 1974). Dulay and Burt (1974a/b), for example, examined the predictive power of CA and the role of interference in L2 learning. They found that a large proportion of L2 learners' errors could not be explained in terms of interference errors, rather they happened in much the same way as those made by children learning their L1, and therefore could be explained in terms of FLA processes. In their study, only a few interference errors, about 5%, were observed.

Furthermore, the results of "morpheme studies" suggested that L2 learners of different linguistic background went through the same, or similar, developmental processes, and hardly any differences were observed in the order in which learners acquired, or accurately used, different morphosyntactic elements. Such similar acquisition processes happened in both children's FLA and SLA (Dulay and Burt, 1974b/c, 1976; Anderson, 1984; Wode, 1981), and adults acquiring an L2 (Bailay, Madden, and Krashen, 1974,). These findings also illuminated that most of the interference errors predicted by CA did not materialise, most of those which materialised had not been predicted in the CA hypothesis.

B: Theoretical Problems: In addition to empirical inadequacies of the CA hypothesis, this model proven to be fallacious in its theoretical foundations both in linguistics and psychology. Chomsky (1959) criticizing Skinner's (1957) "Verbal Behaviour", seriously challenged the behaviouristic perspectives of language acquisition. He (1959, 1965) argued that viewing language learning as the results of mechanisms such as stimulus-response, imitation, conditioning, etc., shows nothing about how human beings learn language in natural circumstances. He rejected the concept of imitation because it contradicts the processes of language creativity which according to Chomsky (1959, 1965, 1968) enable humans to construct,

produce and understand sentences that they have never spoken and/or heard before. He also challenged the adequacy and power of such concepts as "reinforcement and reward", in favour of a humans' innate ability, or faculty, of language acquisition. This ability which Chomsky calls the "language acquisition device (LAD)" (1965:48),is activated when individuals are exposed to language and enables them to regulate the grammar of language in their minds. Moreover, parents never, or seldom, correct their children's erroneous utterances, or reward them for correct utterances.

The linguistic bases of the CA hypothesis collapsed when Chomsky (1957, 1965) introduced the theories of "syntactic structures" and "transformational generative grammar". He (1965:24-5) argued that a linguistic theory, or a theory of grammar, should capture three degrees of adequacy; it should be observationally, descriptively, and explanatorily adequate. (a) A grammar is observationally adequate when it enumerates the sentences of the language it describes (p.24; Fodor, et al., 1974:61; Greene, 1972:34). (b) A grammar is descriptively adequate "when it makes a descriptively adequate grammar available for each natural language" (p.24; also Greene, 1972:34; Fodor et al., 1974: 62). (c) A grammar is "explanatorily adequate" in that it must assign structural descriptions in accordance with linguistic universals (1965:27). The structural taxonomic model, as the linguistic basis of the CA hypothesis, was perceived to be inadequate when examined against these criteria (Chomsky, 1965; Fodor et al., 1974; Stenberg, 1983), and hence incapable of being the linguistic foundation of a model for FLA and/or SLA.

C: Pedagogical Limitations of the Contrastive Analysis Hypothesis: Finally, the breakthrough of the Chomskyan psycholinguistics in SLA research gave rise to debates and suspicions about the validity and reliability of the pedagogical applications of the CA hypothesis. This dubious status of the hypothesis became more serious when

it was revealed that the majority of learners' errors are not due to interference. Gradually, unlike in the CA model, language learners became of central importance in (S)LA research; errors were found to be of other significant and explanatory sources, and evidence of learner's progressions into the language being acquired. When the linguistic and psychological foundations of the CA hypothesis were questioned and its predictive and explan21atory powers were refuted, teachers and educators became reluctant to do CAs for pedagogical purposes. CA was no longer relied on as a model for SLA research and language pedagogy.

It should be noted, however, that in spite of these and similar inadequacies, in recent years, there are some tendencies towards CAs at the pragmatic levels of language, or "contrastive pragmatics" (Stubbs, 1986), to determine the area of "pragmatic transfer" (Beebe et al, 1990). The idea is that "different speech communities differ in their rules for turn-taking, expression of politeness, use of ritualistic formulae,and the like ..." (Stubbs, 1986:38) and CA can determine such differences. However, researchers are very cautious about relying on both the strong and weak versions (Wardhaugh, 1974), or the predictive and explanatory powers, of the CA hypothesis in studies on SLA. CA may be a useful tool only for determining the areas of language differences and similarities in the languages being compared. The results of such comparisons might, in turn, help in demarcating (typological) universals, or general language-related properties, of languages with which to determine the degree of IL-conformity with such universals at different levels of grammatical or possibly communicative aspects of language.

2.1.2. Error Analysis

When Corder (1967) published his seminal article on "the significance of learner's errors", he set the stage for a new direction and more systematic studies in SLA

referred to as error analysis (EA). In this article, Corder (1967) criticized the behaviouralistic approaches to language learning, believing that such approaches "imply nothing about the processes that take place in the learning of first and second languages" (p.163). This article brought about a considerable change in SLA research, basically because it changed the prevalent attitude towards both the learners and errors. As mentioned before, errors were hitherto perceived negatively to be eliminated and eradicated. Now, there were increasing tendencies to approach errors positively, i.e. as some inevitable part of language acquisition and, more importantly,as indicators of the learners going through the TL (Corder, 1967, 1971, 1973, 1981; Richards, 1974; Dulay et al., 1982). They were also looked upon as evidence of learners constructing and testing hypotheses about the rules of the TL. One of the original break-throughs of EA as Selinker (1992) considers, was:

> the insight that reframed our conception of 'errors' from something negative showing lazy unmotivated students to something normal and important for learning to occur,a 'window' on the learner's internal grammar, a learning strategy perhaps necessary to promote SLA (p.144).

Accordingly, language acquisition was assumed as a process, or a set of processes, of "rule formation" rather than "habit formation" (Cook, 1993) and thus SLA was viewed as the formation of grammatical rules of the TL in the learners' minds through hypothesis formation and testing processes (Corder, 1973, 1977; Bley-Vroman, 1986). Such developments aroused great interest in researchers in the sense that systematic analysis of errors in types, sources, and the psychological processes underlying errors would provide significant information about learners' developmental stages of and in SLA.

The assumption, as Corder (1981) posited later, was that "there is a property of human mind which determines the way language learners process the data of language to

which they are exposed" (p.27). If this property could be studied operating naturally, researchers might be able to discover some general processing principles in F/SLA (Larsen-Freeman and Long, 1991:24), which will be of pedagogical values in selecting and sequencing materials in course syllabi. By studying SLA processes and L2 learners' errors within the framework of error analysis (EA), identifying the sources of errors and classifying them according to their sources, researchers could find a great deal about the strategies that learners were adopting while acquiring and using a new language. Corder (1973, 1977) suggested that certain errors are caused by such processes as simplification, deletion, addition, more importantly, overgeneralization, and even complexification, which are mostly similar to those happening in children's FLA. Some other errors were also labelled as those resulting from learners' use of communication strategies and production strategies, the sketch of which reflected in Van Els et al. (1984), Larsen-Freeman and Long (1991), and Ellis (1994). In short, the EA methodology, as systematized over the years, became a fruitful source of research on SLA. EA could find many facts to be explained in terms of the processes of L2 learning, learners' errors, and their sources in the processes of FLA adopting to SLA and/or SLA processes themselves.

2.1.2.1. The Inadequacies of Error Analysis

Error analysis, nevertheless, like CA was viewed to be a limited tool for studying SLA, and fell into disfavour, though it had been a dominant model for SLA studies at least for over two decades. One reason for this decline was that EA focused on the learner's errors only, not the processes of L2 performance. It was, as Wardhaugh (1974) advocates, an explanatory framework for errors, (or a framework used to explain why errors occurred), and not for the processes of SLA themselves. This could not lead researchers to the whole picture of the processes of SLA, because EA accounted only for some

parts of the language that L2 learners produced, i.e. the idiosyncratic forms, or dialects (Corder, 1981; Ellis, 1985a). Furthermore, since EA examined language learner's language at a single point in time, it didn't cast much light on the developmental route that the learner took (Ellis,1985a:68). Using the EA model, researchers studied just learner's errors, not what made, or could make, them successful users of the TL. In sum, EA could explain: (a) that L2 learners made errors; and (2) how sources of errors and erroneous utterances could be accounted for.

The other point worth mentioning is that within this framework, as Larsen-Freeman and Long (1991) argue, it was difficult for researchers "to identify the unitary source of an error" (p.61). For example, the source of an error like :

"*the doges ran home"

seems to be ambiguous. "It could be due to the over-generalization of the syllabic plural, but it is also possible to be a developmental error of the type children learning English as their native language (NL) commonly make" (ibid). Besides, some errors that may be viewed as overgeneralization for NS, or for learners of a particular L1 linguistic background, may be held as transfer or as other types of errors for learners of other linguistic background.

Finally, by focusing only on errors, EA failed to account for all the areas of SLA in which L2 learners appeared to have difficulty. Error avoidance processes, for instance, could not be explained in this model. That is, L2 learners, and even L1 speakers, avoid using some segments or items of the given language because they are aware of the difficulties that they have in pronouncing and using such items. Instead, they use some other linguistic devices (plans) to avoid errors without breakdown in their performance; these have not been accounted for in the EA model of SLA.

In spite of the inadequacies mentioned above, EA provided some valuable insights into SLA research and

strengthened language teachers' understanding of the necessity of analysing learners' errors, or doing EAs, for pedagogical purposes,particularly for instructed SLA. Language instructors, on the other hand, had to become justifiably realistic about their role in the classroom (Corder, 1981:78). They realised that structural and linear syllabi emphasising on constant error correctness (Ellis, 1990:73-4) might not be of as much help as they were thought to be, since learners appear to be programmed. In short, EA brought about advances from CA to IL; that is, studies in SLA, as Selinker (1992:145) thinks, developed "from CA to IL through EA".

2.1.3. The Interlanguage Model of Studies on SLA

As mentioned earlier, studies on language acquisition acknowledged that FLA occurs as the result of what Andersen (1983) terms "nativisation", which means any process whereby the learner creates a grammar of his/her own from the input that s/he receives. This process "adopts the language being acquired to built-in universal tendencies and progresses towards an internal norm set by the learner's mind" (Cook, 1993:81). These accounts were drawn into SLA research by earlier psycholinguists.Corder (1971, 1973) maintained that L2 learners follow certain processes of hypothesis formation-testing similar to L1 acquirers, and by these means, they formulate the linguistic system of the TL in their minds out of that to which they are exposed. This system is neither learners' L1 nor the exact reduplication of forms of the TL system; it is a system of its own, though it may have some features of both languages. This system develops towards the TL so long as the learners are exposed to that language and the exposure continues, the L2 rules are established in the learners' minds. Corder termed this system "language learner's language", "transitional competence", or "developmental competence". Nemser (1971) coined the term "approximative system" for this system to

mean "a system employed by the learners attempting to utilize the target language" (p.115). This system, according to Nemser (1971), "must be studied not only by reference to LS (the source language) and LT (the TL), but in its own terms as well" (p.116). He explains the approximative system (La) as follows:

> Our assumption is three-fold:(1) learner's speech at a given time is the patterned product of a linguistic system (La), distinct from LS and LT (source and the target language) and internally structured. (2) La's at successive stages of learning from an evolving series La 1... La n, the earlier occurring when a learner first attempts to use the TL, the most advanced at the closest approach to LT ... (3) In a given contact situation the La's of learners at the same stage of proficiency roughly coincide with major variations ascribable to differences in learning experiences (p.116).

Selinker (1972) coined the term "interlanguage" for this language system to mean the systematic knowledge of a second language which is independent of both the learners' L1 and the TL. This term became more popular than those used by Corder and Nemser, and later became a model for studies on SLA and provided a considerable impetus for empirical research into both sequences of developments in SLA, L2 performance and accounting for the learner's errors.

The central theme of the IL assumption is that in SLA a third language system is involved; a system not simply formed as the result of language transfer, or even superficially iterating and/or imitating the norms of the TL system. It is rather a system of its own, constructed in the learner's mind which leads him/her to achieve what Selinker (1972) calls "attempted meaningful performance" in a second language. By meaningful performance, he means the situation where an adult attempts to express meanings, which he may already have in a language which he is in the process of learning (p.210). This attempted

production, Selinker (1972) explains, is substantial to understanding the nature of IL. "The existence of a separate linguistic system based on the observable output which results from a learner's attempted production of the TL norms. This system, ...we will call interlanguage" (p.214).

According to Selinker (1272, 1992), Selinker et al. (1985), and Corder (1981), it is the task of SLA researchers to describe this linguistic system, just as the (psycho)linguists who describe the linguistic system formulated in a child's mind acquiring L1 (Slobin, 1971; Steinberg, 1983). Selinker (1972) moreover, explains the psychological and mental processes involved in constructing IL in the learner's mind. To him, SLA differs from FLA in that the former is seldom completely successful, particularly in adults; in his view,around 5% of adult L2 learners have "absolute success" in SLA.An L1 is acquired when LAD, or what he calls "latent language structures", are activated in the acquirer's mind; while SLA is mostly acquired when the "psychological structures" latent in the brain are activated (pp.211-112). Selinker (1972) claims that IL depends on five central processes that are part of the "latent psychological structures in the brain": (1) language transfer,(2) overgeneralization, (3) transfer of training, (4) strategies of L2 learning, and (5) communication strategies (1972:216-217). Elsewhere (1984,92) he stresses that these psychological mechanisms and structures are activated to create and formulate IL in the learner's mind even from the early stages of SLA and as soon as the learner is exposed to the target language. Once IL is constructed, it develops so long as exposure continues. It is therefore "a continuum between the L1 and the TL along which all learners traverse" (Larsen-Freeman and Long, 1991:61). Language transfer is only one of the five processes involved in the construction and development of ILs in the learner's mind. Such a transfer may be either external, from one language previously known to the newly acquired one, or

it may be internal, from one stage of SLA and development in acquiring an L2 to the other stage in acquiring the same L2 (Selinker, 1992; Selinker et al. 1985).

The IL model provided researchers with a new direction in SLA studies. "What gave SLA its excitement was the concept of interlanguage" (Davies et al, 1984:xii). The concept received considerable interest and developed pervasively in various areas of SLA research, both in theory and practice. In theory, as mentioned above, it became an important and very dominant model of SLA studies for several years (Selinker, 1992, 1994). In practice, it became one of the most important factors in what some scholars (Corder,1976; Allright, 1988, Nunan,1991; and Kandiah, 1994, for example) have called "learner-based approaches" to language teaching. According to these positions, the planning of language teaching, designing course syllabi, teaching materials including remedial work, etc., can be successful only if teachers and foriegn-language methodologists take into account whatever knowledge they can gather about the internal states of the learners. That is, if we know how the learners learn, then we can know what to teach them and how to teach them.

While most of IL studies have been focused upon different aspects of L2 grammatical competence, a full review of which appeared in Selinker (1992), Cook (1993), and Ellis (1994), less has been done on aspects of IL communicative competence, especially the operation of SC across various tasks within the framework of "IL-conformity". This framework, as the one used in the present study, will be elaborated in detail in this and the next chapters.

2.1.4. Performance Analysis

The EA ignorance of non-erroneous language behaviour such as error avoidance and other possible developmental processes of SLA encouraged researchers to focus more on the observation and analysis of the processes underlying

L2 learners' overall language performance rather than merely their erroneous utterances. This model of (S)LA studies has been referred to as performance analysis (Van Els et al., 1984; Larsen-Freeman/Long, 1991). It is, as Faerch et al. (1984:277) notify, a very important source of information about language itself and processing the linguistic knowledge in acquiring a language.

Performance analysis (PA) refers to the observable behaviour, or physical signs--phonemes functioning as communicative signals by means of using the code of a linguistic system, or as a result of processing a linguistic system. In this model, all the learners' performance (both correct and erroneous utterances) are accounted for as relevant data. Using longitudinal or cross-sectional research design and learners of different L2 proficiency levels, L1 background and/or sociolinguistic profiles or both, researchers manage to include the developmental aspects of IL in their studies. One of the main purposes of PA has been to provide empirical evidence to explain the "creative construction" of IL, and examine the claim that IL/SLA and FLA follow to a large extent the same "natural" route of development (see Ellis, 1985:54-55; Larsen-Freeman and Long, 1991).

Most of the studies within the PA framework, as Larsen-Freeman and Long (1991) and Cook (1993) explain, have been narrowly focused on grammatical morphemes and to a broader extent on functional morphemes and developmental sequences of acquisition both in FLA and SLA.

In FLA, researchers used the concept of grammatical morphemes in studying those morphemes having grammatical rather than lexical functions in sentences.These included not only free morphemes such as "the" and "is", etc., but also bound morphemes such as [-ing] signalling progressive actions, [-s] as plural, possessive and third person singular markers (Cook,1993). Roger Brown (1973, cited in Cook, 1993) observed that children in the early stages of FLA appear to leave out grammatical morphemes more than lexical morphemes, producing sentences such as "Here bed"

or "Not dada", and grammatical morphemes gradually appear in their sentences over a period of years (see Cook, 1993:25-26).

SLA researchers, adopting the same methodology used in Brown's study in FLA, studied the acquisition of L2 grammatical morphemes both in children and adults.

Dulay and Burt (1973), for example, carried out experiments on sequences in the acquisition of grammatical morphemes by 151 Spanish speaking children aged 6-8 learning English. They found some common order of acquisition processes in L1 and L2 in learning some certain morpheme structures (p.256). In another study (1974a) they compared sixty (60) Spanish and 55 Chinese children learning English and observed that learners' L1s did not seem to affect the sequences of acquisition of English grammatical morphemes. Moreover, they found that the sequences of such acquisition by both groups are "virtually the same"(p.49).

Krashen et al. (1976) examined the sequences in acquisition of grammatical morphemes of English by a group of mixed L1 adults performing five English grammatical morphemes [-s1,2,3]; [-ing] and [the/a]. They found no significant differences between the sequences of acquisition in adults and what Dulay and Burt (1973, 1974a/c) had found in children L2 learners.Krashen et al. (1976) concluded that: "Child and adult ESL learners do not differ significantly with respect to which aspects of English grammar they find hard and which aspects they find easy" (p.149).

In a study on word final [-s] morphemes, which serve plurality, third person present and possession, Van Patten (1984) found that both the order of acquisition and learners' difficulties in L1 and L2 depend on the grammatical or lexical functions that such morphemes serve (pp.88-89). He suggests that learners (L1 and L2) acquire those morphemes bearing heavier semantic functions earlier than those having grammatical functions (p.97), that is, both groups of L1 and L2 learners rely

on morphemes for semantic reference, or function, more than grammatical functions. He furthermore stresses that it is more sensible to study the order of acquisition of morphemes that share the same roots, e.g. noun-based morphemes as opposed to verb-based morphemes.

In short,with respect to PA framework, the following points are worth mentioning:

First, the performance features such as slip of the tongue or pen, self-correction in oral speech acts, stress and intonation, false starts, fillers, maintenance strategies, and temporal variables like speed and pause have been recently included in production analysis of language acquisition (Edmondson, 1981; Courthard, 1985; Ioup et al, 1987). These features, as Faerch and Kasper (1987:8-9) suggest, may be indicative of the underlying processing mechanisms and can therefore yield valuable information about the organisation and processing of linguistic knowledge.

Secondly, in SLA research, PA is often a necessary first step in IL studies, since it includes the analysis of both correct and erroneous utterances. Such utterances represent one, but very important, source of information about the IL development in linguistic and discourse analyses of IL studies.

Finally, the developments in PA in (S)LA studies led the shift from studying words or utterances in isolation to studies on words and utterances in context (Ellis, 1987:3). This shift, which is based on PAs and discourse analyses, makes it more possible to study aspects of language communication,speech acts, conversation analysis rules and communication/compensatory strategies. These are examples of such developments in studies on SLA within the framework of PA.

To summarise this section, it should be mentioned that the description of research on SLA presented above is necessarily sketchy; a vast array of studies are available in the literature. However, such description can highlight certain developments that may account for

the present interest in studies on IL communication in general and SC in particular, from different aspects and perspectives. The developments can be summarized as follows:

Firstly, the emergence of mentalistic theories and approaches to (S)LA and development, unlike the behaviouristic perspectives, gave more emphasis to the mental processes at work in language acquisition and in learners themselves. Consequently, the concept of "strategies" was/is used to explain the ways the learners attempt to tackle the problems of language learning and language use, or as Ellis (1985a:71, 166) maintains, to relate existing knowledge to input (learning strategies) and to relate existing knowledge to output (communication strategies). These two types of processes, or strategies, have been taken into consideration in the field as relevant research projects.

Secondly, the view of looking at errors changed from a negative "by-product" of (S)LA to an important and central source of data concerning language learning processes. Such a shift directed SLA researchers' attention to the processes responsible for both errors and non-erroneous utterances made by language acquirers. From this view point, communication strategies became one of the areas of SLA research initiated by Selinker (1972) and Varadi (1973).

Thirdly, from studies on PA, it is now commonly accepted that studies on IL should embrace both erroneous and non-erroneous data. Accordingly the IL SC have mostly treated the use of communication/compensatory strategies as characterising those aspects of L2 performance that may result in both erroneous and correct language use. In short, studies on SC represent at least some part of the reflection of current interest in understanding the processes underlying language performance leading to studies on PA as a whole.

Finally, the rise of communicative approaches to language pedagogy (Canale and Swain, 1980; Savignon et

al., 1984; Yalden,1987; Windows, 1990) gave fresh impetus to treat such strategies in recent studies on SLA. Educators emphasised the communicative aspects of the TL to help learners acquire and develop their communicative competence inside, and possibly outside, classroom activities (Hookje et al., 1992) through formal and informal instructions. Consequently, communicative competence and SC became the central focuses of studies on SLA.

2.2. The Development of the Theory of Communicative Competence

Since Hymes (1972, 1974) introduced the notion of "communicative competence" to refer to speakers' overall ability to use language completely, i.e. grammatically accurately and communicatively meaningfully, the concept has received great and direct attention from researchers. There is now a considerably growing body of research into different aspects of developing this ability and its underlying components both in FLA (Dickson, 1981, 1982; Foster, 1990) and SLA (Preston, 1989; Scarcella et al., 1990; Shaw, 1992, to name only a few). While earlier studies approached the notion as the all-embracing knowledge/ability of language use, assuming to expand Chomsky's (1965, 1968) models of linguistic theories (Schielflbusch et al., 1984:4), some more studies on communicative competence found the concept as a broad entity consisting of several integrated aspects or sub-components incorporating the processes of communication.

In order to understand the theory of communicative competence and its developments in language studies in detail, it seems necessary to briefly explain the terms competence and performance. Such an explanation will likely be helpful in our understanding of the theory itself and its inherent components.

2.2.1. Competence and Performance

In (applied)linguistic disciplines, the concept of "competence" has been used for different purposes. In

theoretical linguistics, the term has been used to explain the abstract system of rules that characterise a person's knowledge of language. This knowledge "enables people to have intuitions about the grammaticality of sentences they have never heard before" (Stevenson, 1988:8). Chomsky (1965) used the term for the first time in studying language in its idealized forms, i.e. to mean the mental representation of linguistic rules which constitutes the ideal speaker-hearer's internalised knowledge of language. Performance, on the other hand, to Chomsky, relates to comprehension and production of language. He states: "We thus make a fundamental distinction between competence (the speaker-hearer knowledge of his language) and performance (the actual use of language in concrete situations)" (p.4). Chomsky (1965) thus restricts the concept to "linguistic competence",as distinguished from linguistic performance, and defines it as:

> The ability of an ideal speaker-hearer, in a completely homogenous speech community, who knows its language perfectly and is unaffected by such grammatically irrelevant conditions as memory limitation, distraction, shifts of attention, and interest, and errors ... in applying his knowledge in actual performance" (p.3).

If the aims of investigations are merely the theoretical considerations of language, these and similar definitions seem quite reasonable. It is possible for linguists to study language(s) in isolation, ignore even language communication which is one of the primary purposes and functions of language, and disregard many psychological and social factors involved in language use. Chomsky (1965, 1968) looked upon linguistic competence in this sense, i.e. independent of knowledge and ability of how to use grammar for communication. The "generative grammatical theory is concerned with the knowledge of an ideal speaker-hearer, and in this sense ignores contexts" (Gregg, 1990:368). This notion of

"ideal speaker-hearer" language knowledge does not give any account of "what happens when speakers actually engage their production and comprehension mechanisms in a moment-by-moment basis in real situations to communicate" (Foster, 1990:8). In short, it is restricted to the abstract/innate features of language, and has nothing to do with language use.

2.2.2. Restrictions and Inadequacies of the Theory of Linguistic Competence

One might argue that studying the theoretical aspects of language and ignoring the involvements of language use is justifiable for theoretical linguists, because they are dealing with the questions of what language is and how it develops in individuals' minds, rather than how it is used. For theoretical linguists making distinctions between competence and performance "is a fundamental prerequisite to progress in the scientific study of language. There is thus a great deal at stake in any attempt to deny or to blur over the distinctions, any such attempt demands justifications" (Gregg, 1990:370). For applied linguists, however, such perspectives are inadequate. With special emphases on language as a means of communication (Corder, 1980; Kaplan, 1980), applied linguists challenged the restrictions of the theory of "linguistic competence", claiming that this theory "does not deal with speech, but with the ability of the speaker to produce, out of a finite set of rules, an infinite number of grammatical sentences" (Giglioli, 1972:15). Hymes (1972, 1974) pointed out that like the grammatical knowledge, speakers of every language have systematic knowledge that enables them to know where, when, and how to use language in actual communication. He called this knowledge communicative competence and argued that a person endowed with mere grammatical rules, or knowledge, of his language would not know how and when to speak, according to which situation, and which sociolinguistic option to select

from a repertoire and on what occasion. He accordingly discussed the restrictions of the Chomskyan theory of linguistic competence, as it overlooks the requirements of language use. For Hymes, the ability to use language completely, and appropriately, not only requires the acquisition of the grammatical rules of the language being acquired, but also knowing what and how to say in the given situation is equally important; otherwise, the grammatical rules would be useless. "There are rules of use without which the rules of grammar would be useless" (1972:228). He also argues how utterances may sometimes be grammatical, but inappropriate (schizophrenic's talk, for example); and appropriate, but ungrammatical, such as those occurring frequently in certain situations, on the scene by actors, for instance (see also Coulthard, 1985:33-35). Accordingly, for the child to be a competent member of his community, acquiring/developing his linguistic knowledge and discovering the adults' language system proposed by Chomskyan linguists (Slobin, 1971) are only part of child's responsibility; the other ability also needs to be acquired. Hymes (1972) states:

> The importance of concern with the child is partly that it offers a favorable vantage point for discovering the adult system,and that it poses neatly one way in which the ethnography of communication is a distinctive enterprise, i. e. an enterprise concerned with the abilities the child must acquire beyond those of producing and interpreting grammatical sentences, in order to be a competent member of its community, not only what may possibly be said, but also what should and should not be said (1972:26).

Other researchers, following Hymes, also challenged the adequacy of the theoretical considerations of language in language acquisition and development. In all studies the consensus is that language is not merely an innately acquired system, but that it is, or should be, also perceived of as an aspect of social reality (Halliday, 1975); thus, "full acquisition of an item

requires not only that it be used, but that it be used in all the places where it is appropriate" (Foster, 1990:149).

Chomsky (1980, 1986, 1988) seems to have accepted the inadequacy(ies) of his first version of the theory of linguistic competence. In some recently revised versions of the concept, he tries to make a link between the psychological reality, the innate or acquired, aspects of language and the social reality of this knowledge such as comprehension, communication, world knowledge, in his theories of "linguistic competence" and "pragmatic competence". The former is clear enough in language studies, particularly in the Chomskyan definitions of the term; the latter means the knowledge of how language should be related to situation for any purpose that speakers intend (Chomsky, 1980:20). Put another way, this competence is the ability to place "language in the institutional setting of its use, relating intentions to the linguistic means at hand" (ibid:225). Based on this theory, Chomsky (1980) categories linguistic knowledge into two approaches, or categorises (a) "I-language", or internal language, and (b) "E-language", or external language. The former is mostly concerned with the mental representation of linguistic rules or knowledge which is mostly a matter of psycholinguistic reality. The latter, deals with language performance and language as a social reality (ibid, see also Chomsky, 1981:39-40). This latter concerns itself with different aspects of language use, or the materialisation of the psychological reality of language in actual language use.

2.2.3. Studies on Communicative Competence

Communicative competence as Widdowson (1990) argues "is a complex and still unstable concept whose understanding involves a consideration of a range of issues within discourse analysis, pragmatics, theory of grammar, sociolinguistics, etc.,..." (p.38-39). Yet, in spite of

its debatable nature, as mentioned previously,the concept was widely developed in the fields of FLA and SLA.

In the following subsections,I shall present briefly these studies in the two fields, with special focus on referential communication,to explain: (a) how referential communication can be a suitable ground on which to study the acqusition/development of communicative competence in FLA and SLA and how it is possible to control variables in this type of communication; and, (b) the pedagogical implications of such studies, i.e. how researchers have tried to draw the findings of these studies into classroom activities. Further discussions specifically relating to how studies on referential communication may be helpful in understanding the development of SC in L1 and L2 will be presented in the subsequent section.

2.2.3.1. Communicative Competence in First Language Acquisition

Based on Hymes' (1272, 1974) arguments on the nature of communicative competence in language acquisition/ development, some experimental designs were set up concerning how different aspects of communicative competence develop in children learning and using L1 (Dickson, 1981, 1982; Schiefelbusch et al, 1984; Foster, 1990). Most of these studies were carried out focusing on three different, but interrelated, research perspectives and purposes: (1) Psychological perspectives of experimental and/or explanatory research on children's communicative skills. Such studies reflect the growing importance of investigating psychological and cognitive processes underlying the acquisition/development of communicative competence in children, and its operation in adults, in actual communication. (2) Experimental and ethnographic research on children's overall communicative ability based on sociolinguistic approaches to children acquiring/developing communicative competence. These studies are concerned with language users communicating appropriately according to (natural) communicative

situations: children-parents, pupil-teacher, extensive classroom activities, and kindergartener-children interactions. (3) The third perspective deals with pedagogical approaches. Attempts have also been made to show the contributions that the above mentioned studies may have in common with other cognitive processes which can be applicable to pedagogical purposes and curriculum developments.

The increasing pedagogical awareness of the importance of these research findings led to great demands for information on children's oral and written communication skills. The intentions were to see how such skills could be measured and taught, how these developments may intensively influence mechanisms and other mental and strategic activities, and how they can, or may, affect children's participation in classroom activities at least as preliminaries of socialization processes. Researchers and educators were/are also interested in developing a curriculum for children's oral communication skills, namely in bilingual environments. Some more implications have also been the aims of such studies on the acquisition/development of communicative competence in L1 such as the possible remedial procedures for children's communication disabilities and, possibly, communication disorders (Bishop et al., 1993).

The applications of these research findings to classroom activities have been useful for educators who are concerned with planning a curriculum for oral/written communication skills, designing group activities, and thereby, developing children's mental and communicative skills (Whitehurst et al, 1979). These programmes also indicate that a number of communicative skills can be taught, and explain those techniques that may be successfully employed in teaching these skills and,thus, leading to curriculum developments. Such studies were insightful and directional for SLA researchers in leading them to focus on aspects of communicative competence and its

underlying components in SLA and IL use within the three perspectives mentioned above.

2.2.3.2. The Components of Communicative Competence

As mentioned earlier, the theory of communicative competence was introduced as a subtle and all-embracing paradigm for studying language acquisition and communication. Hymes' (1972, 1974) approaches to this competence were that grammatical knowledge is not sufficient for effective communication,rather, language behaviour should be viewed in terms of its appropriateness and correctness. More recent studies found communicative competence as a broad paradigm comprising some other components. Bialystok (1985, 1988, 1991), Bialystok et al., 1985), for instance, suggest a model of language knowledge and control, believing that making use of language for meaningful communication requires both "knowledge" (rules about when to say what to whom and how to say it), and "control", or ability for appropriate use. The knowledge in question can be tacit or implicit; "knowing a grammatical rule", for example, does not mean being able to cite it, but "having it" so that one can recognise if it is being broken, or one could potentially use it, and so on. Control would cover such requirements as the ability to use a sentence in the foreign language under time pressures and in real situations.

With respect to the fact that communicative ability requires more than grammatical knowledge, and in order to study possible aspects of this competence more precisely, different models were introduced,each of which suggests several components underlying communicative competence.

2.2.3.2.1. Canale and Swain's Model

In their theoretical model of the application of communicative competence to language pedagogy, Canale and Swain (1980) brought together various expanded notions underlying this competence. Their framework, initially involved three areas of knowledge/ability underlying this

concept, each referred to as a "competence" in its own right. These are: (a) Grammatical competence which reflects the knowledge of linguistic codes of the given language including phonology, syntax, word formation, sentence formation,etc, (pp.29-30). (b) Sociolinguistic competence reflecting the knowledge of using language appropriately according to the social context and situations, or communicative setting (p.30). (c): SC, which was discussed in chapter one.

Later on, Canale (1983:10-11) and Swain (1984:188-9) added "discourse competence" to the model and defined it as the mastery of how to combine grammatical forms and meanings to achieve unified (cohesive and coherent) spoken/written texts in different genres and situations, thus claiming that the communicative competence framework involves four competencies.

The grammatical competence was considered above in Chomskyan terms (see 2.2.1. and 2.2.2.) which has been defined in a rather similar way in this model. Strategic competence was defined before (cf. 1.1.3.), and will be explained in detail later. Sociolinguistic and discourse competences are briefly elaborated below.

A: Sociolinguistic Competence: In their framework of communicative competence, Canale and Swain (1980), Canale (1983) and Swain (1984), included sociolinguistic competence in this competence to mean the knowledge required to perform speech and illuocutionary acts that are socially and contextually appropriate. Canale (1983:7) defines this competence as "the extent to which utterances are produced and understood appropriately in different sociolinguistic contexts". Appropriateness, for Canale (1983), involves appropriateness of both (a) meaning and (b) form. The former refers to the one when it is proper to perform a particular meaning in particular social contextual setting. An utterance may be appropriate when used in one particular setting but meaningless in another, though it is grammatically

correct. The latter coordinates with the extent to which a given communicative or illocutionary act is realised to be formally proper for a given situation, or when particular forms of utterance are used in a given social context. A form may be appropriate in one particular situation, friend-friend interaction, for example, and inappropriate in another, the same form in boss-employee interaction, for example.

In short, the general assumptions underlying socio-linguistic competence are that there are usually certain para/linguistic rules and factors which are regularly and automatically followed by (native) speakers of a language. Such factors as social relations, and social classes to which speakers-listeners belong are the important factors to mention as the involvements of carrying out a successful communication in social situations. The characteristics of utterances in language communication may, to a large extent, depend on the social relations of the interlocutors (for example, foreigner talk,boss-employee, doctor-patient, supervisor-candidate, friend-friend, stranger-stranger, ...). All these factors are assumed to influence effective language use. Therefore, if language is a social reality which is manifested through social interaction and communication, for successful communication, speakers should be sociolinguistically competent to be able to use language appropriately according to each social situation.

B: Discourse Competence: From what has been mentioned above, communication may be looked upon as a hybrid process: a combination of form and meaning, i.e. form is the means and meaning is the end in the process of communication. It follows that language users should be able (a) to relate form to meaning to construct a meaningful utterance; (b) to relate forms to their components to make consistent forms of utterances; and (c) to relate form to meaning according to the context (discourse situation) in which it is used. The knowledge

that enables, potentially or actually, language users to capture these requirements to use language coherently and cohesively in oral/written communication has been referred to as discourse competence.

Some scholars, Scarcella et al (1990), for example, have used the concept in the broader sense to mean using both verbal and non-verbal,or paralinguistic, ability and means to organize spoken and written texts meaningfully and appropriately.

Language communication,or discourse utterances, thus should be both cohesive and coherent (Halliday & Hasan, 1976). By cohesion is meant those linguistic features such as pronouns (he,she), conjunctions etc. that relate sentences to each other in the context to make a form-related text; a text that is unified in terms of its form (units or features). Coherence, refers to texts when they are appropriately related to, and fit in with, a situational context, or refers to the appropriateness of text to context (Halliday and Hassan, 1976). For them, a text is coherent when it has consistency with its situational features such as channel (written or oral discourse), the genre (whether it is narrative, poem, essay, ...), topic, purpose, and so on. In other words, "a discourse is coherent if its successive elements can be integrated in-to a unified representation" (Caron, 1992:162). In short, a text is cohesive when it is consistent with itself; it is coherent, when it is consistent with its context (Widdowson, 1977).

Discourse competence, therefore, entails the ability to capture the requirements of coherence and cohesion of communication with respect to appropriateness of topic, and situation, and the purpose of communication. That is, for communication to be effective, language users should be able to make cohesive utterances (text); utterances that are consistent with themselves on the one hand, and be able to construct coherent utterances, or utterances that are consistent with and appropriate to their context on the other. To do all these, they must be discoursively

well-competent, otherwise communication will not be as successful as it should be.

2.2.3.2.2. Bachman's Model

Bachman (1988, 1990), incorporating the earlier models of communicative competence, suggests a new model which he calls "Communicative Language Ability (CLA)". To Bachman the term "ability" includes both knowledge and skills necessary to implement that knowledge. "I describe communicative language ability (CLA) as comprising both knowledge (competence) and skills in implementing or executing that competence" (1988:155; 1990:108). This model embraces three competences: language competence, SC and the psychophysiological mechanisms that are required to implement these competences in language use (ibid).

1. Language Competence: This competence in Bachman's model encompasses two major subcompetences: organizational and pragmatic competences. (a) Organizational competence comprises those abilities involved in controlling the formal structures of language for producing or organizing grammatically correct sentences, comprehending their propositional context, and ordering them to form texts (1988:155, 1990:87). This competence, in turn, includes two subcompetences:(a.1) Grammatical competence involving a number of related independent competencies such as knowledge of words, morphology, syntax, phonology,... which "govern the choice of words to express specific significations, their arrangement in utterances to express propositions, and their physical realizations, either as sounds or as written symbols" (1988:155-56, 1990:87). (a.2) Textual competence includes the knowledge of the conventions for utterances together to form a text--written or spoken--consisting of two or more sentences that "are structured according to the rules of cohesion and rhetorical organization" (1988:156, 1990: 88). These rules explicitly make semantic relationships such as references,substitutions, ellipsis, conjunctions, lexical cohesion and conventions such as those that

govern the order of old and new information in discourse. In other words, rhetorical organization pertains "to the overall conceptual structure of text, and is related to the effect of the text on the language user" (1990:88). This component is close to Canale and Swain's (1980) "discourse competence",as mentioned before. (b) Pragmatic competence includes those abilities that are employed in contextualizing performance and interpreting the social appropriateness of utterances. This competence comprises two subcategories:(1) illocutionary competence consisting of speech acts and (2) language functions. The former in Bachman's Model is close to Searle's (1969) theory of speech acts in which three types of speech acts are distinguished: (a) utterance acts which are simply saying something; (b) propositional acts which involve referring to something or expressing the propositions that a speaker has;and, (c) illucutionary acts, or functions (e.g. assertion,request,warning,etc.) which are performed in saying something. The latter, language functions, in Bachman's model, are the meanings that are expressed in terms of the speakers' world knowledge,i.e. experience of the real world; or, as Bachman (1990:92-93) mentions, "it includes the use of language to express propositions or to exchange information about knowledge or feelings". Pragmatic competence also underlies sociolinguistic competence, which is the ability to use speech acts and perform language functions appropriately according to the context or situation (1990:94-95).

2. Strategic competence: This competence is the second component of Bachman's model. To explain this term, he first argues that communicative language ability involves a dynamic interchange between "the language use, the discourse, and the context of the situation in which the use occurs" (p.156). In order to produce, interpret and understand discourse, one requires the ability to assess the context for information relevant to the communicative goal and then to match information in the discourse to this information;this requirement is one of the functions

of SC. According to Bachman (1988, 1990), SC, thus, consists of three subcomponents: planning, execution, and assessment. The two former have been suggested by Faerch and Kasper (1983a, 1986) to which Bachman adds the third latter. Since Bachman bases his model of SC on the one suggested by Faerch and Kasper, this model will be dealt with later (see 2.4.2.2.).

3.Psychophysiological mechanis-ms: These mechanisms, as the third component implement the competencies in the model in language use and, hence, promotes speakers to operate competencies to make utterances as output. This model, Bachman (1988) mentions, may be realized in four language skills: listening, speaking,reading,and writing. He categorises these skills in terms of "modality" (receptive/productive) and channel (audio/visual) which are "distinguished by the psychophysiological mechanisms that are involved in language use" (1988:156). The two receptive skills--reading and writing--are activated or implemented by sensory mechanisms; whereas, in the productive modality (skills)--speaking and writing--motor mechanisms are employed and utilized. Figure (2.1) presents a clear picture of Bachman' model:

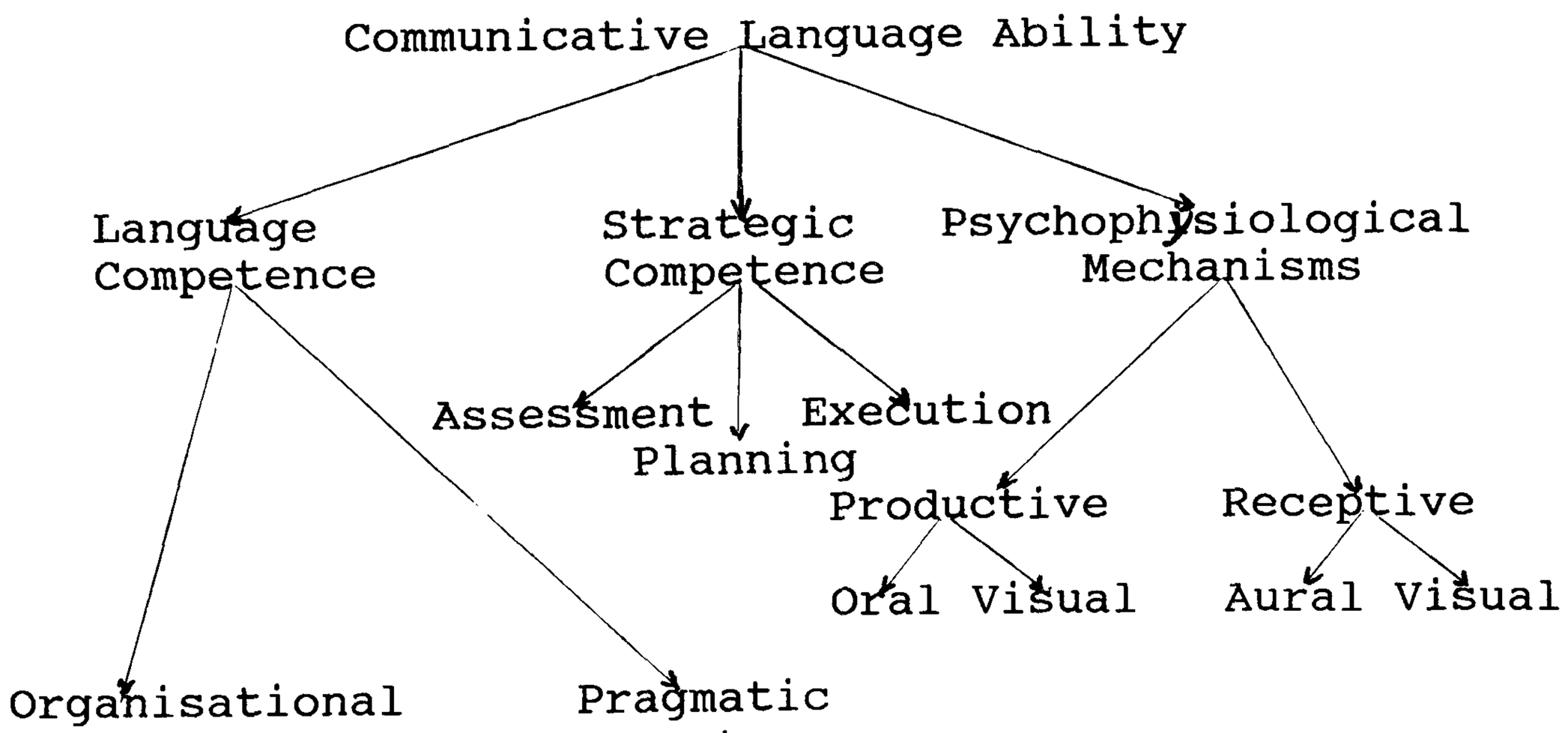


Figure (2.1): A Framework For Describing Bachman's Model of Communicative Language Ability (1988:164;1990:87).

Strategic competence, as one of the most substantial components underlying communicative competence in most of the models, was defined and explained at the outset of this study (chapter one, 1.1.3). However the concept will be examined in more detail and reconsidered in relation to the nature of strategic behaviour, the frameworks suggested for empirical studies on SC, and the studies themselves.

2.3. Studies on Strategic Competence: Theoretical and Methodological Considerations

The concept of "strategic competence", psychologically speaking, refers to the procedures of "strategic behaviour" as part of the human beings' mental activities of problem solving; that is, solving those problems that stand between individuals and their intended goals. In such cases, and to achieve the intended goal, the individual more or less consciously uses some strategies as the problem-solving means to diminish the problems standing between him/her and the intended goals (Pressley and Matter, 1985, 1993). Regarding such psychological understandings in studies of language use,communication, according to Stevenson (1993), becomes part of the learners' cognitive mechanisms, which are promoted by a set of strategic behaviuor,or goal-reaching activities. In such situations, SC, as Faerch and Kasper (1986) suggest, may be accounted for as "a process of problem-solving ability that constitutes a general, rather than specific, aspect of communicative competence" (p.380; also, Faerch and Kasper, 1983a:32-33, 1983b:212-213; and Bialystok, 1990:14).

More analysis reveals the problem more precisely. Language learning and communication as cognitive processes (Clark and Clark, 1977) consist of at least three interrelated features: problematicity, consciousness, and intentionality or goal-relatedness. (a) Problematicity, briefly speaking, means that learning and communication are problems, from the learners' and language users'

points of view, which should be solved if the goals of learning and communication are to be achieved.To do this, as well as for effective communication, the individuals impose or plan certain proper strategies and execute them to reach the goals. (b) The feature of consciousness refers to learners'/speakers' knowledge of the problems to be solved, or their "metalinguistic and metacommunicative awareness" (Faerch et al., 1984; Bialystok, 1993). In language use,this requirement refers to the assumption that communication is a (potentially) conscious process and the speakers are aware of this process (the term "potentially" refers to the degree of consciousness in that speakers are more or less conscious of what they are communicating,Faerch/Kasper,1983; Faerch,1984; Bialystok, 1984, 1990). (c) Finally, the feature of intentionality, or goal-relatedness, is concerned with the fact that learners/speakers follow both (a) and (b) to carry out the tasks and capture the intended goals.

From what has been mentioned above, it can be concluded that communication is a goal-related process requiring problem-solving ability. To solve the problems, speakers plan and execute some achievement, compensatory, strategies in the process of communication. These strategies are the manifestations and realizations of SC.

2.3.1. Aspects of Strategic Competence

In the light of the discussions presented earlier, one may focus on several attributes of the concept of SC. Strategic behaviour constitutes a set of problem-solving activities which according to O'Malley et al. (1990) and Pressley et al. (1993) can be either learning or using problem-solving activities in the acquisition and use of particular skills. In the case of language acquisition and use, according to the authors (see also Bialystok 1990, and Oxford, 1990), strategic activities deal with solving the problems of language learning by means of "learning strategies" and the problems of language use by means of problem-solving procedures or "compensatory

strategies". Learning strategies, in other words, are used to "expand" the language knowledge, and compensatory strategies are used to "exploit" the knowledge.

W ithin a process-based approach to SLA and IL development, Faerch and Kasper (1987) believe that the IL acquisition and use comprises two types of processes: "Macroprocesses and Microprocesses". The former concerns the total developmental stages of language competence, which materialises in the changes that are observable at the product levels of language use. The microprocess of language learning is each separate developing stage of language competence which results in the same separate stage of language use. Thus, each macro/microprocess consists of at least two processes: learning processes which constitute competence and enhance its development, and using or productive processes which constitute the product. These two processes co-activate at each level of language acquisition and use.

Based on this approach, Faerch and Kasper (1987:12) proposedly distinguish two types of language knowledge: (1) Declarative knowledge comprising IL rule knowledge at all linguistic levels, "organised in more or less analysed, i. e. structurally transparent and articulated forms" (p.12). (2) Procedural knowledge which intervenes between the former and the observable performance and is used to activate the former knowledge in communication and to increase it throughout learning. This knowledge, they say, comprises the cognitive and interactional processes that are activated in reception, production and language acquisition. These two types of knowledge are more often automatically processed, with occasionally controlled processing, for activities involving this processing. If the automatic or controlled processing of knowledge breaks down, "such as when the learner is faced with a problem in reception or production due to lack of relevant [declarative] linguistic or other knowledge" (p.12), it often initiates "attended processing" or the processes of using compensatory strategies.

Regarding the declarative and procedural knowledge of language and with special emphases on SC, one can generally hold SC as a two-fold scheme comprising accounts of mental and cognitive processes of (language) learning mechanisms on the one hand, and communication activities, or procedures, on the other.

2.3.1.1. The Declarative Aspect of Strategic Competence

Strategic competence in its first aspect, the one relating to learning mechanisms, entails the knowledge/ ability of how to solve the problems of learning that stand between learners and the new learning materials. This knowledge is called into action when learners attempt to use appropriate strategies in order to solve learning problems and thus facilitates learning processes (Huebner, 1991; Pressley & Matter, 1993). I shall call this dimension of the concept the "declarative aspect" of SC, since it is mostly concerned with the acquisition of "declarative" knowledge of language in (S)LA processes.

The other aspect of SC undertakes problem-solving activities specifically to tackle communication problems by means of appropriate procedures and strategies. I refer to this dimension of the concept as "procedural aspect" of SC because it mostly deals with the acquisition of procedural knowledge, or the knowledge of "how to use" (Ellis, 1990:8), in (S)LA and communication. This knowledge, according to Levelt (1989) is "a system of conditions and actions which apply to message generation that is available in long-term memory and situational knowledge" (p.72). In the following section, I shall explain this aspect of SC in detail providing some examples to clarify the notion as precisely as possible.

2.3.1.2. The Procedural Aspect of Strategic Competence

The procedural aspect of strategic competence in language communication corresponds to the processes of

using strategies and procedures to solve communication problems. These problems may stand between individuals and the intended goals before or during the course of communication, or during the planning and/or executing phases of communication (Faerch and Kasper, 1983a/b, 1986). These processes can be explained in terms of:

(a): Communication negotiation: That is, negotiation between interactants on communication topics, referents, or the meaning to be conveyed, before and during the course of communication (Long, 1983; Yule and Tarone, 1991). Consider the following examples:

(1):

A: What's this? (showing a picture)
B: It's a... erm... uh .. it's ... yeah... a .. mill, isn't it?
A: what?
B: er... a mill .. I said a mill.
A: Right.
A: Do you know what a mill is?
B: Yeah, .. it's .. er .. something .. like erm.. this (pointing to the picture, interactants are NNSs)

(personal observations)

(b): Communication Compensation

(I) Communication, or conversation, strategies: The strategies that are used to keep the channel open and repair the **breakdowns "in" communication** such as clarification, confirmation, comprehension checks, and so forth. These strategies are usually referred to as repair and maintenance strategies (Dipietro, 1981; Roberts, 1986; Ellis,1994). The following examples illustrate the point:

(2):

Ns: Do you have any animals?
NNS: (laugh) yes--er-- that is - I don't know how I shall say that in English...
Ns: I think they must be rabbits---
NNS: er..what? (clarification, request,...)
NNS: rabbits--- (repetition for comprehension)
NNS: rabbits?-- (check for comprehension)
NS: yeah, rabbit,... (confirmation, possibly)

(Faerch and Kasper, 1983a:49)

(3):

NNS	NS (English)
1- and they have the chwach	
2-	what (clarification)
3- the chwach--I know some that..	
4-	what does it mean? (clarific./or request for clarification)
5- like um...the American people they go there every Sunday	
6- yeah, I see...	

(Yule and Tarone, 1991:166-7).

It should be kept in mind that in referential communication, as defined before and the name also implies, the listener is important but as an indicator; s/he is an indicator for the speaker to test out his/her hypotheses about the use of particular compensatory strategies. Negotiation for the meaning thus is not firmly and directly the concern of this type of communication, since the referents, as the topics or meanings, are given to the interactants from the beginning. These strategies will be considered only as one type (interactional) of compensatory strategies in this study (see the taxonomy, chapter four, 4.2.).

(II): Communication compensatory strategies: The strategies that are used to compensate for the deficit of linguistic resources required for conveying the intended meanings, and compensate for the possible **breakdowns "of"/"for" communication** resulting from such deficits in the course of (lexical/grammatical) referential communication, both in oral and written discourse. The following extracts are some compensatory strategies used in referential communication ("A" is the speaker and "B" is the listener or interlocutor):

(4): (interactants are English NSs)

A: Being able to walk in streets ... not erm ... not being a prisoner, ... not being ... er ...slavery being able to vote ... independent ... er... in voting ...
B: Freedom ... (B has some non-referents)
A: Right.

(5): (interactants are NNSs)

A: This word that I want to ... explain for you means em ...the people ... erm ... in one country ... or one society ... that want ... independent ... erm ... being independent, not dependent to other people ... or other country ...er... that means ... this word or they want have ... er ... election ... president .. not .. no one decide for them..
B: Freedom, erm.. yeah... freedom (the listener has some non-referents).
A: Yeah, okay ... .

(the Pilot study, see also chapter four, 4.1.2 and appendix I, for more examples).

2.3.2. Models Used to Study Strategic Competence

Most of the models suggested and used for studying the operation of SC, mainly in referential communication, are based upon those criteria mentioned above: problematicity, consciousness, and intentionality (goal-relatedness). Before focusing on the empirical research on the phenomenon, I shall explain three models suggested by Tarone (1983, 1984), Faerch and Kasper (1983, 1986), and Bachman (1988, 1990). I have chosen them because the first two models are the most commonly referred to in empirical studies of communication and particularly compensatory strategies; and the third one is the modified version of Faerch and Kasper's. It should be mentioned here that the models suggested for these purposes have been approached either from: (1) the interactional-sociolinguistic perspectives, or (2) psycholinguistic perspectives. Tarone takes the former position,Faerch and Kasper and Bachman the latter position.

2.3.2.1. Tarone's Model of Strategic Competence: The Interactional Approach

Tarone (1981, 1983,1984, 1985a) looks at the problem from a sociolinguistic-interactional perspective. She sees communication as a mutual interaction between a speaker and a listener.Taking this position,she defines communication strategies as "the mutual attempts by two

interlocutors to agree on a meaning in situations where the requisite meaning structures do not seem to be shared" (1981:288). Tarone (1983) also attempts to make distinctions between performance strategies and communication strategies. The former are those used automatically or with less effort and usually unconsciously, or intuitively, as routines in communication, or interaction; while, the latter are used with more or less efforts to solve problems in interaction. Tarone (1984) acknowledging the criteria of strategic behaviour, namely problematicity and goal-relating ones, suggests a model for studying SC. In her model, the concept is approached as a mutual ability of the two interlocutors: the speaker's ability to use communication strategies in conveying the intended information to the listener, and the listener's ability to interpret the received information correctly (p.129). The mutual model, with regard to the criteria, can be summarized as follows (Parentheses are mine):

1-There is a goal in communication which should be achieved. (Information to be conveyed--intentionality/ goal-relatedness.)

2-There are interlocutors who convey and receive information. (Information-processing, goal-intended, and mutual interaction, ...).

3-There is information which should be conveyed and received, and interpreted by the hearer when received (Goal-relatedness, and probably consciousness of problem)

4-There are some problems in communicating information (Problem identification as the requisite of strategy choice, problem classification, etc.,the problems are linguistic, non-linguistic, etc.,)

5-The problems should be solved.(Problematicity, problem-solving process, presumably consciously.)

6-To solve the problems, strategies should be selected and used. (Strategic activities in compensatory strategies choice.) (Tarone, 1984:129-130)

2.3.2.2. Faerch and Kasper's Models: The Psycholinguistic Approach

Faerch and Kasper (1983a,1984,1986) take the psycholinguistic perspective to SC, and both communication and compensatory strategies. They believe that the interactional view point to the dilemma is too narrow and limited in both scope and application, because such views are applicable only to "the negotiation of meaning as a joint effort between two interlocutors" (1984:51). In addition, much communicative language use such as reading written materials, story telling-retelling, giving lectures, and so on involves only an individual to communicate or at least involves the speaker playing the central role, and in each case, possibly, with no feedback from a second interlocutor.

Based on these arguments, the writers (1983a, 1986) suggest a "psycholinguistic model" for studying the development and performance of SC. The authors consider Canale and Swain's (1980) and Tarone's (1981,1984) models and perspectives to this competence inadequate. They believe that the models cannot explain the processes underlying language production and the use of compensatory strategies partly because they are essentially product-based models and partly because they are too restricted to be generalizable to all types/forms of communication. They moreover assert that these models are inadequate to account for the use and development of SC because they ignore the mental/psychological processes underlying speech production and compensatory strategy use. In other words,such models focus on only the surface realisations of language product and communication strategies (the strategies themselves, not the underlying processes). So, as they maintain, if these processes are taken into consideration,it becomes clear how significant they are in understanding communication and compensatory strategies, SC, and how they operate in the process of communication. The authors assume that in language use

the causes of difficulties and processes underlying solving problems are more reliable and thus should be more significant than the problems themselves.

The model of SC that the authors introduce comprises two phases: (1) a planning phase, and (2) an executing phase (1983a:23, 33; 1986:180-181). The former consists of the "goal", the "planning process" and the "plan". The communication goal, in turn, consists of (a) an actional element, which is associated with speech acts;(b) a modal element associated with role relationship holding between the interactants; and, (c) a propositional element, associated with the content of the communicative events (1983a:24). The latter,the execution phase of this model, comprises the "plan", "execution processes" and "actions" (1983a:23), which are processed and activated through neurological and physiological processes. They explain this model as follows:

> In the planning phase, the language user selects rules and items which he considers most appropriate for establishing a plan, the execution of which will lead to verbal behaviour which is expected to satisfy the original goal...the product of the planning process is a plan which controls the execution phase. The execution phase consists of neurological and physiological process, leading to articulations of the speech organs, writing,the use of gestures and signs, etc., ... (1983a:25).

In sum, communication and compensatory strategies are the plans (potentially) consciously used to solve problems that come to the speaker, in reaching certain communicative goals (1983a:36;1984:47;1986:181).

Based on this model, Faerch and Kasper (1883; 1986) present a taxonomy for studying and identifying and classifying speakers' uses of compensatory strategies.

According to the model and taxonomy, when the speakers come in contact with problems, they may solve their problems either by adopting avoidance behaviour, "trying to do away with problems" (1983a:36), or by relying on achievement behaviour, "attempting to tackle the problems

directly by developing an alternative plan" (p.36). Two distinct types of strategies, therefore, exist: reduction (avoidance) strategies, and achievement strategies. The latter are those by which speakers attempt to solve their communication problems by expanding their communicative resources to capture the goal, or to convey the intended meaning (p.45).Achievement strategies are problem-solving in the planning phase,because they solve problems arising due to speakers' insufficient linguistic resources and compensate for such insufficiencies. For these reasons,in this model, compensatory strategies have been accounted for as subtypes of achievement strategies, as they are devices to solve communication problems and help speakers to achieve the goal (see 2.3.3.2.).

Bachman (1988, 1990) sees Faerch and Kasper's model as one of the most useful and reliable models presented for understanding the processes underlying SC. However, he believes that this model restricts the concept to IL and can only explain the use of strategies in IL communication. He therefore, tries to expand Faerch and Kasper's model "to provide a more general description of SC in communicative language use" (1988:156; 1990:100). With such a claim, Bachman expands and explains the model in terms of three components: assessment, planing and execution; he states:

> The assessment component is involved in assessing the context for information, relevant to the communicative goal, determining what language competencies are available for use in achieving the communicative goal, and evaluating whether the communicative goal has been achieved.The planning component retrieves the necessary items from language competence and formulates a plan for realizing the communicative goal.The execution component draws on psychophysiological mechanisms to implement the plan in a modality and communicative goal and the context" (1988: 156; 1990:100).

Perhaps this explanation helps to understand Faerch and Kasper's model more precisely. Assessment as one com-

ponent of SC has been proposed in Faerch and Kasper's (1983a) model as an interaction of three variables: communicative goal, the communicative resources available to the individual,and the assessment of the communicative situation (p.27; 1983b:217). The component,or process, of assessment in Faerch and Kasper, which has been supported in Bachman' model, is activated to assess the speaker's constructed hypotheses about the type and appropriateness of the strategies to be used, and to assess if the goal has been achieved through the hypothesized strategies (1983a:217;1986:183). Faerch and Kasper's model, modified, or explained, by Bachman (1988; 1990), is also claimed to be generalizable to studying the elicitation and performance of SC in L1. As Ellis (1985) says, most of the communication strategies in taxonomies for L2 can be also used for L1 SC (p.182).This claim has been also supported by Yule and Tarone (1990) and particularly Kellerman's (1991) interpretation of compensatory strategies.

2.3.3. The Taxonomy of Communication and Compensatory Strategeis

The strategy concept presents various problems of research and research methodology. The main problem is the difficulty of obtaining evidence for particular strategies (Cook, 1993:131). Research into the use of communication strategies began when the researchers observed that learners of an L2 could use a number of devices to cope with the problems stemming from their insufficient language commands to communicate the desired ideas. These devices are the most common cognitive and linguistic problem-solving means of L2 learners to overcome problems. "Most L2 learners are mature users of ideas but their L2 competence is not up to expressing those ideas,so they have to find ways around the problem" (Towell and Hawkins, 1994:226). To be able to identify the devices and classify them according to their types, a taxonomy of communication or compensatory strategies has always been required.Such a taxonomy would help and allow

researchers to understand the underlying psycholinguistic processes generating the strategies or the function for which they are used, and understand the behaviour that the learners commit to solve communication problems. As a result, various taxonomies have been suggested by different researchers.

As mentioned before,research into both communication and compensatory strategies, can be divided into socio-linguistic and psycholinguistic perspectives.This follows that most of the taxonomies are either sociolinguistic-based or psycholinguistic-based. The former are based on Tarone (1977, 1979, 1980) who looks upon strategies as a means, and in terms, of social interaction; the latter have been suggested by Faerch and Kasper (1983, 1984, 1986) who think of such strategies as psychological processes. In the following, the taxonomy based on each perspective is briefly examined, first. Second, the shortcomings of each taxonomy will also be briefly discussed. I have chosen these two perspectives because most of the traditional and new taxonomies of strategies have been based upon either of these two. Third, the "process-oriented" taxonomy of compensatory strategies developed by the Nijmegen project will be evaluated.

2.3.3.1. Tarone's "Product-based" Taxonomy of Communication Strategies

Based on her interactional approaches to communication strategies, Tarone (1977,1980) introduced a taxonomy (typology) of strategies. Her typology distinguishes five main categories: Avoidance,Paraphrase,Conscious Transfer, Appeal for Assistance and Mime.

1) **Avoidance.** The learner avoids the communicative problems. This may be either (i) topic avoidance, which occurs "when the learner simply does not talk about concepts for which the vocabulary is not known" (1977: 198), or (ii) message abandonment, which happens "when the learner begins to talk about a concept, but is unable to continue and begins a new sentence" (198).

2) **Paraphrase.** The learners use paraphrase to make up for the lack of appropriate L2 words. It is in other words "the rewording of a message in an alternate, acceptable target language construction, in situations where the appropriate form of construction is not known or not yet established" (1977:198). Tarone distinguishes three types of paraphrase strategies.

(a) Approximation: That is, finding a word having the closest meaning to the target item such as 'animal' for 'horse', 'worm', for 'silk worm' and 'pipe' for 'waterpipe'.

(b) Word coinage: The leaner coins a word to stand for the target word,'airball' for 'balloon', or 'jugworm' for 'caterpillar'.

(c) Circumlocution: The learner, speaker, talks round the target words and describes elements of the target referent instead of using the appropriate TL structure, or word, "when you make a container" for "pottery".

3). **Conscious Transfer:** Transfer from L1, or any other previously acquired language, helps interlocutors to overcome the problems of communication. The speakers use a lexical item or grammatical structures of another language to make up for the one required in the TL. This in Tarone's taxonomy may manifest itself as:

(a) 'Literal Translation': The L2 learner translates word for word from his/her L1,e.g. a German ESL student says "Make the door shut" rather than "Shut the door"; or a Mandarin speaker describes two persons toasting one another by translating the equivalent Mandarin expression as "He invited him to drink".

(b) 'Language switch': The learner uses an L1 term without bothering to translate it into the TL, e.g. "That's a nice tritil" for caterpillar, or the use of the Turkish 'balon' for English 'balloon'.

4) **Appeal for Assistance.** The learner asks for the correct terms; s/he "asks the experimenter, any native speakers, or even refers to dictionary" (1977, p.199).

For example, the speaker asks: 'What is this?' 'What called' What do you call? And so forth.

5) **Mime.** The learner uses non-verbal signals such as requesting for the time by pointing to a wrist" (cf. Cook, 1993:121), or clapping one's hand to illustrate applause.

2.3.3.2. Faerch and Kasper's Process-based Taxonomy of Communication and Compensatory Strategies

Faerch and Kasper (1983a) find Tarone's taxonomy as the one being "product-based" rather than "process-based", or based on the underlying "processes" generating the strategies. Alternatively, they present a "process-oriented" taxonomy of communication and compensatory strategies. This taxonomy, which has also been frequently used and adopted in later studies (Palmberg, 1983; Nayar, 1987; the Nijmegen project, for example), is based on the psychological approaches to processing procedural knowledge which cause strategies to emerge. The perspectives were considered before. Here, the taxonomy itself will be examined only.

The taxonomy starts with the distinction between "Reduction Strategies" and "Achievement Strategies". The former have two subtypes: Formal reduction,and Functional reduction. When reduction is formal, the speakers use a system that has been phonologically, morphologically, grammatically or lexically reduced (pp.41-42); when it is "functional", the communicative goal is reduced, such as when speakers use "Topic Avoidance","Message Abandonment" and "Meaning Replacement" strategies (pp.43 and 44).

Achievement strategies are subdivided into two sub-categories: 'Compensatory Strategies', and 'Retrieval Strategies'. The former are "subclassified according to what resources the learner draws on in trying to solve her planning problem" (p.46). These strategies are put into four subclasses as follows:

1- **Code Switching.** The learner relies on any language s/he knows other than the TL.

2- **Interlingual Transfer,** which combines linguistic features from IL and the L1 (or other languages different from the given L2). When this process happens at the phonological or morphological levels, it is referred to as "Foreignising"; when it invloves the lexical levels of the IL system, it is called 'Literal Translation", e.g. 'green things', for 'vegetable' (p.47).

3- **Strategies of Inter-/Intralingual Transfer,** which are used if the language distance between L1 and L2 is too small. The result is "a generalisation of an IL rule, but the generalisation is influenced by the properties of the corresponding L1 structures" (p.47).

4- **Interlanguage-based Strategies,** or the strategies based on the evolving IL;these fall into four subtypes:

a. Generalisation. Learners fill "the 'gaps' in their plans with IL items which they would not normally use in such contexts", assuming that "the generalised items can convey the appropriate meaning in the given situation/context" (p.49). An example is the use of the superordinate term 'animal' to refer to 'rabbit'.

b. Paraphrase, which is defined as the use of a well-formed IL construction. It is said that "Paraphrase can have the form of Description or Circumlocution [emphasis in the original] ..., the learner focuses on characteristic properties or functions of the intended referent" (p.49). For example, 'interest' is described as 'having some more money'. Exemplification, i. e. the use of hyponomic expression, is considered as a special form of 'paraphrase' (ibid).

C. Word Coinage. This is defined as "the creation of a new IL word", i.e. "we were sitting in the rounding of the station" for 'the curve of the stadium' (p.50).

D. Restructuring. When the original speech plan fails, the learner may use 'Restructuring Strategies' attempting to reach his goal via alternative ways.For example, "...my parents has--I have er four elder sister..." when the learner gets around the word daughter (p.50). Figure (2.2) diagrammatically summarises the taxonomy.

Achievement Strategies	Subtypes Compensatory Strategies
Learner attempts to solve communicative problems by expanding his communicative resources.	a) code switching b) interlingual transfer c) inter/intralingual transfer d) IL based strategies (i) generalisation (ii) paraphrase (iii) word coinage (IV) restructuring e) cooperative strategies f) non-linguistic strategies.

Figure 2.2, list of compensatory strategies: Faerch and Kasper (1983a:53).

2.3.3.3. Problems with Traditional Taxonomies

There are some shortcomings with the taxonomies surveyed above;Tarone's undertakes the most inadequacies. The Nijmegen project considers them as traditional which are descriptive rather than explanatory;they describe the surface realisations of strategies rather than explaining the "interplay of psycholinguistic mechanisms determining the particular choice of strategy in a given situation" (Kellerman et al.,1987:102 and 103). The project suggests that the taxonomy of compensatory strategies should go beyond description to explanation and prediction of strategies. Thus, the problems of previous taxonomies are two-fold: theoretical and practical, as discussed below.

2.3.3.3.1. Practical Problems of Traditional Taxonomies

Tarone's (1977, 1981, 1985) taxonomy meets two major practical problems which also apply to other traditional ones: (1) the problems of how to come to clear encoding of communication strategies, or encoding problems;and (2) the problem being specific to situations and subjects, or the problem of generalisability (see 1977, p.197).

With respect to the first problem, some points have to be mentioned. First, the criteria used to distinguish

different strategies and classify them according to their type are not explicitly defined. For example, when learners refer to "hairdresser" as " a person who cuts hair", in one taxonomy, it is classified as "description" (Varedi, 1973), in the other as "circumlocution" (Tarone, 1977, 1985, Tarone and Yule, 1987), and in the third as "paraphrase" (Faerch and Kasper, 1983). Such classifications capitalise on the differences in the linguistic forms of the utterances, "while the more important point, that the ... utterances are similar in terms of the semantic content, is lost" (Bongaerts et al., 1989:254, see also Kellerman, 1991:142).

Secondly, some of the criteria are not very well chosen. Defining 'paraphrase' as an 'accepted target language construction' (Tarone, 1977) excludes ungrammatical utterances, if it refers to communicatively acceptable utterances. Similarly,demanding of "circumlocutions" that they are "wordly extended" (Tarone, 1977) brings about a number of unclassified short utterances, like "without hair" for bald. These categories are characteristics which go for most paraphrase and circumlocution strategies rather than defining criteria which are fairly useless for defining these categories.

Thirdly, some of the distinctions made between categories in these taxonomies seem to be non-existent or arbitrary. Faerch and Kasper (1980), for example, define "meaning replacement" as a case where the learner "preserves the 'topic' but refers to this by means of a more general expression" (p.91),this results in a certain amount of vagueness. First of all,it is not clear in what way "meaning replacement" differs from "generalisation" which has been defined as the use of 'a general expression', e.g.,"animals" for "rabbit" (1983a:48-49),"lexical substitutions" (Tarone, et al. 1976), "approximation" (Tarone, 1979, 1981), which has not been accounted for in Faerch and Kasper's taxonomy. As a result,not only does Tarone's "product-based" taxonomy not account for the criteria of plausibility, generalisabilty and parsimony

attributed to a reliable taxonomy (discussed below) even Faerch and Kasper's psychological based one, appears to be too inadequate to meet these requirements.

The second practical problem is the lack of generality, or generalisability. Tarone's taxonomy,as she mentions, was set up to deal with her data, subjects, and research situation (1977:197).Other researchers will have tremendous problems using this taxonomy and have to make substantial modifications due to variety of their data, subjects,tasks, research situations, etc.,as,for example, Paribakht (1985),Tarone and Yule (1990), and Yarmohammadi and Seifi (1992) did. Faerch and Kasper (1980,1983a,1986) restrict their taxonomy to IL SC, as mentioned before.

There is still another way to show the lack of generality in these taxonomies. Being descriptive rather than explanatory (Kellerman, 1991), they can describe everything in detail according to the existing strategies, but they overlook the underlying processes that generate the strategies themselves. Similarly,they cannot explain the speakers' preference of particular strategies over the others in dealing with particular and or different communicative tasks.

2.3.3.3.2. Theoretical Problems of Traditional Taxonomies

Theoretically, traditional taxonomies meet some problems,too, particularly when matched with the criteria of a "process-based" taxonomy.

In their theoretical framework, principally from the process-based viewpoint, recent scholars have suggested three criteria for a sound taxonomy: psychological plausibility, parsimony, and generalisability (Bialystok, 1984, 1990; Bialystok et al., 1987;Kellerman et al., 1987,1990; the Nijmegen project, for example). To clarify these criteria, I shall quote from Kellerman (1991) as the most recent representative of this approach.

A taxonomy is psychologically plausible when it is compatible with our knowledge about language production,

cognitive processing and problem-solving behaviour (p.145). It is parsimonious if it is able to suggest the smallest number of strategies possible to explain the underlying processes of strategy generation and use, as certified by Kellerman (1991):

> Given the choice between two descriptively adequate frameworks, we should always prefer the one that posits the fewer strategy types, provided that these are consistent with the latter. If we wish to explain compensatory strategies on the basis of underlying mechanisms,the smaller the number of such mechanisms the better (p.145).

A taxonomy of compensatory strategies is also generalisable when it can be generalised across tasks, items, languages,and learners. Kellerman (1991) explains:

> Although particular tasks and items will imply different goals,perhaps resulting in different distributions of strategies, no strategies should be uniquely associated with certain tasks in certain items... strategies should always be drawn from the same pool. Similarly, a taxonomy should not be sensitive to learners' L1 backgrounds **nor** [emphasis in the original] the L2 being learned, not to whether that learning takes place in the classroom or out of it (p.145).

It was noted above that the taxonomies are not psychologically plausible, as reflected by the criteria which have been used to distinguish between various types of compensatory strategies. Some of the criteria on which these taxonomies are based are largely "product-based; therefore, they cancel some obvious generalisation to be made due to the cognitive processes underlying compensatory strategy use. Other criteria, as Poulisse (1990) sees, relate to the final stages of encoding the speech production processes only; this,in turn, tends to obscure what happened at earlier stages, and to assume two different encoding systems for one particular strategy.

2.3.3.4. The Nijmegen Taxonomy: A Process-oriented Approach

In lieu of Tarone's "product-based" and in favour of Faerch and Kasper's "quasi-process-based" taxonomies, alternative approaches have to be proposed to utilise reliable "process-oriented" taxonomies, such as the one developed in the Nijmegen project. This taxonomy is based on the psychological and cognitive processes underlying strategies rather than their linguistic realisation or product of the strategies themselves (see Cook, 1993).

Briefly speaking, the Nijmegen taxonomy uses two "process-based" approaches to analysing and explaining the speakers' strategic behaviour (Kellerman et al., 1987; 1990). Such behaviour can be explained through two "archistrategies": conceptual and linguistic ones (Cook, 1993). The former "reflect a decision by the learner [or speaker] to compensate for a missing word by exploiting conceptual knowledge" (p.126);the latter is an attempt to compensate for the linguistic deficit through linguistic knowledge (ibid). In the conceptual approach, the speaker analyses the concept semantically, by decomposing it into its defining and characteristic features (Poulisse, 1990: 80, cited in Cook, 1993:126). In the linguistic approach the speaker selects appropriate linguistic demands to give linguistic realisation to the conceptualised concepts (referents). Thus, two types of strategies are generated in speakers' strategic behaviour to tackle the problems: conceptual strategies and linguistic strategies which have been manifested in this taxonomy. The former comprise (1) "holistic strategies" which are adapted by speakers to name or describe a referent which is sufficiently similar to the original one to convey the speakers' intended meanings (Poulisse et al., 1989; Bialystok, 1990; Tawell and Howkin, 1994). The linguistic signals used for these strategies are usually "like, similar, resemble, etc." such as in "its em..like a table" or "its table" for "desk" (Bialystok et al.,1987; Poulisse 1989/90). (2) Conceptual "analytic strategies"

which involve a conceptual analysis of the originally intended concept", such as "a talk uh bird" for "parrot", or "he lives in the mountain" for "hermit" (Poulisse, 1989/90:62, cited in Cook, 1993:126).

The analytic strategies may be partitive, linear, or description. Partitive strategies are used when the speakers divide the concepts or referents into several parts and describe each part separately.Linear strategies are those in which the speakers atomise each referent into its ultimate parts, lines, angles, etc.,and describe each line accordingly. Description strategies are used to define, describe, exemplify, and/or paraphrase them (Ellis, 1994:401-402).

The linguistic achistrategies consist of two types: (1) morphological creativity, when the learner/speaker creates a new word applying his/her knowledge of L2 rules to an existing L2 word, e.g., "ironise" for "iron" (Kellerman,1991:151). (2) Transfer from L1,as in "middle" for "waist" based on Dutch "middel" (Bongaerts et al., 1989:255; see also Cook, 1993:126). The two-archistrategy taxonomy can be schematised as follows:

The Nijmegen Project Typology of Compensatory Strategies

A: Conceptual Archistrategies:

1) Holistic strategies
2) Analytic strategies
   a) Partitive strategies
   b) Linear strategies
   c) Analytic Description strategies

B: Linguistic Archistrategies

1) Morphological creativity
2) Transfer

(From Ellis, 1994:402).

Using this taxonomy, a series of comparative studies on the use of compensatory strategies by Dutch native speakers and ESL students have been undertaken,which will be evaluated later in this chapter (see 2.3.4.2.).

2.3.3.5. Some Problems with the Nijmegen Taxonomy

The Nijmegen taxonomy, no doubt, introduces a revolution in studies of SC in its compensatory strategy use sense. The taxonomy, as Ellis (1994:402) thinks, is a "great improvement on the earlier taxonomies in that it locates the description of CSs within a parsimonious cognitive framework". In spite of being the most comprehensive "process-based" (Cook, 1993), presented to date,this taxonomy is confronted with some problems, too.

First, the taxonomy holds both "approximations" and "superordination", as conceptual strategies, while they are of different origins. The former are conceptual ("holistic"), as they stem from the learners' world, or conceptualised, knowledge. The latter are linguistic, as the speakers give some linguistic signals to open the channel (see Chen, 1990; and the taxonomy used in this study, chapter four, 4.2.). On the other hand, strategies such as "word coinage" and approximation are both considered as subtypes of holistic strategies, while the former are IL-based because they are used by IL speakers rather than L1 speakers. Besides, it is not clear why strategies such as "morphological creativity" and "word coinage" are approached as two different types, the former as linguistic and the latter as conceptual strategies, whereas they are basically of the same cognitive and conceptual origins.

Secondly, at the linguistic archistrategy level, the taxonomy is limited, the linguistic strategies tend to be IL-based, specific to IL, rather than general language-based, being generalisable to L1 speakers. At this level, the taxonomy predicts and classifies the linguistic strategies to be either "morphological creativity" or "transfer", or both. These strategies, namely "transfer", are used by L2 learners, and not L1 speakers, because transfer is an IL-based process; no identifications of L1 compensatory strategies are made in this taxonomy at the linguistic level. It is thus debatable how the project

has used it to analyse L1 and L2 compensatory strategies in referential communication in its comparative studies.

Having the tendency to be an IL-based taxonomy at the linguistic level, there is still another problem, that of ignoring the process of "overgeneralisation", a process which is essential for IL in all aspects to form in the L2 learners' minds (Selinker,1972,92; Corder,1981; Kumaravadivella, 1988; Scarcella, et al., 1990). It seems that this process has been confused with linguistic morphological creativity and/or conceptual approximation or word-coinage strategies. If so, it should be mentioned that overgeneralisation is different from morphological creativity, or at least more general than that process. In addition, overgeneralisation strategies have been disregarded in favour of the two latter conceptual strategies in Poulisse (1989/1990). The speakers who say "haircutter" to refer to "haircut" *are* actually overgeneralising an L2 linguistic rule to the position that is not applicable,rather than creating a new word. On the other hand,the speaker who uses "rounding" for "curve" is creating a word rather than overgeneralising or making approximation. The reason is that in the former the rule exists in the TL and is used by its native speakers, but not in the ways that L2 learners use them; in the latter, the word, existing in the TL or not, is coined at the speakers', or learners' disposal and used for another word. That is, it is not an overgeneralisation of L2 rules,but an overextension of L2 lexicon, or (re)creation of L2 words. In this sense, the process is very close to Faerch and Kasper's (1983a) "meaning replacement".

Finally, the taxonomy overlooks "interactional strategies", the strategies which are crucial in operating strategic competence in communication and negotiation (Long, 1984; Yule and Tarone, 1991). I mentioned before (chapter one) that one of the requirements of referential communication is the interactional procedures that the interactants use in the course of communication. These strategies will enable the speaker to evaluate his/her

strategies, be sure of their effectiveness, and to know when to repeat or change the strategies and when to stop communicating as the referent has been identified by the listeners from the strategies. Ignoring interactional strategies is at the same time overlooking the interactional, or at least the mutual, requirement of referential communication which was discussed in chapter one. For the purpose of this investigation, and to avoid the problems mentioned above,a three-archistrategy taxonomy, embracing linguistic, conceptual, and interactional strategies, was developed. This taxonomy will be explained in chapter four (see 4.2.).

2.3.4. Empirical Studies on Strategic Competence in Referential Communication

It was mentioned earlier that the concept of SC has been used to mean communication strategies in general and compensatory strategies in particular. Empirical studies on this phenomenon in referential communication have been undertaken with respect to (a) SC and communication strategies; and (b) SC peculiar to generating and using compensatory strategies.

2.3.4.1. Strategic Competence and Communication Strategies in Referential Communication

Studies on communication strategies in SLA go back to Selinker (1972) who considered using communication strategies as one of the five "central psychological processes" responsible for construction of IL. Then, such studies became immediately one area of empirical studies initiated by Varadi (1973).

In Varadi's (1973) pilot study, two groups of Hungarian-speaking ESL students (10 and 9, respectively) performed two picture story tasks in two phases: In the first phase, both groups described a related series of pictures: group (1) in English within 45 minutes, and group (2) in Hungarian within 30 minutes, without using a dictionary. In the second phase, conducted some days

later, all the subjects were asked to translate the original Hungarian (L1) version into English and English into the L1 as faithfully as possible without using a dictionary or leaving blanks; but they could paraphrase unknown lexical items. The results,Varadi (1973) reports, showed that learners can go beyond literal interpretation of the actual message in L2 communication and even arrive at an approximation of the adjusted meaning (p. 86).

Varadi's (1973) design is valuable in that: (a) He proved that communication strategies can be an area of research for empirical investigations. (b) He, as a starting point, showed the utility of the same/similar experimental techniques for such and similar studies. (c) The comparison of the subjects' L1 and L2 versions in the descriptions made it possible to determine the learners' optimal message in L1 compared to that in L2. The translations aimed to reveal whether differences between the two languages were the results of "conscious adjustments" or unconscious errors.

This study has some disadvantages, however. (a) The number of subjects and elicitation task were too small. One, therefore, has to be too cautious about the validity of the results on which to make any generalisations. Varadi (1973) himself is cautious about making any general claims; his conclusions are tentative. (b) The study focuses upon written discourse, little information, if any, is therefore suggested about the processes underlying oral IL communication.

Tarone (1977), using a spoken version of an alternative similar picture story telling task, undertook a study involving nine intermediate ESL learners of various cultural—sociolinguistic backgrounds, namely Spanish, Turkish and Mandarin. In her study, like Varadi (1973), the subjects described pictures both in L2 (English) and in their L1s, presuming that this makes it much easier to identify where communication strategies are used. Tarone (1977) found no relationship between learners' L1 and their communication strategies use. Rather, as she

claims, L2 language proficiency level correlates highly to the use of such strategies.

The linguistic background influencing the use of various communication strategies that sometimes cause miscommunication has been supported in recent studies (Varonis and Gass 1985; Gass and Varonis,1989,1991; Beebe et al, 1990; Rentell,1990, for example). As Tarone (1984, 1988) later suggests, the existence of the learners' L1 system causes various communication strategies to be used and these invalidate Tarone's (1977) findings. Her conclusions are thus resolutely tentative.

Palmberg (1979) designed a relatively similar study in which 79 subjects of different L1 background (24 Finns, 36 Swedes, and 19 Finland-Swedes) were to tell a story by describing a series of pictures, first in L2 (English) and then in their L1s. Six target items, which were the most frequently occurring L2 items in the story and for which all the subjects used strategies most frequently, were analysed. Palmberg (1979) concluded that using communication strategies associates with learners' L2 proficiency levels and personality, irrespective of their L1s. Correspondingly, he tentatively suggests that the use of strategies may also be task or item specific. Since the tasks and items used in this study are limited in number, more data are needed to support his claims.

2.3.4.1.1. Strategic Competence and Language Proficiency

Studies on L2 learners using communication strategies have been conducted for several purposes. Two of the most conspicuous areas touched upon in many studies, are: (a) the learners' overall abilities to use communication strategies (Bialystok, 1983; Ellis,1984; and the studies mentioned above); and (b): more specifically, learners' L2 proficiency levels and using communication strategies.

As noted earlier, both Tarone (1977) and Palmberg (1979) tentatively pointed out that learners' proficiency levels in L2 would affect their use of communication

strategies. But they did not explicitly explain the factors, nor did they establish any formulations of the relationship between learners' L2 proficiency and the use of strategies. Their claims and hypotheses were hence open to investigation and in need of testing.

Bialystok and Frohlich (1980) were the first who triggered studies explicitly dealing with L2 proficiency and communication strategies. They aimed to find out the relationship between learners' use of strategies and their (a) L2 levels of proficiency, (b) L2 inferencing ability, and (c) elicitation tasks. They also attempted to discover the degree of effectiveness of strategies that learners use to communicate the intended meanings.

Three groups of English speakers learning French at three different L2 proficiency levels participated in their study. The most proficient students were 14 adults; the two others were 12 and 18 students aged 17. They were presented with two tasks: a picture-reconstruction task, and a picture-description task. The tasks were assumed to be difficult enough to elicit learners' use of strategies and thereby to enable the experimenters to identify them.

The results found no proficiency-related differences within the three groups. Advanced learners employed fewer L1-based strategies than less proficient learners. Task items, on the other hand, were proved to have some clear effects on speakers' choice of communication strategies.

The degree of effectiveness of the strategies that the subjects employed was measured via a combination of two judgement tasks: (1) the learners' strategies had to be rank-ordered in relation to their degree of effectiveness in conveying the intended goals; (2) two French native speakers were asked to score the effectiveness and comprehensibility of the strategies on a "six-point scheme" form (0-5). The results indicated that "functional descriptions"--describing the functions of the items--are the most, and "language switch" are the least effective strategies. They concluded that in order

to be able to use communication strategies effectively, L2 learners should have a certain proficiency in the TL.

With respect to assessing the degree of effectiveness of the strategies, it is worth mentioning that these strategies, apart from avoidance ones,more or less convey the intended meanings. So, as Yule and Tarone (1990) impose it is not valid to judge the degree of effectiveness of strategies in terms of correct-incorrect; rather,the degree should be evaluated in terms of more or less successful or effective. If this assumption is accepted, then accounting some strategies as incorrect and scoring them (0), seems unwarranted.

In their study, Haastrup and Phillipson (1983), used 8 Danish speakers learning English of different L2 proficiency levels communicating different elicitation tasks, with similar aims as Bialystok et al.'s (1980) study. Like them, they "were interested in the relationship of learners' strategy use to proficiency level, but whereas they used elicited data,we used spontaneous interactional data which is closer to natural communication" (p.143).

The data they collected were 8 videotaped, 20 minutes face to face conversation of L2 learners with an L1 speaker of English on every topic. They found that lower proficiency learners "are over-dependent on their" L1 (p.154), and therefore use strategies based on their L1 knowledge, or L1-based strategies. Concerning the degree of effectiveness, and to test their hypothesis that IL-based strategies, or those strategies used based on the learners' L2 knowledge, were inherently of greater communicative potential, they, like Bialystok et al. (1980),found "L1-based" strategies as the least effective and "IL-based" as the most effective ones (p.155). By the former is meant those strategies that L2 learners use relying on their L1s, such as "transfer"; by the latter is meant those strategies that learners use relying on their L2 knowledge, such as overgeneralisation and word-coinage. This study, the researchers claim, supported the assumption that SC "exists alongside grammatical and

sociolinguistic competence, and these three components are helpful ways of looking at communicative competence.

In addition to the studies relating to SC and L2 proficiency levels mentioned above, some researchers have attempted to specifically study the elicitation of learners' SC and L2 proficiency levels. Two examples of the most recent studies are examined here.

Paribakht (1985) used highly controlled procedures to examine if learners' SC relates to their proficiency levels. Two elicitation tasks were used: a set of 10 concrete items, and a set of 10 abstract items, assuming that they are linguistically difficult enough to create some genuine communicative problems for the subjects. It was also assumed that the abstract items would cause heavier linguistic burdens for the subjects to reveal more fully the disparity in communication ability among them in each group.

The subjects were two groups of 20 Persian ESL students at different L2 proficiency levels, along with a group of 20 English L1 speakers as a comparison group. In the first task, pictures of concrete items were presented to the subjects to communicate to their English interlocutors who had to identify them on the basis of the speakers' descriptions. The comparison group was also asked to do the tasks without using the names of the concepts, even if they knew them. Abstract items,being written on cards in the subjects' L1, were presented to them in the same manner.

The results of the study indicated that the subjects used various strategies according to their L2 proficiency levels (pp.139-140). Less proficient learners draw more frequently upon their other knowledge resources such as L1, conceptual and paralinguistic resources, while more advanced learners and English speakers relied more heavily on their linguistic knowledge. More proficient learners used L2-based strategies more frequently than initial learners. Based on these observations, Paribakht (1985) concluded that, in general, learners' SC and their

L2 proficiency levels are relatively related. By SC she means the speakers' overall ability to use communication strategies, rather than compensatory strategies.

In spite of some advantages in this study such as using a comparison group, and attempting to control variables as carefully as possible, the study is open to question in a number of ways. (1) The speakers in experimental groups communicated the given tasks with L1 speaker interlocutors. This might seem justifiable at first glance, particularly from NS-NNS interactions point of view (Long, 1983, 1984). In such procedures, however, it is difficult to control cultural and/or sociolingustic variables which cause differences in communication, and even cause miscommunication (Gass and Varonis,1989,1991). These will bias the results of the experiment. For these reasons, it is not clear that those differences that were observed between subjects, particularly less proficient learners, can be attributed to their native or non-nativeness, or their cultural and sociolinguistic backgrounds.(2) It is not explained whether the listeners were to identify the referents among non-referents according to the speakers' descriptions. If they were to identify the concepts without non-referents, they likely could identify them even with the speakers' least descriptions. If so, the speakers' communicative problems could be solved with the least effort and using the least communication strategies. Thus, the procedures could not reveal most of the learners' communication problems.

One of the most recent researches on SC and language proficiency is that reported by Chen (1990). He, first, suggests a model of "language proficiency", comprising competence and performance. "Competence includes two sub-competencies: grammatical competence and communicative competence" (p.157). In this model,contrary to the models mentioned before, grammatical competence is not a subsumption of communicative competence; rather,"it is thought to have the same status as does communicative competence in linguistic theory and language learning"

(p.157). In the model, grammatical competence refers to language system and communicative competence refers to language use, "one can not be replaced or subsume the other" (p.158).

Chen (1990) hypothesized that the learners' language proficiency will affect using communication strategies in terms of type, frequency and degree of effectiveness.

Two groups of 6 Chinese ESL learners, of different L2 proficiency levels were given two types of abstract and concrete tasks, each consisting of 12 concepts. Each subject of each group had to communicate two concrete and two abstract concepts to an English native speaker interlocutor in an interview situation (p.160), so that all the concepts could be communicated by the subjects in each group. There were 2 English speakers who interviewed three subjects of each group separately. They were given a scheme of ten comments to use in asking for clarification or further confirmation during the interview. They also had to judge the degree of effectiveness of the learners' strategies according to a 5 point (1-5) scale.

Using a taxonomy yielding five categories of communication strategies (linguistic-based, knowledge-based, repetition, paralinguistic, and avoidance), he identified and analyzed the learners' strategies. Chen (1990) found a close relationship between learners' L2 proficiency and their SC. By SC he means the learners' "ability to use communication strategies to cope with various communicative problems they might encounter" (p.180).

At least two advantages can be pointed out in Chen's (1990) study. (1) The procedures used to provide elicitation tasks; for example, checks were made by two English and Chinese native speakers to ensure that the concepts were universals and had the same semantic meanings for both subjects and native speakers. (2) The experiment had been designed for mutual administration; this allowed the experimenter to observe speakers' actual communication, reveal their problems, and the procedures, or strategies, they used to solve the problems as well.

This study, however, encounters the following shortcomings: (1) The subjects are asked to communicate just two concepts of each task, concrete and abstract items, not all the items of the two tasks. This causes the results to be invalid, because the subjects' performance of a few referents of a task can hardly be generalised to other unperformed instances. Furthermore, no data are provided to indicate whether all items of each task were equally problematic for learners to communicate. (2) The number of subjects is too small to make the results generalizable to unobserved instances.

2.3.4.2. Strategic Competence and Compensatory Strategies in Referential Communication

In the light of what has been presented so far, it is clear how compensatory strategies can be integrated into communication processes. It is also clear that in such processes, mainly regarding lexical requirements of communication, either of the two procedures is possible: (a) If there are no linguistic (e.g. lexical) problems, normally, the preverbal message triggers the appropriate lexical items into activity (preverbal message here means the product of the conceptualising processes,i.e. mental activities to keep the speaker's attention to his/her language productions, and monitoring what s/he is saying and how, Levelt, 1989:9). This stimulates the syntactic, morphological and phonological information underlying the activated items to trigger the grammatical and phonological encoding procedures (Kellerman et al., 1987, 1990; Levelt, 1989). (b) If there are linguistic problems, either when lexical items do not exist at all (the intended concept has not been lexicalized yet or the appropriate word is not known to speakers), or they exist,but cannot be accessed at the time of communication (e.g. when the words have been forgotten), the preverbal message cannot be encoded and hence communication processes threaten to break down. To solve such problems resulting from lack of linguistic items, speakers may:

(1) give up or avoid their original communicative intention and set up a new preverbal message, the process known as avoidance, or reduction, strategies.(2) They can appeal, explicitly or implicitly, to their listeners to provide the missing words. In such cases, the speakers' language production is cut short, and it is the interlocutors' task to solve the communication problems, referred to as appeal for assistance (or appealing strategies). (3) Finally, the speakers may attempt to find some alternative ways of encoding the original messages. These processes leading the speakers to such alternative encoding are compensatory strategies, as defined and explained before (see 1.1.4.).

Unlike the studies on communication strategies in general, fewer studies have been reported on the use of compensatory strategies in SLA research to date. These studies, however, have often been carried out with comparative purposes.

2.3.4.2.1. Strategic Competence in L1 and L2: Comparative Studies

Strategic competence has typically been taken into account as an L2-unique phenomenon and "has thus failed to embed itself in a more general framework of [referential] communication" (Kellerman et al.,1987:152). Most writers, however, hypothetically state that even L1 speakers have to build communicative bridges from time to time to make up for an occasional linguistic deficit. Ellis (1985:182), for example, proposes that taxonomies of strategies apply equally well to L1 speakers and L2 learners.

One reason for the failure to explore properly the use of L1 SC and specify using compensatory strategies to L2 learners, as Kellerman et al. (1987) explain, may be the fact that they "are seen by the world at large as 'first aid kits' which learners use when they are in trouble linguistically speaking" (p.152). That is,they,in

their 'patched up', attempt to communicate seemingly do not look like what L1 speakers do in the same situations.

The other reason has been the assumption that the norms of L1 are established with which the learner's utterances are evaluated. This notion has been called "comparative fallacy" by Bley-Vroman (1983) and Bialystok (1984, 1990), believing that learners' strategies should not be compared with the comparable L1 speakers' norms, but with L1 speakers' strategies. Doing so, "we will see that there is nothing unique that attaches to the former; in fact they are just a highly visible subset of a range of behaviours representative of referential communication in general" (Kellerman et al., 1987:153).

In chapter one (1.1.3/4) I stated that studies on SC have recently put a step further and beyond restricting the phenomenon to L2 learners, and have looked upon the enterprise as a general language-related property, theoretically or empirically. These studies have taken L1 SC into account often with comparative purposes: to find similarities and differences between the two languages (L1 and L2). The results have suggested that L1 and L2 speakers use compensatory strategies similarly to a certain extent. These findings brought up tendencies toward doing comparative studies on the use of L1 and L2 SC, assuming that the results would be of acquisitional and pedagogical value in F/SLA.

One of the first L1 and L2 comparative studies on SC (in the sense as used in this study: ability to use compensatory strategies) is that carried out by Ammerlaan (1984,cited in Kellerman et al., 1987). In the study, 17 university level Dutch ESL students were asked to name or describe 11 abstract, or unconventional, shapes both in Dutch and English. The shapes were taken from Krauss et al. (1966) used in studying L1 referential communication. In the English version, learners had to carry out the task so as to enable a hypothetical English native speaker to accurately draw the shape from a recorded

transcript. The speakers received no feedback during their performance.

The results of Ammerlaan's study showed that the learners used exactly the same strategies in L1 and L2 to describe or name a particular shape in the great majority (88%) of cases.There were nevertheless a minor number of cases (10%) in which the speakers' protocols for particular shapes diverged. Furthermore, the L2 protocols tended to be longer in a number of words which were considered to reveal evidence of attempts to break shapes into less complex ones and thereby make them more easily nameable concepts (see Kellerman, 1987:109). In the absence of an appropriate analogy to replace the intended referent,or a holistic strategy, the speakers described the shapes via their component figures,the tactic referred to as partitive strategies, or reduced them to their ultimate components of lines and angles, or linear strategies. The three types of strategies seemed to be ordered in this study, with holistic strategies being preferred to analytic ones.

Bongaerts et al. (1987) also undertook a comparative study on eliciting SC in referential communication in L1 and L2. Using four groups of Dutch learners of English, they replicated Krauss et al.'s (1966) studies of L1 referential communication into studies of L2 referential communication, and compared the findings with those reported by the former. Each group consisted of six pairs of subjects of different L2 proficiency levels (1, 3, 5, and 7 years of studying English). The matching tasks to be performed by each pair required the directors, or speakers, to refer to twelve original figures used in Krauss et al.'s (1966) study in such a way that the matcher, or listeners, who were given the same figures on separate cards, could arrange them in the same order as mentioned by the director.

Comparing the two groups' performance, it was found that the speakers' strategic behaviour in L1 and L2 in referential communication correlates to a certain extent.

Moreover, the speakers in L1 and L2 followed some similar patterns in reducing or simplifying the complexity of the referents. The conceptual perspective used by L2 speakers to perform figures has been also reported to be similar to that used by L1 speakers in Clark and Clark (1977), and Clark et al., (1986) studies. Learners adopted either a "holistic" or a "segmental" perspective, or both. Furthermore, L2 speakers like L1 speakers used first holistic approaches, then segmental or partitive approaches to describe the referents.

Though this study provides some insights in comparative studies of referential communication, two problems should be mentioned: (1) In this study, L2 speakers of different L2 proficiency performed the same task (referent), it is not clear whether all the groups used the same/similar strategies and perspectives in spite of their different L2 proficiency levels. (2) The subjects in Krauss et al. (1966) and Clark et al. (1986) were children L1 speakers, while in Bongaerts et al.'s (1987) study, they were adult L2 learners. Adults, are generally cognitively more developed than children when they come to a new language (Flawel et al., 1993). In addition, adults bring to bear a number of different knowledge sources when using language and that can be regarded as distinct disparity between children L1 and adult L2 learning. (Stevenson,1988). Thus, ignoring these influencing factors in L1 and L2 performance makes the findings untenable. (3) The L2 speakers' strategic behaviour overcoming communicative problems have not been matched with that of the native speakers of the TL as a group of comparison. If so, this would permit the experimenters to evaluate the development of the learners' L2 proficiency levels influencing their strategic activities, and, consequently, make the comparison more lucid.

Yule and Tarone (1990), on the other hand, carried out a comparative study in which 36 subjects (9 English; 12 Spanish; 6 Japanese;4 Chinese and 5 Korean speakers) communicated three tasks: picture-description, picture-

instruction and story telling. They first argue that strategic competence should not be limited to L2 and IL communication, L1 speakers have also SC. They claim: "If mastery of communication strategies is the essence of strategic competence and strategic competence is a component of communicative competence, then surely the native speakers of a language must have mastery of communication strategies" (p.:180). The comparison of L1 and IL communication strategies,according to the writers, will show that L1 and IL SC overlap to some degree. Of this study, they concluded that the performance of L1 and L2 is similar to some extent (p.193).

Kellerman et al. (1990) also investigated the use of compensatory strategies in L1 and L2 by 17 Dutch-speaking university students of English. Like Bongaerts et al. (1987) and Bongaerts and Poulisse (1989) their subjects were to describe 12 abstract shapes in both Dutch (first) and English (next). The reason for this procedure was "to control the effect of cognitive complexity" (p.168). In the latter, the learners described the shapes so as to enable a hypothetical English native speaker to redraw them from a recording of the description later. Employing a taxonomy consisting of: Holistic, Partitive and Linear referential strategies, the investigators compared the subjects' SC in L1 and L2. The comparison of the description of the shapes in L1 and L2 by the same individual exhibited that 89.6% of the strategies were the same for a particular individual across the two languages. In the remainder 11.4% cases where the same individual used strategies in the L1 and L2, holistic strategies had been used in the L1, while analytic, partitive or linear, strategies in the L2. This is, as they claim, what would be expected when the communication problem is the speaker's lack of a lexical item in an L2. An item such as "omega", for example, might be available to describe or assimilate to a shape in the L1 but not in the L2. In L1, Dutch English-learners call a shape by the simple "holistic" term "diamond" (ruit or wybertje); if

they do not know the word, "diamond" in English, they attempt to find alternative ones such as "a square which you find on cards" or "it's a figure like two roofs of a house put together". The authors conclude that there is a hierarchy of performance of SC going from the holistic strategies to the analytic ones. Only if the L2 speakers can not find a holistic strategy for the intended shape, will they go on to a partitive strategy, and only if they can not describe it partitively, will they go on a linear strategy.

There are some advantages in Kellerman et al.'s (1990) study over the previous studies in terms of the methodology, using L1 SC, and using a taxonomy which is "plausible, generalisable, and parsimonious" (Bialystok and Kellerman, 1987:170). Unlike Ammerlaan (1984), they did not rely on the previous data from the performance of L1 SC on which to base their comparisons. They themselves found data for this purpose in an experimental setting. However, the study is faced with a number of methodological problems which make its findings groundless. Firstly, the study focuses on Dutch as L1 and English as L2 without any reference to English native speakers as a comparative group in the experiment session. In my view, any comparison of L1 and L2 performance requires the performance of the native speakers of the TL (L2), rather than the norms of the TL themselves, particularly when there is not any already agreed-upon corpus of product of the language items in question. It should immediately be mentioned that in the absence of well-established and agreed-upon corpora for comparisons the best logical way is to compare speech acts of the L1 speakers of the given languages to be used as criteria for L1 and L2 comparisons, rather than comparing the languages themselves, as has been done in this study (see chapter four). Furthermore, this procedure will help researchers to avoid "comparative fallacy" (Kellerman, 1991). That is, when there is no readily provided criteria to be used in comparing the two languages, which is the case of

pragmatic contrastive analyses, the best way is to compare the performance of the native speakers of the given languages, since there is no other way(s) for comparisons.

Secondly, when the subjects are asked to perform a task twice, once in their L1 and the other time in the L2, their experience in performing that task in the first exposure is likely transferred to their performance in the second,and thereby, causes some biases in the results of the study. The reasons are that the subjects: (a) have already experienced solving the communication problems, even though in their L1; and (b) they know what the problem (task) will be before they are exposed to it in the second exposure and asked to communicate in their L2. Moreover, the generalisation they make requires longer sample size than what they relied on. In other words, the inference they draw, as Cook (1993) also believes, is hardly more than suggestive without more detail corroborations, or,in fact, without more frequent figures for the common L1/L2 strategies; these figures are not supplied in their study and have not supplied in other studies yet.

Finally, and more importantly, in such studies, it is the speakers' SC in L1 and L2 that is compared, rather than L1 and L2 SC. The latter can be achieved when two separate groups perform the same tasks, one in L1 and the other in L2.

The most extensive description of comparing L1 and L2 SC is reflected in Poulisse (1990, cited in Cook, 1993; Poulisse, 1989), the central figure of the Nijmegen project. Based on Levelt's (1989) psycholinguistic model of speech production and the taxonomy mentioned before, she conducted a more comprehensive, comparative study than those examined above. Three groups of 15 Dutch-speaking ESL students participated in her study and were asked to perform four elicitation tasks: (1) Picture-description, embedding 20 concrete referents; (2) description of 12 abstract shapes; (3) retelling five

short narratives; and,(4) an interview. The subjects performed the two former tasks in such a way as to enable a hypothetical English L1 speaker to redraw the pictures by listening to their audio-taped performance.

From these, the second task, abstract shapes, stood out of the others in being conceptually more problematic, thus calling for conceptual problem-solving rather than linguistic compensatory strategies. This makes Poulisse (1989/90) include conceptual strategies such as word-coinage and analytic strategies to the taxonomy and hence to use two types of taxonomy in this study, as examined before, one for speakers' use of strategies in performing tasks 1, 3,and 4 ; the other for task two only. She based her L1-L2 comparisons on a two-archestrategy taxonomy and the speakers' strategic behaviour in communicating task two. The other tasks were used to study the relationship between learners' L2 proficiency levels and their SC.

The comparison of the conceptual strategies used for task two in L1 and L2 found that speakers approached the referents of this task conceptually similarly, and used the same conceptual strategies in a great majority of cases,both in type and frequency (Bongaerts and Poulisse, 1989:257). The qualitative analyses also demonstrated that speakers used less time and fewer words to communicate the task in L1 than in L2, more proficient L2 learners used less words and time than less proficient ones in their L2 communication, too. From the comparisons of speakers' performance in L1 and L2 Poulisse (1990) Poulisse el al., (1989) concluded that although the L2 proficiency and the use of compensatory strategies are related to some extent, the relationship between language proficiency and using strategies effectively is more explicit; higher proficiency learners use less but more effective strategies than lower ones. She tentatively suggests that using types of strategies may vary according to various tasks.

Poulisse's (1990, see also Poulisse et al., (1989) study is very insightful in that she presents some

information to increase our understanding about the nature of SC and the way it works in L1 and L2 across different levels of L2 proficiency and to a smaller extent across various elicitation tasks. Moreover, the taxonomy (ies) that she uses are helpful to arrive at a more reliable and parsimonious taxonomy of strategies in referential communication. Her research, like the others reported in the Nijmegen project, elucidates that SC is not peculiar to L2, rather it is general to L1 and L2 and may be used in the two languages in relatively the same way, particularly if and whenever L1 and L2 speakers are confronted with the same communicative problems.

Despite these merits, some problems should be pointed out, however. Firstly, the study is a "one-sided" design; the subjects were to communicate tasks one, two and four in monologue procedures, without the presence of the listeners.This will make the speakers communicate the given referents without knowing whether the strategies they use are working and effective or not, since they do not receive any indication of the identification of the referents on the part of the listeners. As a result, the speakers may use more or less strategies with different mean length of utterances (MLU). Moreover, the researcher does not refer to English native speakers' actual performance communicating the same tasks as a comparative group. So it is difficult and to a large extent dubious to decide that L2 learners use the same strategies as L1 speakers without having evidence of the actual performance of the native speakers of the TL.

Secondly, the taxonomy used in Poulisse's (1989, 1990) studies is not flexible and parsimonious enough to be used to identify the linguistic strategies that L1 speakers use; it can identify and classify only the conceptual strategies that speakers in L1, and to some extent in L2, use. The restrictions of the taxonomy were discussed before (see 2.3.3.4.).

Thirdly, there is a methodological problem; the process of "transfer" has not been controlled. The learn-

ers were to communicate the tasks twice at a time, once in Dutch then in English, rather than using two separate groups, or one group with appropriate intervals.

In short, what are crucially important for studies of this kind are: (a) a theory of (S)LA that can explain the acquisition and development of SC as a language-related phenomenon in L1 and L2 on the one hand, and (b) reliable methodologies to study this phenomenon validly on the other. Most of the studies mentioned above suffer from the lack of these two requirements.

The comparative studies discussed above highlight some similarities in the operation of SC in L1 and L2 when L1 and IL speakers encounter the same communicative problems. Based on such strong grounds, it is now worth asking to what extent L2 communicative competence, and particularly SC, can be explained by the same principles as those by which these phenomena in L1s are explained, and this is what this study aims to discover.

2.4. Determining the Degree of Effectiveness of Compensatory Strategies

One of the concerns of studies on aspects of SC, is to find out how the speakers attempt to make their communication effective. This concern triggers to raise the question of determining the degree of effectiveness of compensatory strategies and its relation to IL-conformity in different L2 proficiency levels (see chapter four, measurement four).

Researchers have used some procedures to determine the degree of effectiveness of strategies in studying communication strategies in general (Bialystok, 1980, 1990; Bialystok and Frohlich 1980; Chen, 1990, for example) and compensatory strategies in particular (Bialystok, 1990, and the Nijmegen Project, for example).

Bialystok (1990) isolated a number of strategies that French ESL students used in dealing with the given, picture description, tasks. She then gave the strategies to a group of English native speakers,as judges, who were

to identify the referents. The degree of effectiveness of strategies was determined on the bases of the judges' correct identification of the target referents.

Poulisse (1990), on the other hand, applied some seemingly more reliable methods in determining the degree of effectiveness of compensatory strategies used by Dutch-speaking ESL students. She referred to a group of English native speakers to judge the subjects' strategy use in two phases: A guessing task phase, and a pseudo-cloze task phase. In the former, the judges were given a number of isolated, rather than contextual, strategies and asked to guess the "words" which the compensatory strategies were meant to convey the meaning. Then they had to indicate whether they thought their answers were "right", "possibly right", or "pure guess-work". In the latter, they were to match the words used as strategies to compensate for lexical problems with the target word or referent, and score them from 1-7 accordingly.

Both Bialystok (1990) and Poulisse (1989) isolated the words or phrases that the speakers used as strategies from the context in which the strategies had been used. Poulisse (1990) went even a step further and grammatically refined the learners' utterances to make them more understandable to the judges at her disposal. These will certainly affect and bias the judges' evaluations of the effectiveness of strategies because in both cases the strategies are taken from their context. Strategies, like any form of language use, cannot be understood and judged in "vacuum", isolated from the context in which they have been used. Similarly, their effectiveness cannot be evaluated artificially, or decontextually, i. e. isolated form their natural positions in the context of use. Isolating strategies from the context and presenting them individually to the judges,thus, may be misleading, since it will not be clear for the judges what were to be communicated and to whom. Therefore, it will be difficult to judge how far the strategies are effective.

One of the most reliable procedures to evaluate the speakers', mainly IL speakers', language performance in any aspects, as a number of researchers, including myself, (e.g. Ellis, 1987; Selinker and Dauglos, 1989) believe, is to base our judgements on the context of use. This is particularly important in evaluating the degree of effectiveness of compensatory strategies, since it is in the context that the problematicity and goal-relatedness of the referents are more fully revealed. By these means, the problem-solving capacity of the strategies used for the solution of the problems and achievment of the goals are better identified and understood. This position has been taken in detremining the degree of effectiveness of L1 and IL speakers' compensatory strategies used to communicate the given tasks. For the procedures employed in the present study for these purposes, see chapter four (4.3.1.4.).

2.5. Interlanguage Conformity and Second Language Acquisition

In the above (sub)sections, attempts were made to clarify the status of SC either in L2 alone or L1/L2 comparative studies. It might be now clear enough on what ground the concept is based in this study. On the other hand, the concept of "IL-conformity" should be clear enough, as it was defined and established before (see 1.1.5.). However,since the present investigation directly relates to the concept of "IL-conformity", examination of some relevant research reported within this framework seems to be warranted.

One of the issues that has arisen during the last two decades in studies on SLA has been to find the extent to which SLA can be explained on the basis of the same language-related processes and/or principles used to explain primary languages. That is, to see if certain processes of SLA obey the same principles of FLA. Earlier studies suggested that the same learning processes and strategies could be seen in both types of language

acquisition, FLA and SLA (Dulay and Burt, 1974, 1976, for example). Some other studies found that F/SLA is similar in natural situations and in some aspects: in functions of early sentences and their form,their semantic redundancy, their overgeneralization of lexical forms, and their use of simple order strategies (Ervin-Tripp, 1974:126). In a number of more recent studies attempts have been made to determine if the same or certain properties of human language that are available to L1 speakers are also accessible to L2 learners (Eckman,1985; White, 1989; Ioup et al., 1987, Cook, 1993, for example). The processes of SLA in adults, as White (1985) and Cook (1988,1993) point out, may be constrained by the same principles of universal grammar (UG) as are FLA processes in children. White (1985) maintains:

> If IL grammars are natural languages as many have argued ... then it is possible that the range of options available to the second language learners is constrained by universal grammar in ways similar to what happens in L1 acquisition (pp.3-4).

Most of the studies in SLA and IL are in support of the conformity of grammatical aspects of IL(s) with those of first languages in phonology, morphology, and syntax (Ioup, 1987; Flynn, 1984; Eckman et al, 1989; Schachter, 1990; Selinker,1992,for example). Based on the assumption that IL is a natural language, researchers have suggested evidence for the conformity of IL to the same language properties accessible to L1 speakers. In order to make the points clearer,first IL as a natural language system should be established, then evidence in support of IL as a natural system will be presented.

2.5.1. The State of IL as a Natural Language

There is now enough data in SLA research to support the naturalness of IL. Corder's (1967, 1971), seminal notion that IL is a natural language in its own right and should be investigated as such led the IL hypothesis to emerge,as mentioned ealier (2.1.4.).The basic assumptions

underlying the hypothesis, as Adjemian (1976) explains, are that the linguistic systems of L2 learners are natural languages. To Adjemian (1976),"natural languages" refer to any naturally evolved human language which is shared by a community of speakers; this also implies to IL. Thus IL(s), Schmidt (1980) posits, is in agreement, at least in forms, with natural languages; he contends:

> ILs, to use Selinker's term, like natural languages, evidence linguistic forms which are the result of a productive base of rules. In addition, ILs should be subject to the same universal constraints on forms as natural languages (p.:297-98).

In short, from Corder (1967,1971,1981) and Selinker (1972) to Selinker (1992) there is a vast amount of research reported on the literature in support of the natural and independent state of IL. Most studies have attempted to show that there are some language-related properties in IL that are generated by the same innate and cognitive processes responsible for generating the same properties in primary (natural) languages (L1s), the sketches of which have been reflected below.

2.5.2. Evidence for IL as a Natural Language:

Language Universals and IL Conformity

Language universals are familiar concepts from linguistic studies and to F/SLA research (Chomsky, 1965,1980, 1981, 1986, 1988, 1991a & b; Stevenson, 1988, 1993; Cook, 1985, 1988, 1991,1993; Ellis, 1985a,1994; White 1989a/b; Gass, 1984,1989, for example). The general consensus is that there are universal principles of language, or grammar, which are innate, or acquired, and hence are available to every speaker irrespective of his/her linguistic background. Yet,the word "universals", as Gass (1984,1989), Rutherford (1984), and White (1989) believe, has been frequently used to refer to the "acquisitional/ processing universals" on the one hand, and the "universals" familiar to linguistic theories on the other. Acquisitional/processing universals deal with

universals of language acquisition, mostly manifested in universal processes of order (and accuracy) of morpheme acquisition or the acquisition of other grammatical aspects of language in F/SLA, and the ways in which acquisition is processed into use. There are also certain general language properties at communicative levels of languages that are similarly present in different natural languages. These are usually realised in such processes as articulation/production (Levelt, 1989), perception, and metalinguistic awareness (Bialystok, 1991a, 1993), communicative (or pragmatic) competence (Foster,1990; Scarcella, 1990),strategic competence (Tarone,1981,1985a; Bialystok, 1984, 1990; Yule and Tarone, 1990; Shaw, 1992). It is with these general properties that IL is expected to conform, as has been hypothesized in this study (see chapter three).

The other group are language universals known in linguistic theories. These universals are used as frame-works for either linguistic studies per se, or as the theoretical models on which to explain acquisitional principles and thereby formulating the acquisitional processing universals in studies on F/SLA. Such studies can be touched upon within (a) either the Chomskyan framework of universal grammar, or (b) the Greenbergian framework of implicational (typological) universals. In what follows, I shall briefly examine these two models, providing evidence for each from SLA research. Based on such evaluations, the model modified and used in this research will be elaborated in chapter three.

2.5.2.1. Universal Grammar and IL Conformity

In his earlier version of transformational generative grammar, Chomsky (1957, 1965, 1968) proposed two levels of structures for human language : Deep structures and surface structures. The claim was that all languages are identical at the level of deep structures which he called "language universals"; they are different at the level of surface structures to which he referred as

"language specific features" (see Smith and Wilson, 1983 for a full explanation of the concepts).

In the recent versions of the concept, Chomsky (1980, 1981, 1986) argues that only through "in-depth" studies of a language is it possible to discover the highly abstract principles of grammar that constrain the form of any specific grammar. Chomsky (1980:69) calls these principles "universal Grammar" (UG). The framework, White (1989a) maintains, is based on the notion of language learnability which assumes that "linguistic universals consist of complex and abstract principles which could not be learned, and which form an innate Universal Grammar" (p.128). More precisely, UG is assumed to be innate in the human mind, and it is because of its innateness that the child is able to construct abstract grammars and thereby acquire his/her mother tongue in a relatively short amount of time. It is therefore a "theory-driven" approach to language universals (White, 1989a/b, Cook, 1988), which often starts from studying the property of a single language, rather than being based on the commonalities of a set of languages. If that property can be ascribed to the language faculty, or innate principles, it can be perceived as being universal on the evidence from one language. "I have not hesitated to propose a general principle of linguistic structure on the basis of observations of a single language" (Chomsky, 1980:48). In a lucid explanation of the Chomskyan view of UG, Cook (1985) asserts:

> The language properties inherent in the mind make up 'Universal Grammar', which consists of not only particular rules of a particular language, but a set of general principles that apply to all languages" (p.3; see also Cook, 1988; 1993, for more explanation in detail).

According to this approach, language acquisition takes place as a result of a linguistic faculty or UG (once termed the language acquisition device--LAD, Chomsky, 1965), with which all human beings are innately endowed.

"UG was used to refer to both the initial state of language faculty and to the linguist's theory of this innate component of the mind/brain" (Chomsky, 1991a:9). The assumption is that UG consists of two kinds of (limited) constraints which explain the grammars of natural languages : (a) Principles that are innate and true for all natural languages where, and if, applicable; and (b) parameters which vary from language to language (Chomsky, 1981, 1982; Zobl, 1990). These two, innate principles and varying parameters, stimulate and enhance three processes incorporating language acquisition. They: (1) guide the child in acquiring language,(2) explain how the child arrives at a knowledge which is far beyond the input, and (3) explain how the child comes to innate grammaticality judgements, i.e. to know about ungrammatical utterances of the language being acquired without receiving negative evidence.

Given this position, a considerable question in SLA research has been whether and how UG, if any, can be related to this field. Many studies have been undertaken concerning the accessibility of UG to L2 learners; that is, how far ILs of L2 learners at various stages have conformity with the UG principles held for L1s and FLA (Flynn, 1986, 89; Flynn and Lust, 1990; Gass, 1984,89; Gass and Shachter, 1989; Clahsen, 1986; Clahsen and Muysken, 1989; Tomsell and Schwartz, 1990, for example).

The consensus and agreed conclusions in these studies are that L2 acquirers, like L1 acquirers, have access to certain UG principles in the acquisitional/processing stages of the tasks,irrespective of those partial differnces between F/SLA processes. The differences have been discussed in Gass (1989) and Mc Laughlin (1987).Tomasellı and Shwartz (1990), for instance, carrying out a study on the accessibility of UG to L2 learners found that UG principles are accessible to adults acquiring negation in L2. They argue that a UG-based analysis for the three stages of negative placement: preverbal negation (p.8), postverbal negation, and "NEG-trennung" (p.12) is both

possible and in support of the accessibility of UG to L2 learners in the developmental stages of SLA. They, accordingly, conclude that "UG principles are at work in building of adults' L2 grammars"(p.27).

In another study on the accessibility of UG to IL speakers, Bley-Vroman et al. (1988) found some evidence in support of UG. The researchers tested the principles of subjacency concerning how far the elements may move in the sentence in the IL of 92 Korean advanced English learners whose L1 lacks such principles. The results of grammaticality judgement tests showed "slightly over half of the non-native speakers typically exhibit the correct UG-based judgements on any given UG effect" (p.24). Based on such results, they concluded that "adults appear to have some sort of access to knowledge of UG" (p.27), but not as complete as natives'.

It is worth mentioning that the numerous, remarkable studies on F/SLA within this framework have been mostly focused on the grammatical aspects of the languages in question;the evidence presented in support of the access-ibility of UG to SLA is also due to the acquisition of these aspects of language.

2.5.2.2 Typological/Implicational Universals and IL Conformity

The second long-standing model for studying language universals and F/SLA and IL-conformity, which is also applied to this study, is referred to as "implicational" or "typological" universals (Greenberg,1966,1978; Comrie, 1984; Hawkins,1983; Eckman,1978,1991). It is typological, because it is based on a typology of languages by seeing what they have in common (Gass, 1989:512); and is implicational in that the presence of particular language properties in a set of natural languages implies the presence of other properties in the same languages; or the presence of the same properties in other natural language(s) (White, 1989a; Hyltenstam, 1987).

As seen, unlike UG, this framework is very cautious about making generalizations on evidence from a "single" language. It is, instead, radically "data-driven" (White, 1989a:127), leading to the formulation of (typological) language universals. In Hawkins's (1983) words, the framework focuses on the "search for regularities in the ways that languages vary, and on the constraints and principles that underlie this variation" (P.6). That is, universals are arrived at from the "bottom-up data" by comparing a specific set of natural languages, determining the common language properties that are true for all of them, and making generalisations accordingly.

As α result of such generalisations, it is possible to make further predictions and test them out. The generalisations are thus based on observing more or less observable features (properties) of the given languages rather than the most abstract and complex principles; predictions are conditional, i.e. based on "if-then" (Popper, 1972) conditions: "If", for example, an "x property is present in a given language, then it can be assumed that properties y, z,...are also present" (Ellis, 1985a:194-5). Similarly, generalisations and predictions can be made cross-linguistically, i.e. "if" the property "x" is present in "n" given natural languages, "then" it can be assumed that "x" is present in "n+1" natural language(s), if "+1" is a natural language (Eckman, 1984). This means that if a language property is shared by "n" natural languages, the same property is expected to be found in another natural language(s). For these characteristics, scholars have willingly used this model in F/SLA research, particularly in studies on IL conformity with language universals. In language studies and FLA, Greenberg (1966, 1978; Jackobson, 1968; Hawkins, 1979, 1983, 1989) are mostly referred to. In studying the phonology of a set of languages, Jackobson (1968), for example, generalised that:

> (1) Across languages, the existence of fricative consonants implies the co-occurrence of a series of stops (pp. 51-2).

In a rather similar study of phonology and grammatical structures of a number of languages, Greenberg (1966, 1978) made the following predictions:

> (2) Every initial or final sequence of length 'm' contains at least one continuous subsequent of length 'm-1' (1978:250)

> (3) Inversion of statement order [in Wh-questions] so that verb precedes subject occurs only in languages where the question word or phrase is normally initial (1966:83).

> (4) This same inversion occurs in yes/no questions only if it also occurs in interrogative word questions (ibid).

Clark and Clark (1977) formulated some rules, as universal generalisations,for processes of simplification and deletion, in acquisition of word-initial and word-final consonant clusters in L1:

A:	Cluster	:[s] + consonant
	Rule	:Omit [s]
	Example	:Stop-->[tʰɔp], slide-->[laid]
B:	Cluster	:stop+ liquid
	Rule	:Omit liquid
	Example	:milk-->[mIk], bring-->[bIŋ]

(Clark and Clark, 1977:398-99)

In SLA studies, researchers have attempted to find out how the generalizations and predictions made by Greenbergian universalists about first languages are true for IL properties, on the assumptions that ILs are natural languages. In these studies, different aspects of ILs of learners from one or more different L1 backgrounds have been tested with the same properties (aspects) shared by a set of primary languages. Hyltenstam (1987) provides a full review of such studies on the grammatical aspects of L1s and ILs.

Eckman (1984, 1987), for example, assuming ILs to be natural systems, observed that the phonological constraints of consonant clusters of ILs of Japanese and Spanish L1 speakers learning English showed conformity with universals of consonant clusters generalised by Greenberg (1966, 1978) mentioned above. The same conformity was also found between the implicational universal constraints of word-initial/final consonant clusters in the ILs of 14 Chinese, Japanese, and Korean L1 speakers learning English (Eckman, 1991). In another study, Eckman et al. (1989) tested the validity of two implicational universals regarding constituent order in questions, "WH-questions" and "Yes/No-questions",formulated in Greenberg (1966) quoted above, in the ILs of 14 Japanese, Korean, and Turkish native speakers learning English. The data demonstrated IL conformity with the two universals. In all of these studies,although IL conformity is evident in the language units under investigation, the researchers advise further studies with more subjects, particularly in other aspects of primary languages and ILs.

In a study on the IL of 30 Persian speakers learning English consonant clusters, Ahmadian (1989) found that the learners' IL phonological rules conformed with the same universals generalised by Greenberg (1966, 1978) and Jackobson (1968) mentioned before. Furthermore, the processes of deletion and simplification in the acquisition of IL consonant clusters,both word-initially/finally, confirmed IL consistency with the regularities formulated by Clark and Clark (1977) as quoted above.

In vocabulary learning,Blum-Kulka & Levenston (1983) examined the "universals of lexical simplification" of FLA in the IL of Hebrew speakers learning English to find out if,and how, IL follows the same lexical regularities. They assumed that lexical simplification operates according to universal principles of the semantic competence. If IL is a natural language, then parts of the principles of IL lexical simplification derived from L2 semantic competence should follow the same principles as L1. In

the absence of typological principles for this purpose, a typology was developed out of the similarities of lexical simplification in learners' L1, and the native speakers of the TL. Then, the IL speakers' lexical simplifications were compared with those found in the typology. They found that IL conformed to the same principles of lexical simplification as those held for the two native languages in common (or the typology),and concluded that some parts of L2 lexical simplification can be explained within such shared general language-related principles.

As far as the communicative aspects of language and IL are concerned, quite a few attempts have been made to find out the extent to which IL obeys the same general principles of language communication as those shared by L1s. Blum-Kulka (1982), for example, studied the speech acts of Hebrew speakers learning English to find out if the IL speakers follow similar general principles of speech acts that are true for the two L1s (English and Hebrew) in common, on the one hand, and specific properties of speech acts in each language, on the other (p.29). To provide a framework for determining the degree of IL consistency, the author established a typology of speech acts out of the similarities of the two languages, the learners' L1 and the native speakers of the TL. Then, the IL speakers speech acts were compared with the typology (similarities of the two languages). The results showed that there are some properties of speech acts common to all the languages in question, and some other properties specific to each language, L1 and/or IL. The researcher claims that acquiring the knowledge of communicative properties that are available to the speakers of all languages are not difficult for L2 learners (p.43). Blum-Kulka (1982), also found that both L1 and L2 speakers certify to be sensitive to the given situation and the tasks, and these might not be language specific either.

Since this study aims to find out the consistency of IL SC, if any, with the general principles underlying

this competence shared by different L1s, a framework is needed to measure the degree of IL-conformity. This framework is based on a typological approach to L1s in question, which will be explained in chapter three (see 3.2.).

The theoretical and methodological considerations of strategic competence in referential communication in L1 and L2, and IL-conformity within the two models were surveyed in this chapter. These, particularly the last few studies examined above, are directional and insightful for this study both in scope and methodology, which will appear in the forthcoming two chapters.

CHAPTER THREE
THE SCOPE OF THE STUDY

It is the aim of this study to investigate whether or not IL SC demonstrates conformity with the general principles that govern the operation of this competence in primary (native) languages. To clarify the scope, one has to explain: approaches to IL as a natural language, the related models of language universals, and the specification of the approaches and models to the framework of IL-conformity to SC in referential communication.

This chapter, thus, addresses three issues: First, different approaches to IL as a natural language system will be examined, with a special focus on the one which reasonably seems to be more appropriate to this study. Second, the specifications of the model of language universals,and IL-conformity with these universals, to SC will be explained, and the problems stimulating the construction of the hypotheses peculiar to this research will be stated. Finally,some explanations will briefly be presented to clarify the hypotheses made for this study.

3.1. Approaches to IL as a Natural Language

From what was mentioned in chapter two (2.5.2.), the status of IL as a natural language is now clear enough. However, the models used to study different aspects of IL varies based on various approaches to IL as a natural system. As Bialystok and Sharwood Smith (1985) argue, IL has been looked upon either as "a cover term for all aspects of" SLA and used with different definitions by different researchers, or as a "technical term in the theoretical descriptions" of SLA. In either case, mainly the latter, "its meaning has to be precisely stated in terms of the product, the learner, and the systems involved" (p.101).

In order to precisely state the concept as a technical term specifically relating to this study by which to explain learners' language behaviour, I shall evaluate some well-established approaches to IL as a system underlying the IL product. Then, I shall show how the preferred approach may best fit in with the enterprise in the present study.

In evaluating approaches to IL two issues should be taken into account: (a) The degree of equivalence between F/SLA, i. e. how far the two processes are believed to be the same; (b) whether IL is approached as a purely linguistic system, or as a combination of different knowledge sources available to learners (Larsen-Freeman and Long, 1991; Bialystok 1994; Bialystok et al., 1985).

Selinker's (1972, 1992) position on the first issue is clear; he posits: "the psychological infrastructure" (1972:116) of L2 behaviour is different from that of L1. This is sufficientlty evident from the processes of "fossilization" and "language transfer" which belong to SLA, not FLA. To him, IL is a system composed of rules developed through different processes as well as correct use of L2 rules. It is, moreover, a system at any stage of SLA (1992:258),or a developmental system. In his view, IL seems to be more linguistic-based, though he does not ignore other factors such as cognitive mechanisms and environment incorporating in the formation of IL in the learner's mind.

Adjemian (1976) views IL as a natural system, independent of the learner's L1 and the TL systems. He accordingly perceives IL as a "modular" approach, or a systematic product of a combination of separate linguistic sources: the L1 system and the developing "L2-based" system. He calls this system "L2-based" assuming that the system is "composed both of L2 rules which are in complete conformity with the target norm, and also the immature versions of L2 rules" (Bialystok et al, 1985: 102). The output of the system may be mixed with that of the L1 system, which Adjemian (1976:310) phrases "the

permeability of IL system", i.e. IL speakers produce utterances which betray an "invasion" of the IL system during their performance. In this sense, IL is comparable to the L1 developing system. The difference is that L2 performance is influenced by the process of L1 transfer (p.308) which is logically impossible in FLA. In this line, IL is a natural system in that both L1 and IL obey universal linguistic constraints and evidence the same kind of internal consistency (pp.301-302).

Tarone (1982, 1983, 1985b, 1988) approaches the IL system from a variability point of view. In her view, the IL product can be analysed into a set of varying or shifting styles, or rules, ranging from the most informal or "vernacular" styles to the most "careful" ones. The styles are dependent on the context of the use and attention to the form. Thus, L2 learners possess a set of related grammars,or styles, which correspond to different constraints and conditions of use: situations/topics; she gives this the term "capability continuum" (1983:152; 1988:41). Although Tarone does not explicitly address the relationship between F/SLA processes, it could be inferred from her paradigm that they have different sets of variable and categorical rules.

Each of the three approaches, Bialystok and Sharwood Smith (1985) argue, assumes a distinction between the "process" underlying the "product". The former is a process underlying the system which makes the linguistic (knowledge) system accessible to the speaker; the latter is the processing of the system itself in actual performance. Such a distinction makes it difficult to determine whether IL could be attributed to the system of knowledge (competence) or the IL product. IL acquisition and use, like other natural language systems, consist of three inseparable levels: knowledge, processing, and output, or product (Bialystok 1982, 1983b, 1985, 1988, 1991c, 1994; Bialystok et al.,1985; Sharwood Smith 1991). The relevant knowledge in this regard is the linguistic knowledge, or competence; the processing level is the one which

mediates between the knowledge level and the output; and, finally, the output itself is the actual IL performance realised in receptive and productive terms. Tarone's approach to IL, as noted above, does not explicitly address the underlying principles of IL and hence her system might be seen as a set of rules or categories, rather than a set of grammars (Bialystok et al., 1985:104). Furthermore, in her approach, the process of transfer has not been clearly accounted for as part of IL systems. As a result, it is not clear whether language transfer, if any in Tarone's model, is part of the IL system/competence itself, or it happens as the "by-product" of the IL performance.

Adjemian (1976) seems to be more linguistic in his accounts of IL. In his framework, he makes distinctions between "linguistic rules", or processes, on the one hand, and "learning strategies" as processes of cognitive activities on the other, although he believes that these two processes contribute to formulating the IL system in the learners' minds. To him, learning strategies "are crucially concerned in the acquisition of a language system. Linguistic rules are crucially concerned in the actual form of a linguistic system" (p. 302). Put another way, learning strategies, or cognitive processes, are used in learners' attempts to determine the form of the language system they are attempting to acquire. Adjemian (1976), nevertheless, focuses on the linguistic aspects of the IL as a natural system. He accounts for L1 and language transfer in the IL system, but, like Tarone (1982, 83, 1988), he does not answer whether transfer influences IL competence or performance. That is, it is not evident which is "permeable to invasion" from L1: the competence system or the performance system.

In sum, both Adjemian and Tarone preliminarily attempt to elaborate "programmatic discussion" triggered by Selinker (1972), and "link them up with some broader theoretical perspectives outside the field" (Bialystok et al., 1985: 104). The former allies IL research with the

Chomskyan generative (psycho)linguistic models, and the latter appeals to the Labovian sociolinguistic theory.

Bialystok and Sharwood Smith (1985), on the other hand,assert an alternative--"knowledge-process-control"--model in accounting for IL as a natural system. This framework, being somewhat compatible with Adjemian's (1967), takes the general forms of language knowledge as its central question, not merely particular linguistic principles. Given this viewpoint,the IL system is seen "in-depth"; as the underlying system which stimulates and processes the IL competence to generate the IL product.

The framework is based on the assumption that the explanation of the IL system,like other language systems, should be related to two separate, but interconnected, components: (a) The way in which the language system is represented in the learner's mind, the language knowledge stored in long-term memory,and, (b) the processing system for controlling that knowledge during the actual performance.

At any level of IL development,like FLA, the authors claim, the process itself does not change. The ability to stimulate (or trigger) the process and consequently the shape of the language product evolving from this process will, however, change as the result of more exposure to the L2 system and the influences of external, social and effective, factors.

In this "process equivalence" viewpoint, therefore, both FLA and IL can be explained as natural language systems generating from the same mental mechanisms. The basic FLA processes, applied to SLA, can "generate all the observable IL data without the need to posit additional mental mechanisms" (Bialystok et al., p.105). Cook (1985) also holds a similar approach to IL in that he believes "IL...should be considered no more deviant than ordinary grammars; they, too, are based on the properties of the human mind" (p.13). This "knowledge and control-based" model of IL study is based on Bialystok's (1982, 1983b, 1985, 1988, 1990a, 1991c, 1994) model of

"analysis of knowledge/process" "and control of process" in F/SLA. In short, the framework consists of the processes of:

knowledge/process---control---(process)---output.

The knowledge level is here the linguistic knowledge which comprises grammatical competence and pragmatic knowledge. Both types of knowledge are processed through retrieval, or control, processes to formulate the actual output to achieve the desired goal. Retrieval processes in turn involve (a) knowing the procedures for retrieving information, and (b) the speed and efficiency used by a language user to put retrieval procedures into operation. These two involvements empower the "control procedures" to process the knowledge which generates the output (see Bialystok, 1994; Sharwood Smith,1991). The model has been schematically illustrated in figure (3.1).

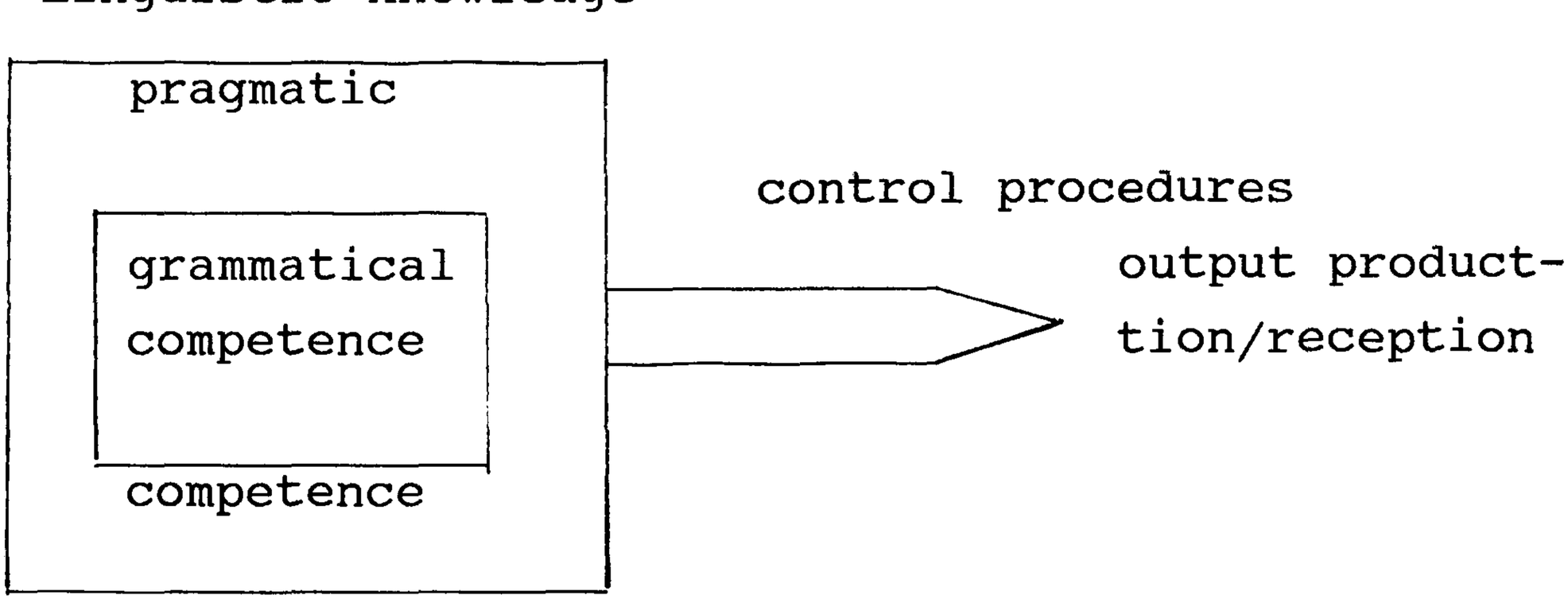


Figure (3.1):Relationship between control procedures and two aspects of linguistic knowledge(Bialystok et al, 1985:106)

Within this framework and its outgrowth (Bialystok, 1988, 1990, 1991c, 1994; and Sharwood Smith, 1991) it is

claimed that five areas of issues can be explained: F/SLA and use, the starting point of SLA, consciousness, variability, and instructions. Evidences are also presented in support of the claim and to show how the framework works in dealing with each issue (Bialystok, 1994:158-64; Tomlin et al, 1994:130, for example).

3.1.1. The Approach to IL as a Natural System Relevant to this Study

The position taken in this study to IL is that, first of all, IL is a natural language system in its own right, independent of other natural languages, L1, the L2 and so on. Given this position, then at least some parts of the framework used to explain IL should be the same as those used to explain aspects of other natural (native) languages, in both acquisition and use. The models suggested by Selinker (1972, 1992), Adjemian (1976), and Tarone (1982, 1983, 1988), as examined before, are too limited for such purposes.

The especially important point in IL studies is that IL should not be looked upon from a merely linguistic point of view; it is a natural system which relates to learning mechanisms. This means that,in IL studies,the L2 learners' mental mechanisms underlying the representation or realisation of the system in IL product should also be explained; such an explanation is a matter of (language) learning (Cook,1991,1993).Cognitive activities/processes, as Adjemian (1976), Adjemian and Liceras (1983), Slobin (1985), and Tomlin et al. (1994) postulate, are essential in the formation and development of IL. SLA, like FLA, "can be accounted for partly in terms of a number of cognitive operating principles of" language acquisition (Anderson et al. 1994:133), and partly in terms of the fact that learners create "separate underlying linguistic systems which they identify as the same, a hypothesis that should be investigated in a UG framework" (Selinker, 1992:260). Thus,clearly enough, every IL model (approach) should embrace these operating mechanisms and

linguistic principles as well as other possible incorporating processes and mechanisms in explaining the IL process and product.

Given these requirements for explaining the IL product, or performance, Bialystok and Sharwood Smith's (1985) "process-product" approaches to IL as a natural system with the elaborations suggested later (see Bialystok, 1988, 1994; Sharwood Smith, 1991) appear to be the most appropriate model, and, thus, will be used in this study. As pointed out earlier, this model is more explanatory for the processes of F/SLA and use, variability in language performance, and speakers' strategic language use; the three processes which are the central themes and hence the focus of this study.

3.2. The Language Universal Framework Used in this Study

In chapter two (2.5.1., 2.) two outstanding models for studying IL-conformity with language universals were discussed. It is now evident that studies on SLA within the IL-conformity framework at any level of language require a working framework within which to find out and formulate the universals of the language properties in question. Only then is it possible to compare the same properties of IL(s) and determine the degree of conformity. In order to test the IL-conformity hypothesis at the level of SC of language in referential communication, particularly for lexical problems, the general properties of this competence should be formulated to achieve the aim of this study. This might be fulfilled within either the UG or the typological universal framework.

The Chomskyan "UG" framework, as I argued, is based on the most abstract and complex innate principles of language. It is in other words "a theory of knowledge, not behaviour, its concern is with the internal structure of the human mind" (Cook, 1988:1). Because of its innateness and abstractness, as mentioned in chapter two, it is limited to the abstract grammar; it undermines, if

not ignores, language behaviour and functions, and so, is inapplicable to the purposes of this study. In addition, the Chomskyan framework requires, at the same time, an already well-established corpus of language products as the representation of that abstract and innate knowledge in both L1s and ILs, to be used for testing the IL-conformity. This corpus is out of reach in so far as communicative aspects of languages, even in L1, are concerned, given the present state of the art; thus, it is beyond the scope of this study.

The typological approach to language universals is based on somewhat more surface realisations/features of languages than abstract ones. Since it is based on the commonalities of a set of languages,and makes predictions or generalisations correspondingly, it is seemingly a more practical framework for determining IL-conformity in the communicative aspects of languages. The problem of lack of a corpus or corpora of language products in both primary languages and ILs is solved here by comparing the products of the speakers of the given languages performing the same elicitation tasks in L1s and ILs. Because of such characteristics which lead to some objective data and observations, this framework will be relied on in this study to observe how far IL SC may demonstrate conformity with the similarities of this competence in two L1s. The procedures will be explained in detail in chapter four (methodology section, 4.1.).

In order to determine the degree of IL-conformity in SC, a criterion is demanded. This has to be established from the typological comparison of this competence in the performance of speakers of different languages. To be more objective,the performance of SC of English and Farsi native speakers was carefully observed and compared. The similarities of these two languages were relied on as the typical operation of this competence in the two languages and were used for measuring the degree of IL-conformity (see 3.3.3., and chapter four).

3.3. Strategic Competence and IL Conformity:

The Statement of the problem

From the communicative approaches, most of the SLA studies within the framework of IL-conformity,as surveyed in chapter two,have focused on aspects of the grammatical competence of languages. On the other hand, it is now axiomatic that more than grammar is involved as far as language acquisition and use are concerned (see chapter two 2.3.1. & 2.). From these approaches,what have been virtually missing, are the other components underlying communicative competence, particularly SC, in both L1 and IL,and the general shared (or universals,to borrow Ellis, 1987; Shaw's,1992 terms) principles that might be common to them.If these components are taken into consideration, one might find that "somewhat similar 'universal' principles exist in other aspects of communicative competence" (Shaw,1992:13), not merely in the grammatical competence. Grice's (1975:45) "cooperative principle" and conversational maxims--relation, quality, quantity, and manner--introduced to explain the notion of conversation-al implicature,for instance,are considered as examples of universal elements of communicative competence (Levelt, 1989; Shaw, 1992). They have also been claimed to be universal in discourse and conversation analyses (Coulthard, 1985; Ruth,1993). Levelt (1989) believes that the "cooperative principle" by definition is a general (or universal, as he prefers) principle of language interaction which embraces several subsequent rules for proper interaction. These are rules of appropriateness, acceptability, accuracy, and so forth. "If a speaker", he suggests, "adheres to these rules, he is said to be cooperative" (p.30).

From all the components underlying communicative competence, as comparative studies reviewed in chapter two confirm, SC has been a more agreed-upon candidate for having some general language-related properties accessible to all speakers of natural languages including IL speakers. Some scholars have referred to these

properties as 'universals' of SC in that all speakers use compensatory strategies to cope with their communication problems (Shaw, 1992:13-14; Yule and Tarone, 1990:180; Kellerman, 1991:145-6, for example).

Similaly and regarding the universal properties of SC, Tarone (1980, 1985a) proposes that the phenomenon, like linguistic competence, has "some universal aspects" available to the speakers of different languages.She uses the concept of universals to mean those aspects of this competence that are available to all language speakers. She contends:

> ... the third competence,strategic competence consists of the ability to employ strategies ... in the attempt to reach communicative goals. It seems to me that the components of strategic competence must have some universal aspects in that it is used to bridge the gap between two linguistic and sociolinguistic systems. All speakers must have the ability to use such strategies to bridge differences in grammatical or sociolinguistic competence (1980:425).

The question, then, is whether or not such general language properties known for and across different primary languages (L1s) at the level of communicative competence, and the underlying components, especially SC, of language are also true for the same level/components of IL. If there are some universals in natural languages beyond the grammar directly accessible to both L1 and IL speakers (Hakanson, 1994; Kanariah, 1994), then one can propose that at the level of communicative competence both L1 and IL speakers should also have access to them, and follow the same principles in processing this competence. In other words, one can assume that "there are elements of communicative competence available for use in any language known to speakers" (Shaw, 1992: 13). Similarly, one can argue that if somehow language universals exist in SC, as claimed by the scholar

mentioned above, then one can anticipate finding out some of these language-related processes and principles (or elements) in the development and operation of SC of "any language known to speakers". This follows that languages that are known as independent and natural systems are expected to show consistency or conformity with these universals, or general principles, to a certain extent. Consequently, the speakers of such languages should have access to these principles, as they are available to the speakers of other natural language(s). If this is true, by the same token, one can argue that the same universal principles seen in the development and perform-ance of SC might be true and held for IL SC, on the assumption that IL is a natural language system.

It was mentioned earlier (chapter two) that recent studies on SC have shown some tendencies towards finding similarities and differences between the performance of this competence in L1 and L2, or IL. The findings of such studies, however, are means rather than ends; i.e., they might be helpful to finding principles to explain the development and performance of SC in both L1 and IL. Yet, they do not provide us with a framework within which to formulate the general principles by which SC in both L1s and ILs are processed and operated. The claim that communicative competence has some elements available to be used in any language, implies that SC has also some elements available to all speakers,including IL speakers. If these principles, or elements, can be experimentally explored and clarified, it will probably become clear to what extent IL SC follows the same principles as does this competence in a set of L1s in common. Then it will become possible to determine how far IL SC conforms with this competence in primary languages. If so, the same conformity is also awaited to be observed in the performance of IL SC with that observed in natural (primary) languages across different elicitation tasks, at least in referential communication; and, these are what this study aims to discover.

3.3.1. General Research Questions

The study addresses three research questions; they are as follows: (1) Does IL have conformity with the similarities, or general principles,of SC that are shared by other natural languages? In other words, does IL SC follow the same principles as those shared by different natural languages to activate this competence to generate compensatory strategies? If it does,then those strategies that are used in common by speakers of different natural languages in referential communication should also be used by IL speakers. The answer to this question will reveal the extent to which IL SC may conform with the general principles by which this competence is processed to generate compensatory strategies, which are used by speakers of L1s and ILs. The question of generalizability of the IL-conformity, if it is proven, is not answered in this question. One does not know whether IL-conformity is task-in/dependent (dependent or independent). Thus, another research question should be added to reveal this inquiry; the first question thus aims to explore the processes of IL-conformity with L1s in using SC. (2) Is IL-conformity in SC, if any, task-based or task-independent? Put another way, if IL conforms to the general principles of SC and if task variabilty entails variation in the performance of SC, is the conformity generalisable to a variety of tasks in referential communication? If it is, language users will utilise different compensatory strategies in dealing with different elicitation tasks, and in each task IL should conform with the similarities of SC found in the perform-ance of speakers of natural languaegs. This question refers to the fact that even though studies on task variability within the grammatical aspects of language are sufficient to support the claim, no sufficient and supporting data are available to prove whether task variability entails variation in the performance of SC. Therefore, it should experimentally be tested to find out if task variability entails various performance of this

competence and thereby causes different compensatory strategies to be used across various tasks. The answer to this question will demonstrate whether or not the process of IL-conformity is generalizable to a variety of tasks. (3) Finally,does IL-conformity correspond to learners' degree of L2 proficiency? That is, if IL-conformity in SC is proven both within and across tasks, is the process proficiency-based, and does IL-conformity vary in the perfromance of L2 learners according to their various proficiency levels?

3.3.2. The Statement of the Hypotheses Constructed for this Study

The three research questions stimulated the construction and formulation of two specific working hypotheses for this study. In what follows, I shall explain these hypotheses to show the relationship between them and the research questions, the aims of the study, and the experiment being reported in the next chapter.

(1). Hypothesis One: In referential communication what is true for SC in a set of "n" languages in common, will also be true for IL SC and the conformity is task-independent,i.e. it will occur across various elicitation tasks even if task variability entails variation in the performance of SC. The hypothesis can be stated in terms of the two underlying assumptions, or rules, for the operation of SC in referential communication (1.a. and 1.b.), and can be tested accordingly.

(1.a): If **"X"**, as a compensatory strategy, is used in two or more primary languages (L1a, L1b, ... L1n) ,

then

"X" will be also used in interlanguage/s (ILs).

This part of the hypothesis proposes that if "X", as a compensatory strategy, is used by the speakers of two or more L1s in common,as a (typological) language-related strategy, to solve the same communication problems, that

strategy will be used in IL for the same purpose, assumpting that IL is a natural language.

Moreover, the hypothesis states that task variation will cause variation in the performance of SC in natural languages, and IL SC will also have conformity with this variation. This can be manifested in (1.b).

(1.b): If **"X"** as a compensatory strategy depends on **"Y"**, as task variation, in the performanec of SC of speakers of **"n"** primary languages (L1s),
then
"X" will depend on **"Y"** in the performance of IL SC of the given L2 learners.

The hypothesis states that if task variability causes various strategies to be used in a set of "n" primary languages (L1s), the variation will also entail various compensatory strategies in IL, and IL has conformity with the L1s in this respect, too. The hypothesis in other words states that IL-conformity is not task-based, it will occur across various referential communicative tasks.

If the IL-conformity is proven in this hypothesis within one particular task, this will provide some evidence to argue that the process occurs in the performance of IL speakers within that particular task only; the data and evidence might not be generalizable to other task*s*. It is not then evident whether IL-conformity is task-based or task-independent. If it can be observed that task variability results in variability in the perfo*r*mance of SC of speakers of both L1s and IL, and IL confromity is confirmed in various tasks, then it can be evidenced that the conformity is task-independent in referential communication.

(2) **Hypothesis Two:** In referential communication the degree of IL-conformity corresponds to the degree of the L2 learners language proficiency across various tasks.

The hypothesis is clear enough. It states that IL-conformity will occur in the performance of L2 learners whose proficiency in the TL has developed minimally enough to operate their SC to use compensatory strategies performing various tasks. It is, however, predicted, that L2 learners with higher proficiency levels prove more conformity with the general properties (similarities) of SC than lower proficiency L2 learners, on the assumption that IL, as a natural language, is more developed in the former's mind than in the latter's. This hypothesis, in short, tests the process of IL-conformity across the developmental stages of IL.

3.3.3. Some Problems of Conducting Studies on IL Conformity in Strategic Competence

Research into F/SLA has typically concentrated on the grammatical aspects of language to date; namely, phonology and syntax, as mentioned before. As a result, there are now widely accepted corpora of the grammatical rules of language and the well-known processes underlying the acquisition of these rules in both FLA and SLA. Researchers in these areas are provided with already well-developed criteria and agreed-upon rules with which to determine whether certain given grammatical rules or features are (typological) universals and common to different languages, or they are language specific and belong to a particular language, or both. Then by these means they will be able to examine how such rules and features are acquired in F/SLA and to what extent they are accessible to the learners of a particular language. Thus, it might not be difficult for researchers to compare the grammatical aspects of L1s and ILs, and identify the degree of IL structural conformity with the (typological) general principles of languages in F/SLA on the one hand, and those features being specific to L1 or IL, or "L1/IL-based features", on the other. Consider the following examples in phonology and grammar:

1. Phonology: (i) Remember the universal generalisation about consonant clusters of language, "if 'm',then 'm-1'" (Greenberg,1978:250), discussed in chapter two. If the IL speakers can produce "m" not "m-1", then IL does not have conformity with this universal generalisation. But if it turns out that they can produce both "m" and "m-1", then IL has demonstrated conformity with such a universal.

(ii) Another example is the rules that Clark et al. (1977) have formulated, as universals, for the processes of deletion, or simplification, in the acquisition of initial and final consonant clusters in FLA (see chapter two, section: 2.6.2.2). If such universals of language acquisition are also accessible to L2 learners, then IL has conformity with these universals.

2. Syntax: The sequences of acquisition of negation in L1s, as Wode (1981, cited in Cook, 1993) claims, include the following specific developmental structures as universals:

Rule (1): Neg. + X, as in: "No + the sun shining"; and

Rule (2): Subject+ Neg+ Verb Phrase, as in: "I + no + want envelope" (Cook, 1993:43).

If these rules are accepted as (typological) universals, and if it can be experimentally demonstrated that the same processes of sequential developments happen for negation in SLA, then IL has conformity with these universal sequences of negation.

Strategic competence,on the other hand,is a recently developed concept in studies in (S)LA and communication, at least in the sense as defined and used in this study. Since it is new, less research has been reported on it to date. What has been reported, as discussed in chapter two, has been limited to IL SC; sometimes with few tendencies to L1 and IL comparative studies. The dilemma has not been touched upon within the framework of "IL-conformity" yet, since this framework requires a typology of the performence of SC of L1s for comparing and determining the degree of IL-conformity. Besides, the

concept in its present state, unlike the grammatical competence, suffers from the lack of agreed-upon corpora of well-formed products with which to measure the degree of its development and acceptability. Similarly, there are no criteria to characterise the linguistic bases, or features, of the compensatory strategies in both L1s and ILs and thereby to determine the degree of IL-conformity in this regard. So far, there are taxonomies of compensatory strategies comprising "L1-based", and "L2-based" (IL-based) strategies, without having reliable criteria to make distinctions between them. One might ask how can such L1, L2, or IL-relatedness be identified? How can one be sure that L1-based strategies are certainly as such (L1-based), and not TL-based or IL-based and vice versa? Moreover, if SC in SLA is to be looked upon and examined from the IL-conformity point of view, how can it be done with the lack of agreed-upon corpora and well-established criteria for comparisons, and thereby enough data in hand for such purposes? These are some of the major problems that researchers will face when studying the operation and development of this competence in SLA, particularly within the framework of IL-conformity. These problems stimulated the research questions and triggered the formulation of the hypotheses stated above.

In the absence of a lucid corpus for this purpose, the researcher's first task is to construct a reliable corpus of the linguistic realisations, or products, of SC. In doing so, one tenable way is to find out the similarities/sameness of this competence in the perform-ance of native speakers of the given L1s--the strategies that are used similarly by speakers of the L1s--, preferably the learners' L1 and that of the native speakers' of the TL. Then, they can use such a corpus as a typology (or taxonomy) of SC with which to compare the learners' strategic performance and to measure the degree of IL-conformity. "The psychologically relevant data on second-language learning are utterances in TL (target language) by native speakers, and in NL (native language)

and IL (interlanguage) by second language learners" (Blum-Kulka and Levenston, 1983:121; see also Blum-Kulka, 1982, for finding the common principles of speech acts of the two L1s, as cited in chapter two,p.107). At the level of communicative aspects of languages the researchers have to limit the taxonomy to the similarities of the primary languages to be studied. This method according to Sasaki (1994) is vital to determine and differentiate the effects of L1 transfer in IL development on the one hand, and the area of both language universals and language specific features in the given languages on the other. Until then it would be dubious to talk about L1-based and or L2-based phenomena,especially at the communicative levels of language. Such corpora then help researchers: (a) to determine the degree of commonality (sameness) of SC L1s, to be used as a taxonomy among the languages under investigation with which to examine the degree of IL- conformity, at least in referential communication. (b) to identify what compensatory strategies are peculiar to each of the languages in question, the L1, the TL, or IL. Then, it is possible to determine the linguistic bases of particular compensatory strategies as L1-based (used in learners' L1), TL-based (used by native speakers of the TL), and IL-based (used by L2 learners only). This will make the identification of IL-based strategies (those strategies used only by IL speakers, and not found in L1s and in our taxonomy, see figure 3.2.) more objective and more reliable. With these points in mind, the experiment reported in chapter four was carried out.

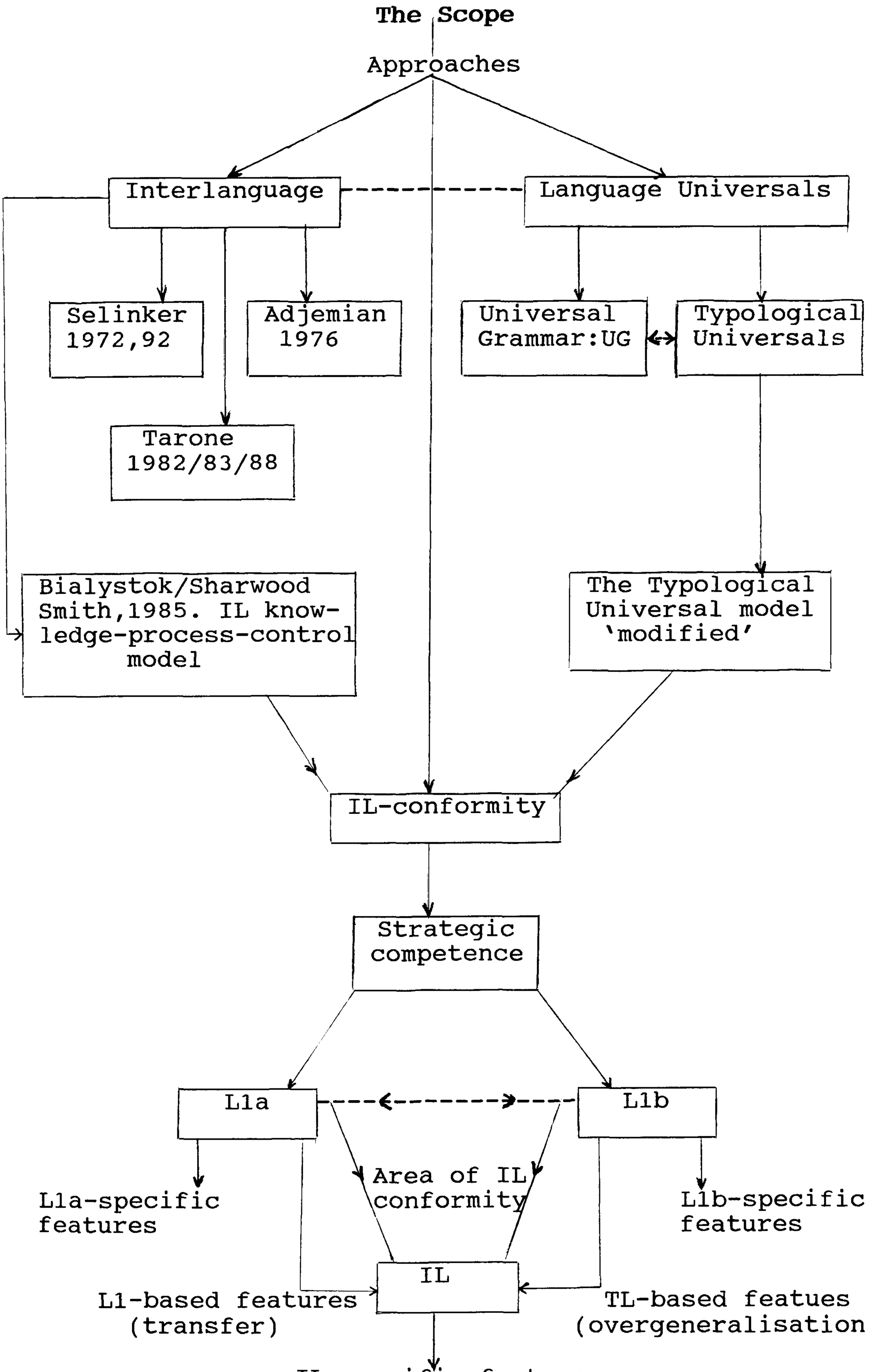


Figure (3.2): Approaches to IL and Language Universals, and the IL-conformity framework specified to this study.

CHAPTER FOUR
THE EXPERIMENT

In this chapter, the methodology used to carry out an experiment will be explained first. Second, the statistical data resulting from the experiment will be reported. The experiment is concerned with the processes of operating strategic competence in two native languages (L1s) and two L2 proficiency proficiency levels (or ILs). The first aim of this experiment is to discover the extent to which IL SC conforms to the similarities of the same competence in the two L1s, English (EL1) and Persian (PL1), in referential communication. The second aim is to investigate whether or not IL-conformity, if any,is task in/dependent. That is, to test if variability in task causes variation in the performance of SC both in L1s and in IL, how far does IL conform with the similarities of SC in the two L1s across various elicitation tasks. The third aim is to examine the degree of IL-conformity against the degree of L2 proficiency to find out whether the degree of L2 proficiency corresponds to the degree of IL-conformity, i.e. to see if SC in more proficient IL speakers shows stronger conformity with the similarities of the two L1s than does the same competence in less proficient IL speakers. The fourth aim is to test the degree of effectiveness of compensatory strategies within the framework of IL-conformity to find out if IL conforms with the degree of effectiveness of strategies as used by the two groups of L1 speakers, and to see if L2 proficiency corresponds to the degree of effectiveness of strategies. If it does, more proficient L2 learners should use more effective strategies and use strategies more effectively than less proficient L2 learners.

4.1. Methodology

4.1.1. Introduction

One particularly important issue in studying aspects of (S)LA and use is to employ working and appropriate methodology(ies) as the means of achieving the research goals. Methodologies, as Selinker and Douglas (1989) and Larsen-Freeman and Long (1991) assert, are various depending on the design of the elicitation tasks used to observe individuals' language behaviour in performing the given tasks, the nature of the study, the language property under investigation, the subjects participating in the study as informants, and the methods used for data analysis, among others.

The study of IL acquisition and use in any aspect and at any level, Selinker and Douglas (1989) and Tarone (1987, 1988) suggest, should be related to and bounded by contextual/situational areas. For IL to be studied from contextually/situationally-based perspectives, studies need "to be carried out in meaningful performance situations, and this requires researchers to search for an innovative research methodology" (Selinker et al., 1989: 94-95).

The nature of this study is an attempt to find out the correlation and consistency of the performance of SC in IL with the similarities of the same language property in the two natural primary languages (the viewpoint referred to as IL-conformity).This requires a methodology that could lead to experimental investigations of the phenomenon both across the given languages and various elicitation tasks. A methodology used for studies of this type should preferably be a contextually-based one; this will enable and allow researchers to "study empirically discoverable associations of knowledge, domain..., and language clusters of linguistic, conversational and theoretical IL [and language] patterns" (Selinker et al., 1989:97) across various contexts/tasks.Such a methodology will also have to deal first with "primary data" (data coming from L1/L2 talk and/or writing), and second, with

"secondary data" (data resulting from retrospective commentaries on the primary data by co-participants and/ or various types of specialised reviewers: ethnographers, linguists, etc.) (See Faerch and Kasper, 1987; Haastrup, 1987; Poulisse, 1987; Selinker at al.,1989; Larsen and Freeman and Long, 1991).

In order to make the collected (IL) data from various contexts, or tasks, as real as possible, Selinker and Douglas (1989) propose that the notion of "real time" should be incorporated as a control parameter in the (S)LA research. In doing so, researchers should "record not only the incidence of features in a communicative event, but also ... the complex correlation of elements in the event as they occur through time" (p. 99).

The present study, intending to be observational and experimental, is primarily concerned with the use and development of IL speakers' SC in relation with that of speakers of L1s, namely, English and Persian speakers, performing various given referential communicative tasks. Since it is a point of departure in its focus, it calls for an innovative methodology to assist the researcher to achieve the goals mentioned in chapter three. This methodology will be explained bellow.

4.1.2. The Pilot Study

To examine the testability of the hypotheses stated before, and to ensure that such hypotheses work for the present study as well as to explore the eliciting force and capability of the tasks, a pilot study was carried out. Three language groups, each consisting of 6 pairs of participants, in each pair one as a speaker and the other as a listener, took part in this pre-experiment (pilot study). They were: (i) English native speakers (EL1), (ii) Persian/Farsi native speakers (PL1), and (iii) Persian-speaking ESL students (IL speakers).

Two types of elicitation tasks were performed by the subjects in mutual activities: (a) Task one--the abstract shape task--consisted of five unconventional shapes, each

shape as a referent. They were presented to the subjects through picture description-identification-arrangement procedures. The speaker described each shape to the listener who was to identify the intended referents among a set of other alternatives,and arrange them in the same order as described to him/her. (b) The second task--the abstract concept task--consisted of five words, each conveying an abstract concept in which the speaker explained each referent to the listener who was to identify it from a series of other alternatives (non-referents). Using a three archistrategy taxonomy of compensatory strategies (see 4.2. below), the speakers' strategies were identified and analysed in terms of types, frequency, and degree of effectiveness (please see appendix I).

The results of this pilot study revealed that: (i) The compensatory strategies that the IL speakers used to communicate the given referents in each task conform, to a large extent, with those strategies that the two groups of L1 speakers used in common to communicate the same referents of the same task. (ii) Variability in tasks causes variability in using compensatory strategies; speakers in each group used certain compensatory strategies to communicate unconventional/abstract shapes which were significantly different from those used to communicate the referents of other tasks, and vice versa; again, IL speakers' SC demonstrated conformity with that of L1 speakers' in performing the same particular referents and/or task. The results thus seemed to be in support of the hypotheses stated in chapter three (see 3.3.2.). Furthermore, the pilot study showed that the hypotheses formulated for this investigation are testable and the methodology is both reliable and practical for larger-scale studies in number of participants and tasks; yet, the methodology proved to need some modifications before being used in this investigation. (iii) The results also suggested information which could be complemented in designing the data collection procedures.

The following are some of the conclusive points extracted from the pilot study which were deemed to be useful in carrying out the present study.

(1). The hypotheses are practical and sufficiently testable for larger-scale studies, such as the present one, to be conducted. It was because of those conclusions that decisions for carrying out this investigation with 30 pairs of speakers in each language group were made.

(2). In order to elicit the performance of SC of the participants in each group as intensively as possible, more referents in the two tasks and adding other types of elicitation tasks are also preferable and to some degree necessary to make the results more informative for making generalisations and, possibly, predictions. The reason is that they might allow the speakers to use longer utterances in discourse for which they have to use their SC more willingly. Such tasks might be either narratives or interviews, or both. It was then decided to supplement the tasks by increasing the number of referents in the two tasks and adding narratives as the third task. Narratives were preferred to interviews for the reasons discussed later (see 4.1.4., tasks, below).

(3). The pilot study demonstrated some sort of IL-conformity in SC in the performance of only one group of IL speakers of the same L2 proficiency. It was found that using more IL speakers of different levels of L2 proficiency might bring about more valid data for or against the hypotheses tested in this experiment. The data from at least two groups of IL speakers of various degrees of L2 proficiency would be more informative and conclusive, providing more reliable evidence for stronger claims, generalisations, and, possibly, predictions. It was thus decided to include in the present study two groups of IL speakers of different L2 proficiency levels.

(4). The pilot study also revealed that the taxonomy constructed and used to identify the compensatory strategies that the speakers used is practical and effective.This was particularly important for identifying

the similarities of compensatory strategies in the given languages for determining the IL-conformity and those strategies that are specific to each language, albeit slight modifications were preferred in the present experiment (mentioned in 4.2., below).

(5). Finally, it is fairly important for the subjects to be of the same age, general academic achievements (world knowledge), and to be as linguistically homogenous as possible. The procedures used to grasp this uniformity are explained in the next section.

4.1.3. The Subjects

As the central aim of this study is to investigate how far IL SC may conform with the same property found in the two L1s, the speakers of three languages took part in this experiment: (i) English native speakers (EL1), (ii) Persian/Farsi native speakers (PL1) and (iii) two groups of Farsi-speaking ESL students as the IL speakers. All the subjects were undergraduate university students studying arts and humanities: Literature, Linguistics,and (Language) Education. English native speakers were studying at Sheffield and Sheffield Hallam Universities in the U.K.; Persian native speakers and IL speakers were selected from those studying at Universities in Iran. For each language group 30 pairs of adults were selected from a larger number of speakers and were asked to participate in the experiment; in each pair, one was the speaker (director) and the other the listener (matcher), so that there were totally 30 speakers in each group, 15 males and 15 females.

As far as controlling variables is concerned, it should be mentioned that controlling all possible variables is not an easy task, particularly in studies on social sciences and humans' behaviour. One reason is that some variables such as personality, individual differences, etc. are covert and may not have immediate effects on the individuals' behaviour, mainly when they are not the focus of the study.

The second reason is that personality and individual differences are highly "individual-based" variables; they differ from one individual to another. Controlling these variables, even if they are controllable, would mean to apply different procedures for different subjects. These seem to be time consuming and to a large extent impossible, particularly for cross-sectional studies in which a large number of individuals' behaviour is under investigation. However, these variables, even when they are not explicitly considered, will not cause problems in cross-sectional studies like the present one, because (i) as mentioned above, they do not have immediate effects, and (ii) their effects, if any, will reduce to a large extent when other variables such as those mentioned below are carefully controlled. The fact that factors such as personality, etc. do not have immediate effects in cross-sectional studies, and that these variables are not directly the focus of this study all ensure that they will not have any negative effect in the results of the study, even if they are not explicitly controlled.

In order to control biasing (non-relevant) variables as carefully as possible, attempts were made for subjects in each group, L1 or IL speakers, to be as linguistically and academically homogenous as possible: to be of the same age, language backgrounds, and relatively the same general academic achievements. The two former requirements were captured by: (a) choosing participants in each group of the same age, ranging from 22-25 (average, 23.4)

years old; and, (b) selecting all the subjects in each group of the same language background (knowing either one or one dominant language--no bilingual speaker was asked to take part in the experiment). For the latter, i. e. to capture the requirement of the informants' homogenous academic achievement, a general written test was administerd with a population of three times in number as the speakers of each group. This test consisted of tasks and referents--as test items--similar to, but not necessarily the same as, those used as elicitation tasks in the present experiment. In each group, those 30 subjects who were judged to be more successful in doing the tasks, by two native speaker judges, were selected as the speakers; 30 others, who were also successful but not as successful as the speakers, were designed as the listeners, and the remainders were excluded. The IL speakers were allowed to do this (mock) test in their L1, since the test was envisaged to represent their conceptual ability and general academic achievements (or world knowledge) relating to this experiment, rather than eliciting their SC.The present experiment was carried out after three/four week intervals, and the subjects were not told that oral experimental sessions were to follow.

As inferred from the pilot study, mentioned above, it was decided to include L2 proficiency levels in the experiment. This could provide some insights for better understanding of the development of SC, particularly in IL, and give some clues for the degree of IL-conformity in elicitation and performance of this competence in IL, at least in referential communication. The intended point in this regard is that more proficient IL speakers are expected to have more control over their L2 linguistic knowledge because IL is more developed and established in their mind (Bialystok, 1988; 1994); thus their SC should demonstrate more conformity with the general principles underlying this competence than less proficiency IL speakers' SC does. If this is confirmed, then the results of the study might be expected to be more generalisable

and predictive. In doing this, two groups of 30 pairs of Persian-speaking ESL university students were selected for the present experiment. They were all of the same conditions as native speakers in age and relative general academic achievements, but different in degree of L2 proficiency.

Having included levels of language proficiency in the experiment, it was decided to collect data from learners of two different L2 proficiency levels: (i) higher proficiency, or advanced (henceforth ILa), and (ii) lower proficiency, or intermediate (hereafter ILb). Intermediates, rather than beginners, were preferred for the lower proficiency IL speakers because,firstly, it has been evidenced that for language communication a minimum language knowledge is required (Bialystok, 1990; Gass and Varonis, 1991; Nayar, 1987). In other words, the learners' L2 proficiency should be high enough to allow them to use their SC efficiently and effectively. Obviously, beginners cannot cover this requirement, particularly in communities in which learners do not have access to the TL outside classrooms and in direct contact with its native speakers, and the only L2 sources for them are usually classrooms and teaching materials.

Secondly, the tasks to be communicated had to be as adequately problematic as possible for all the speakers to expose them to the same/similar communicative problems and thereby to elicit their SC as explicitly as possible (see 4.1.4., bellow). This required the IL speakers to be conceptually and/or linguistically competent enough in L2 to produce linguistic utterances as clues of their SC,and beginners cannot cover this requirement,either. The final reason was that advanced learners are representatives of samples of IL speakers who have acquired higher IL knowledge and hence have more control over that knowledge in their L2 product; lower proficiency IL speakers should be usually among those who can get the meaning across by virtue of their L2 knowledge, albeit with many (probably

expected) grammatical errors, and beginners can hardly achieve this requirement.

The IL speakers' proficiency levels were demarcated via some devices: First of all, the IL speakers were selected among those majoring in English language translation, English language Teaching (TEFL),and English Literature. The years of their university studies, the number of major courses they had passed and their results in each course were used to differentiate their L2 proficiency. According to the language curricula and syllabi for these fields designed by the authorities of higher education programming in Iran, students ought to pass four basic courses (modules) in each of the language skills--listening/reading comprehension, speaking, and writing (two/three hours per week, for each) during the first two years, or four 17-week terms, of university studies. In addition, they have to pass two sequential courses in oral performance/conversation and attend a 17-week term class (2/3 hours per week) for each course. In these courses the students are supposed to participate actively in class activities: give short presentations, participate orally with their partners in small group activities, tell and retell stories, watch films/videos and describe the events orally, play games, and so forth. Then they are evaluated and graded by the tutors. Therefore, the students' scores in such basic language skills and courses are a worthwhile means of determining their levels of proficiency in the TL. In the present experiment, those students whose average scores on these courses ranged between 76-85% (because rarely a student happened to receive more) were considered as advanced and those whose averages were ranged between 60-70% as intermediate IL speakers. Subjects with scores between 71-75, if any, were excluded to maintain the difference between the two levels of proficiency.

The second device for differentiating between two groups of language proficiency was a national/local general language proficiency test: MCHE test, a test

administered by the Ministry of Culture and Higher Education (MCHE) in Iran to determine students' general language proficiency for placement in more advanced and academic language classes, giving permission to those who want to take part in some international proficiency tests such as TOEFL and/or IELTS, etc.. This test is equivalent to TOEFL 550 and consists of listening comprehension, grammar, vocabulary, reading/listening comprehension, and, occasionally, writing (see appendix: II).

Since the study focuses on compensatory strategies used in the speakers' oral production (oral referential communication), the most obvious choice would be oral language proficiency tests. These tests, however, usually have to be administered individually. Selecting 30 subjects as speakers in each group of IL speakers from a population that was around three times its size would mean organising about 90 interviews; this seemed to be extremely time consuming and to some extent impossible because the students are not always available and psychologically, sometimes even physiologically, ready to take part in oral proficiency tests. For these reasons, instead of interviews, the subjects' proficiency in L2 oral production was determined by the ways they had presented themselves during oral classroom activities and the scores they had received from different tutors (see appendix: II).

None of the subjects in any language group, native or IL speakers, had hearing problems, or ear and tongue defects or mental deficiency.

4.1.4. Material Preparations: Tasks of Elicitation

It was mentioned in chapter one that referential communication is essentially a task-based process of language use, particularly when the studies focus on speakers' lexical or grammatical problems both in L1s and ILs. Tasks are the topics of communication and used as means to open the channel, keep it open, and to keep the

communication process going; i.e., they are clues for the speakers to know what to talk about and to stimulate them to elicit their strategic behaviour in communicating the given referents. Referential communication,by definition, therefore, makes it necessary to elicit speakers' SC to solve any grammatical or lexical problems, by means of appropriate strategies.

Since the present study aims to find out IL-conformity in SC at the level of lexical problems across various elicitation tasks, a variety of tasks had to be designed for the experiment. To do this, several points had to be kept in mind: Firstly, the tasks should be so designed that they would be as equally problematic and intentional (the requirements of strategic behaviour discussed in chapter two) for all the participants as possible, despite their language backgrounds, or L2 proficiency (for IL speakers) difference. "When a methodology is adapted which confronts native and non-native speakers with essentially the same problems, L1 speakers and L2 learners handle their referential problems in much the same way" (Bongaerts and Poulisse 1989:265).

Secondly, since the subjects were from different cultural and sociolinguistic backgrounds, as mentioned above, to control this variability, attempts should be made to prepare eliciting materials with the least cultural burden and use them in the same obligatory contexts for all speakers (obligatory contexts here are those in which speakers have to perform the given tasks using compensatory strategies). This, more probably, would explicitly activate the speakers' SC so that more reliable comparisons of the speakers' strategic behaviour in L1s and ILs could be made; consequently, making overwhelming generalisations of the operation of this competence across both languages and elicitation tasks becomes more possible.

Thirdly, and more importantly, the tasks for these purposes should be so designed that they could encourage the speakers to communicate rather than abandon or reduce the

message. It should be immediately remembered that SC was defined in this study as being manifested by compensatory strategies, and compensatory strategies, by definition, are of achievement strategies used by speakers to solve their grammatical,lexical, or other problems to reach the communicative goals. This implies that the elicitation tasks should necessarily be both revealing and controlling enough to elicit the speakers' strategic ability when they are exposed to them in obligatory contexts/situations. It is more probable that such tasks in obligatory contexts will stimulate speakers to venture communicating the referents and hence revealing their strategic behaviour instead of abondoning the given message. Besides, using controlling referential tasks means using the tasks in which disturbing factors are extensively controlled. This, in the case of referential communication, means that the intended meanings are imposed by the tasks, biasing factors are discarded, and the speakers are automatically forbidden to use reduction or avoidance strategies. In summary, the eliciting tasks had to create reasonable facsimiles of the subjects' strategic acts of referents in referential communication as explicitly as possible.

These requirements for elicitation tasks in referential communication led to elaborating and designing three tasks in the present investigation as follows:

1. **Task One: Abstract/Unconventional Shapes:** The first task used in the experiment was a task consisting of eight unconventional abstract shapes, each shape referred to as a referent--the thing to be communicated. In such a task the figures to be explained are novel graphic designs without any conventional names. So, it is not only capable of being communicatively problematic for IL speakers, but also for L1 speakers of different languages having to refer to them in their L1s. This task might explicitly represent a clear picture of the operations of speakers' SC in L1 and L2; therefore, it can be used to

activating L1 and L2 SC for determining The IL-conformity, the similarities and differences, and language specific features of this competence in the performance of L1 and IL speakers.

The referents of this task were selected from a series of those which have been used in various experimental investigations of referential communication in L1 to study children's overall L1 communicative abilities (Glucksberg et al, 1966; Clark and Clark, 1977; Kahan and Richard, 1986) or adults' L1 referential strategies (Glucksberg et al.,1966; Gaies,1981; Clark et al., 1986), and adult L1 and L2 comparative studies of communication and/or compensatory strategies (Bongaerts et al., 1987; Poulisse et al.,1989; Kellerman et al.,1990, the Nigmegen project). See appendix (III, task one).

2. Task Two: Abstract Concepts: The second task, or the abstract concept task, consisted of eight referents, each a word conveying an abstract concept. Abstract concepts, as Dummett (1992) believes, are of common sense concepts, like "love", "freedom", etc., that everybody knows, lives with, and even frequently uses, but rarely happens to be asked to define, describe or explain them. Because of these and other characteristics, the referents are supposedly expected to be potentially problematic enough to create similar communicative problems for all subjects to operate their SC and thereby to generate their compensatory strategies, not only for L1 but also IL speakers having to communicate them in the given contexts. For a sample of this task, see appendix (III, task two).

In short,unconventional shapes and abstract concepts were used on the assumption that they will more likely create the same communicative problems for all the speakers of the three languages and provide them with similar input. Moreover, such referents "are likely to place a greater burden on the participants than known" (Meilein, 1986:130), or accustomed, referents.

3. Task Three: Narratives: The third task was a story retelling, or narrative, task, comprising two short narratives, each containing 5 referents as communicative goals, or intended meanings. The reasons for using narratives as an elicitation task need to be explained a bit more in detail.

The most likely creative elicitation task to be used for the present purpose as the third task was either an interview or narrative task. To use interviews would mean to organise many experimental sessions and ask subjects to communicate the given task. The task could be either selected by the experimenter or the subjects themselves and performed in the forms of negotiation for meaning and/or free talk. (i) In the former case, the experimenter would have to be either an insider--as one of the interactants and logically the listener, because the speakers' verbal acts of reference are the focus of this study; or s/he might be an outsider--giving the task (referents) as topics to other interviewer to encode communication. In this case: (a) Finding a separate interviewer for each interviewee of the same conditions as the speaker would be extremely difficult, unless the interviewer is already told how to interview. If so, the interviewer, who would be a student, might not listen to and follow the interviewee as carefully as required, because s/he would know the content of the topics before hand.

(b) It is a matter of expertise to put the key concepts into appropriate or obligatory contexts to elicit compensatory strategies and prevent interviewees from using avoidance strategies. This is evidently beyond the experience of ordinary interviewers who are usually novices to that matter.

(ii) Free talk--the talk not being restricted to a particular topic--may be a working technique for eliciting speakers' overall communicative abilities, or motivating them for conversation and uncontrolled language performance. For studies like the present one,

however, free talk creates three problems of control, which conflict with the intended purpose: (1) The topic of communication--referents--will be negotiated and agreed on by interactants, not given by the experimenter. Naturally, different interactants will talk about different topics according to their interest; in such a case, the results cannot be informative for the present purpose which is to study how a group of speakers perform one particular task. (2) Since the referents are not specifically contextually-based in free talk, the speakers, especially IL speakers, may again use avoidance strategies whenever they come to linguistic (lexical, grammatical, phonological) problems, instead of using compensatory strategies to solve the problems. (3) In free talk, the speakers' cognitive demands cannot be precisely observed, and the influencing factors are not controllable either; these will bias the results of the investigation.

Considering the practical and organisational problems inherent to an interview task, and the difficulty of controlling cognitive factors, this task was discarded in favour of a story-retell or narrative task.

Contrary to the interview task, there are some reasons which make the narrative task extremely suitable and justifiable for the present purpose: (i) First of all, the narrative task is controllable in that the context of the narratives, and hence the problematic items, can be largely determined and controlled by the experimenter in and for actual observations.

(ii) Secondly, narratives are domains with heavy semantic and conceptual burdens; so, they create more meaningful situations for speakers in L1 and IL than other forms of discourse and genres (like interview, free talk, etc.). In other words, narratives require highly cognitive and, to a great extent, linguistic demands on the part of the speakers (Stromquvist and Day, 1993: 136). They are thus particularly powerful to create communicative situations that might be equally

problematic for the speakers of all language groups, and at the same time be persuasive enough to motivate them to communicate. These would provide researchers with explicit pictures of the operation of the speakers' SC. One reason for this is that in order to (re)construct a narrative on a cognitive level, knowledge about events and their interrelationship is required. (b) The second reason is that in order to retell a narrative to an addressee, particularly in a face to face communication, social/situational skills are overtly activated and crucially dynamic in terms of how the information flow is structured according to the situation/context of the narrative to express the intended meaning. These, in turn, will stimulate speakers to a better understanding of the input (the given task), a more conceptualised "intake", and thereby a more "comprehensible output" (Swain, 1985); consequently, they would attempt to use as effective compensatory strategies as they can. It is for these requirements that both L1 and IL speakers' linguistic and cognitive/conceptual demands are activated and revealed; as a result, the speakers' conceptual and linguistic perspectives on compensatory strategies in the planning and executing phases of their strategic behaviour are more explicitly materialised (see below, 4.2., taxonomy).

(iii) Finally, and overall, narratives are exterior represention of speakers' interior narrative proficiency (Brown,1989; Lesser and Milroy, 1993; Stromquist and Day, 1993). Such characteristics benefit from the fact that in a narrative--story (re)telling task--it is the content, or message, rather than form that is recalled and retold. Individuals usually recall the message of the text rather than form when they want to (re)narrate events; or as Sachs (1967) points out: "... the original form of the sentence is stored only for the short time necessary for comprehension to occur. When a semantic interpretation has to be made, the meaning is stored" (p. 437). The focus on the meaning gives the speakers more room, or

opportunities, to maneuver for communication. It makes it much easier to substitute related lexical items for the ones occurring in the original story.

The two narratives used in this experiment were taken from Hill (1977), with some adaptations and modifications (see appendix III, task three). They were presented to the subjects according to the procedures explained in the following section.

4.1.5. Procedures and Instructions

The experiment was designed for pair-administrations and was conducted in three phases. In each phase, pairs of subjects, with one subject as a speaker and the other a listener, were seated in a booth or soundproof room in separate sessions organised for each pair. In phase one, unconventional shapes were given to the subjects to perform; the speaker had to describe each picture and the listener to identify it from among a set of pictures. The referents of this task were numbered and given to the speaker on two sheets, each containing four shapes, to communicate to his/her interlocutor. The same referents, along with several non-referent shapes as distractors, were given to the listener on two separate sheets to identify the described figures. These sheets were also given to the speaker to use as 'check sheets', for checking the listener's answer to make sure that the intended referent had been identified correctly. The speaker was asked to describe each shape to the listener in the same order as that in which it had been given to him/her, and the listener had to identify each of the described referents via the speaker's acts of reference and to arrange it in the same order as had been described. The referents and non-referents had been coded A, B, C, etc., on the listener's sheets, and s/he could arrange the identified referents by arranging the code letters on those sheets. The speaker, who had the same sheet, could check if the referents had been identified and arranged correctly. As soon as the intended meaning

had been conveyed, i.e. the intended referent had been identified correctly, the speaker could go on to the next referent and perform it in the same manner.

In the second phase, the abstract concept task was to be performed in almost the same ways as the first phase; namely, explanation-identification procedures. The speaker was given a sheet on which eight words, each conveying an abstract concept, had been written in their native language; the IL subjects were given the concepts in L2 with possible L1 equivalents, if necessary, to help them to conceptualise the concept without difficulty. The same concepts, each with several non-referents,were given to the listeners on a separate sheet. The speaker was asked to explain each concept to the listener, who was to identify it from among a series of alternatives. If the goal was achieved, i.e. identified correctly, the speaker could go on to explain the next concept.

In the third phase, the subjects were asked to perform the narrative task which consisted of two short narratives. From each narrative, five words, each accompanied by a picture, had been chosen to be presented to the speakers as the target referents. The speakers were asked to listen to each narrative in their native languages.The IL speakers had to listen to the narratives in English, but they were also given the Persian versions of narratives, if required, for full understanding and perception. The speaker was then asked to reconstruct and retell each story and as soon as s/he encountered with each of the given referents, using the picture, describe that referent to the listener without giving or saying the exact name of the picture in words even if s/he happened to know it. The listener was also given the narratives in pictures with some randomised alternative pictures for each referent (picture). For each narrative, the listener had to listen to the speaker retelling that narrative and to arrange the given pictures as reconstructed and retold by the speaker so that at the end of each narrative, a picture-narrative was

constructed by the listener to match the one (re)narrated by the speaker.

In order to eliminate sex-linked distractors such as fear, anxiety, being shy with partners, etc., female speakers were paired with female listeners and male speakers with male listeners throughout the experiment.

The equipments used for carrying out the experiment were a tape recorder and a 60-minute audio-cassette for each pair of subjects performing the presented tasks. The subjects were seated face to face at a table. The tape recorder was placed on the table so that both the interlocutor's language performance could be recorded satisfactorily. A barrier was placed on the table between the interlocutors so that they could see each other's face, but not the partner's tasks. The subjects' communication was then recorded and used for data analyses.

Before the experiment, the participants were given instructions about the tasks, and the purposes of the experiment as well. It is worth mentioning here that giving instructions about the tasks and the purposes of the experiment was felt necessary from the pilot study, the nature of the tasks, and the subjects' questions and reactions when they were invited to participate in the experiment. First of all,the tasks, as testing materials, had to be performed by the subjects; therefore, they had to know how to do the tasks. Without enough information about the tasks and the reasons for doing them, they might be unreasonable for the subjects to perform. Secondly, when the informants were asked to participate in the experiment, they raised several questions concerning the reasons for being asked to do the tasks and for being tested. That is, they asked whether they were to be tested in terms of their knowledge of expertise,world (or conceptual) knowledge, their accents, intelligence, memory spans and activities, and so on. The subjects, in other words, seemed to be hesitant and reluctant to participate in the experiment without knowing the reasons and purposes behind it. On the other

hand, when the reasons, along with the instructions, were given to the subjects, and they were told how significant their cooperation in performing the given tasks would be, they showed more interest in participating in the experiment. It was for these reasons that decisions for giving instructions and enough information about the purposes of the study to the subjects in each group were made, assuming that these will have positive effects in the performance of their SC.

The instructions were given both orally and in writing. Written instructions for each task were given on a task-sheet designed for the speakers/listeners. For the sake of clarity and brevity, five native speakers for each group, postgraduate students or university tutors, being unfamiliar with the aims of the experiment, were asked to read the instructions and judge if they were sufficiently clear for the subjects to perform the tasks even without the presence of the experimenter or research assistants in the experimental sessions. The judges' comments, if any, were used in the instructions before the experiment. Oral instructions were also given to individuals in each pair before the experiment started. In addition, the subjects were told to read the instructions on each sheet carefully, listen to the oral instructions given to them in each session before the experiment, and ask any question that would be helpful for them in doing their tasks. For each task, examples were given to the participants to perform as "warm-up" and "lead-in" before starting the experiment.

When the subjects confirmed that everything was clear, the tape recorders were turned on and the experiment started. Short intervals were also given to the subjects after each task to preserve their readiness for the subsequent task.

4.2. The Taxonomy of Compensatory Strategies Used in this Study

One of the significant issues in studies on SC, as discussed in chapter two, has always been the question of identification and classification of compensatory strategies that speakers use to communicate the intended meanings. To overcome this problem, a practical taxonomy has always been required by which to distinguish the strategic behaviour from non-strategic utterances, and to classify strategies according to their types, and the speakers' approaches to them. The problems with traditional taxonomies were discussed before (see chapter two, 2.4.). I also argued how the Nijmegen taxonomy of two "archistrategies": Linguistic strategies and Conceptual strategies can be a useful guideline to (re)constructing a new taxonomy for this study, irrespective of some of its inadequacies.

For the purpose of this study, and with references to the process-based taxonomies, particularly the one suggested by the Nijmegen project (see chapter two, 2.4.3.3.), a three-archistrategy taxonomy was constructed and developed. This taxonomy comprises three approaches to compensatory strategies, each approach embedding several types of strategies as follows:

A: THE LINGUISTIC APPROACH (STRATEGIES)

The speaker exploits and gives a formal analysis of the semantic features of the referents, or concepts. These might be manifested as follows:

(I): General Compensatory linguistic Strategies

1- Metalanguage:

The speaker provides metalinguistic information (or characteristics) of the referents. Consider the following examples (**EL1**=English native speakers; **PL1**=Farsi native speakers; **ILa**=higher proficiency L2 learners; **ILb**=lower proficiency L2 learners).

--"...it's an abstract/concrete shape, word,..." EL1; PL1; and IL for martyrdom (in the pilot study), salvation, justice, beauty, etc.,

--"... it's... actually a noun..emm..uh .. a verb changed ...to..a noun..." for salvation, (EL1, PL1, ILa).

--"... it's a noun" (PL1 & ILa/b), "it's a noun, not adjective (EL1, PL1, ILa/b), for pessimism, optimism, sympathy."

2- Superordination

The speaker provides semantically related superordinate terms or descriptions of the concept; or exploits features semantically related to the referents...

--"... it's a state or quality" for salvation, beauty, flattery, bald, (EL1, PL1, ILa), and for freedom, jealous, sympathy (EL1, PL1, & ILa/b).

--"It ... to say something er... em more than what emm ... er.. something really is ... for flattery (EL1, PL1, ILa).

3- Synonym

The speaker gives a term (word) or a short phrase that is semantically related to the referent, or at least shares certain semantic features with the concept.

--"... it's synonym of rescue,... it means rescue of... sin ... " (for salvation; EL1, PL1, & ILa/b).

--"... feeling .. er .. resentment" (EL1), for jealous, envious (EL1, ILa) for jealous, ... suspiciously watchful (El1, ILa, PL1), for jealous...

4- Antonym

The speaker uses a word or a short phrase having the opposite meaning to the concept:

--"it's the opposite of.. sinfulness (for salvation, EL1, PL1, ILa).

--"not being emm ... er .. sinful" (for salvation, El1, PL1 and IL).

--"it's opposite of... of cruelty" (for justice, EL1, PL1 ILa); "have no.. er..hair..(on head)" (for bald, ref. no. 4, narrative (2), task no.3, EL1, PL1, ILa/b).

(II) Language Specific-based Strategies: Strategies used by L1 speakers specific to a particular language:

1- Lingual Strategies

The L1 speaker uses some (socio)linguistic and/or cultural features specific to his/her own language, not present in other languages, and operates his SC to plan and execute compensatory strategies accordingly.

--"er...emm...take it the other side mm... this picture is like emm... a logo mm...or a sign ermm ...you can see in post office... a sign of sorting out letters in the post office...." (EL1 for ref. no. 4)

--"er... it is a characteristic of God...and everybody is supposed to have it emm...and to do it er..in his life and social behaviour according to emm...Quran and the Islamic princilpes..." PL1, for justice.

(III) IL-based Strategies: strategies used specifically by IL speakers

1- Transfer

The IL speaker transfers some (sociol)linguistic and or cultural features of his/her L1 in operating IL SC. Put another way, IL is activated by the processes of transfer to generate appropriate strategies:

--"it is er...a man whose **work** <job> is ...to.... to make emm...**to make short haris** <cut hair, hair dresser>..." IL speaker.

2- Transliteration

The IL speaker literally translates the L1 lexical item into the TL to convey the intended meaning:

--"emm...it is a man who ...er...people go to ...to make er... **to make short head**...for <hair dresser> **to shorten** [his] **head...**

--"emm...this picture is like a **fly plate/flying plate** <flying saucers> ..." IL speaker, for ref.2, task 1.

3- Overgeneralisation

The IL speaker overgeneralises the lexical or other linguistic features of the TL to the situations which are not appropriate, and uses them to identify the given referents.

--"...er...it's like...emm...**a ship** <boat> in the sea..." IL speaker, for ref. 3, task 1.

--"er...it is a person who ...or **a sewer** <tailor> ..." IL speaker, ref.6, task 3.

B: THE CONCEPTUAL APPROACH:

This approach refers to the way of conceptually manipulating the intended concept (referent):

(I) General Conceptual Strategies:

1- Holistic Strategies

The speaker uses a similar or reminiscent name for the concept or referent; or looks at the referent from a deductive perspective, seeing it as a "whole" regardless of its parts. The linguistic signals that they use are usually as "... it's like ..., ... a sort of...", "it's similar to ... thing,an animal, a man,... a human being", and so on. These strategies have been also called "analogy" Paribakht,1985:1350;or"simile" Chen,1990: 164).

--"... it looks like a... crown ..." for ref. no.3, task one (EL1; FL1; ILa/b).
--"it's the same as... the same ... like a cup..." for ref. no. 5, task one, (EL1; PL1; ILa/b);

--"it's an animal with flappy tail (for <u>rabbit</u> EL1, PL1, and ILa)

--"it's ..er...mm.. a man who sew... (for <u>tailor</u>, EL1, PL1, ILa)

--" ... em..a kind of.. mm.. cloth women wear (for <u>pleated skirt</u>, EL1, PL1, ILa)

2- Analytic Strategies

The speaker selects and describes particular properties of the referent and expects that the listener will correctly assemble such properties into the intended concept, or referent. In such cases the speaker refers to different properties,functions, size, etc... for concrete shapes or objects, and refers to the description of semantic elements of the concept for abstract concepts. Doing these, the speaker may use either "partitive" or "linear" strategies:

2.1- Partitive Strategies

The speaker describes some parts of the structures or features of the referents; in other words, partitive strategies are adapted when a shape is viewed as consisting of two or more parts. Each part is described separately but connected to the whole structure of the referent.

--"... emm .. the first half... the second half... the half one side... "

--"... are two triangles, ... which are under each other ... and one triangle... there are two lines..."

--"...this shape's got two parts, it's ... curved at the top with a sharp point in the middle .... and with a flat line at the bottom...
(EL1, PL1, ILa, ILb, for refs. in task one, passim)

2.2- Linear Strategies

Linear strategies are used when a shape is broken up into its ultimate components such as lines,angles,spatial relations ... and describe it accordingly:

"... the top line is... uh..curved and ... on both sides there's a line .. downside ... that is in the middle ... in the middle of a er.. figure... downstairs... both ... and then .. uh... at the bottom there is er.. a line to the in... yea.. inside.. the at the bottom..."

--"ermm...it's got a curved line at the top with er...a line coming down in each side to make a sharp point... at the bottom... (EL1,PL1, ILa, ILb, task one, passim).

2.3.- Analytic Componential Strategies

The speaker divides the referents, words or concepts, into its components, or semantic features, or properties and describe each relating component separately or in relation to the other components:

--"it's what our society is emm... is based on... we believe that emm...our society... is emm is based on for economy... and we hope ...always ... to have emm this condition..." (EL1, for Justice, task 2, ref.2).

--"er..this is the name of an animal that is emm... very famous in ...Kelileh va Demneh [The Fox and The Lion] fables... spreads the news through the forest for emm running very fast...and er...is famous for ...for emm...fast running and...sleeping very much..." (PL1, for rabbit, task 3)

(b): IL-based Conceptual Strategies:

1- Word coinage

The IL speaker creates,coins , a word out of his/her L2 linguistic knowledge and uses it to stand for the target referent.

--" ... it is like ... a torcher <torch, torch-light> ... used in old times..." IL speaker, ref. 8, task 1.

--"...this shape is like...a boat with ...two...er..em... rounding <curved> lines..." IL speaker,ref. 5, task 1.

C.: CONVERSATIONAL/INTERACTIONAL STRATEGIES

The speaker uses some conversational strategies to keep up the communication and to make sure that the meaning has been conveyed:

1- Check for Comprehension

--"... understand? got it? ... is that clear?..."

2- Self repetition/clarification:

--"... I mean,... sorry,.. uh sorry,... I say it again... I repeat it..."

3-Confirmation:

The speaker confirms that the referent has been identified and the interlocutor has got it correctly.

--"yeah"; "yes"; "alright"; "that's right" "o.k." "(that's correct"; etc.

4.2.1. The Application of the Taxonomy to the Identifications and Classifications of Compensatory Strategies

It has been always difficult for researchers to identify and classify the compensatory strategies that speakers use to solve their communication problems. Researchers have always attempted to find some reliable methods for these purposes. To solve this difficulty, to avoid any subjective identification of the strategies, and to arrive at a more reliable way of exploiting the strategies, three procedures were evaluated. (a) Firstly, using the taxonomy, one can rely on his personal judgements in identifying the speakers' use of strategies in each group and list them in terms of their types and frequency accordingly. The problem with this procedure is that, first of all, it is based on only one source of judgements and,therefore, cannot provide reliable sources for identifications. Moreover, it may lead to subjective identifications, because the experimenter's awareness of the aims of the study may consciously or unconsciously affect his identifications, when based on only his personal judgement. (b) Secondly, one can use introspective methods of identification and ask the subjects themselves to help the experimenter to identify the strategies. This procedure has also two problems:firstly,

the speakers may not have a clear understanding of the taxonomy, and the strategies themselves; thus, they will not be able to identify all the strategies. (ii) Secondly, introspections may be done either immediately after the experiment, or with some intervals. In the former case, the speakers, even if they can identify the strategies, may pay attention to what they said, rather than what strategies they used. Furthermore, the speakers may intend only to satisfy the researcher, rather than telling the truth (see Poulisse et al., 1987; Haastrup et al., 1987). In the latter case, in addition to their tendencies to satisfy the experimenter, the speakers may forget the type of strategies that they used at the time of performing the tasks. (c) Thirdly, it is also possible to use retrospective methods of identifications. To do this, one may give the taxonomy, along with some necessary instructions, to a group of outsiders, preferably native speakers, and ask them to help the researcher in identifying and classifying the strategies. These methods seem to be more objective and reliable than others, since they are based on different sources of judgements and identifications.

To be more objective, in this study, the third procedure, with references to the first one mentioned above, was employed to help the experimenter to exploit the possible strategies used by the speakers. For each group, three native speaker research assistants--postgraduate students or university tutors--were asked to assist the experimenter in identifying and classifying the strategies. For the IL speakers, the judges were three experienced TEFLers, with references to English native speakers where required. The judges were given the taxonomy, with necessary instructions, examples, and exercise to know how to use the taxonomy for these purposes. Each judge was then asked to do his/her task independently.

When the judges did their tasks, it was found that some strategies had been identified differently by

different judges, but the differences were more in the number of strategies than their types. To solve this problem, for each group, first, those strategies that all the judges had identified similarly were separated from those which had been identified differently. Then the judges were asked to re-examine the speakers' utterances and see if they had missed any strategies. Finally, in a few meetings the judges of each group and the experimenter the strategies that had been identified differently were re-examined and discussed. Those strategies on which the judges and the experimenter agreed were included in the lists of identified strategies, and the few others were excluded. The strategies were then converted into numerical data to be used for statistical analyses (see tables 1 and 2), as reported in the subsequent section.

The above taxonomy was applied to exploit, identify, and classify compensatory strategies from the corpra of all four language groups participating in the experiment. In the following, I shall present some examples to explicitly illustrate how the taxonomy was used for these purposes.

It worth mentioning here that throughout measurements two (4.3.1.2.1.) and three (4.3.1.3., 4.3.1.3.1., pp. 191-192, and 4.3.1.3.2., pp. 195-197), and appendices one and five, sufficient sets of examples of data and analyses of the performance of EL1, PL1, ILa and ILb have been presented. These examples seem to be enough to provide clear pictures of the performance of all the subjects' SC, and the procedures by which strategies were identified and classified according to their types and subtypes. For these reasons and for the reasons of space a full set of data and analyses were not provided in a separate appendix. Consider the following observations, strategies have been underlined. First, notice the abbreviations:

A= The speaker; B= The listener; EL1= English as L1; PL1= Persian as L1; ILa= Higher proficiency ESL students; and, ILb= Lower proficiency ESL students; group (here a pair of speaker-listener).
M/M= Male/Male communication
F/F= Female/Female interactions

1. EXTRACT ONE (1): ABSTRACT SHAPES:

A: EL1

A: em.. the first one ... looks like er... em... **a hammer** ... with er... **two sharp handles on the sides** ... **got it?**
B: number H?
A: **yeah.**

Strategies:

1- Holistic : hammer
2- partitive analogy: ... two sharp handles ...
3- Check for comprehension: got it?

4- Confirmation of comprehension: yeah.

(Group 9, F/F--Female/female communication)

B: PL1: (original version, for phonetic symbols used in transcribing Persian versions, see appendix V).

A: i:n .... **shekl be nāzār mi:âd mânānde er ... yeik kolāng ..**. yâ: mâ nānde emm ... **yeik ti:sheh yākh shekān bâshād bâ yeik dāsteh kotâh ke be tārāfe pâi:n** miâd..."
mm ... **dobâre begoyām?**
B: bāleh
A: ... āgār bārāks koni ... i:n shekl ... be toure kolli mesle yeik ... er ... **kāfshe khânomhâ be nāzār mi:âd... ba ...yeik noke ti:z dār tārâfe chāp...**"
B: hārfe H?
A: Bā?leh.

(translated version)
A: this ... shape looks **like ...er ... a .. a peak** .. or like emm ... **an ice-peak ... with a short handle** coming down ...
mm **may I say it again...?**
B: yes
A:
--... if you turn it upside down ... this shape ... on the whole seems like a .. er... woman's shoe ... with a **sharp point on the left hand side..**
B: H.
A: **yes.**

Strategies:

1- Holistic : ... a peak ... ice-peak ... woman's shoe

2= partitive Analogy: a short handle ...

3- linear: ... a sharp point on the left hand side ...

4- Self-repetition: ...may I say it again?

5-Confirmation: yes.

(PL1, Group 12, M/M communication)

C: ILa:
A: o.k. first picture is ... looks like ... er... a ... **axe o...r ... er... a hammer** ... **with short handle** ... its ... handle ... er... may be ... broken and ... in front ... **left side ... is very .. sharp... clear?**
B: em **H?**
A: **yes.**

Strategies:

1- Holistic: a.. axe.. or .. a hammer...

2- partitive Analogy: with ... shart handle ...

3- Linear: left side is ... very sharp..

4- Check for comp.: clear?

5- Confirmation: yes.

(ILa, Group 5, F/F)

D: ILb:
A: I think this ... picture .. **like ... a.. shoe** ... and em .**.. has two part ..**. one part ... is no long... and another is longer than other ...
B: E?

A: no ... **I explain again.**.. look at ...er ... it ... from other side ... em ... becomes ... er ..**.like em ...** a.. the tool that ... used ..er ... for .. dig ... to dig ... with.. axe .. uh no ..a .. pi.. pi.**.. a peak** .. **do you understand?**
B: **H.**
A: **mm .. yes.**

Strategies:

1- Holistic: like a shoe a peak

2-Partitive : two part ...

3-Self-repetition: I explain again ...

4-Check for comp.: Do you understand?

5- Confirmation: yes.

(ILb, group 10, M/M).

2. EXTRACT TWO (2): ABSTRACT CONCEPTS:

A: EL1:

A: the second word is what em... **you might ... see if em** you went to **... court ...** you've hoping to ... and get you must .. bring .. this .. **this person to have done this word...**
B: Freedom?
A: **no ... em .. it's ... is like** ... when you see **right ... and wrong ...** then this is said to be saved ... **it's not unfair...**
B: Just...?
A: **yeah but** it's .. noun **not adjective** ...
B: justice.
A: **yeah.**

Strategies:

1-Partitive Analytic description/definition: the speaker defines/describes the concept in parts

2-Synonym: not being unfair...

3-Metalanguage: it's noun ....
4-Confirmation: yeah.
(EL1, Group 9, M/M)

B: PL1: (original version)

A: mafhoome dovom ... **yeki āz sefâte bâreze khodâst** ... **vă chi:st ke bâ modiriāt ertebât dârād vā .. er ... dâdgâh**. vā hār kās dost dârād dâshteh bâshād ... mm... kāsâni ke i:n ... **sefāt râ** dârānd... **bārâye bārâbāri tālâsh mikonānd ... em.. dâr zendegi vā jâmeh** ... yāni fārghi beine mārdom ni:st.. fāhmidi?
B: bāleh...

B: PL1: (translated version)

A: the second concept ... **is one of ... God's conspicuous qualities ...** and **something to do with em managemant and ..er... court ...** and everybody would like to have it ... mm... those who have this ... **quality...** they seek and struggle **for equality ... em.. in human life and society** ... means no difference between er.. people.. **understand?**
B: justice.
A: **yes.**

Strategies:

1-Superordination: it's a quality of God ...
2-Def/Des: describes the concept; gives definition
3-Lingual: the speaker defines/describes with some tendencies to his own culture, language, and, to certain extent to ideology (religion=Islam).
4-Check for comp.: understand?
5-Confirmation: yes.
(PL1, group 16, F/F)

C: ILa:

A: ... it's a concept that is ... **the quality .. of God...** when .. which **means ... er... no different between people ...** and people er... should have ... it when this **quality is** ... er.. in the society ... the people can't do some ... er... mm... crime ... sin .. for example .. when **a person rub ... the bank ... the quality is** .. er ... say that .. he must go to .. to .. to prison .. got it?
B: justic?
A: it's a noun... not adjective...
B: uh ...er... justice...
A: **yes.**

Strategies:

1-Superordination: the concept... the quality of God ..

2-no different between ....

3-Des/Def describes the concept

4- Transfer: Cultural-based des/def.

5-Check for comp.: got it?

6- metalanguage: it's a noun not adjective...

7-Confirmation: yes.

(ILa, Group 24, F/F)

D: ILb:

A: ... this is ... an er... adjective ... of God ... when every thing ... is .. is ... just correctly .. when we say about two thing ... as the same ... or equal for example .. and.. em .. that we must .. take .. the right em yes .. the .. the .. right of depressed .. mm uh.. oppressed people ... it means to .. to give the right of ... right of every body to him ... did you understand?

B: justice.

A: yes, that's right.

Strategies:

1-Transliteration: adjective for characteristic or quality ...

2-Def/des.: defines/describes the concept: a quality of God... the right of oppressed people, etc.

3-Transfer: the def/des is cultural/ideological-based ..

4-Chech for comp.: did you understand?

5-Confirmation: yes, that's right.

(ILb, group 18, F/F)

4.3. Results

4.3.1. Methods of Data Analysis and Measurements

Four measurements were carried out: (1) Some general calculations and comparisons were done, as preliminaries, to see if task variation and sex-linked variation cause variation in using compensatory strategies by the

subjects in each group. These were done both vertically, within the tasks and types of strategies in each group, and horizontally, between all four groups. This measurement would answer the question that task variability entails variability in the performance of SC, as part of the second research question. (2) The second measurement aimed at discovering the degree of IL-conformity with the taxonomy of SC (**the term taxonomy is equated here with the similarities of this competence established from the L1 speakers' performance, i. e. those strategies that both EL1 and PL1 speakers used in common to communicate the same referents**). This measurement was also done both across tasks and type of compensatory strategies, and L2 proficiency levels, as well. This measurement would test the first hypothesis and answer the first,and,partly, the second and the third research questions. (3) The third measurement focused on determining the degree of language differences between the use of SC in the two native languages, English and Farsi, on the one hand, and two levels of L2 proficiency, on the other. The first rationale for doing this measurement was to see how and when L1 speakers may draw upon their own cultural/ sociolinguistic properties. The second rationale,and with respect to L2 proficiency, was to find out the influence of the learners' L1 and the TL properties in the formulation and operation of IL SC, and to see if the influence of these features corresponds to the degree of L2 proficiency. Such an influence might manifest itself in processes as "transfer" and "overgeneralization", and see if the influence of these processes corresponds to the degree of L2 proficiency. These, in turn, would help in finding out the possible "IL-specific features", i. e. those features not present in L2 learners' native language, the TL and in the taxonomy. (4) Finally, the fourth measurement was done to determine the degree of effectiveness, or enhancement, of the strategies used for each task, and to see if IL has conformity with the

similarities of SC (the taxonomy) in the L1s in terms of the degree of effectiveness of the strategies.

4.3.1.1. Measurements One

A. General Calculations and Considerations

In order to carry out all the comparisons reported below, first of all, the total strategies that all the speakers used to communicate the given tasks were identified and calculated. This was done first in terms of type and number of strategies used for all the tasks and for each task separately (see appendix 1V, tables 1 and 2), and, finally, the sum of the total strategies that all groups used across the tasks and strategies themselves (see table 1). After all, two types of comparisons were carried out: (i) Comparisons of task variations, both between groups and within each group, and (ii) comparisons of sex-linked differences within each group. The reasons for doing the first comparisons were to see whether or not groups of speakers, L1 or IL, use the same or different compensatory strategies in communicating all the given tasks. Within group comparisons would allow the researcher to know if each group of speakers' SC generated the same or different compensatory strategies across various elicitation tasks. The second comparisons were specifically done, as within group comparisons, to find out whether or not sex variability causes variation in operating SC in the performance of each group of speakers. The results showed that the type and number of strategies that the speakers used were significantly different from task to task in each group. Between group comparisons, on the other hand, showed that EL1 and PL1 speakers did all the tasks almost the same, while both IL groups did significantly differently compared with L1 groups on the one hand, and with each other (ILa v.s. ILb) on the other. The second comparisons revealed no sex-linked differences in each group performing the given tasks. The sum of these two calculations in terms of type and frequency of the total

strategies that all the speakers used in each group across the given tasks have been schematically summarised in table (1). Table (2) illustrates the distribution of the type and frequency of the compensatory strategies used by each group of speakers across different tasks.

Table (1) Sum of the total compensatory strategies used across tasks and groups of subjects.

TASKS	Groups	type of strategies: linguistic	conceptual	Interactional	Total
I	EL1	77	473	370	920
	PL1	62	491	327	808
	ILa	131	547	421	1099
	ILb	236	632	561	1429
II	EL1	320	174	350	844
	PL1	363	168	330	861
	ILa	390	211	373	974
	ILb	512	266	474	1252
III	EL1	253	238	411	902
	PL1	245	233	416	894
	ILa	325	256	481	1062
	ILb	425	369	606	1400
TOTAL	EL1	650	885	1131	2666
	PL1	670	892	1073	2635
	ILa	840	1014	1275	3139
	ILb	1173	1267	1641	4081

B: The Comparisons

Having identified and tabulated the results of the speakers' performance in terms of the type and frequency of the total compensatory strategies that each group used, "two-tailed t-tests" were applied for carrying out between and within group comparisons.

Two-tailed "t-tests" were used because after all independent-group comparisons had to be done in pairs. Secondly, when the sample sizes are 30 or less than 30, two-tailed "t-tests" are more advisable than other tests

Table (2): Distributions of types of compensatory strategies used by each group of speakers across different tasks.

Strategies	Groups and Tasks											
	EL1			**PL1**			**ILa**			**ILb**		
	I	**II**	**III**	**I**	**II**	**III**	**I**	**II**	**III**	**I**	**II**	**III**
Linguistic Strategies												
Met.	-	50	64	-	70	61	-	74	68	-	94	84
Super.	55	44	46	50	58	55	41	65	47	80	81	69
Syn.	-	116	87	-	121	79	-	102	88	-	73	77
Ant.	-	52	6	-	46	12	-	48	13	-	71	18
Tot.	**55**	**262**	**203**	**50**	**295**	**207**	**41**	**289**	**216**	**80**	**319**	**248**
Ling.*	22	58	50	12	68	38	-	-	-	-	-	-
Tras.**	-	-	-	-	-	-	33	51	45	48	83	53
Traslit.**	-	-	-	-	-	-	23	27	30	87	97	103
Overgen.**	-	-	-	-	-	-	34	23	34	21	13	21
Tot.	**22**	**58**	**50**	**12**	**68**	**38**	**90**	**101**	**109**	**156**	**193**	**177**
ALL	**77**	**320**	**253**	**62**	**363**	**245**	**131**	**390**	**325**	**236**	**512**	**425**
Conceptual Strategies												
Holi.	168	47	68	180	42	60	182	57	51	185	71	70
Part.	209	-	-	213	-	-	215	-	-	265	-	-
Lin.	96	-	-	98	-	-	130	-	-	168	-	-
Anali.	-	127	170	-	126	173	-	145	162	-	189	277
W/Coi.**							20	9	5	14	6	5
Tot.	**473**	**174**	**238**	**491**	**168**	**233**	**527**	**211**	**256**	**518**	**266**	**369**
Interactional Strategies												
Cc.	95	73	67	81	70	80	141	98	124	215	153	192
Self rep.	37	42	45	30	31	48	58	49	75	107	81	104
Conf.	238	235	299	216	229	288	222	226	282	239	240	310
Tot	**370**	**350**	**411**	**327**	**330**	**416**	**421**	**373**	**418**	**561**	**474**	**606**

Abbreviations and specifications:
*= strategies used specifically by L1 speakers.
**= strategies used specifically by IL speakers.

A: Linguistic Strategies:

Met.	= Metalinguistic	Sup.	= Superordination
Syno.	= Synonym	Anto.	= Antonym
Lig.	= Lingual	Overg.	= Overgeneralisation
Tras.	= Transfer	Translit.	= Transliteration

B: Conceptual Strategies:

Hol.	= Holistic	Part.	= Partitive	Lin.	= Linear
Anal.	= Analytic	W/Coin.	= Word Coinage		

C: Interactional Strategies:

Cc.=Check for Comprehension Self rep.=Self-repetition
Conf.= Comprehension Confirmation
Tot. = Total

of comparisons such as "z-tests", ANOVA, etc., according to behaviour science statisticians (Ary et al., 1972; Ferguson, 1981; Weiss and Hassett, 1987, for example). As the authors suggest, "t-tests" and/or "z-tests" will not cause different results when sample sizes are 30, the significant number, in social/psychological studies. In many comparisons here, the sample sizes were less than 30; sometimes the same as the number of referents in each task (in measurement two,for example). However, "z-tests" were used when required (measurement four, for instance).

B.1. Task Variability

(a): Within Group Comparisons

These comparisons were done between the number of types of strategies used by each group to perform all the given tasks on the one hand, and the type and frequency of the strategies that the same group used to do each individual task on the other. The results of the former comparisons (tables 3-4) revealed that the type of compensatory strategies that the speakers in each group used were significantly different from the other type(s) of strategies that the same group used. The results of the latter comparisons showed that all the speakers in all groups used different strategies to perform various tasks. The results of the comparisons have been presented in tables (5-8).

(b): Between Group Comparisons

These comparisons were made between the four groups of speakers in terms of both the total compensatory strategies and the type of strategies that each group used. Table (9) discloses the former comparisons; for the latter, i.e. comparisons of each individual type of strategies, see appendix IV, tables (3-5).

B.2.: Within Group Comparisons: Sex Variations

It was mentioned before (4.1.3.) that each group of speakers contained two sex-subgroups, 15 males and 15

females. One factor that might affect the operation of SC in generating compensatory strategies and thereby cause the speakers to use various strategies may be gender variation. If sex variation causes different strategies to be used, then male and female speakers in each group should differ in using compensatory strategies to communicate each of the given tasks. If so, then males and females' performance should be taken into consideration as two separate groups. It was for these reasons that sex variation comparisons were accomplished. To do these, the strategies used by each male/female group in each language group were matched. The results indicated no sex-link differences in the type of the strategies that the speakers used and the strategies that they used to perform each task (tables 10-11).

Table (3): Comparisons of the type of strategies used by **EL1** speakers and by **PL1** speakers to communicate the given tasks (for both groups, within group comparisons).

Strategies: A=Linguistic B=Conceptual C=Interactional

	Groups of Comparisons					
	EL1			**PL1**		
	$\bar{X}$	SD	t-value	$\bar{X}$	SD	t-value
	A/ 21.67	2.88		22.44	2.23	
(1)	**B** 29.5	3.01	-10.3***	29.73	2.62	-11.57***
(2)	**A/** 21.67	2.88		22.44	2.23	
	C 37.7	2.08	-24.66***	35.77	2.23	-22.22***
(3)	**B/** 29.5	3.01		29.73	2.62	
	C 37.5	2.08	-11.94***	35.77	2.23	-7.65***
	n=30;	df=58		n=30;	df=58	

*=P<.05; **=P<.01 ***=P<.001

As table 3 demonstrates, both L1 groups, EL1 and PL1 speakers, used highly different strategies to perform different tasks. It was mentioned before that tables 3-6 present the comparisons carried out within each group in using various strategies to perform the given tasks. In table 3, the first comparison for EL1 shows that the total conceptual strategies that EL1 speakers used ($\bar{X}$=29.5) are more than the linguistic strategies that the same group used ($\bar{X}$=21.67). The result of a two-tailed "t-test" also displays that the difference is significant (t=-10.33; df=58; P<.001, minus [-] means that the total conceptual strategies overnumber the total linguistic strategies).

The other comparison and analysis reveals that PL1 speakers also used conceptual strategies (X=29.73) more than linguistic strategies ($\bar{X}$=22.44) in performing all the given tasks. The difference is also largely significant (t=-11.67; df=58; P<.001).

In the second analysis, linguistic strategies were compared with interactional strategies. As the results indicate, both groups used interactional strategies more than linguistic strategies. For EL1, t=-24.66; df=58; P<.001, for PL1, t=-22.22; df=58; P<.001. The same results were observed between conceptual strategies and interactional strategies in the performance of the two L1 groups. For EL1, t=-11.94; df=58; P<.001, and for PL1, t=-7.65; df=58; P<.001. Consequently, the results of all the comparisons carried out in this table lead me to conclude that (i) from a general stand-point,L1 speakers, like L2 learners (see table 4, for IL speakers) use different strategies performing various tasks, and (ii) both L1 groups used linguistic strategies less than conceptual strategies, and conceptual strategies less than interactional strategies.

Table (4): Comparison of the type of strategies used by **ILa** speakers and by **ILb** speakers to communicate the given tasks(for both groups, within groups comparisons).

Strategies: A=Linguistic B=Conceptual C=Interactional

		Groups of Comparisons					
		ILa			**ILb**		
		$\bar{X}$	SD	t-value	$\bar{X}$	SD	t-value
	A/	28.27	3.87		22.33	2.23	
(1)	**B**	33.9	2.61	-6.62***	42.23	3.73	-20.51***
	A/	28.27	3.87		22.33	2.23	
(2)	**C**	42.6	3.42	-15.24	54.7	7.03	-18.35***
(3)	**B/**	33.9	2.61		42.23	3.73	
	C	42.6	3.42	-11.02	54.7	7.03	-8.6***
		n=30;	df=58;		n=30;	df=58	

*=P<.05; **=P<.01 ***=P<.001

Table (5): Comparisons of the type of strategies used by **EL1** speakers across the given tasks.

subgroups	$\bar{X}$	SD	$\bar{X}$	SD	t-value
(1) **Task 1 v.s. 2**	30.7	2.71	28.13	2.77	3.62**
(2) **Task 1 v.s. 3**	30.7	1.71	29.8	1.44	2.19*
(3) **Task 2 v.s 3**	28.13	2.77	29.8	1.94	2.69*

n=30; df=58; *=P<.05; **=P<.01; ***=P<.001

Table (6) Comparisons of type of strategies used by **PL1** speakers across the given tasks.

subgroups	$\bar{X}$	SD	$\bar{X}$	SD	t-value
(1) **Task 1 v.s. 2**	29.43	2.04	28.8	2.97	2.88*
(2) **Task 1 v.s. 3**	29.43	2.04	30.37	2.25	-3.03**
(3) **Task 2 v.s. 3**	28.8	2.97	30.37	2.25	-2.31*

n=30; df=58; *=P<.05; **=P<.01; ***=P<.001

Table (7): Comparisons of type of strategies used by **ILa** speakers across the given given tasks.

subgroups	$\bar{X}$	SD	$\bar{X}$	SD	t-value
(1) Task 1 v.s. 2	36.63	2.46	32.47	2.19	6.93***
(2) Task 1 v.s. 3	36.63	2.46	35.47	4.1	2.67*
(3) Task 2 v.s. 3	32.47	2.19	35.47	4.1	-3.53**

n=30; df=58 *=P<.05; **=P<.01; ***=P<.001

Table (8): Comparisons of type of strategies used by **ILb** speakers across the given tasks.

subgroups	$\bar{X}$	SD	$\bar{X}$	SD	t-value
(1) Task 1 v.s. 2	47.63	3.83	41.9	3.83	5.79***
(2) Task 1 v.s. 3	47.63	3.83	46.67	6.39	2.29*
(3) Task 2 v.s. 3	41.9	3.83	46.67	6.39	5.36***

n=30; df=58; *=P<.05; **=P<.01; ***=P<.001

Table (9): Comparisons of total types of strategies used by speakers in all groups (between group comparisons).

Groups	$\bar{X}$	SD	$\bar{X}$	SD	t-value
(1) EL1/PL1.	88.93	5.16	87.87	3.64	0.92 (ns)
(2) EL1/ILa	88.93	5.16	104.5	5.57	-11.2***
(3) EL1/ILb	88.99	5.16	136.87	10.1	-23.16***
(4) PL1/ILa	87.87	3.64	104.5	5.5	-13.87***
(5) PL1/ILb	87.87	3.64	136.87	10.1	-25***
(6) ILa/ILb	104.5	5.57	136.87	10.1	-15.34***

n=30; df=58; *=.05; **=.01; ***=.001

Table (10): **Male/Female** differences in using types of strategies used by each language group speakers communicating all the given tasks.

Groups and Strategies	Subgroups **Male** $\bar{X}$	SD	**Female** $\bar{X}$	SD	t-value
EL1					
Linguistic	2.75	2.65	21.2	3.02	0.52
Conceptual	30.5	3.2	28.97	2.65	1.43
Interactional	37.4	3.1	38	1.46	-0.68
Total strats.	89.47	4.1	88.4	6.01	0.57
PL1					
Linguistic	22.1	1.94	22.6	2.35	-0.63
Conceptual	30.13	2.97	29.33	2.15	0.84
Interactional	35.87	3.34	35.67	1.78	0.21
Total strats.	88.27	4.09	87.07	2.91	0.6
ILa					
Linguistic	26.67	3.86	27.98	3.84	-0.93
Conceptual	34.13	2.78	33.67	2.41	0.48
Lnteractional	42.02	3.75	43	3.16	-0.98
Total strats.	104.53	5.93	104.47	4.98	0.03
ILb					
Linguistic	39.53	4.75	38.67	6.42	0.42
Conceptual	42.8	4.46	41.67	2.72	0.83
Interactional	53.73	6.13	55.67	7.71	-0.46
Total strats.	136.2	10.67	137.53	9.42	-0.36

n=15; df=28; *=P<.05; **=P<.01; ***=P<.001

The comparisons of sex variation showed that the total type of compensatory strategies that speakers used to communicate all the given tasks were not influenced by such variation. However, since task variation proved to cause variation in the performance of SC (tables 5-8), the results of sex difference presented above are not tenable enough to make the findings generalisable to various elicitation tasks. The dilemma had to be touched upon within each task separately to see whether or not sex variation affects or is affected by task variation in the speakers' strategic behaviour in L1 and/or IL. The results of the analysis indicated that both male/female speakers in each group, L1/IL, performed each individual

task similarly. Thus under the conditions of this experiment, sex differences did not affect L1/L2 SC in referential communication in generating compensatory strategies across various elicitation tasks (table 11).

Table (11): Male/Female differences in using compensatory strategies across the given elicitation tasks.

Groups and Tasks	Subgroups Male $\bar{X}$	SD	Female $\bar{X}$	SD	t-value
EL1					
Task I	30	1.71	29.2	2.83	1.33
Task II	27.8	2.61	28.53	3.58	-0.91
Task III	30.33	1.85	29.87	1.89	0.94
Total	89.4	4.13	87.87	5.07	1.28
PL1					
Task I	29.47	1.75	29.4	2.3	0.13
Task II	28.73		29.93		1.4
Task III	30.33		29.6		-1.3
Total	88.47	4.13	87.87	5.07	1.28
ILa					
Task I	36.6	2.58	36.67	2.33	-0.11
Task II	32.6	2.6	32.33	1.66	0.48
Task III	35.33	4.21	35.6	3.95	0.25
Total	104.53	5.93	104.47	4.98	.042
ILb					
Task I	47.43	3.57	47.53	4.06	0.2
Task II	41.27	3.49	42.53	4.06	-1.29
Task III					0.65
Total	136.3	10.67	137.53	9.42	-0.47

n=15; df=28; *=P<.05; **=P<.01; ***=P<.001

No sex difference is observed to cause the use of different compensatory strategies across different groups of L1 and/or IL speakers in the above comparisons.

In short, and to sum up the comparisons presented so far, the results of measurement one suggest some points and directions that seem to be insightful in doing the other measurements. The most significant insights are as follows:

(i): It is sufficiently clear that native speakers of the two L1s may use the same compensatory strategies to solve the same communication problems that they encounter. This shows that it is possible to abstract the commonalities/sameness of the concept in L1s to be used as a taxonomy of similarities of SC with which to examine the degree of IL conformity in SC, as has been done in the second measurements reported below.

(ii): It is evident that task variability causes variation in the operation of SC resulting in the use of various strategies, both in type and the relative frequency. This, in turn, provides us with some clear insights for doing other measurements, mainly determining the degree of IL-conformity in SC across various elicit-ation tasks. Because of such variation, in all the other three measurements, reported below, the speakers' uses of compensatory strategies were analysed within each individual task separately.

(iii): It is also clear that sex factors do not influence speakers' SC generating compensatory strategies in none of the languages involved, L1s or ILs. For this reason, no male/female separations were made between groups of speakers in analysing their strategic language behaviour in all the following measurements.

(iv): Finally, the significant differences between two groups of IL speakers suggest that, as a general consideration, L2 proficiency has close relationships with IL SC in performing various elicitation tasks, since the differences between the two groups of IL speakers in all the comparisons were significant. This means that the competence in two IL levels operates differently to generate different compensatory strategies,as it operates differently in dealing with various tasks. Such relation-ships will probably influence the degree of IL-conformity in SC with the taxonomy of the similarities of this competence in the two languages, the questions touched upon in the following measurements.

4.3.1.2. Measurement Two: IL Conformity in Strategic Competence Across Various Elicitation Tasks

As mentioned before (Chapter Three), for determining IL-conformity in the performance of L2 learners' SC, in referential communication, a taxonomy of the performance of this competence should be established from a set of primary languages. It was the position of this study that in communicating the given tasks if a particular type of compensatory strategy is used in the given L1s, EL1 and PL1 here, for the same purpose, that strategy can be established as a sample of the performance of L1 SC in the corpus set up for the study. This sameness would mean that this competence in the L1s in question is operated by the same underlying processes, which,in turn, generate the similar strategy(ies). It was hypothesized here that if this happens, IL SC will follow the same processes (IL-conformity) and thereby IL speakers will use more or less the same strategy for the same purpose as used by speakers of L1s in common. It was also hypothesized that if such conformity is observed in IL speakers' strategic behaviour--using their SC--, the conformity is not task-specific; rather, the process is generalizable to a variety of tasks. Thus, the hypotheses have to be tested across various elicitation tasks to provide enough evidence for or against them, and if they are confirmed, to reveal the degree of their generaliz_ability to different tasks and contexts. L2 proficiency, on the other hand, can provide more evidence for IL- conformity in this regard if more proficient IL speakers prove more IL-conformity both within and across various tasks.

With these points and aims in mind, the second measurement was carried out. Note that part of the first hypothesis constructed for this research, the hypothesis that task variability causes variation in the performance of SC, was supported in measurement one (tables 5-8) in that all L1 and IL speakers, used different strategies with respect to task variability.

In order to test the hypotheses within the framework of IL-conformity across different tasks and groups as the second measurement in this analysis, the following were undertaken: first, a taxonomy had to be developed out of the similarities of SC in the the performance of the speakers of the involved L1s, EL1 and PL1, with which to determine the degree of IL-conformity. To achieve this, those strategies that were used by both groups of EL1 and PL1 speakers in common to communicate the same referents in each task were exploited and listed as the taxonomy (or taxo.). Therefore, by taxonomy is meant the similarities of SC in the two L1s manifested in similar or the same compensatory strategies used by their native speakers to perform the same refernts in the same task. Secondly, those strategies which matched with the taxonomy, that is, those strategies used by IL speakers for the same purposes as used by the two L1 groups in common, were looked for in the performance of ILa and ILb speakers; each group of IL speakers were dealt with separately because of being two independent IL groups. Finally, each group of IL speakers' performance was matched with the taxonomy. This was done for each subtype of compensatory strategy (linguistic, conceptual, and interactional) that the speakers used for each referent. In each analysis, thus, three categories were matched: (i) the performance of PL1 versus EL1 speakers to find if the two groups performed the tasks similarly or differently; (ii) the taxonomy v.s. ILa and ILb to examine the degree of IL-conformity with respect to L2 proficiency levels; (iii) and finally, ILa versus ILb to find out whether the two IL levels demonstrate conformity with the taxonomy similarly or differently. Consequently, four comparisons were done for each referent in each task (1) EL1 v.s. PL1,(2) taxonomy v.s. ILa, (3) taxonomy v.s. ILb, and (4) ILa v.s. ILb. The following hypothetical example illustrates the procedures used to develop the taxonomy for these purposes.

Suppose "A", as a referent, is given to four groups of 10 EL1, PL1, ILa, and ILb speakers, to find the IL-conformity in using "X", as a compensatory strategy, to communicate the referent "A". The distributions of "X", among strategies "X", "Y", and "Z", used by all speakers are shown in table (12).

Table (12): The distribution of strategy "X" used by all groups in the example.

n	EL1	PL1	ILa	ILb	Taxo.	ILa-conf.	ILb-conf
1	X	X	**X**	Z	*	+	-
2	X	Y	X	X	-	-	-
3	Y	Z	Y	X	-	-	-
4	Z	Y	X	X	-	-	-
5	X	X	Z	**X**	*	-	+
6	Y	X	X	X	-	-	-
7	X	X	**X**	**X**	*	+	+
8	X	X	**X**	**X**	*	+	+
9	Z	Y	Y	X	-	-	-
10	X	X	**X**	Y	*	+	-
Sum	10	6	6	7	8	5	4	3

*= Taxonomy resulting from EL1 and PL1 overlap and commonalities, sameness, or similarities
+= IL is in consistent with the taxonomy and, consequently, IL-conformity occurs.

At first glance, the table says that in EL1 6, in PL1 5, ILa 7, and in ILb 8 speakers used "the strategy "X". But, using a particular strategy per se is something different from finding the one(s) that are used in common by all speakers; consequently, finding a taxonomy and determining the degree of IL-conformity with the taxonomy can not be achieved by simply comparing the languages involved. In order to find the taxonomy of SC in the above corpus, those "X"s that have been used by both EL1 and PL1 speakers in common for the same purposes had to be identified. This happened in the performance of subjects 1, 5, 7, 8, and 10, respectively. Although all speakers used "X" to communicate the referent "A", IL speakers used it more than L1 speakers; ILb used more than ILa speakers, too. The next step is to identify "X"

in the performance of the numbers of IL speakers. These happened in numbers 1, 7, 8 and 10 for ILa, and in numbers 5, 7,and 8 for ILb, in this example. Accordingly, ILa shows 4 instances of conformity with the 5 instances of the taxonomy in using "X" to refer to "A", and ILb proves conformity in three instances. As a result, both IL groups have displayed conformity with the taxonomy, with ILa having more conformity. The same procedures have been applied in this measurement to examine the degree of IL-conformity with the similarities of SC in the two L1s across the three tasks and two levels of L2 proficiency. That is, for each referent, first, a taxonomy was developed. Secondly, the same strategy was detected in the performance of both ILa and ILb speakers communicating the same referent. Finally, ILa and ILb speakers' strategies were matched with the taxonomy to find out the possible instances of IL-conformity in the performance of each group.

4.3.1.2.1. Task One: IL-Conformity in Using Types of Strategies Across Referents

The number of those strategies that were used by EL1 and PL1 speakers for each referent of the task, the similarities of these strategies held as the taxonomy, and those strategies used by ILa and ILb speakers for the same referent conforming with the taxonomy were identified and calculated (see appendix IV, table 10). For linguistic strategies, superordination strategies were the only ones used by all groups of speakers communicating this task. They, were, therefore, the only strategies of this type used for measuring the degree of IL-conformity in 8 referents of this task.

For conceptual strategies, all the speakers relied on holistic, partitive, and linear strategies in performing the referents of this task. The interactional strategies were: "check for comprehension", "self-repetition", and "comprehension confirmation". Table (13) shows the results of comparisons carried out for each

type and subtype of strategies used in this task. Consider the following examples, in which both IL groups show conformity with what is used by both EL1 and PL1 in common, strategies have been underlined:

(a) EL1:
* "emm... the first one ...looks like er...emm...**a hammer** ... **with er... two sharp handles on the sides**... "

(b) PL1:
(original versions)
* " er...i:n ekl mesle emm...**yeik er..chākosh āst... bâ yeik dāsteh keh be tārāfe pâi:n miâyād...**"

(Translated versions)
--"er.. this shape is like emm **hammer ... with a** handle coming down..."

(c) ILa:
* " er...this picture is... emm.. seems like emm... a uh.. **an axe o..r a em... a hammer** with **a..a short... emm...handle that comes down side** and **emm... has er...two sharp... points**..."

(d). ILb:
* " mmm ...I think this picture er...is very like er... a **shoe..**.and em...**has two part**... or like er...a ...a emm **axe o...r a er...hammer**... **with short emm...hand**...er ...may be emm...broken....

As the given examples illustrate, the same holistic strategies were used by L1 speakers; both assimilated the intended referent to a **"hammer"**. If this happened in the corpus of L1 groups, it was abstracted as commonalities of SC in L1s, and thus, as part of the taxonomy of the performance of this competence among the L1s invoved in this study, English and Farsi. IL speakers also made the same or similar assimilations and therefore used the same or similar holistic strategies as the L1 speakers used in common. Thus, to this extent, IL SC conforms to the similarities, or taxonomy, of SC in the L1s.

Having established the taxonomy of the strategies, two-tailed t-tests were applied to compare the IL groups. The results tabulated in table 13 indicated that although both IL groups have conformity with the taxonomy to certain extend, more proficient IL speakers (ILa) have stronger conformity than less proficient (ILb). Using the

Table (13): The comparisons of SC in EL1/PL1 and measurements of IL-conformity with the taxonomy of L1 SC in the performance of ILa and ILb speakers in Task (I).

Groups	$\bar{X}$	SD	$\bar{X}$	SD	t-value
Linguistic (Superordination) Strategies					
EL1/PL1	6.88	3.18	6.25	3.4	04;
Taxo./ILa	4.5	2.24	3.5	1.73	1
Taxo./ILb	4.5	2.24	2.5	087	2.35*
ILa/ILb	3.2	1.73	2.5	087	1.03
Conceptual Strategies					
Holistic Strategies					
EL1/PL1	21	5.68	22.5	3.39	-0.45
Taxo./ILa	18.13	3.92	17.25	3.5	0.52
Taxo/ILb	18.13	3.92	13.75	1.92	2.84**
ILa/ILb	17.25	3.5	13.75	1.92	2.45*
Partitive Strategies					
EL1/ PL1	26.13	7.13	26.63	7.03	0.14
Taxo./ILa	22.25	6.34	20	6	0.73
Taxo./ILb	22.25	6.34	17.25	5.83	1.64
ILa/ILb	20	6	17.25	5.83	0.93
Linear Strategies					
EL1/PL1	12	1.87	12.25	4.32	0.15
Taxo./ILa	9.5	2.18	8.38	2.12	1.04
Taxo./ILb	9.5	2.18	7.38	1.73	2.16*
ILa/ILb	8.38	2.12	7.38	1.73	1.04
Interactional Strategies					
Check for Comprehension					
EL1/PL1	11.88	4.4	10.13	2.98	0.93
Taxo./ILa	9.38	3	7.88	2.62	1.06
Taxo./ILb	9.38	3	7.63	2	1.41
ILa/ILb	7.88	2.62	7.63	2	0.21
Self-repetition					
PL1/EL1	4.63	3.16	3.75	3.46	0.53
Taxo./ILa	2.25	1.2	1.5	.071	1.53
Taxo./ILb	2.25	1.2	2	1	0.45
ILa/ILb	1.5	.071	2	1	-1.16
Comprehension Confirmation					
PL1/EL1	29.75	.066	27	1.8	4.04
Taxo./ILa	25.75	1.71	24.88	2.03	0.93
Taxo./ILb	25.75	1.71	25.75	1.71	0.00
ILa/ILb	24.88	2.03	25.75	1.71	-0.93

n=8; df=14; *=P<.05; **=P<.01; ***=P<.001

same procedures, a second comparison was made between the taxonomy and the total conceptual strategies that all the speakers used for task one. This comparison also confirmed the IL-conformity with the taxonomy across the number of subjects rather than the number of referents in this task (see appendix IV, table 11).

Since table 13 is the first table to report the results of statistical analyses and comparisons undertaken to find out the degree of IL-conformity with the taxonomy of SC, a fuller commentary will help in understanding the results presented in this and the other tables in this measurement. As mentioned before, for each strategy, in this measurement, four comparisons were carried out: (1) EL1 v.s. PL1 to see if the two L1 groups used their SC similarly or differently; (2) the taxonomy v.s. ILa to test IL-conformity in SC of higher proficiency L2 learners; (3) the taxonomy and ILb to test the IL-conformity in SC of lower proficiency L2 learners; (4) finally, ILa v.s. ILb to see if higher L2 proficiency level demonstrates more conformity with lower L2 proficiency level, and see if the differences are significant.

The only linguistic strategies that all groups used in task one were superordination strategies. The table shows that EL1 (X=6.88) and PL1 (X=6.25) used these strategies in the same way (t=0.4; df=14; P<--). The difference between the taxonomy and the ILa speakers' SC is not significant either. This indicates that ILa conforms to the taxonomy of SC in using these strategies. ILb, on the other hand shows no conformity with the taxonomy. The comparison between ILa and ILb illustrates that the former has more conformity with the taxonomy than the latter, though the difference is not significant (ILa/ILb, t=1.03; df=14; P<.1). The same comparisons were undertaken for conceptual strategies. For holistic strategies, again, ILa speakers' SC was largely in compatible with the taxonomy, while ILb speakers' SC does

not have conformity with the taxonomy. For taxo./ILa, t=052; df=14; P<--, and for taxo./IL t=2.84; df=14; P<.01. The ILa/ILb comparison also reveals that ILa has more conformity with the taxonomy than ILb (t=2.45; df=14; P<.05). For using partitive strategies, both IL groups conform to the taxonomy, with ILa having more conformity than ILb, although the difference is not significant (t=0.93). For using linear strategies, ILa speakers' SC demonstrated conformity to the taxonomy; ILb speakers' SC did not (taxo./ILa, t=1.04; P<.1; for taxo./ Ilb, t=2.16; df=14; P<.05).

The third group of strategies that were compared in this table, were interactional strategies. As the table displays, both ILa and ILb speakers' Sc conforms to the taxonomy of SC. Surprisingly, ILb shows a bit more conformity than ILa,but the difference is not significant (ILa/ILb, t=-0.93).

From all the comparisons reported in this table, it can be concluded that in performing the abstract shapes IL SC conforms to the taxonomy of this competence to a large extent, with ILa demonstrating stronger conformity than ILb, as predicted in the second hypothesis in this study.

As shown in table (13), in most of the comparisons, no significant differences were found between the performance of ILa speakers' SC and the taxonomy in task one. ILb speakers' SC, on the other hand, preserved more significant differences with the taxonomy.

The only exceptions seem to be the speakers' strategic behaviour in using interactional strategies in which both ILa and ILb groups demonstrated similar conformity with the taxonomy. In some cases, namely, in using "self-repetition" and "comprehension confirmation" strategies, ILb speakers showed more conformity with the taxonomy than ILa speakers. This happened not only in speakers' uses of such strategies in this task, but for the referents of tasks two and three as well.

4.3.1.2.2. Task Two: IL conformity in Using Types of Strategies Across Referents

The same procedures as used in task one were applied to establishing the taxonomy of SC and determining the degree of IL-conformity across groups of IL speakers in task two. The subtypes of linguistic compensatory strategies used by all four groups were "metalinguistic", "superordination", "synonym",and "antonym" with different relative frequency of use for all the referents of this task. Most of the conceptual strategies were partitive componential analytic, a few holistic ones were used for this task. Interactional strategies were all the three subtype strategies of this type (appendix IV, table 12). The results the comparisons are addresses in table (14). For comparisons of total linguistic and conceptual strategies, see appendix IV, tables 13-14).

Table (14): Computations of IL-conformity with the taxonomy of SC in the performance of ILa and ILb speakers in Task (II).

Groups	$\bar{X}$	SD	$\bar{X}$	SD	t-value
Linguistic Strategies					
Metalinguistic Strategies					
ELI/PLI	6.25	2.82	8.75	2.59	1.85
Taxo./ILa	5.5	2.29	4.38	1.93	1.06
Taxo./ILb	5.5	2.29	1.88	1.36	3.85**
ILa/ILb	4.38	1.88	1.93	1.36	2.99**
Superordination Strategies					
EL1/PL1	5.5	5.24	7.25	2.05	0.88
Taxo./ILa	3.5	1.87	3.25	1.79	0.27
Taxo./ILb	3.25	1.75	2.5	1.32	0.97
ILa/ILb	3.25	1.75	2.5	1.32	0.84
Synonym Strategies					
EL1/PL1	14.5	9.14	14.75	7.4	0.06
Taxo./ILa	13.13	7.99	9	7	1.37
Taxo./ILb	13.13	7.99	5.63	3.57	2.43*
ILa/ILb	9	7	5.63	3.57	1.21
Antonym Strategies					
EL1/PL1	6.5	4.82	5.38	4.3	0.49
Taxo./ILa	4.88	4.65	3.63	4.24	0.56
Taxo./ILb	4.88	4.65	2.88	2.93	1.03
ILa/ILb	3.63	4.24	2.88	2.93	0.41
IL- conformity in Total Linguistic Strategies					
EL1/PL1	27.25	9.83	28.75	8.12	.033
Taxo./ILa	27	9.22	22.5	7.25	1.08
Taxo./ILb	27	9.22	13.25	4.84	3.74**
ILa/ILb	22.5	7.25	13.25	4.84	3**
Conceptual Strategies					
Holistic Strategies					
PL1/EL1	5.86	1.83	5.25	1.56	0.72
Taxo./ILa	4.38	.099	4.13	0.93	0.52
Taxo./ILb	4.38	.099	2.38	0.7	4.65****
ILa/ILb	4.13	.093	2.38	0.7	4.65****
Analytic Strategis					
EL1/PL1	15.88	4.81	15.75	5.04	0.053
Taxo./ILa	13.25	4.68	11.88	4.2	0.68
Taxo./ILb	13.25	4.68	10	2.98	1.82
ILa/ILb	11.88	4.2	10	2.98	0.98
IL-conformity in total Conceptual Strategies					
EL1/PL1	9.13	3.98	8.75	2.59	0.23
Taxo./ILa	17.62	4.92	16	4.53	0.69
Taxo./ILb	17.62	4.92	11.75	3.56	2.73*
ILa/ILb	16	4.53	11.75	3.56	2.1
Interactional Strategies					
Check for Comprehension					
EL1/PL1	9.13	3.98	8.75	2.59	0.23
Taxo./ILa	6.25	2.33	5.88	2.26	0.32
Taxo./ILb	6.25	2.33	5.75	2.54	0.41
ILa/ILb	5.88	2.26	5.75	2.54	0.11
Self-repetition					
EL1/PL1	3.88	2.8	5.25	1.85	1.18
Taxo./ILa	2.63	0.99	2.	0.71	1.47
Taxo./ILb	2.63	0.99	2.13	0.6	1.25
ILa/ILb	2	0.71	2.13	0.6	0.34

n=8; .df=14; *=P<.05; **=P<.01; ***=P<.001

4.3.1.2.3. Task Three: IL-Conformity in Using Types of Strategies Across the Referents

The taxonomy of SC was developed in the same ways as those used in tasks one and two (appendix IV, table 15). Then the ways in the which two groups of IL speakers had activated their SC were looked upon within the framework of IL-conformity. Table (15) reports the results of statistical analyses for these purposes (for the results of determining IL-conformity in using total linguistic, conceptual, and interactional strategies across the number of subjects, see appendix IV, tables 16-18).

The results of the analyses presented in this measurement seem to suggest that as far as the general aspects of SC (here restricted to the languages involved in this study) are concerned, this competence in L1 speakers of different linguistic background overlaps and operates the same/similarly to a large extent. As table (13) illustrates, the phenomenon in the two different L1s is activated largely similarly and in many instances in the same way when EL1 and PL1 speakers are exposed to the same communication problems and attempt to solve them. In other words, the linguistic and/or conceptual (cognitive) processes underlying the strategic planning and executing phases of lexical problem-solving mechanisms are processed in relatively the same ways. The results of comparisons carried out for task one spell out and evidence how L1 SC across languages is activated in the same way to generate the same/similar conceptual strategies to solve problems arising from unconventional, abstract,shapes. In all comparisons the "t-distributions" illustrate the least differences between the two groups of IL speakers using conceptual and linguistic (superordination) strategies (table 13). This, of course, should not lead one to ignore those possible (socio) linguistic and cultural-based features of SC peculiar to each individual language under investigation (see measurement three, below). Such a similarity, however, was not observed between the two ILa and ILb groups; they did

Table (15): Computations of IL-conformity with the taxonomy of L1 SC in Task (III).

Groups of Comparisons Groups	$\bar{X}$	SD	$\bar{X}$	SD	t-value
Linguistic Strategies					
Metalinguistic Strategies					
EL1/PL1	6.4	3.58	6.78	3.62	-0.28
Taxo./ILa	4.5	3.23	3.7	2.83	0.66
Taxo./ILb	4.5	3.23	2.22	2.11	1.78
ILa/ILb	3.7	2.83	2.22	2.11	1.11
Superordination Strategies					
EL1/PL1	4.4	2.42	5.5	2.54	-0.89
Taxo./ILa	3.2	1.99	2.4	1.36	1.19
Taxo./ILb	3.2	1.99	1.7	1.1	2.42*
ILa/ILb	2.4	1.36	1.7	1.1	1.27
Synonym Strategies					
EL1/PL1	8.7	2.42	7.9	4.68	0.7
Taxo./ILa	5.8	4.94	4.9	4.16	0.49
Taxo./ILb	5.8	4.94	2.6	2.37	2.19*
ILa/ILb	4.9	4.16	2.6	2.37	1.76
IL-Conformity in total Linguistic Strategies					
EL1/PL1	20.1	9.47	20.7	7.18	-0.18
Taxo./ILa	13.9	6.19	11.3	4.65	1.2
Taxo./ILb	13.9	6.19	7.1	3.34	3.56**
ILa/ILb	11.3	4.65	7.1	3.34	-2.56*
Conceptual Strategies					
Holistic Strategies					
EL1/PL1	6.8	2.14	5.1	2.21	1.95
Taxo./ILa	3.2	2.14	2.1	1.3	1.78
Taxo./ILb	3.2	2.14	1.8	1.17	2.3*
ILa/ILb	2.1	1.3	1.8	1.17	0.61
Analytic Strategies					
EL1/PL1	17	7.32	17.2	5.25	0.08
Taxo./ILa	13.1	5.58	10.6	5.02	0.9
Taxo./ILb	13.1	5.58	7.5	4.2	2.53
ILa/ILb	10.6	5.05	7.5	4.2	1.49
IL-confmity in Total Conceptual Strategies					
EL1/PL1	23.8	6.13	22.3	4.31	0.71
Taxo./ILa	16.3	4.61	12.5	4.25	2.13
Taxo./ILb	16.3	4.61	8.8	3.99	4.36
ILa/ILb	12.5	4.25	8.8	3.99	2.24
Interactional Strategies					
Check for Comprehensin					
EL1/PL1	6.7	2.76	8	2	-1.37
Taxo./ILa	4.9	2.39	3.4	2.06	1.69
Taxo./ILb	4.9	2.39	3.1	2.43	1.88
ILa/ILb	3.4	2.06	3.1	2.43	0.33
Self-repetition					
EL1/PL1	4.5	1.96	4.8	2.48	0.34
Taxo./ILa	2.5	1.5	1.3	1	2.4*
Taxo./ILb	2.5	1.5	1.7	1.27	1.45
ILa/ILb	2.3.	1	1.7	1.27	-0.89
Comprehension Confirmation					
EL1/PL1	30	0	28.8	0.6	10***
Taxo./ILa	28.8	0.6	27.3	0.9	5***
Taxo./ILb	28.8	0.6	28.8	0.6	0
ILa/ILb	27.3	0.9	28.8	0.6	-4.29
IL-conformity in total Interactional Strategies					
EL1/PL1	41.2	3.71	41.5	4.18	-0.19
Taxo./ILa	36.2	2.93	31.4	2.77	3.75**
Taxo./ILb	36.2	2.93	31.9	2.71	3.41
ILa/ILb	31.4	2.77	31.9	2.71	-0.41

n=10; df=18; *=P<.05; **=P<.01; ***=P<.001

most of the items (referents) significantly differently compared to the taxonomy, depending on their L2 proficiency.

It is in these general aspects of SC that IL shows, to a certain extent,conformity (depending on the task and IL proficiency),with the taxonomy. In task one (table 13) the comparisons between the taxonomy, and IL groups show that both groups of IL speakers used some compensatory strategies that are in agreement with the taxonomy with more proficient IL speakers (ILa) demonstrating more conformity than less proficient IL speakers (ILb). The comparisons between EL1 and PL1 groups show that the former used 55 and the latter 50 superordination strategies in communicating all the eight referents of this task (appendix IV, table 10); statistical data also supports no difference at all (t=0.4; df=14; P>.2, table 13). The taxonomy discloses that in 36 instances the same strategies were used in exactly the same way by the two groups of L1 speakers to solve exactly the same communication problems. IL speakers' performance was matched with the taxonomy; the results illustrated no differences between the taxonomy and ILa speakers' use of superordination strategies (t=1; df=14; p<.2), while, ILb speakers operated significantly differently (t=5.88; df=14; P<.001).

In conceptual strategies, the conformity was much stronger, particularly in ILa speakers' performance. According to table (13), ILa speakers used holistic strategies in task one almost the same as the taxonomy (t=052; df=14; p>.2); whereas, ILb group demonstrated the least conformity in using holistic strategies for the same task (t=2.84; df=14; P<.01). Thus "the most" and "the least" degree of conformity of the two ILs with the taxonomy in using holistic strategies are more fully revealed when they are compared with each other as shown in table (13), in which the difference is significant (ILa/ILb; t=2.39; df=8; P<.05). In conceptual partitive strategies, L1 speakers used these strategies in the same

way (t=0.14), and both IL speakers' strategic behaviour proved to be in agreement with the taxonomy, though, as expected, ILa speakers' indicated heavier conformity than ILb speakers'. For the former, (t=073; df=14; P>.2) and for the latter (t=1.67;df=14; P<.1). But the difference between the IL groups was not significant (t=0.93; df=14; P<.2). In using linear strategies in this task, ILa speakers proved slightly better conformity with the taxonomy than ILb (see table 13).

The interactional strategies were exceptions, with regard to IL-conformity, in that both IL groups' SC conformed with the taxonomy, in spite of their different L2 proficiency levels. For interactional strategies, the comparisons (appendix IV, table 10) and statistical data presented in table (13) showed little differences between the two groups both in the degree of IL conformity and degree of L2 levels. The same phenomena were observed in tasks two and three in this measurement.

The linguistic strategies that all language groups used in common for task two, though different in relative number and frequency, were metalanguage, superordination, synonym, and antonym. The analyses carried out (table 14) showed that the conformity of ILa with the taxonomy in using metalinguistic strategies was stronger than that observed in ILb; while, for superordination strategies both IL groups proved strong consistency and agreement with the taxonomy. ILa speakers' SC in using synonym strategies was in more agreement with the general principles underlying this competence than that of ILb speakers. Antonym strategies, on the other hand, were used with almost the same conformity to the taxonomy by both the IL groups. For taxo./ILa, (t=0.56; df=18; P>.2), and for taxo./Ilb, (t=1.03; df=14; P<.1).

The most frequently relied on conceptual strategies in task two by all four groups were "componential analytic" ones, in which the speakers analysed the given concepts into *their* components, or semantic features, and defined, described, and/or explained the components, or

features accordingly. Holistic strategies were rarely used in this task, particularly compared with task one (for possible reasons see discussion, 4.4.). In holistic strategies, ILa speakers displayed stronger conformity with the similarities of SC (taxonomy) than ILb. However, analytic strategies conformed with the taxonomy in the perfromance of the two IL levels; ILa was stronger (for ILa, t=0.68; for ILb, t= 1.82; df=14; P<.1), and the degree of consistency of the two L2 levels was not significant, however (ILa/ILb, t=0.98; df=14; P<.2). The degree of IL-conformity in using interactional strategies in this task was the same as the one observed in task one, mentioned before, both IL groups showed the same/similar conformity matched against the taxonomy.

In task three, the case of IL-conformity is slightly different, particularly, regarding the two levels of IL proficiency. The type of linguistic and conceptual strategies used in task two, were also used by all groups in communicating all the ten referents of this task. As table (15) indicates, both IL groups demonstrated conformity with the taxonomy in using most of these linguistic/conceptual strategies. The only exceptions are "superordination" strategies, in which ILa SC disclosed better conformity with the similarities of the L1s than ILb, contrary to what happened in task two. For the former (t=1.19; df=18; P<.2), and for the latter (t=2.42; df=18; p<.05). In using synonym strategies, ILa SC, as expected and observed in task two, appeared to have more conformity with the taxonomy than ILb, the latter was significantly different from the taxonomy (t=2.19; df=14; P<.05, see also table 14). The antonym strategies used by L1 speakers in this task and found in the taxonomy were too few (see appendix IV, table 12), to be worth being taken into consideration in statistical analysis in this measurement.

Given the conceptual strategies, all the speakers relied more on componential analytic strategies than holistic ones communicating this task. The results of the

comparisons undertaken to determine the degree of IL conformity denoted that ILa speakers' performance is more closely related to the taxonomy than ILb speakers', since the difference between the latter's performance and the taxonomy was significant ($t=2.53$; $df=18$; $P<.05$). The use of analytic strategies, on the other hand, proved to have relatively the same conformity with the taxonomy in both IL groups' SC (tables 14 and 15).

Contrary to the linguistic and conceptual strategies used in this task, ILb speakers' SC demonstrated more consistency with the taxonomy than that of ILa speakers in using most of interactional strategies. In some cases, ILa performed significantly differently from the L1s; while, ILb presented the least differences (in using self-reprtition strategies, for instance). Even where the difference between the similarities of EL1 and PL1 or the taxonomy and ILa was significant in using one particular type of interactional strategies, ILb speakers performed exactly the same as the taxonomy (in comprehension confirmation, for example, $t=0$). The comparison between ILa and ILb in terms of the degree of IL-conformity also suggest that ILb is more correspondent to the taxonomy than ILa in using interactional strategies in task three (ILa/ILb, $t=-4.29$; $df=18$; $P<.001$).

4.3.1.3. Measurement Three: Strategic Competence and Language Differences

In this measurement, two analyses were undertaken to determine how differences in languages, for L1 speakers, and in the degree of L2 proficiency, for IL speakers, affect the performance of SC. The first analysis deals with comparing language groups in using the type and subtypes of linguistic and conceptual compensatory strategies across various tasks. The second analysis was done with respect to the language-specific features of this competence in each separate language; that is, those strategies that were used by each group relying on the specific (socio)linguistic-based properties of their SC.

Remember that those compensatory strategies that L1 speakers used relying on the specific (socio)linguistic and cultural features of their own language were referred to as "lingual" strategies in the taxonomy of compensatory strategies (see 4.2.). For IL speakers, the IL-based strategies were heeded as (linguistic) transfer, transliteration, overgeneralisation, and conceptual word creativity, or word coinage, strategies.

The results presented before in measurement 2, suggest that all the speakers in each group sorted out certain strategies of all types in common. In the present measurement it was also revealed that there are quite certain features of the competence specific to each particular language, which when operated, specific language-based strategies emerge and are emitted from the performance of its native speakers to solve communication problems. In this regard, IL, as a natural language, has also some IL-based specific features of it own. It is not, therefore, surprising that the speakers of a particular language use certain specific features of SC in compensating for the lack of enough linguistic resources in encoding and executing the particular planned strategies to convey the intended meanings and avoid the break down of communication. They, in other words, draw upon their own (socio)linguistic or cultural features to linguistically materialise the underlying processes of thier SC, mainly, when the general features or properties of SC in the languages are not sufficient at their disposals. That is, the speakers of different languages may conceptualise particular concepts or referents (in referential communication) similarly and attempt to communicate them in the same or similar ways (Coggin et al., 1994; de Bot et al., 1995). In doing so, they use the analogies and semantic features that are partly shared by languages and partly specific to their own linguistic and cultural repertoire (Goodluck, 1991) to make up for the deficits of the necessary linguistic resources.

It was evidenced in measurement two that both groups of L1 speakers use holistic strategies to assimilate the given referent, or draw an analogy between the target referent and a conventional concrete object, more specifically for unconventional shapes. To linguistically materialise the concept,they,at the same time,may utilise their own (socio)linguistic or cultural repertoires and communicate the intended meanings correspondingly. The following protocols clarify the fact:

The speakers who say "...em.. mm ..**it's like a sort of hat** that er..emm.. **judges wear in the court...**" to refer to "wig" [EL1s, passim, task 3, ref.9], and those who say "... er..mm.. it's like a...er.. **something** ... a **woollen hat that...**'Loores' [a regional nation in the south of Iran] **shepherds wear**...particularly in the winter..." [PL1, passim, task 3, ref.9], are actually using the same conceptual, holistic, strategies. They nevertheless, refer to their cultural features in the linguistic realisations of what they have conceptualised, or simply in the surface structures of their discourses. Put another way, in conceptualising the referent (or concept), both speakers approach the refents from the holistic point of view, and attempt to find and use some resemblance to communicate the intended referent. To make analogies they refer partly to some semantic features of the referent shared by other languages, and partly to their own (socio)linguistic or cultural features which at their disposal may best fit in with the problem. It is in these processes that language differences, i. e. language specific features, manifest themselves. IL speakers also approach the referent holistically and conceptualise it more probably in the same manners, but in the linguistic realisations or materialisations of what has been conceptualised they may use "transfer","transliteration" "overgeneralisation" or coin a word out of their L2 knowledge to stand for the intended concept. These can be partly manifested in the following IL speakers' protocols in referring to the same referent, "wig": (1)"... er...

mm ... it is emm ... **like a hat** ... but .. but .. not a usually no ... an ordinary hat... like er... **a veil** [overgen.] that bald people ... em ... wear ... for... to ... cover their hairs .. uh no ... **their heads**". (2) "... it is .. is a thing ... emm ... o..r instrument .. o..r a hat that ... **sheep-keepers** <shepherds> (word coin.) **in .. in .. Loorestan** [a State in the South of Iran] wear" [ILa speakers, M/M Group. 7].

Compare the above protocols extracted from EL1, PL1, and IL speakers. It seems as if they express the same thing regarding the deep structures of the utterances. In the surface structures, they rely partly on the specific features of their own language, or ILs, to construct the linguistic realisations of the utterances. A Farsi native speaker knows that judges do not usually wear particular hats in the courts in Iran; and if they do, it is not the one to stand for or resemble the target referent, the "wig", though they may know that it is usual in other countries (England, for example) as seen in translated films on TV or in the cinema. They hence rarely use such resemblance or analogies to refer to the intended meaning, because they know that the analogies will hardly work to identify that referent for the PL1 listeners. Instead, the speakers use local, national, cultural or other features to make assimilations or to draw analogies. Conversely, EL1 speakers do not hesitate to use such a resemblance or analogy because they know that the listeners will understand what the speakers mean, as it is a well-known national, social, or cultural phenomenon in English regarding the law-court disciplines in England.

IL speakers in their attempts to find appropriate analogy or simile may transfer their own sociolinguistic, local, national, or cultural properties, or generalise inappropriately particular target items to making resemblance for the target referents. In the examples provided above, the IL speakers who refer to a local, geographical entity (**Loorestan**,for example) are seemingly

transferring L1 social pragmatic features in linguistically executing the planned and constructed compensatory strategies. By the same token, when IL speakers use **"veil"** to refer to "hat" and then relate the hat to **"wig"** they are likely overgeneralising the former to the latter for the same purposes; using **"sheep-keeper"** for **"shepherd"** is an example of the process of word coinage in this regard. In short, it seems that the underlying processes that operate SC to generate and plan particular compensatory strategies are to a certain extent the same across the two languages. But the ways in which the processes are linguistically manifested in executing the planned compensatory strategies are different to the extent that (socio)linguistic and/or cultural factors specific to each language influence the operations of the SC. In what follows, I shall provide some examples extracted from the performance of each group of speakers, L1 and IL, to illustrate the point more precisely.

This measurement, as mentioned before, encompasses two interrelated analyses:(i) In the first analysis the numbers of each strategy used for the referents of each task were compared across groups; consequently, for each strategy, 6 comparisons had to be performed: EL1 v.s. PL1, EL1/ILa, EL1/ILb, PL1/ILa, PL1/ILb, and ILa/ILb. (ii) In the second analysis,the focus was on the specific aspects (properties) of SC across different languages in terms of comparing the use of certain specific language-based strategies peculiar to each language group. In this analysis, L1 differences were sought between EL1 and PL1 speakers, in using "lingual" strategies on the one hand, and L2 differences between ILa and ILb speakers in using "IL-based" strategies, on the other.

In the analyses, the comparisons were done both across the referents, or the number of the strategy used for the referents in each task, and between the speakers theselves, i.e. the total strategy that speakers used for all the refernts in each task. Table (16) reports the sum of statistics carried out regarding the former

comparisons, for the latter and the results of "t-tests" in detail in both analyses see table (9, measurement one) and appendix IV, tables (7-9).

Table (16): Comparisons of subtypes of compensatory strategies used by four language groups for the referents of tasks 1,2,& 3.

Strategies	Groups of Comparisons					
	EL1/PL1	**EL1/ILa**	**EL1/ILb**	**PL1/ILa**	**PL1/ILb**	**ILa/ILb**
			Task One			
			Conceptual Strategies			
Holi.	-0.6	-0.6	-0.85	-0.1	-0.50	-0.16
Part.	-0.13	-0.2	-2.02	-0.067	-1.87	-1.84
Lin.	-0.14	-2.19*	-6.43****	-1.65	-4.31*+	-2.18*
			Interactional Strategies			
Cc.	0.88	-2.48*	-8.42****	-4.14*++	-12.41*+	-5.2*+
Self.	0.5	-1.54	-6.29****	-1.97	-5.91*+	-4.83*+
Cpm.	5.29*+	5.56*+	-0.38	-1.3	-5.91*-	-4.83*+
			Task Two			
			Linguistic Strategies			
Meta.	-1.85	1.94	-2.25*	-0.33	-037	-1.1
Super.	-0.96	-1.07	-2.19*	-0.53	-1.37	-1.03
Syno.	0.06	0.43	2.29*	0.55	2.16*	2.22*
Anto.	0.49	-0.19	-0.82	-0.26	-1.25	-0.97
			Conceptual Strategies			
Holi.	0.75	-1.48	-3.25*+	-2.29*	-3.86*+	-1.92
Analit.	0.53	-1.18	-4.1*+	-1.24	-4.02*+	-3.1***
			Interactional Strategies			
Chec.	0.25	-1.64	-6.29*+	-2.12	-8.8*+	-4.65*+
Self.	1.18	1.22	-3.13***	-3.2***	-7.33*+	-3.7***
Comp.	1.34	2.4*	-1.59	0.66	-3.51***	-7*+
			Task Three			
			Linguistic Strategies			
Meta.	-0.28	0.26	1.72	-0.013	1.4	1.27
Super.	-0.89	-0.32	-1.86	0.38	-1.15	-1.92
Syno.	0.7	-0.061	0.54	-0.43	-1.18	0.44
Anto.	-1.82	-1.52	-2.67**	-0.21	-1.54	-0.98
			Conceptual Strategies			
Holi.	1.05	1.95	-0.2	1.15	-1.16	-1.96
Parti.	0.8	0.35	-5.35*+	0.43	-5.63*+	-7.14*+
			Interactional Strategies			
Chec.	-1.14	-5.28*+	-11.68*+	-5.64*+	-14.55*+	-7.56*+
Self.	0.34	-4.22***	-7.38*+	-3.14***	-6.02*+	-4.75*+
Com	6*+	7.5*+	-1.72	-1.88	-3.61***	-4.44*+

Tasks I and II, n=8; df=14; Task III, n=10; df=18

*=P<.05; **=P<.02; ***=P<.01; ****=P<.001; *+=P<.001

In table 16, as shown, for each strategy, the results of six comparisons have been presented. Accordingly, for holistic strategies in task one, no differences were found between groups of L1 or IL speakers using these strategies; all groups used such strategies relatively similarly. For partitive strategies, the ILb speakers used more strategies than both EL1 and PL1; however, the difference is not significant (for EL1/Ilb, t=2.02; df=14; P<.1, for PL1/ILb, t=-1.87; P<.1). The difference between ILa and ILb is not significant, either (t=-1.84; df=14; P<.1). The most considerable differences were found between groups in using linear strategies. The two L1 groups were the same (t=-014); ILa speakers used linear strategies significantly differently from EL1 speakers (t=-2.19; df=14; P<.05). Such a difference was also crucial between EL1 and ILb; that is, the ILb speakers used linear strategies highly more frequently than EL1 and PL1. For the former, t=-6.43; df=14; P<.001, for the latter, t=-4.31; df=14; P<.001. The ILb speakers used more conceptual strategies than ILa performing task one in this measurement (t=-2.18; df=14; P<.05).

For interactional strategies in task one, the two IL groups used check for comprehension (cc) strategies similarly, but both groups used the same strategies significantly more than the L1 groups (EL1/ILa, t=2.48; P<.05; EL1/ILb, t=-8.42,P<.001, PL1/ILa, t=-4.14, P<.001; PL1/ILb, t=-12.41, P<.001). The comparisons also show that ILb used significantly more "cc" strategies than ILa (t=-5.2; df=14; P<.001). For using self-repetition strategies, according to this table, the ILb speakers used these strategies more frequently than both EL1 and PL1 (EL1/ILb, t=-6.29; df=14; P<.001, PL1/ILb, t=-5.91, df=14; P<.001). ILb speakers drew upon these strategies more than ILa speakers (t=-4.83; df=14; P<.001). The differences between the language groups are heavier in using comprehension confirmation strategies. EL1 speakers

used them largely more than PL1 (t=5.29, P<.001), and ILb (t=5.56, P<.001), while EL1 and ILb used these strategies similarly (t=-0.38, df=14; P<.--).

In task two, ILb speakers used metalinguistic and superordination strategies significantly more than L1 speakers. For metalinguistic strategies, t=-2.25; df=14; P<.05; for the latter strategies, t=-2.19; df=14; P<.05. On the other hand, L1 groups and ILa speakers used synonym strategies similarly; all used them highly more frequently than ILb speakers (EL1/ILb, t=2.29, P<.05; PL1/ILb, t=2.16; df=14; P<.05; ILa/ILb, t=2.22, P<.05. Antonym strategies were used by all groups with no significant differences. For conceptual strategies, ILb exceeded both L1 groups and ILa in using holistic strategies (EL1/ILb, t=-3.25; df=14; P<.001; PL1/ILb, t=-3.86; df=14; P<.001), however, the difference between the two IL groups using these strategies is not significant (t=-1.92; P<. 1). The same processes can be observed for using analytic strategies, with ILb using more strategies than ILa (t=-3.1; df=14; P<.01). For interactional strategies, in this task, the two L1 groups used all the strategies of this type with no significant differences. ILa speakers used check for comprehension strategies more than both EL1 and PL1, but the differences are not significant (for EL1/ILa, t=-1.64; df=14; P<.1; for PL1/ILa, t=-2.12; df=14; P<.1). ILb speakers,on the other hand, used these strategies significantly differently from EL1 (t=-6.29; df=14; P<.001), PL1 (t=-8.86, P<.001), and ILa (t=-4.65; P<.001). In using self-repetition strategies, ILa speakers outnumbered only PL1 speakers (PL1/ILat=-3.2; df=14; P<.01); while, ILb group, again, drew upon these strategies significantly heavier than other groups (for EL1/ILb, PL1/ILb, and ILa/ILb, t=3.13; P<.01, t=-7.33; P<.001, and t=-3.7; P<.01, respectively). In using comprehension check strategies, ILa group used these strategies significantly more than EL1 group (t=2.4; df=14; P<.05), while the difference between EL1 and ILb is not significant (t=-1.59; df=14; P<.1). ILb

speakers, however, used these strategies significantly more than PL1 (t=-3.51; P<. 01) and ILa (t=-7; P<.001).

For task three, as the table illustrates, only ILb speakers outnumbered EL1 speakers in using antonym strategies (t=-2.67; df=18; P<.02). Although ILb used more superordination strategies than EL1, the difference is not significant (EL1/ILb, t=-1.86; df=18; P<.1). No significant differences are observed between all the groups using other types of strategies in this task. For conceptual strategies, all groups drew upon holistic strategies with no significant differences, though ILa used them more than both EL1 (t=1.95, P<.1) and PL1 (t=-1.16; P<.1); ILb used these strategies more than ILa (t=-1.96; df=18; P<.1). The number of partitive strategies that ILb employed exceed those used by EL1 (t=-5.35; df=18; P<.001), and PL1 (t=-5.63; df=18; P<.001). ILb speakers also drew upon these strategies more frequently than ILa speakers (t=-7.14; df=18; P<.001).

Considering the use of interactional strategies in task three, as the table presents, L1 groups used check for comprehension and self-repetition strategies with no significant differences, though PL1 used check for comprehension more than EL1 (t=-1.14; df=18; P<.1). For IL groups using interactional strategies, as seen, ILa speakers used check for comprehension strategies highly more than EL1 (t=-5.28; df=18; P<.001) and PL1 (t=-5.64;df=18; P<.001). ILb speakers also employed these strategies significantly more than the other groups, EL1 (t=-11.68; df=18; P<.001), PL1 (t=-14.55; P<.001),and ILa (t=-7.56; P<.001). The same differences were observed in the performance of IL speakers in using self-repetition strategies,in which both ILa and ILb used such strategies highly significantly more than L1 groups, and ILb drew upon them more than ILa speakers. For EL1/ILa, t=-4.22; df=18; P<.01, and PL1/ILa, t=-3.14; df=18; P<.01, and for EL1/ILb, t=-7.38; df=18; P<.001, PL1/ILb, t=-6.02; df=18; P<.001, and ILa/ILb, t=-4.75; P<.001. For using comprehension confirmation strategies, the cases are different.

First of all, the difference between the two L1 groups in using these strategies is significant (t=6; df=18; P<.001). EL1 speakers drew upon these strategies more heavily than ILa group (t=7.5; df=18); whereas, ILa used them more than PL1, though the difference is not significant (t=-1.88; df=18; P<.1). ILb speakers, on the other hand, used comprehension confirmation strategies differently from the other groups. The difference between ILb and EL1 was not significant (t=-1.72; df=18; P<.1), while the differences between ILb/PL1, and ILb/ILa were significant (PL1/ILb, t=-3.61; df=18; P<.01, and ILa/ILb, t=-4.44; df=18; P<.001).

The results presented in this table, generally speaking, indicate that language differences, between L1 speakers, and different L2 proficiency between L2 learners, entail variation in the performance of SC both in L1 and IL. Furthermore, the results reveal that in many cases, less proficient L2 learners use more strategies than both more proficient L2 learners and L1 speakers.

It is worth mentioning here that in task one linguistic strategies were not taken into consideration, since superordinations were the only strategies of this type relevant to the analysis; only a few ones were used by the speakers.

As table (16) displays,in task one all the speakers, L1 or IL, using conceptual strategies significantlymore than linguistic ones, relied first on holistic strategies and employed them in almost the same number and frequency. The results also show no differences between L1 and ILa groups using partitive strategies; ILb speakers, yet, resorted to these strategies more than other groups. L1 speakers used the same linear strategies (t=-0.14), while IL groups used them differently from L1 speakers; ILb speakers used linear strategies more than ILa group (t=2.18). Both L1 groups used the same interactional str tegies,except for comprehension confirmation, IL speakers used check for comprehension strategies differently from L1 speakers and from each other. In self-repetition strategies, such diffrences were observed only between ILb speakers compared with the other groups. Check for Comprehension strategies were not used differently by EL1 and ILb groups, but significantly differenly by other groups matched with the former and with each others.

The results sketched in table (16) also tell that linguistically, metalanguage and superordination strategies were used slightly differently by different groups, but except for EL1/ILb the differences are not significant. Synonym strategies were used similarly by EL1, PL1 and ILa speakers, but differently by the ILb group compared with the ILa. Antonym strategies, on the other hand, were used with no differences by all language groups. Conceptual strategies were also employed differently by IL speakers from each other and from L1 speakers. The results show that EL1 and PL1 used holistic strategies for this task with the least differences (t=0.75), the differnce between EL1 and ILa using these strategies was

not singificant either. ILb speakers used them considerably more than L1 groups, and more frequently than ILa, though not significantly (t=-1.92). In relying on analytic strategies, ILb used them significantly differently compared to other groups, while the latter performed the task with no differences in employing such strategies. For interactional strategies, in this task, IL groups drew upon check for comprehension and self-repetition more than L1 speakers; ILb used more than ILa, too (t=-4.65; t=-3.7, respectively). Comprehension confirmation stra-tegies, on the other hand, were employed by IL speakers differently from EL1 speakers (t=2.4) and ILb from PL1 group (t=-3.51); ILb used these strategies more than ILa (t=-7; df=14; P<.001).

The results also indicate that in task three only ILb speakers used antonym strategies significantly differently from EL1 group. In conceptual strategies, the least differences were observed between EL1/ILb using holistic strategies in this task (t=0.2), and the most between ILa and ILb groups (t=-1.96), however none of the differences was significant. Interactional strategies that were used by all groups during communicating this task interrelate to those used in previous tasks, particularly task one.

4.3.1.2.3.1. Strategic Competence and L1 Differences

One aspect of language communication is the fact that speakers use those features belonging to their own (socio)linguistic and/or cultural proliferations. These features are usually called "language specific" features of communication (Roberts,1986).These features are rarely convertible into another language, as far as aspects of communicative competence, and in this study SC, are concerned, especially when the languages in question are highly distant and different from each other (English and Farsi, for example). The speaker who refers to such concepts as "boy friend", "girl friend" to explain the meaning of "jealous" as an abstract concept, is actually

referring to his/her cultural/sociolinguistic background, or features, i.e. the things that relate to his/her own society, culture, and consequently is used in his/her socialised language--the language used in the society. These concepts are hardly compatible with any other group's (Farsi speakers',here) sociolinguistic proliferations because of their social/cultural boundaries. An Iranian Persian-speaking boy is not in contact with the opposite sex before marriage in Iranian societies, neither is a girl. So, these concepts are scarcely used by a Farsi native speaker in Iran, at least in a formal social interaction, though they understand them when used by English native (or other) speakers. To draw analogies on some religious concepts relating to specific features of and particular ceremonies in "Church" or Christianity such as "Father Christmas", "Christmas Eve" and its particular clothes or parties, specific architectural plans used in churches in England all are other examples of these sociolinguistic/ cultural features affecting SC of EL1 speakers' doing the given tasks.

PL1 speakers, on the other hand, referred to some language properties specific to their own language and social/cultural identities. As a society in which Islam is the dominant religion,or ideology, PL1 speakers relied on particular Islamic features in defining or describing the concepts, particularly in task two. In some cases they described the concepts exactly in the same way as defined in the Islamic texts, influenced by the Quranic verses, interpretations of the verses, or the traditions narrated from the prophet and so forth. In some instances the speaker communicated the given referents as if s/he is talking about morality or ideology. Some examples will be given below.

It was mentioned that,in addition to some strategies shared by all languages, L1 speakers used some strategies with reference to their own linguistic or cultural properties to compensate for the lack of necessary linguistic resources in communicating the referents. In

the performance of SC of EL1 and PL1 speakers in this experiment, it was observed that both groups used these properties as parts of compensatory strategies to solve their language communication problems. The comparisons of the two languages show that such linguistic and cultural-based entities bring about the surface realisations of the strategies to be different, though conceptually they may be of the same underlying processes responsible for generating the strategies themselves,as mentioned before. The following examples reveal how both EL1 and PL1 speakers referred to their (socio)linguistic or cultural properties to linguistically materialise the given referents, at least with the referents of more cultural and/or sociolinguistic burdens. Notice the abbreviations used for these purposes (Ts.=task; ref.=referent; G.=a group of two interlocutors in each group; M/M; male/male communication; and F/F=female/female interaction).

EL1	**PL1** (Translated versions;for Persian versions, see appendix V.)
Task One	
* "er...emm...it's like a bit like mm.. **royal mail logo/sign**.. or a "w" shaped object... (ref. 7; G. 4. M/M).	* "er.. it's like two figures ... sevens <**V**> **in Farsi**... connected to each other.." (ref.,7; G.2,M/M).
* "... it's like...er.. **part of TV.. break signs**... particularly in ITN programmes ... (Ref.,7, G. 14, F/F)	* " it's em... like a sort **of the roof of the mosques** or the ..mm..**vault/dome** of sacred shrine with emm.. two curved .. bases..emm coming down of the sides.. (ref.6; G.12; F/F)
* "em.. it's like s sort of mm arrow at the top with a kind of er.. of **Christmas tree** in the middle (ref. 6, G. 12, F/F)	* "..mm..take it upside down it is like er...**the symbol** in... the middle of the mm **flag of** ...of... **Iran**" (ref.7; G. 24, F/F)

Task Two

* " er.. you've **got a girl** ...and the girl keeps emm looking at the guys... and you start getting very..er angry and ..erm.. become upset because she is looking at the guy... (G.16;M/M,ref.1, jealous).

* "emm... if you've got a **boy-friend** and... you've seen your boy friend being with somebody else I mean ... another girl for... what emm.. would you feel... (F/F; ref.1) (ref. 1= Jealous)

* "it's what **our society** is emm ... is based on... we believe that emm... our society is .. is based on for economy... and we hope ...always... to have emm this condition..." (G.,12; M/M; ref.2, Justice)

* " it's got a **religious** connotation ...means ... rescue...rescue from sinful life... when you erm. believe in **Jesus Christ**.. you will achieve this..." (G.,16:7; M/M; Salvation)

* "er.. this is a **quality** that is seen in people er... who mm.. do not like other people to have good and high positions in the society a...nd em always like higher position for themselves ... it is a very bad quality in **Holy Qur'an** and emm... in the **Prophet's traditions** ... and conducts...emm.. Muslims have been advised to avoid of...of being so (G. 8; F/F; ref.) (ref.1= Jealous)

*"... it's one of the **characteristics of God..** and the prophets have.. been sent to establish this er...**in the society means to give everybody** his/her **own right**... or what s/he is eligible... to have and emm.. is of his/her own right...." (G.18;F/F;ref.2,Justice)

*"this concept has er... **religious and Islamic** em connotations ... it relates to the Day of Judgment...means a person who has satisfactory and..and religious conduct...this can rescue him/her...emm from sinful life..." (G.13:7; M/M Salvation)

Task Three

* " er...mm... beach...emm **exporter ... a story...** what **animal's Peter...**" (G.2:3; F/F; rabbit)

* "emm... **in the tale of beatrix** ... er... the animal who is Petter ...." (G., :3;M/M; rabbit)

*"er..this is the name of an animal that is famous **in...Kelileh va Demneh [The Fox and The Lion]** fables ...spreads the news through the forest for ... running very fast...and er ... is famous for... for emm... fast running and.. sleeping very much...." (G.9:2; F/F; rabbit)

In the above examples, both L1 language groups attempt to convey the same meanings to their interlocutors dealing with the same referents. Doing these, they both conceptually approach the referents seemingly in the same way, holistically, analytically, partitively or linearly, depending on the nature of the referents. But to linguistically embody the concepts, in addition to those common language properties, they use certain linguistic signals and cultural features specific to their own sociolinguistic proliferations.

In identifying and exploiting compensatory strategies in the performance of L1 SC it was observed that L1 speakers used lingual strategies in all the three tasks. However, depending on the nature of the referents in each task, they used such strategies differently. Table (17) displays the number of these lingual compensatory strategies emerging from the lingual-based properties of L1 strategic competence

Table (17): Lingual Strategies used by EL1 and PL1 speakers to communicate each task.

	Tasks			
Groups	**Task 1**	**Task 2**	**Task 3**	**Total**
EL1	22	58	50	130
PL1	12	68	38	118

As the table illustrates, the least lingual strategies were used for task one, unconventional/abstract shapes; the most ones were used for task two, abstract concepts. Totally, both groups used almost the same strategies. The results of statistical comparisons also approved this sameness in using lingual strategies by the two language groups in terms of number of tasks (table 18) and number of the subjects themselves (table 19).

Table (18): statistical comparison between EL1 and PL1 in using Lingual strategies for tasks one, two, and three.

Groups				
EL1		PL1		
$\bar{X}$	SD	$\bar{X}$	SD	t-value
43.33	18.9	39.33	28.02	0.21(ns)
n=3;		df=4;		

Table (19): Statistical comparisons between EL1 and PL1 in using Lingual strategies in terms of subjects.

Groups				
EL1		PL1		
$\bar{X}$	SD	$\bar{X}$	SD	t-value
4.33	1.93	4.05	1.34	0.65 (ns)
n=30;		df=58;		

4.3.1.3.2. Strategic Competence and L2 Differences: Different L2 Proficiency Levels

IL speakers also used certain strategies specific to their own IL profiles. These were either transliteration or lingustic/pragmatic trasnfer resulting from the influence of their L1 properties on their IL performance, overgeneralisation offshooting from learners' L2 knowledge affecting their SC, and/or word coinage created by IL speakers out of their L2 lexical knowledge stimulating this competence. In the following, I shall provide some examples of transcribed protocols extracted from both IL groups' performance in dealing with the given tasks to show the strategies in the context. In each protocol, those linguistic signals that denote particular strategies have been typed in bold.The intermingled strategies of this type have been put into square brackets [...], and the target item for which the strategies stand have been written into angle brackets <...>; the task and referent numbers appear under each protocol.

TRANSLITERATION

ILa	ILb
* "... this picture .. is.. er... like er... UFO ... em... with a... er.. one **anten** [anten]<antena> . ... and ... Task 1, ref. 2, G. 19, M/M)	* "it is ... er .. like a... **flying plate** <flying saucer> er.. with two em.. er ..**teeth** <points, or blades) (Task 1, ref.2, G.3, M/M)
* "... it is like ... a .. a **ship** <bout>[overgen.] or somthing like ... er..a **caragy** [k r dzi:] <canoe> in Persian .. with some... wave lines at the bottom (Ts.1, ref.3 G. 6, M/M).	* ".. this picture ... is em like .. emm... **rays of the sun** <spikes> ... that draw emm.. the sun that .. that the children draw... (Ts.1, ref.4, G.9, M/M).
* " this one .. er... is an **adjective** <quality/characteristic> for a person..who are.. who has..hope about the future..." (optimism) (Ts. 2, ref.6, G. 24, F/F)	* ".. it is em..an **adjective** <quality> .. of God ..and human being ... when emm.. everything is ...just corectly ..." (justice) (Ts. 2, ref. 2, G.15,M/M)
* "...if you look at a emm.. **draw** <painting> you will find it er... to have er this ... " (beauty) (Ts. 2, ref. 8, G.19, F/F)	* "... it's good face er... have a **moony** <moon-like> face... " (beauty) (Ts. 2, ref. 8, G.30, F/F)

TRANSFER

ILa	ILb
* "...this ... is er..like em.. UFO ..er... with a er.. one **anten** [anten] <antena> ..and ... " (Ts. 1, ref. 2, G. 19, M/M)	* "... in this picture... we see... er... two triangles ... a .. like .. the right ...picture ..we see a line that triangle two ..and er makes ...**number** <77> in Farsi or a W-shape..." (Ts. 1, ref. 7, G.29, F/F)
* ".. er this has a er ... religious meaning if you believe **in God and er ... done all principles in Quran** ... you will reach to it in this world and other world" (salvation) (Ts. 2, ref.7, G.21, M/M)	*"... if you do all the er.. **Islamic principles ..orders** .. you will erm ... have it in **this world . . or in the next world...**" (salvation) (Ts. 2, ref. 7, G.6, F/F)
* " ...it is emm a kind of **light-giver** <window> in the shops that er... the shop keepers put goods em...**behind**<in front of> it for people .. who..to	* "...erm.. someone ... that has no hair .. in em...his head ... and ... his **hairs has ... been falling** <losing hair> ... he has... no em..hair at all..." (bald)

ermm ... to **shop** <buy> (Ts. 3, ref. 8, G.8, F/F)
[overgen.]..."
(Ts. 3, ref.4, G. 30, M/M)

OVERGENERALISATION

ILa

* ".. er... it's like ... **a ship** <boat> in the sea a emm ... a bare ship..." (Ts. 1, ref. 3, G.12,F/F)

* ".. it's like a emm .. a shirt.. a T-shirt without em.. sleeves a...nd emm **neck** <collar> ... usually young boys wear ... " (Ts. 1, ref. 5, G.29, F/F)

* ".. it's a bad character- istic of ... of human be- ing ... which a person may think ... some goos things about another person ..emm and say good things ...emm while er...s/he is present but... em.. means that s/he is **hypocrite** <flattery>..." (Ts. 3, ref. 4, G.19, F/F)

* "...it referes to a **saler or merchant** <salesman> emm a person .. who er... sells goods to other people..." (Ts. 3, ref.6, G.21, F/F)

ILb

* " ... if we er.. take this emm... **vice versa** <turn it the opposite side> this .. picture is like ... the em neck of two birds..." (Ts. 1, ref. , G.1 F/F)

* " ...it is like er..**a clue** <key> with two **hands**<arms> ... in the foot <at the bottem>[transli.] ..." (Ts. 1, ref. 2, G. 8, M/M)

* "... this concept...refers to the emm... er.. court.. judgement ... a judge em.. should be a **justic** <just> person...or like a teacher who ...is justic about the students ..." (Ts. 2, ref. 2, G,28, F/F)

* "...it is a person ... or a **sewer** <tailor> ... whose **work** <job> [transfer.] ... is em...to sew clothes ... for another emm..people.." (Ts. 3, ref. 6, G.25, M/M)

WORD COINAGE

ILa

* " ... if you turn it ... the other...side...it is like...a **torcher** <torch, torch-light> ... used in ancient time..." (Ts.1, ref.8, G.20,M/M)

ILb

* "... this shape is like... a boat with... two...er... **rounding** <curved> lines in emm... two sides..." (Ts. 1, ref. 3, G. 24, F/F)

* "...it's like a er...shirt ... with emm ... no **hands coverer** <sleeves> ..." (Ts. 1, ref. 5, G.28, F/F)

* "... it is a concept that is... means ... **in pain-feeling** <sympathy> with other people..."
(Ts. 2, ref. 5, G.13, F/F)

* "... This word er... means to...to uh... a thing or a person...with .. uh ..that have emm ... a er... **finy appearance** <beauty>..."
(Ts. 2, ref.8, G.13, F/F)

* "...it's a ... a **waving dress** ... o..r a skirt <splited skirt> that usu-ally er...women and girls wear..."
(Ts. 3, ref.3, G.27, M/M)

* "...it... refers... means a **clother** <tailor> erm... a person emm... who makes clothes for peoples..."
(Ts. 3, ref.1, G.29, F/F)

Both groups used these IL-marked strategies in communicating the given tasks. The comparisons between the two groups, nevertheless, revealed that the frequency of using these strategies differred from one group to the other. Some strategies were used by ILa group more frequently than ILb; others were used by the latter more than the former. Table (20) explicitly demonstrates the differences between the two groups in using IL-based strategies for each task.

Table (20):IL-based compensatory strategies used by both ILa & ILb communicating each task.

Strategies	Tasks and Groups							
	Task 1		Task 2		Task 3		Total	
	ILa	**ILb**	**ILa**	**ILb**	**ILa**	**ILb**	**ILa**	**ILb**
Transfer	33	48	51	83	45	52	129	183
Tranlit.	23	87	27	92	30	103	80	282
Overgen.	34	21	23	13	43	21	91	55
Word coin.	20	14	9	6	43	23	72	43

To determine the degree of differences in statistical terms, two tailed t-tests were applied. Then two comparisons were undertaken: (i) the differences between IL groups in using IL-based strategies across the referents in each task, as demonstrated in table (21). (ii) The differences between IL groups in using total IL-based strategies across the subjects themselves (n=30), table (22) illustrates the differences in this regard more explicitly.

As shown, ILb speakers used transfer strategies slightly more than ILb speakers for all tasks, but the differences are not significant. Noticeably, in doing the tasks ILb speakers' use of transliteration strategies significantly outnumbered ILa speakers' (P<.01 for task one and P<.001 for other tasks). Conversely,the ILa group exceeded the ILb group in using overgeneralisation (P<.01,for tasks 2 and .05 for tasks 1 and 3).In task one both groups used only a few word coinage strategies, with no considerable differences (t=0.80, 1.06, respectively). In task three, however, ILa speakers used word coinage strategies significantly more than ILb speakers (t=3.09; df=14;P<.001,see also table 22).The differences, however, are interestingly considerable in so far as the performance of IL SC in different L2 proficiency levels are concerned. The phenomenon will be discussed in detail later (see discussion section, 4.4., and chapter five, 5.2., 5.3.).

Table (21) : Comparisons Between ILa and ILb in using IL-based compensatory Strategies across the referents in tasks I,II,and III

Strategies	Groups of Comparisons ILa X	SD	ILb X	SD	t-value
	Task One				
Transfer	4.13	1.45	6	3.28	-1.58 (ns)
Translit.	2.88	1.54	10.88	6.64	-3.32***
Overgeneral.	4.25	1.95	2.63..	0.86	2.22*
Word-Coinage	2.5	2.24	1.75	1.5	0.8 (ns)
	Task Two				
Transfer	6.38	4.44	10.38	6.74	-1.43(ns)
Translit.	3.38	1.49	12.13	4.59	-5.12*+
Overgeneral.	3.13	1.25	1.25	1.06	3.24*
Word-Coinage	1.13	1.96	0.75	1.3	0.46(ns)
	Task Three				
Transfer	4.5	4.2	5.2	4.77	0.39(ns)
Trasnlit.	3	2.49	10.3	4.08	-4.83*+
Overgeneral.	3.4	1.8	2	1.06	2.19*
Word-Coinage	4.3	1.9	2.2	0.98	3.09***

Tasks I and II, n=8; df=14; Task III, n=10; df=18

*=P<.05; **=P<.02; ***=P<.01; ****/*+=P<.001;

Table (22): Comparisons between ILa and ILb in using total IL-based strategies in terms of the number of subjects.

	Groups of comparisons				
	ILa		ILb		
Strategies	$\bar{X}$	SD	$\bar{X}$	SD	t-value
Transfer	4.3	2.63	6.1.	3.96	-2.06 (ns)
Translit.	2.67	1.38	9.4	5.08	-7.01 *+
Overgen.	3.03	2.16	1.83	0.89	2. 79*
Word coin.	2.4.	1.11	1.43	0.76	3.88***

*=P<.05; **=<.02; ***=<.01; *+=<.001; n=30 ; df=58

4.3.1.4. Measurement Four: Degree of Effectiveness

At the outset of this study (chapter one), it was argued that the relationship between compensatory and enhancement strategies is that of cause and effect, or type and degree,not type and type. That is,"compensatory" and "enhancing" are not two "types" of strategies generated from the underlying strategic ability; they are, rather, cause and effect in the planning and executing phases of compensatory strategies, at least in referential communication. Therefore, to the degree that a compensatory strategy, particularly a linguistic or conceptual one, can compensate for the shortage of linguistic resources, and convey the intended meanings in the absence of the appropriate lexical items, that compensatory strategy is at the same time enhancing. For example, a speaker, L1 or IL, may use a synonym for a referent, say "salvation", and utter ["...er..it means emm...rescue ... rescue from sin.."] or a superordination signal and say ["emm... it's (an abstract) word...or concept..."] to compensate for the unaccessibility of a suitable lexical item at his/her disposal. But the degree to which these two may be effective, and hence enhancing, to convey the meaning is different; therefore, the degree of their effectiveness is different. Thus, to determine the "degree" of enhancement of a particular "type" of

compensatory strategy, is to determine the degree of effectiveness of that strategy and vice versa.

Naturally, every speaker, L1 or IL, wants to be effective in language communication. The findings of this study reported so far proved that both L1 and IL speakers use compensatory strategies to solve communication problems as soon as they are confronted with, and thereby make their communication as effective as possible. To achieve these, they plan and execute strategies at their best disposal , partly depending on the nature, or semantic features, of the referents, and partly depending on their proficiency in the language being communicated, and perhaps, their world knowledge. Such strategies, however, are not equally effective/enhancing, because they are not equally compensatory; some strategies are more compensatory or effective, and hence more enhancing, than others, as the above example confirms.

In this measurement,Bialystok's (1990) and especially Poulisse's (1989) methods of studying the effectiveness of strategies (see chapter two, 2.4.), with some essentially necessary modifications, were adapted to determining the degree of effectiveness of the subjects' strategies in the context of use. For each group of subjects, two groups of three native speaker judges were asked to judge the speakers' use of strategy. For IL speakers, the judges were English native speakers. In addition, two groups of three Farsi-speaking university English tutors with at least five years of teaching experience were referred to for evaluating those IL-based strategies used by IL speakers. From the corpus of each task a number of transcribed protocols were randomly selected. The possible strategies that were identified in the protocols, according to the taxonomy used in this study, were underlined and given to the judges.

The study was done in two phases: a guessing phase and an evaluating phase; each with possible instructions and directions. In the first phase, the judges were given the protocols with the underlined strategies.The intended

referents for which the strategy had been used by the speakers were given to the judges in the form of multiple choice items, one choice the referent itself (as the key) and others the distractors. For the narrative task, the key and distractors were given to the judges in quasi-cloze and fill-in the blank tests to fill-in each blank by using the correct key to make it meaningful. The judges were to read each protocol and as soon as they encountered the underlined strategy, try to guess the intended referent among the alternatives (the same thing as the listeners in the experiment were supposed to do). Then:

(i) The percentages of the correct choice made by the judges were identified and used as the criteria to score the degree of effectiveness of strategies according to the following five-point scale

Criteria	**Degree of correctness (scores)**
1-If the strategy was expressive enough to lead more than 80% of the judges to the correct choice/guess.	(5)
2-If the strategy could lead more than 60% of the judges to the correct choice/guess.	(4)
3-If the strategy could lead more than 40% of the judges to the right choice/guess.	(3)
4-If the strategy could lead more than 20% of the judges to the right choice/ guess.	(2)
5-If the strategy could lead none or at most one of judge to the right choice/guess.	(1)

(ii) The judges were asked to indicate the degree of in/dependency of each strategy,i.e. whether each strategy can be relied on independently or not.This was to be done by writing the following letters on the strategy or tick it in the answer sheets: (I) to mean independent, if it

conveys the meaning independent of other strategies, (M) to mean moderate, if it can convey the meaning independently but not as clearly as independent strategies; in other words,if the judges can only guess the referent via the strategy, or (D) to mean dependent if the strategy is dependent on other strategies and is not sufficiently expressive by itself to identify the referent.

In the second phase, the evaluating/assessing phase, the judges were asked to read the speakers' performance, compare it with the referents to be identified and score each underlined strategy that they came to from four to one (4-1), where 4, means that the referent is perfectly easy to understand via the strategy, and 1 means that it is absolutely impossible to understand the referent via the strategy. To be more objective, the judges were given the following scale.

Degree of Effectiveness	**Criteria**	**Scores**
(a) The most effective:	If the referent is definitely identifiable, or it is perfectly easy to identify the referent via the strategy.	**(4), or 100%**
(b) Quite effective:	If the referent can be identified correctly via the strategy but not as easily as in (a); the strategy leads the judge to a highly possibly right guess.	**(3), or 75%**
(c) Less effective:	If the referent can only be guessed;if the judges's choice is only a guess-work.	**(2), or 50%**
(d)The least effective:	If it is absolutely impossible to understand the referent via the strategy; the judge can neither identify the referent nor make a guess-work.	**(1), or 25%**

Using these procedures as instruments, the degree of effectiveness of strategies used by the subjects in this

study was demarcated in each task and applied to the analyses in this measurement, as reported below.

Three analyses were carried out in this measurement: (i) The first analysis aimed to determine the degree of effectiveness of each strategy in terms of calculating the mean scores that each strategy received from the two guessing and evaluating phases, the percentage of the means and some statistical comparisons (tables 23 and 25, for task 1; tabls 26-27, for tasks 2 and 3). (ii) The second analysis aims to see if IL demonstrates conformity with the degree of effectiveness of strategies used by the L1 speakers in common on the one hand, and with the degree of L2 proficiency on the other, (table 30). (iii) Finally, the third analysis focused on language differences and the degree of effectiveness of strategies to see how much 'lingual' strategies, for L1 speakers, and 'IL-based' strategies, for IL speakers, are or might be effective from the judges' points of view (table 25, appendix IV, table 19).

A. 1. Task one: In task one and with respect to the first analysis, for each group of speakers 45 protocols, out of the total 240 ones in the corpus, were randomly selected for the purposes of judgements. In this task, only conceptual strategies were the focus of the measurement. Linguistic strategies were excluded, since only a few superordination strategies of this type had been used. Table (23) reports the mean scores ($\bar{X}$) that each conceptual strategy received from the judges in the two phases, the number of strategies identified in the selected protocols (=n), the standard deviations (=SD) and the percentages of the scores (=%) determining the degree of effectiveness of each strategy.

The qualitative comparisons between groups of speakers in using types of conceptual strategies denoted that using conceptual strategy by L1 speakers in each group has been evaluated as more effective than using the same strategy by IL speakers, though in some parts, the differences are not statistically significant (table 23).

Table (23): Mean scores, Standard Deviations, No. of strategies, and the percentage of degree of effectiveness of each strategy used by four groups of subjects in the selected protocols from task one used for this measurement.

	Groups of Speakers							
	EL1		**PL1**		**ILa**		**ILb**	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
Strategies								
Holi.	4.23	0.31	4.18	0.26	3.14	0.21	4.08	0.23
n & %.	35/ 84.6%		38/ 83.6%		35/ 82.6%		31/ 81.6%	
Part.	4.06	0.33	4.18	0.29	4.03	0.19	3.96	0.23
n & %	36/ 81.2%		83/ 83.6%		32/ 80.6%		33/ 79.2%	
Lin.	3.79	027	4.03	0.3	3.91	0.22	3.86	0.25
n & %	24/ 79.4%		26/ 80.6%		30/ 78.2		32/ 77.2%	

It seems that holistic and partitive strategies are relatively equally effective as used by each group and evaluated by the judges. Both of them have been more effective than linear strategies from the judges' point of view. Such differences have been also supported by the percentages of in/dependency of strategies (table 24). The former have been evaluated to be more independent, perhaps because they are more effective than the latter, linear strategies.

For statistical comparisons between groups in terms of the degree of effectiveness of strategies they used, two tailed t/z-tests were relied on. The results revealed (table 25) that EL1 speakers' uses of holistic strategies were judged to be significantly more effective than that of ILb speakers using the same strategies. PL1 speakers, on the other hand, were evaluated to be significantly more effective in using partitive strategies than lower proficiency (ILb) learners. The degree of effectiveness of other strategies was also recognised to be slightly different by the judges in the two phases, but the differences were not significant.

Table (24): Percentage of the degree of Dependence and/or Independence of Conceptual Strategies in task one, as determined by the judges.

Groups/ strategies		% of Dependency Indep.	Depen.	Mod.	Unans.	total
EL1	Holi.% / n	88.57/31	--	5.71/2	5.71/2	100/35
	Part. " "	86.1/31	5.56/2	5.56/2	2.78/1	100/36
	Lin. " "	75/18	8.33/2	6.67/4	--	100/24
PL1	Holi. " "	86.85/33	--	7.89/3	5.26/2	100/38
	Part. " "	89.48/34	2.63/1	5.26/2	2.63/1	100/38
	Lin. " "	65.38/17	11.55/3	15.38/3	7.69/2	100/26
ILa	Holi. " "	82/29	5.71/2	5.71/2	5.71/2	100/35
	Part. " "	81.13/26	9.37/3	9.37/3	--	100/32
	Lin. " "	62.34/20	10/3	13.33/4	3.33/1	100/30
ILb	Holi. " "	80.65/25	6.45/2	9.67/3	3.22/1	100/31
	Part. " "	28.29/26	9.09/3	12.1/4	--	100/33
	Lin. " "	57.57/19	15.16/5	18.8/6	9.09/3	100/33

Abbreviations:
1. Indep.= Independence of/Independent Strategies
2. Dep. = Dependence of/Dependence Strategies
3. Mod. = Moderate dependence of Strategies
4. Unans.= Unanswered items/strategies

Table (25):t/z-values of statistical comparisons between Degrees of Effectiveness of strategies used by each group of speakers in task one.

Strategy	Groups EL1/PL1	EL1/ILa	EL1/ILb	PL1/ILa	PL1/ILb	ILa/ILb
Holi.	0.75	1.47	2.24*	0.89	1.69	0.92
n=	EL1=35	PL1=38	ILa=35		ILb=33	
Parti.	-1.67	0.35	1.25	1.47	3.55***	1.35
n=	EL1=36	PL1=38	ILa=32		ILb=33	
Lin.	0.74	0.88	1.49	1.69	2.21*	0.078
n=	EL1=24	PL1=26	ILa=30		ILb=32	

*=P<.05 **=P<.2 ***=P<.01 *+=P<.001

According to the results of the above statistical comparisons, in using the holistic strategies, EL1 speakers were judged to be significantly more effective than ILb speakers using the same strategies ($z=2.24$; $P<.05$). PL1 speakers also employed significantly more effective Partitive strategies than ILb speakers applying the same strategies.

On the whole, L1 speakers were assessed to be slightly more effective in their uses of conceptual strategies than ILa speakers who, in turn, were more effective than ILb speakers using the same strategies. Thus, the use of conceptual strategies among groups of L1 and IL subjects can be hierarchically schematised as follows:

EL1

==> L1s > >>> ILa > >>> ILb

PL1

Furthermore, the conceptual strategies themselves were compared across groups in terms of their degrees of effectiveness demarcated by the judges. The results, summarised in tables (23, 24, 25) indicate that in performing task one speakers relied first on holistic strategies, as the most effective, then partitive strategies, (with the exception of PL1), and at last linear strategies, as the least strategies, from the judges' points of view. Thus, the degree of effectiveness of conceptual strategies can be put into the following hierarchical schemata:

The most Effective ----------> The least Effective

EL1: Holistic > >> Partitive > >> Linear

PL1: Holistic// = Partitive > >> Linear

ILa: Holistic > >> Partitive > >> Linear

ILb: Holistic > >> Partitive > >> Linear

In sum, from the findings of the statistical analysis, the following schemata can be ruled out as a generalisation among the four groups of speakers in this experiment using conceptual strategies:

L1s/=IL: Holistic > >>> Partitive > >>> Linear

A.2. Tasks Two and Three: Tasks two and three were considered here together because the same sub/types of

compensatory strategies were under investigation in this analysis. The analysis and comparisons were done in the same procedures as used for task one. For each task and from the corpus of each group, 30 protocols , out of 240 ones, were randomly selected, the possible identified strategies in each protocol were underlined and presented to the groups of judges. The sub/type and frequency of each strategy that were found in the protocols are illustrated in table (26).

Table (26): The sub/type of strategies that were given to the groups of judges in tasks two and three (Ts=task).

	Groups/Tasks							
	EL1		**PL1**		**ILa**		**ILb**	
	Ts.2	**Ts.3**	**Ts.2**	**Ts.3**	**Ts.2**	**Ts.3**	**Ts.2**	**Ts.3**
				Linguistic Strategies				
Meta.	6	8	8	6	10	7	13	10
Super.	7	7	9	7	10	6	12	9
Syno.	16	12	21	10	13	11	8	8
Anto.	8	4	9	4	7	3	9	7
				Conceptual Strategies				
Holi.	7	10	7	8	9	8	10	9
Analit.	18	23	16	26	20	21	21	24

These strategies were evaluated and scored by the judges by virtue of their degree of effectiveness. Like task one,the mean scores,percentages, standard deviations of scores as well as the percentages of In/dependency for each strategy across the two tasks and groups of subjects were computed as scored according to the judges' guess and evaluations. Table (27) presents the results of the first computation (for the second comparison see appendix IV, table, 19).

The statistical comparisons between groups of subjects in terms of effectively using compensatory strategies indicate that, like task one, L1 speakers were judged to use the strategies more effectively than ILa speakers, and ILa more effectively than ILb speakers (table 27, 28). These were observed both in tasks two and three.

Table 27: Calculations of the mean scores ($\bar{X}$s), Standard Deviations (SD), and percentages (%) of the strategies in terms of degree of effectiveness determined by the judges for task two (Maximum scores= 5, and n= number of strategies found in the selected protocols of tasks two and three.

	Groups of Speakers							
	EL1		PL1		ILa		ILb	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
Task Two								
Linguistic Strategies								
Meta.	1.71	0.36	1.69	0.42	1.11	.097	1.09	0.13
n & %	6/ 34.2%		8/ 33.8%		10/ 22.2%		13/ 21.8%	
Super.	1.13	0.15	1.16	023	1.07	.096	1	0
n & %	7/ 22.6%		9/ 23.2%		10/ 21.2%		12/ 20%	
Syno.	4.22	0.21	4.2	0.18	4.1	0.17	3.89	0.23
n & %	16/ 84.4		21/ 84		13/ 82		8/ 77.8	
Anto.	4.04	0.19	4.15	0.3	3.96	0.17	3.88	0.14
n & %	8/ 80.8		9/ 83		7.79.2		9. 77.6	
Conceptual Strategies								
Holi.	3.88	0.17	3.9	0.17	3.84	0.17	3.79	0.8
n & %	7/ 77.6		7/ 78		9/ 76.8		10/ 75.8	
Analit.	4.25	0.13	4.27	0.15	4.02	0.38	4	0.36
n & %	18/ 85		16/ 85.4		20/ 80.4		20/ 80	
Task Three								
Linguistic Strategies								
Meta.	1.52	0.19	1.39	0.21	1.11	0.16	1.08	0.11
n & %	8/ 30.7		6/ 27.8		7/ 22.2		10/ 21.6	
Super.	1.1	0.14	1.14	0.15	1	0	1	0
n & %	7/ 22		6/ 19		6/ 20		9/ 20	
Syno.	4.11	0.14	4.1	0.11	4.01	0.15	3.91	0.22
n & %	12/ 82.2		10/ 82		11/ 80.2		8/ 78.2	
Anto.	3.75	0.37	3.97	0.22	3.71	0.18	3.61	0.11
n & %	4/ 75		4/ 79.4		3/ 74.2		4/ 72.2	
Conceptual Strategies								
Holi.	3.34	0.21	3.21	0.17	3.2	0.22	3.16	0.16
n & %	10/ 66.8		8/ 84.2		8/ 64		9/ 63.2	
Analit.	3.98	0.26	4.06	0.13	3.84	0.34	3.76	0.28
n & %	23/ 79		26/ 81.2		21/ 76.8		24/ 75.2	

Table 27 is complemented by table 28 in which the degree of effectiveness of the linguistic and conceptual strategies that L1 and IL groups used in tasks two and three is compared. According to the mean scores that each group received for using each linguistic strategy, metalinguistic strategies were generally found to be the least effective and synonym strategies the most effective strategies from the judges' points of view. For the former strategies, the mean score are 1.71, 1.69, 1.11, 1.09, for EL1, PL1, ILa, and ILb speakers respectively (the maximum score for each group is 5). For synonym strategies, on the other hand, the scores are 4.22, 4.2, 4.1, and 3.89, for EL1, PL1, ILa, and ILb, respectively. These mean scores indicate that all speakers relied on synonym strategies as the most compensatory strategies, among others. In all, the two L1 groups used linguistic--metalinguistic, superordination, synonym, and antonym--strategies similarly effectively according to the judges. This sameness has also been confirmed in table 28. The comparisons of IL speakers' scores with those of the L1 speakers reveal that ILa speakers used linguistic strategies more effectively than ILb, from the judges' points of view (see also table 28, for the results of statistical analyses).

For conceptual strategies, the table illustrates that in tasks two and three, all the groups used analytic strategies generally more frequently than linguistic strategies. From the protocols given to the judges, EL1 speakers, for example, used only 7 holistic strategies for task two and 10 holistic strategies for task three; while, the same group, in the same protocols, used 18 analytic strategies for task two and 23 analytic strategies for task three. Such differences in using types or subtypes of strategies are also evident in the protocols selected from the performance of other groups and given to the judges for evaluations. Furthermore, as the table discloses, all groups received higher scores

for analytic strategies than holistic strategies. These can be understood from the subjects' mean scores (X) and the percentages (%) of the degree of effectiveness of both holistic and analytic strategies presented in table 27 (see also the statistical analyses in table 28.). Again, consider EL1 speakers as an example. For task two, the EL1 speakers' mean scores ($\bar{X}$) are 3.88, for holistic and 4.25 for analytic strategies (maximum score is 5). For task three, the same groups' mean score are 3.34 and 3.98 for holistic and analytic strategies, respectively. The percentages of scores for the former strategies in tasks two and three are 77.6% and 66.8%, and for analytic strategies in the same tasks are 85% and 79%, respectively. Finally, like linguistic strategies, all L1 groups used both holistic and analytic strategies similarly effectively according to the data presented in this table and the statistical analysis reported in table 28; both used conceptual strategies more effectively than IL speakers. ILa speakers received higher scores for the effectiveness of the strategies they used in the two tasks than ILb speakers. Consequently, the data presented in table 27 suggests that L1 speakers use conceptual and linguistic strategies more effectively than IL speakers, and more proficient L2 learners use the same strategies more effectively than less proficient L2 learners. Thus, for all the strategies that all the subjects uses for the

two tasks, the four groups of speakers can be put in a hierarchical rank as follows:

The most effective ----------> The least effective

strategies strategies

EL1
==> --->L1s ----> ILa ----> ILb
PL1

In addition, the degree of effectiveness of strategies themselves as judged by the judges was also statistically compared on the basis of data presented in table (27). The results of "t-tests" illustrated that the degree of effectiveness of strategies used by PL1 and EL1 speakers is the same, while, both groups used them more effectively than IL speakers. ILa speakers used strategies more effectively than ILb speakers, too (see table 28). These findings, again, lead us to put the speakers in a hierarchical rank based on their uses of strategies in terms of the degree of effectiveness, as evaluated by the judges.

EL1
===> L1s > >>> ILa > >>> ILb
PL1

The fact that synonym and antonym strategies were evaluated to be the most effective, and metalinguistic and superordination the least effective strategies, can be evidenced from the speakers' reliance on the former, especially synonym strategies and from the scores they received. In the former case (table 26, and appendix IV, table 19) the speakers used first and foremost synonym and then antonym strategies frequently, and metalanguage/ superordination strategies occasionally to communicate the referents of these two tasks. In the latter (tables 27-28), the scores that antonym and,particularly, synonym strategies received from the judges in all groups are essentially higher than the two other, especially superordination, strategies which received the lowest scores.

Furthermore, the two first were judged to be the most self-expressive and hence independent strategies in the performance of all language groups, while, no such scores were given to metalinguistic and superordination strategies (appendix IV, table 19). On the whole, in both tasks and for all groups, the linguistic strategies can be put into the following hierarchy, from the most effective to the least effective:

The most Effective **The least Effective**

Synonym --->>Antonym --->>Meta. --->> Superordination

Table (28): t-values in comparisons between groups of speakers using compensatory strategies in terms of degree of effectiveness of strategies.

	Groups				
	EL1/PL1	**EL1/ILa**	**EL1/ILb**	**PL1/ILa**	**PL1/ILb**	**IL9 /ILb**
			Task Two			
			Linguistic Strategies			
Meta	0.1	4*+	4.1*+	3.87***	4.2*+	0.43
n=		EL1=6	PL1=8	ILa=10	ILb=13	
Super	0.32	1	0.59	1.1	2.08	2.33*
n=		EL1=7	PL1=9	ILa=10	ILb=12	
Syno.	0.3	1.62	3.4**	1.43	3.2**	2.23*
n=		EL1=16	PL1=21	ILa=13	ILb=8	
Anto.	1.08	0.65	1.63	1.58	2.45*	0.95
			Conceptual Strategies			
Hol.	0.31	0.55	1.31	0.41	0.38	0.51
n=		EL1=7	PL1=7	ILa=9	ILb=10	
Anali.	0.42	1.89	2.03	1.93	2.13*	0.5
			Task Three			
			Linguistic Strategies			
Meta	1.62	4.66*+	6.03*+	3.59***	5.17*+	0.43
n=		El1=8	PL1=6	ILa=7	ILb=10	
Super	0.49	1.89	1.89	2.3*	2.3*	0
n=		EL1=7	PL1=6	ILa=6	ILb=9	
Syno.	0.19	1.75	2.27*	0.82	2.24*	1.14
n=		EL1=12	PL1=10	ILa=11	ILb=8	
Anto.	1	0.19	0.58	1.73	2.54	0.58
n=		EL1=4	PL1=4	ILa=3	ILb=4	
			Conceptual Strategies			
Hol.	1.44	1.2	2.12	0.1	0.38	0.43
n=		EL1=10	PL1=8	ILa=8	ILb=9	
Anali.	1.36	1.54	2.82**	2.82**	4*+	0.85

*=P<.05 **=P<.02 ***=P<.01 *+=P<.001

For conceptual strategies, sufficiently self-ev dent, partitive analytic strategies were assessed to be more effective strategies of this type than holistic ones from the judges' points of view. The scores that these strategies received and the higher degree of independence specified to them in the judges' assessments as well as the statistical comparisons all evidence the superiority and preference of analytic strategies over holistic ones in the speakers' viewpoints in term of the degree of effectiveness in the context of use (table 27, and appendix IV, table 19). Thus, these strategies, as used in tasks two and three,can be hierarchically ordered as follows:

More effective **Less effective**

Partitive Analytic ------>> Holistic Strategies

B.Degree of effectiveness in terms of IL conformity: From the analysis presented in this measurement, due to the degree of effectiveness of strategies, it is clearly inferable that IL conforms with the two L1s, to a large extent. One evidence is that IL demonstrates consistency with the L1s in terms of both using strategies most or least effectively and using the most and the least effective strategies. For example, synonym strategies were known as the most effective linguistic strategies by the judges in tasks two and three. The L1 speakers used these strategies more frequently and more effectively than IL groups. But the degree to which ILa speakers used these strategies both in frequency and effectiveness was not (significantly) different from those used by speakers of the L1s. ILb speakers, on the other hand, used them significantly less effectively and less frequently than both the L1 groups and ILa speakers.

In addition to the evidence supporting IL conformity with two L1s in the degree of effectiveness of strategy use presented above, the process was specifically looked

upon within the framework of IL conformity, comparing the data obtained from ILa and ILb with those of the taxonomy. To do these, the means of the mean scores that EL1 and PL1 speakers received for each strategy was computed and held as the score of the same strategy occurred in the taxonomy established for measurement two. Then the mean score was multiplied with the number of strategies used for one referent in each task. For ILs, the mean scores that each group received for each strategy was multiplied to the number of the same type of strategy that showed conformity with the taxonomy in measurement two. Then the cumulative scores of each strategy in ILa and ILb were compared with those of the taxonomy. Notice the following example:

The mean scores of EL1 and PL1 for the degree of effectiveness of holistic strategies for task one as table (23) displays are 4.23 and 4.18, respectively. The mean scores of ILa and ILb are 4.13 and 4.08, too. The difference between the two L1 groups is very little (z=0.75, table 25). The mean of the mean scores of the two groups makes 4.2; this score was considered as the score of each strategy occurred in the taxonomy. (For the number of holistic strategies that happened in the taxonomy for task one and used in measurement two see appendix IV, table 10). If the mean scores of each group are multiplied to the number of the strategies that happened in measurement two, each group will be as follows (table 29).

Table (29): Methods of computing the taxonomy of L1 strategic competence in terms of degree of effectiveness and the degree of IL-conformity in holistic strategies in task one.

Groups of	**referents**								
comparisons		1	2	3	4	5	6	7	8	total
Taxonomy	[(4.2)	(21	20	21	10	22	14	17	20	145)]
ILa-conf.	[(4.13)	(19	19	22	10	20	13	16	19	138)]
ILb-conf.	[(4.08)	(16	14	13	15	16	10	12	14	110)]

Comparing these scores statistically, the extent to which IL conforms with the taxonomy in the degree of effectiveness of strategies will be discovered.To achieve this, the scores for each strategy in the given tasks were calculated in the same ways as shown above; then the comparisons were undertaken (table 30).

Table (30): Samples of statistical analyses carried out to determine the degree of IL conformity with the taxonomy of SC in terms of degree of effectiveness of strategies assessed by the judges.

Strategies	groups of Comparisons		
	Taxonomy/ILa	Taxo./ILb	ILa/ILb
	Task One		
	Conceptual Strategies		
Hol.	0.57	3.11***	2.57*
Parti.	0.79	1.78	1.05
Lin.	1.33	2.52*	1.15
	Task Two		
	Linguistic Strategies		
Synonym	0.48	2.3*	2.02
Antonym	0.54	0.9	0.36
	Conceptual Strategies		
Hol.	0.34	4.53*+	4.26*+
Analiti.	0.88	1.89	1.45
	Task Three		
	Linguistic Strategies		
Synonym	1.22	2.84*	1.5
	Conceptual Strategies		
Analiti.	1.21	2.94**	1.5

Tasks 1 & 2, n=8; df=14; Task 3, n=10; df=18
*=P<.05; **=P<.02; ***P=<.01; *+=P.001

4.4. Discussion

It has been the aim of this study to test the hypothesis of IL-conformity in SC in referential communication across various elicitation tasks. It has also been the aim of this study to find out the differences of this competence among EL1 and PL1, and two groups of IL

speakers. To achieve these goals, the phenomenon had to be looked upon across various communicative tasks in both L1s and ILs involved in this study. Language proficiency could be a worthy clue for better understanding of IL-conformity, if more proficient IL speakers' SC demonstrated more conformity with the taxonomy of this competence established from the similarities of the performance of speakers of the two L1s.

Measurement one was primarily undertaken to discover if task variability entails the use of various strategies in the performance of both L1 and IL speakers' SC. The results of this measurement are evidences for the fact that the ways in which SC in both L1 and IL is operated for planning and executing compensatory strategies differ from task to task. One task may activate it more conceptually than linguistically, as in task one; if so, then the speakers will rely on and use conceptual strategies more than the linguistic ones. The other task may activate this competence more linguistically, as in task two; this will cause the use of more linguistic strategies than other types. The third one may stimulate it for high demands of both linguistic and conceptual strategies, consequently, the speakers will draw upon both types of strategies and use them similarly or slightly differently, as in task three.

Considering these facts, one decisively important question that one might ask is that of the causes of variation in language performance by virtue of task variability. That is, why task variability results in various performance of SC,and, consequently,gives rise to the use of various compensatory strategies by speakers.

The question relating to the causes of variation in language performance has been relatively well investigated by several researches in both FLA and SLA (see Labov, 1972, Tarone, 1985b, 1988, 1990; Ellis, 1994; Talebinezhad, 1994, for example). These studies have been focusing on the grammatical aspects of languages, overlooking, if not ignoring, the pragmatic and communi-

cative aspects of either L1s, ILs, or both. Even in such studies, what have usually been missed are the tasks themselves as factors which cause variation in language performance (Talebinezhad, 1994 is an exception). Measurement two projects some light in support of IL-conformity with the taxonomy in the performance of two IL groups, with ILa group having stronger conformity than ILb speakers. The same process was upheld in terms of degree of effectiveness of strategies in measurement four. Measurement three illuminated the fact that L1 speakers occasionally rely on certain features specific to the language being communicated in using their SC, mainly whenever the general aspects of the competence are not working or are not available to them. IL speakers also drew upon certain L1, TL, or IL-based properties in operating their SC to communicate the given tasks. In the following subsections, I shall discuss how and why task variability causes variation in language performance, with a special focus on the performance of SC in dealing with various elicitation tasks and relevant to the aims and findings of this research. Then, I shall discuss the results of measurements two, three and four in relation to the questions of IL-conformity across various tasks, language differences, and degree of effectiveness of strategies, respectively.

1. Discussion relating to the influence of task variability in the performance of strategic competence: Task one, was the one which activated the competence conceptually; only a few superordination linguistic signals were used during the conceptual processing of the phenomenon. Thus, conceptual strategies were very frequently needed to solve communication problems arising from the referents of this task. One reason for this can be that there are no linguistic/lexical conventions for the shapes; so, the speakers have to think of them beyond the semantic fields of the referents as lexical items. Both psychologists and psycholinguists argue that shapes have fundamental functions in concept formation and concept attainment in

learning in general and F/SLA in particular (Piaget, 1952; Bates et al., 1988; Flawel, 1993, for example). Once concepts are formed in the learners' (speakers') minds through shapes and symbols, the speakers have to use much more figurative language to visualise them for the audience. Linguistic tactics are hence rarely employed as the means, since they are seemingly limited and incapable of describing the unconventional shapes or symbols promptly and adequately. The shapes, in other words, have to be described via other conceptual shapes which are available to the speakers and familiar to the listeners. For these reasons, the speakers attempt to draw upon analogies and/or similes to resemble the intended shapes, or the concepts abstracted from the shapes, to some concrete objects and thereby to visualise the intended shapes for the interlocutor and convey the same shapes in the latter's mind. It is in such cases that the speakers will rely on the analogy/simile and use holistic strategies. But if these devices do not exist in the language, in the speakers' knowledge span, or are not available to them during the course of communication, they will break the shape into its component parts and describe each component separately. Once these processes happen, the speakers employ either partitive or linear strategies, or both. These mental and psycholinguistic mechanisms may be processed more or less similarly in L1 and IL, as occurred under the conditions of this study.

Accordingly, one reason to explain why all subjects used conceptual strategies with minimal differences in task one, may be that they all conceptualised the referents (shapes) similarly and hence drew analogy from the concrete objects relatively in the same ways. To the extent that such objects are similarly available in the given languages, the speakers use similar conceptual strategies, particularly holistic ones. Even ILb speakers show similarities in many cases with EL1 and PL1 speakers (see table 13, measurement 2) conceptualising the shapes and using conceptual strategies to cope with the problems

of communicating them. Language differences, for L1 speakers, and different L2 proficiency, for IL speakers, were also surmounted by subjects' conceptual mechanisms performing this task, too.

The subjects' frequent recourses to the conceptual strategies in task one are evidences to be complementary to and partially compatible with the findings of the Nijmegen project, mentioned earlier (see chapter two).

The Nijmegen project found that Dutch ESL students used the same conceptual strategies in L1 and L2, then concludes L1=L2 SC (using compensatory strategies). The findings of the present investigation, however, suggests that: (a) there are similarities between L1 and L2 SC to certain extent,rather than L1=L2 equation in this regard, as has been concluded in that project (the lingual and IL-based strategies excluded); and, (b) more proficient L2 learners show more similarity to L1 in using strategies and thus more conformity to the similarities of the two L1s than less proficient L2 learners. The findings on the other hand confirm the hierarchy of strategies, from holistic to linear in the performance of L1 and L2 speakers, as suggested by the Nijmegen project, too (see Kellerman et al., 1990). However, the results diverge in a number of ways from that project. This study proved that such an L1-L2 similarity in using conceptual strategies is restricted to unconventional task, and can not be generalised to other tasks, but the process of IL-conformity is not task-based. One reason for the differences between the present study and the Nijmegen project is that of the methodology;that project restricts itself to one group of L2 learners performing in L1 and L2 simultaneously, without any attempt to control the process of transfer (see chapter two, 2.3.4.2.1).

The second reason may be that of language distance. Dutch and English are two cognate languages; English and Farsi are not. The two former are more/less culturally interrelated, both belong to the western culture and civilisation, while the latter essentially differ in

these respects. Such differences will lead L1 speakers in each group to draw upon their own sociolinguistic and cultural backgrounds,and thereby use L1-based strategies. IL speakers (Farsi-speaking ESL students) will resort to their L1 background and transfer or transliterate the L1-based features in planning and executing the strategies. These were found in measurement three.

The second task, the abstract concept task, needed more linguistic strategies than conceptual ones. The concepts were words; therefore, no shapes could be used as analogy or resemblance to stand for the whole, or partial,meaning of the concepts; the concepts, as communication problems, were basically to be linguistically/lexically solved. In other words, the concepts had to be expressed through linguistic means. It is very probably that for these reasons that all speakers drew upon more linguistic strategies,mostly synonym and antonym strategies, lingual (in L1) and IL-bounded (in L2) strategies than conceptual ones. Holistic strategies, unlike task one, were rarely used,yet, not as effectively as in task one (table 16, measurement three). It seems that in this task speakers first draw upon linguistic strategies, and if these strategies did not work to make their utterances more effective, they progressed the problem solving processes via conceptual strategies. In identifying the referents conceptually, the speakers had to refer to the semantic features, or functions, if any, of the referents. To do these,they had to analyse, or decompose, the concepts into its parts, feature, and then explain each part. This may reasonably explain why all language groups used these conceptual componential analytic strategies among other subtypes of conceptual strategies.

Task three, the narrative task,required high demands of linguistic ability,conceptual knowledge,and to some extent, cultural-based information, since narratives have to be carefully patterned to be meaningful. Narrative products,as Feldman et al. (1990) suggest, are typically

more richly patterned than simply a sequence of events. They, in other words, have to be cognitively formulated in the speakers' mind, and linguistically told, or represented. Even when speakers, or learners, are given narratives to retell, the same mental mechanisms and linguistic demands are amply needed for the speakers to reformulate, reconstruct, reorganise, and retell the stories. In order to tell a narrative, speakers must draw upon their context knowledge, as well as upon their linguistic structural knowledge (Allen, et al. 1994). The context of the narrative relates to the topic, or events, or how knowledge is processed, while the structural knowledge refers to how information is formulated, organised and finally presented. Thus the speakers, or learners, are engaged in two problem-solving activities communicating narratives as elicitation tasks: Conceptual and linguistic problems, which, in turn, activate SC to generate strategies accordingly. As a result, conceptual and linguistic strategies emerge to tackle the problems and capture the given task(s).

These accounts explain why speakers used both conceptual and linguistic strategies closely related to each other in this task. As table (2, measurement one) displays, unlike task one, and like task two, speakers used both types of strategies highly frequently. But unlike task two, in which all the subjects used linguistic strategies more frequently than conceptual ones,in task three,they used both types of conceptual and linguistic strategies in correlation with each other.

Considering the characteristics of each elicitation task, and its embedded referents, the above accounts explain the causes of, and reasons for, different elicitation tasks resulting the use of various strategies, both in types and relative frequency. The results of measurement one, particularly those sketched in tables (3-6) provide supporting evidence for the claim put forth in this study as part of the first hypothesis that L1 and/or IL speakers' SC is activated differently and hence

generates various strategies due to various communicative problems, or tasks.

2. Discussion relating to IL-conformity and strategic competence: The major aim behind the second measurement undertaken in this chapter is related to the specific theme of this research. It had been hypothesized that IL SC has consistency with what is shared and used in common by the same competence in the two L1s and the conformity, if it is confirmed,is task independent. That is, although task variability will cause variability in SC usage, IL will have conformity with the taxonomy of SC regardless of task variability.

If some similar features of the phenomenon, can be found among a group of primary languages (L1s) and be held as a taxonomy, this competence in IL is expected to confirm to such features,or taxonomy. This hypothesis was tested with the data from SC of the two L1s, EL1 and PL1, across three elicitation tasks and two different levels of IL proficiency.

The results of the subjects' performance provide sufficiently supporting evidence for the hypothesis. As the statistical evidence throughout measurement two denotes, IL SC proved to have more or less conformity with the taxonomy of SC formulated from the similarities, of the two L1s, English and Farsi.

The processes of IL-conformity was observed and to a large extent supported across the three different tasks. This, in turn, explicitly accounts for the fact that IL-conformity is not a task-based phenomenon in SLA and IL use.

The fact that the use of synonyms and antonyms in language development and vocabulary acquisition is a common process and observable in FLA and SLA has already been evidenced in monolingual and bilingual acquirers (Bates et al., 1988; Coggin et al., 1994; de Bot et al., 1995, for example). Conceptual processing strategies such as holistic, analytic, etc. have also been considered as general compensatory strategies that are accessible to L1

and IL speakers, rather than L2-unique strategies (see chapters one,1.1.3., and two, 2.3.4.2.1.). The present investigation confirms that such linguistic phenomena and conceptual processes are also observable in the performance of the two L1s, to which IL SC demonstrates conformity in referential communication. This conformity, however, drastically depends on the learners' levels of L2 proficiency.

In many studies on communication and compensatory strategies, such strategies have been linguistically viewed as either L1-based or L2-based strategies (see chapter three,3.3.3.). The assumptions are that L2 learners use either or both of these two types of language-related strategies communicating in their L2; less proficiency learners use L1-based strategies (e.g. transfer) more than L2-based ones because of being less proficient in L2 linguistic knowledge (see chapter two, 2.3.4.1.1.). This is believed to happen as the result of the process of language transfer (see Faerch and Kasper, 1983:46-47, for example). More proficient learners, on the other hand, presumably use more L2-based strategies (e.g. overgeneralisation) because they are linguistically more proficient and thus are much closer to the norms of the TL communication.

One may ask, however, how one can make distinctions between these two L1-L2 categories. The distinctions have been made simply by comparing the two languages involved, the learners' L1 and the TL. By these means, researchers have attempted to determine the linguistic resources of some particular strategies:L1 and L2 strategies. If "Xs", as compensatory strategies, for example, are observed in the learners' L1, they are perceived as L1-based strategies transferred into their L2 performance. Alternatively, if "Xs" happen to be observed in the performance of L2 learners' SC, they are considered as L2-based strategies, or "IL strategies" (Faerch and Kasper,1983a,b, 1984; Kellerman,1991). In some taxonomies of communication or compensatory strategies (see chapter

two, 2.3.4.3.), "paraphrase", for instance, has been looked upon as an L2/IL strategy. Yet this process, has been also observed in L1 speakers' communication (Bialystok and Kellerman, 1987; Stomqvist, 1993). So, how can such L1-L2 distinctions be made? The idea is that if it is used by IL speakers, not the native speakers of the learners' L1, then it can be held as an L2-based strategy from the learners' point of view. But, one might ask if the same strategy is observed in both learners' L1 and native speakers' of the TL, should it be considered as L1 or L2-based strategy? In addition, if the same strategy is used in learners' L1(s), IL, and by the native speakers of the TL to which category should this strategy be attributed? It is to such cases that I refer as IL-conformity strategies, or the strategies accessible to both L1 and IL speakers.

The findings of this study, particularly measurement two, revealed that there are some compensatory strategies that occur in common in the two languages involved as have been also found in some comparative studies (evaluated in chapter two). It was also revealed that IL SC conforms, to certain extent, with these common strategies in referential communication; hence, in some part, both L1s and ILs follow the same principles in using SC.

With respect to L2 proficiency levels influencing IL-conformity, the result of measurements 2 and 4 confirmed that although both IL groups' SC show more or less conformity with the taxonomy; ILa,as more proficient speakers, preserved more conformity with the taxonomy than ILb, as the less proficient IL group. This can be explicitly demonstrated by comparing both groups in terms of those verifying instances (the instances of IL conformity with the taxonomy of SC that verify the hypothesis) that each group approved in each task. Table (31) presents the results of the comparison.

More proficient IL speakers, as the table displays, have produced more instances of IL-conformity than less

proficient ones in all the tasks. In tasks one and two, all the comparisons indicate no significant differences between verifying instances and those found in the taxonomy itself. In task three, only 3 instances seem to reject the hypothesis in the performance of less proficient IL speakers; that is, ILb speakers' SC shows less verifying, and more falsifying, or rejecting, instances in each task. Thus, the degree of IL-conformity corresponds to the degree of IL proficiency levels (see chapter five, 5.2.).

Table (31): Comparisons between ILa and ILb in terms of the number of verifying instances of IL conformity.

Groups	task 1			Task 2			Task 3			Total		
	Tc.	Vi.	Fi.	Tc.	Vi.	Fi.	Tc.	Vi.	Fi.	Tc.	Vi.	Fi.
ILa	7	7	-	10	10	-	11	8	3	28	25	3
ILb	7	4	3	10	5	5	11	7	4	28	16	12

Abbreviations:
Tc.= Total comparisons
Vi.= Verifying instances
Fi. Falsifying instances

3. Discussion relating to IL-conformity and language differences in strategic competence: Measurement three attempted to find out the effects of language differences in the performance of SC among L1 and IL speakers. In order to understand the nature of IL conformity more precisely,one has to know what IL conformity is not,i. e. what IL-conformity does not include. This measurement highlighted the distinctions between the taxonomy of strategies, which directly relate to the IL-conformity framework, and specific language-based properties of this competence. Once the distinctions are established, it is possible to take either IL conformity or language differences, or both, into consideration.

There are two categories of linguistic properties for each primary language, and,as I argued in this study, for IL: general features or properties that are shared by

all or a set of languages (see chapter two), and language specific features peculiar to each natural language. The latter do not directly relate to the former in studying different aspects of SLA, within the framework of IL-conformity. However, one aspect of language communication is to find out the role of language differences in language use, and to observe how people switch to these 'lingual features' of their own language to solve their communication problems. It was suggested that L1 speakers used lingual strategies in performing each task; though depending on the nature of each task they used them differently, too.

The results of this measurement also denoted that both groups of L1 speakers used their own linguistic properties in activating their SC. This, of course, was surmounted by the general language-related strategies, established as the taxonomy of SC. That is, as was observed, speakers first rely on the general linguistic or conceptual strategies; doing these, they consciously or unconsciously, use their own language properties to execute the planned strategy(ies).

Language differences elucidated why L1 speakers in each group used lingual strategies,and why they used them differently both across the tasks and languages. One task may be more cultural-based than others. Task one, for example, has few linguistic or cultural burdens, so L1 speakers employ the least lingual strategies. Tasks two and three, on the contrary, embrace more (socio)ling-usitic and cultural bases, thus the L1 speakers draw upon these strategies more frequently performing the tasks.

In addition to tasks, languages themselves also play important role in using lingual strategies. One language may have more lingual features to be used in labouring particular referents than the other one. Similarly, languages also play important role in using general language-related strategies such as synonyms or antonyms in which the speakers of one language may have more

access to synonyms for particular referents or concepts than the speakers of another language and vice versa.

The same explanations are applicable to account for IL speakers' strategic behaviour in using IL-based strategies. IL speakers, like L1 speakers, also first drew upon the language-related strategies (strategies not specific to one particular language); in so doing, they insert IL-based strategies into their performance, or if the former did not work at the speakers' disposal, they shifted to using the latter. This, again, depends on the task(s) to be communicated, and their L2 proficiency levels. With respect to the task, like L1 speakers, L2 learners used IL-based strategies only when the referent is capable of being conveyed by these means.

Second language proficiency plays crucial roles in using types of IL-based strategies. Obviously, more advanced learners have access to more L2-based strategies than less proficient speakers. Their advanced knowledge enables them to apply more L2 words to compensate for the deficiency of the required linguistic means at the time of communication, though they might not be as highly competent in L2 to be able to use these words or linguistic properties correctly or appropriately to construct contextually meaningful utterances, compared with the norms of the TL. Besides, the same proficiency empowers them to coin or create a new word out of their L2 knowledge when no terms exist or are available to them to fill in the lexical gaps. Much of the process of word coinage "is based on transferring words already known in one context, creating verbs from nouns, compound nouns from nouns for adjectives (plantman for gardener) and subsets (car smoke for exhaust)" (Bialystok, 1990:90). This process, as Bialystok (1990) argues, is employed as compensatory strategies by L1 speakers in solving lexical problems, particularly by children in FLA, as they are employed by adults in SLA. The findings prove that more proficient L2 speakers use these strategies. Conversely, less proficient IL speakers may use such strategies as

transfer or transliteration more frequently to tackle the same problems.

The results of this measurement support these accounts in both L1 and IL speakers' strategic acts of referent. As evidenced, ILa used more L2-based strategies such as overgeneralisation. ILb, instead, used heavier L1-based strategies,especially transliteration by virtue of being inept in the TL.

4. Discussion relating to IL-conformity and degree of effectiveness of strategies: Measurement four aimed to discover the degree of effectiveness or enhancement of compensatory strategies. To the extent that language speakers use strategies, the strategies may be more or less effective to convey the intended meaning. One might ask, therefore, how effective these strategies are as they are used by speakers? Within the framework of IL-conformity, one might also ask if IL conforms with the taxonomy of SC in terms of the degree of effectiveness. This measurement suggests data to answer this question.

According to the findings of measurement four L1 speakers use both more effective strategies and strategies more effectively than IL speakers; so do ILa speakers, compared to ILb speakers.

To answer the above questions, one has to explain why the same strategies used by all speakers were assessed to be "more effective" in the performance of some groups than others. One explanation is that of the speakers' mastery of the language being communicated. As discussed before, there is a close correspondence between mastery of language knowledge and using effective strategies. Native speakers are believed to be master enough to use their own language in different situation, and for different purposes. They thus know how to plan and use strategies more effectively to compensate for the deficit of linguistic resources that they encounter, and thereby to solve their communication problems. By the same token, their mastery enables them to choose more effective strategies to enhance the effectiveness of

communication. For example, L1 speakers, linguistically intuitively or by language experience, are aware that one particular strategy, synonym for instance, is more effective than others (Coggin, 1994). They, thus, do not hesitate to employ it as soon as the problems arise; furthermore, they are conscious of how to use it contextually to express the referents more meaningfully and, consequently, more effectively.

In this measurement, it was found that even when a particular strategy is evaluated as more or the most effective one, the degree of its effectiveness can not be equally generalised to all groups of L1 and IL speakers. Different groups may use one specific strategy more/less effectively than others. In other words,the effectiveness of strategies depends on two interrelated factors: how strategies are used by speakers in particular context of use, and how they are evaluated by the listeners (judges) in the same context of use. Given these factors, some strategies are "road signs", so they can not be used independently of other independent and more effective strategies, and this is general to both L1 and IL groups.

Focusing on the degree of effectiveness of compensatory strategies within the framework of IL-conformity, like measurement two, the results proved that ILa has more conformity with L1 speakers and with the taxonomy of SC in using effective linguistic and conceptual strategies than ILb. Thus, supporting the claim that the degree of effectiveness of strategies corresponds to degree of language proficiency on the one hand, and degree of IL conformity in using effective strategies and using strategies effectively corresponds to the degree of L2 proficiency, on the other.

Final remarks:

In this chapter, the hypotheses constructed for this study were experimentally tested. The empirical findings resulting from statistical analyses suggested evidence in support of the hypotheses through measurements 1,2,and 4.

Note that, as mentioned earlier (see 4.3.1., pp.158) measurement three does not directly relate to testing the hypotheses. It was done to find out the role of language differences,for L1 speakers, and different L2 proficiency levels, for IL speakers, in the performance of SC, and to see how language specific-based and IL-based strategies play roles in the performance of SC. In short, this measurement was done to find out what is not part of IL-conformity in SC. It was also revealed that language differences play important roles in language communication and help under-standing the similarities of SC in different languages more precisely. Language behaviour committed by speakers dealing with the given tasks was discussed, with special focus on the aims of this study. One crucially important inquiry to be answered is the question of the implications of the findings of this study for SLA and language pedagogy; these will be discussed in detail in in chapter five.

CHAPTER FIVE

GENERAL DISCUSSION AND IMPLICATIONS

In this chapter, the processes of using strategic competence among L1 and L2 speakers within the framework of "IL-conformity", and language differences will be discussed in general terms, with evidence from the experiment to support the arguments. Arguments and evidence will be presented to the effect that there is some sort of conformity between IL SC and the similarities of the same competence among two primary languages, English and Farsi. Generalisations will also be made, where possible. Then I shall discuss some possible theoretical implications of the findings of this study for SLA and use, as far as the theory of SLA is concerned, and for language pedagogy, as far as the pedagogical implications are concerned.

5.1. Evidence for IL as a Natural Language at the Level of Strategic Competence

The fact that IL speakers' SC is overwhelmingly consistent with the similarities of this competence in the two L1s can apparently be approached in two ways: Firstly, IL SC can be identical to that of the learners' L1 (Farsi,PL1, here) and have the same properties in the two languages, the L1=L2 equation hypothesis (Dulay and Burt, 1972; Mc Donough, 1986). Secondly, IL can be identical to the TL (English, EL1, here) where all the properties of the TL SC are also present in IL. In fact, none of them occurred, because: (a) the former was not observed; if it were, IL speakers would use the same strategies as PL1 speakers, and the two IL groups' SC would likely be activated similarly; (b) the latter is impossible,since (i) IL/L2 is different from bilingualism (Hoffman, 1991, Bialystok, 1991a), (ii) no IL=EL1 in this

competence was observed, and (iii) because of the process of fossilisation (Selinker, 1972, 1992). Rather, the ILs in question were somewhere in between or, better to say, alongside with the two L1s in that ILs had properties found in both of them, properties present in L1 (PL1) not in the TL (EL1), properties present in the TL not in the L1, and features peculiar to ILs themselves. Thus we may assume four aspects of language-based properties for IL: (a) L1-based features resulting from the processes of transfer in its general terms (transfer of form, content, training, cultural and pragmatic transfer), (b) TL-based properties resulting from the processes of over-generalisation, (c) general language-related features, (those features present in the natural languages which are also accessible to IL speakers), and, (d) IL-based properties, or features that are present in IL only.

The two L1-based and TL-based properties of IL are self-evident (see chapter two, and also Kamaravadivella, 1988, Poulisse and Bongaerts, 1994.). The findings of this study supported the existence of the third set of properties (general language-based) as the primary goal, and the fourth set of properties (IL-based) as the secondary aims of this research for IL SC. The findings in this respect are in line with Eckman's (1989, 1991), who studied IL structural conformity in the acquisition of IL "wh-questions","wh-relative clauses",and "consonant clusters", though with firmly limited IL speakers (see chapter two, 2.5.2.2.). The IL-conformity observed in this study draws attention to the possible language-related principles underlying SC shared by L1 and L2. Such principles have been theoretically proposed by some scholars (see chapter three), and supported here by the evidence from two primary languages to which ILs showed conformity. Yet, more studies are needed to provide valid data for this dimension of IL mentioned above; this study was limited to the two L1s, attempting to find evidence for IL as a natural language at communicative levels. More data are also needed for those IL-specific features

tentatively proposed here, the discussion of which is beyond the scope of this piece of research.

5.2. Degree of Language Proficiency and the frequency of Compensatory Strategies

In measurements (1) and (3), it was evidenced that lower proficiency learners (ILb) used higher numbers of strategies than more proficient (ILa) speakers. This can be explained as an obvious consequence of the former's more limited commands of the target vocabulary. Since they encountered more lexical problems, they needed to resort to compensatory strategies more than ILa and native speakers. The same phenomenon occurred in the performance of ILa speakers compared to that of L1 speakers, which appeals for a similar explanation. That is, ILa speakers used more strategies than L1 speakers for the same reasons as ILb speakers used more strategies than ILa learners. These processes occurred exactly conversely for the degree of IL-conformity, as accounted for bellow. The following schema illustrates the hierarchical rank of the relative frequency of strategies used by all groups.

EL1
=L1 << << ILa << << ILb
PL1

The hierarchy shows that EL1 and PL1 speakers used almost the same strategies in number but fewer than ILa; ILa speakers used strategies more than L1s and fewer than ILb speakers who, as the least proficiency speakers, used the most frequent strategies. It should be remembered that this formulation is extensively related to the type of elicitation tasks that the speakers communicated. As seen, task one was more conceptual-oriented; so, there were fewer language distance and proficiency level effects. Tasks two and three were more linguistic-based; so, these factors appeared to be more influencing (see chapter 4.4, for a full discussion).

5.3. Degree of L2 Proficiency Corresponds to Degree of IL-conformity

Although the two groups of IL speakers' SC conformed with the similarities of that of the speakers of the two L1s (referred to as the taxonomy), the degree of IL-conformity was different within the different degree of language proficiency. ILa speakers demonstrated more conformity with the taxonomy than ILb speakers; this is opposed to the frequency of the total strategies that they used, discussed above. The following schema shows the relationship between L2 proficiency levels and the degree of IL-conformity:

EL1
>==> Similarity >> >> ILa >> >> ILb
PL1

One might ask why such processes happen? What happens in the learners' language behaviour that results in such differing performance in the two groups of IL speakers' SC? Certainly, the questions can be attributed to language proficiency and argued accordingly. The phenomena, however, call for other explanations.

One possible explanation, which is also true for the discussion presented in (5.2), is that more proficient learners have acquired higher knowledge of the TL. This allows them to process their cognitive mechanisms along with processing the L2 knowledge in operating their SC. In other words, because of their advanced L2 knowledge, they have more control over that knowledge (Bialystok, 1994; Towell and Howkins, 1994) and know how to process it to make their utterances (more) effective. They can also process their L2 knowledge more strategically to generate strategies at the planning phase of the competence, and therefore, can control their strategic behaviour to execute the planned strategies more effectively. Psychologically speaking, such learners are more motivated and willing to take risk of communicating than lower proficiency learners, since they have access to more linguistic resources than lower proficiency IL

speakers (Beebe, 1983; Mc Donough, 1986). In addition, more advanced learners' L2 knowledge and strategic ability enable them to perform the given tasks with the least possible, but most effective, strategies which are at the same time more/less similar to those used by L1 speakers of different languages. Native speakers are the highest proficiency in their L1s; so, they process their SC greatly similarly despite their language differences, these similarities are followed to a large extent by that of higher L2 proficiency learners.

Less advanced learners, on the other hand, have less knowledge of the TL, less control over it in processing their L2 knowledge, and, hence, are uncertain about their ability to take the risk of communication. Consequently, they use much more strategies to make up for their L2 communication disabilities; however, their SC preserves the least conformity with the similarities of the L1s; yet, the strategies are less enhancing/effective and are used less effectively. For these reasons, repetitions, hesitations, pauses, false starts, ungrammatical utterances, etc. all happen as indicators of communication problems (Faerch and Kasper, 1983a/b). These at the same time explain why less advanced speakers use strategies more frequently than advanced learners. To process their strategic abilities, they may plan particular strategies similar to those planned by more advanced learners, but, in the executing phase, they have more problems in linguistically realising them than advanced learners. Because of such problems, they cannot perform the tasks as effectively as higher proficiency learners or L1 speakers do.

5.4. Implications For Studies on SLA

At the outset of this study (1.3), I mentioned that studies of this type can have both theoretical and pedagogical implications for (instructed) SLA research. In the subsequent sections, I shall discuss how the

findings of this study can contribute for theory and practice.

5.4.1. Theoretical Implications of the Findings of This Study for SLA research

It is axiomatic that theories are used to explain the relationships between two or more phenomena (Popper, 1972, 1975; Cohen et al., 1989). Theories of (S)LA should hence be able to explain the acquirers' language behaviour and learning mechanisms (Mc Laughlin, 1987). Since language acquisition is not separate from language use,a theory of language acquisition should be able to link acquisition processes to processing the acquired knowledge, and explain how language develops in the learners' minds, and how it is linguistically realised when learners process their language knowledge in actual use.

SLA theories are not separate from theories of FLA and development. A comprehensive theory of language development, as Stevenson (1988) and Levelt (1989) argue, should explain both acquisition and use, or acquisition in use and use in acquisition. More technically, a theory that can link declarative knowledge and procedural knowledge, explaining how declarative knowledge enhances processing the procedural knowledge, and how the latter fosters the development of the former. Most of the theories of F/SLA according to Mc Laughlin (1987), Stevenson (1988, 1993), and Levelt (1989) can only partially capture these requirements; they explain the processes of either language acquisition or language production/use. Even Hymes' (1972, 1974, see chapter two) theory of communicative competence was realised to be not as adequate as once was perceived in this respect.

Similarly,a comprehensive theory of SLA and development (Cook, 1983; Bialystok, 1991,1994; Ellis, 1994) must be able to explain L2 learners' behaviour in acquiring/ using an L2. O'Malley and Chamot (1990) feel this need when they commend:

> A theory is needed that addresses multiple aspects of learning for integrative language use in all four language skill areas--listening, speaking, reading, and writing--and that addresses language acquisition from the earlier stages of second language learning to proficient use of the target language (p.18)

A theory of (instructed) SLA, thus helps researchers explain the relationships between phenomena such as the learners, the language being acquired, the processes contributing to the way by which language is formulated in learners' minds and is used variably in various contexts. It also empowers language teachers to apply the results of such explanations to language pedagogy: developing curriculum language programs, designing course syllabi, and preparing teaching materials, as will be discussed latter.

In order to arrive at such a theory in both F/SLA, much more data from different aspects, particularly the communicative ones, of language is needed. This study, as a starting point, appears to be insightful in this respect, providing data from the use and development of SC, though its findings are merely sketchy; it only supports the need for such a theory in instructed SLA, and sheds some light to enhance achieving this goal.

From the L1 speakers' performance one might claim that SC as a component of communicative competence is generalisable to both L1 and L2, and should be accounted for in any theoretical framework for studying the acquisition and development of communicative competence. Moreover, speakers of different L1s use their SC and problem-solving mechanisms similarly to solve the same communication problems across various tasks; to these similarities IL SC confirms conformity to certain extent. These support Bialystok's (1984, 1990) notion of features of this competence: problematicity, intentionality and goal-relatedness, which are generalisable to L1 and L2 (see chapter two). All these phenomena give theoretical feedback for research in SLA and use.

The use of L1 cultural/sociolinguistic characteristics transferred to the performance of IL speakers (chapter 4, measurement 3) highlights two directions: Firstly, it appears to be in line with the notions of communicative competence (Hymes, 1972, 74) revisited in Canale and Swain (1980) and recently Foster's (1990) theories of components of communicative competence (see chapter two) that speakers' cultural and sociolinguistic proliferations should be accounted for in theories of language acquisition and use, and these are also generalisable to both L1 and L2. Thus, there might be some direct relationships between L1 and/or L2 speakers' SC and sociolinguistic and, probably, discourse competence. This proposition, which is beyond the scope of this study, has not been seriously touched upon yet and hence warrants more investigations.

Secondly, it suggests the desire for socialization in language development in the performance of L1 and to achieve a native-like competence in L2 development (Moshfeghi, 1979; Brumfit, 1984; Preston, 1989, 1993). This is a process without which language acquisition/ development would terminate at the stages of merely acquiring linguistic knowledge and thus hamper the acquisition and development of necessary abilities for successful language use. That is, L1/L2 learners have a tendency toward being members of the language community, sometimes referred to as "integrative motivation" (Dulay et al., 1982). The tendency enhances F/SLA processes by encouraging the acquirers to intake the linguistic input being exposed to by the community,and thereby, to achieve a comprehensible output, and to use it appropriately in social situations. S/LA in this sense, as Preston (1993) also contends, is not accomplished in "vacuum", it is rather acquired in and for social interactions. This process, socialisation, has been ignored in previous theories of language development; only Foster (1990) tentatively draws attentions to it. More research will

reveal how these processes occur and affect the acquirer's language behaviour.

Theories of SLA, particularly from the instructional perspectives, should be able to explain the acquisition of competence, or competencies, in a second language (Ellis, 1990,1992,; Gregg,1990). The question to be asked is whether or not the "IL-conformity" framework and the findings of this study can help explain this phenomenon in L2 development.

In order to explain this phenomenon, we have to know what those competencies are, i. e. to have a satisfactory explanation of the language (not solely linguistic) knowledge established in learners' minds and available to them. The theories of generative grammar, whatever else their faults such as being limited to grammatical competence, make a clear distinction between competence and performance (see chapter two). The variable competence models (Ellis, 1985, 1990; Tarone, 1983, 1988, 1990) fail to explain the acquisition processes themselves,too. They present a good deal of information about the forms that are used and when, but do not account for how the forms are acquired and why they are used variably from one situation/context to another (see chapter four, 4.4.).

To explain the process of acquiring IL competences, grammatical or others, first of all, the processes of SLA should be known both as real and natural phenomena. This means that IL should be looked upon as a natural system of its own in all aspects of language, not only in its grammatical forms.

The findings of this study, as a point of departure, present evidence that IL SC has conformity with primary languages (EL1 and PL1) in operating this competence on the one hand, and has some (IL-based) features of its own on the other, as do other natural languages. Thus, the findings suggest evidence in support of the naturalness of IL in the strategic aspects of communicative levels of language. They, therefore, hint at least for one step further toward better understanding of language compet-

ence(ies), in relation with performance/use, which is a requirement for understanding L2 development processes.

Furthermore, the findings can draw attention to the possible (typological) universals of the communicative levels of language accessible to both L1 and IL speakers, and offer a working framework for determining IL-conformity with such universals. Using this framework, then, it will be more possible to distinguish general language-related properties of (strategic) competence, which are also true for IL, from those being specific to each of the given languages and IL(s). In short, the findings might facilitate the study and discovery of (a) the nature of IL more comprehensively, (b) possible general principles underlying different language competencies, particularly strategic competence, as one component of communicative competence, and (c) the extent to which IL has conformity with these principles. The data presented here along with similar findings from further research (suggested in chapter six) will expand our understanding of language development and lead to a theory of instructed SLA and use which would be wider than the existing ones in scope and data it presents. "A theory of wider scope is better than one of narrower scope because it can be used to address a range of problems, or is more generalisable" (Larsen-Freeman and Long, 1991:289). Certainly, such theoretical bases will suggest more practical guidelines for pedagogical purposes to develop L2 learners' language competencies in formal classroom activities.

5.4.2. Pedagogical Implications of the Findings of this Study

One fundamental question one might ask is the implications that the findings of the present study can have in language pedagogy and instructed SLA.

The pedagogical implications of this study are two-fold:(i) implications with respect to the general aspects of language which are also true for IL, to which I refer

as "independent or global aspects"; (ii) implications regarding those aspects which are specific to IL development, or "dependent (or local) aspects". By the former is meant those aspects of language that occur independently of a particular language and are shared by human languages, and therefore are acquired and developed through the general principles and mechanisms of language learning. By the latter is meant the mechanisms of acquiring and using those language properties which are specific to a particular language and hence differ from one language to another

The former imply that the presence of properties of human languages are acquired and used with the least difficulties in SLA (see also James, 1981; Zobl, 1992). Since they are isomorphic in L1 and the TL, in language pedagogy, the least exposure and practice would suffice for the learners to overcome them and arrive at fluency and possibly accuracy in using these aspects in the TL. The latter, on the other hand, imply that the acquisition of those aspects that are dependent on, and peculiar to, the TL itself are difficult and therefore need specific focus in language curricula and course syllabi (cf. Spolsky, 1989, for example).

One of the primary implications of the findings of this study for L2 pedagogical programming is to make distinctions between in/dependent properties of the languages involved: the learners' L1, the IL, and the TL, particularly at the levels of communicative, strategic, competence. As seen, IL speakers use more or less similar problem-solving strategies to that utilised by the speakers of L1s to solve the same communication problems, when the problems pose the least linguistic demands (e.g. task one). They, on the other hand, use different strategies to solve those problems involving more specific linguistic or cultural burden. Regarding these facts, the distinctions become more decisive in language pedagogy. By such distinctions, educators can determine what should receive the least emphasis because of being

isomorphic among languages and more learnable for the learners (James, 1981), which aspects of the TL should receive the most particular attention as being dependant on the learners' L1 which may interfere with the TL and cause problems in learning and using the TL, and what belongs to L2 that are overgeneralised to IL. Put another way, the model and distinctions help understanding what is already or easily acquired in instructed SLA and what is acquired with the most difficulty; these may facilitate selecting and grading teaching materials and presenting them to the learners accordingly in communicative classroom activities.

Secondly, and with respect to the independent aspects, developing L2 communicative strategic abilities in formal language education appears to be firmly task-based.Using tasks with innovative communicative problems, teachers can help learners develop their SC via classroom activities. The use of referential communication which requires designing appropriate tasks and activities (see chapter one) are valuable means for these purposes, particularly in language communities in which L2 learners do not have access to the TL in natural communicative settings. Based on the methodology used in this study, with possible modifications, if required, syllabus designers can range teaching materials from the most isomorphic and the least (socio)linguistic/cultural-oriented tasks developing to the most communicatively problematic TL-based ones. Teachers, in turn, can present the graded tasks to the learners in smaller group classroom activities.

Thirdly, the general language-related features of this competence are implicitly acquired and developed along with the long-term proficiency development, as the learners are exposed to the TL (Bialystok, 1991c). They are parts of speakers' learning and language processing mechanisms (Anderson et al.,1994; Smith, 1992), or part of their strategic problem-solving mechanisms (Pressly and Meter, 1993). The least exposure would stimulate the

learners' underlying procedural knowledge to engage their strategic mechanisms in overcoming the learning/using problems (O'Malley et al., 1990; Oxford, 1990). In addition, much of these aspects of learning/using mechanisms are acquired during FLA and developing L1 language competencies (Corder, 1973; Bialystok, 1990; Zobl, 1992), which are transferable to developing those of L2. Thus the teacher's duties are to enable the learners to process these mechanisms and help them manipulate their procedural knowledge in L2 linguistic forms by designing appropriate and developing course syllabi and teaching materials.

The fact that L2 proficiency corresponds to both IL-conformity and degree of effectiveness of strategies has two implications, particularly regarding the "dependent" aspects of language teaching: Firstly, lower proficiency learners need more practice to manipulate their strategic abilities into the TL and prepare themselves for more strategic interactions. Secondly, it indicates that the second language knowledge has not well established in the learners' minds yet. For this reason, they refer to their L1-based properties of their SC and transfer them into the TL to solve the communicative problems in their IL performance. Clearly, instructions and practice through developing communicative activities will increase their strategic abilities in communicating in the TL. In other words, the learners cannot process their L2 knowledge to arrive at appropriate output. More intensive instructions can perhaps help such learners to control processing their L2 knowledge in strategic interactions, as will be discussed below.

The dependent, or local, aspects of language acquisition and use are more problematic from pedagogical standpoints; so, they call for more inclusive instructions, namely for L2 learners of the same/similar conditions as those who participated in this study. These aspects of communicative instructed SLA have to be carefully programmed in language programs, with special

focus on the development of strategic competence, as the findings imply.

It was revealed throughout this study that developing learners' communicative abilities closely relates to developing their language proficiency and SC. Therefore,if the curricula can plan progressive and developmental language programs, learners may find opportunities to achieve these requirements and thereby develop their oral communicative abilities. For language curricula to be successful in achieving these goals, it is necessary to have well designed course syllabi, teaching methodology and classroom communicative activities. In what follows, it will be argued how the findings of the present research may highlight some guidelines for these pedagogical perspectives.

5.4.2.1. Syllabus Designing and Communicative Teaching Materials

The findings, first of all, support the hypothesis that IL strategic competence has conformity with the similarities of the two natural languages. This suggests that adult L2 learners pass through an interlingual transitional problem-solving ability when they come to acquire a new language, particularly regarding the influence of L2 proficiency in IL-conformity. They, according to Corder (1980), are "open-minded" to the functions of language and know how to give such functions to language even when the necessary linguistic resources are not available to them. The learners, in other words, have a prerequisite knowledge of language and its communicative functions. Such "language awareness" enhances L2 development and learners' uptake of at least lexico-grammatical levels of the TL organisations (Nicholus, 1991:79). When learning a new language, mainly in non-native environments, the learners' major problems are learning how to put what they mean into the TL. This can be achieved through acquiring both the grammatical rules, to make grammatically correct utterances, and

necessary vocabulary to make the utterances meaningful. Using their IL, learners , however, will find themselves to be in need of more than linguistic or grammatical fluency to use the lexico-grammatical organisations of the TL accurately from one situation, task, context to the other.

Knowing these facts, which were also supported in this study,sketches some blueprint for language pedagogy. Language curricula should encompass the requirements necessary for communicative language teaching. It also gives directions to syllabus designers, to go beyond merely the grammatical aspects of language to designing materials that can encourage students to communicate inside classrooms and lead them to creative language use. Such on going course syllabi will enable language educators to teach learners to use the TL appropriately and accurately according to the context, and to be communicatively and contextually creative. Since each context requires its own (contextual) conditions, learners should acquire how to act differently according to different contexts through instructions. The questions raised are then how to teach the learners to view learning materials in different contexts and use them accordingly.

It is worth mentioning here that the differences between the two groups of IL speakers performing the tasks seemingly illustrate a developmental continuum of IL strategic competence from the most L1-based stages to the most TL-based levels. This, being in line with Corder's (1981) and Selinker's (1992) and Bernhardt et al. (1995) propositions of developmental stages of IL, implies designing developmental teaching materials, too. Materials that gradually increase in communicative problems posed in them from the least difficult, based on isomorphic language properties, to the most difficult ones, which are based on the TL properties, as learners' strategic skills develop.

Given the transitional developments of IL SC, documented in two levels of L2 proficiency here, the organisation of course syllabi becomes more radical. In this regard, the findings can have considerable impact on language pedagogy. It was argued before that classroom language teaching should be focused inclusively, developing to exclusively, on communication. The course syllabi, then, should attempt to control the level of difficulty of communicative demands posited on the learners in each developmental stage of the learners' communicative strategic abilities, as Corder (1976:78) comments. "Instead, then, of grading the linguistic material that we expose the learner to, we should consider grading the communicative demands we make on him, thereby gently leading him to elaborate his approximative system" (see also Nunan, 1991b; Savignon, 1991). If our course syllabi could provide learners with communicative situations in communicating the tasks or referents given to them inside classroom in learner-centred curricula,learners would not only learn how to tackle problems in L2 communication, they would also acquire and develop a knowledge of the TL linguistic system. That is, through their communicative activities to solve problems, learners expand their "semantic competence". These activities, in turn, help and motivate them to move from semantic to syntactic processing (Swain, 1985:249). The tasks hence should not be too difficult to cause frustrations and message abandonment on the one hand, and not so easy for learners to surpass their strategic competence on the other.

5.4.2.2. Teaching Methodology

It has been generally accepted, and the findings of this study also document, that strategic competence most likely develops through experiences and exercises, or communicative activities, in genuine communicative situations (see also Canale and Swain, 1980; Bialystok et al., 1987; Chen, 1990). This is particularly important in language programming and language teaching methodology in

monolingual environments (countries) such as Iran. In such environments, the L2 learners rarely find opportunities to communicate with the L1 speakers of the TL even inside the language classrooms, since language teachers are rarely English native speakers. The only TL sources that are available to the learners are textbooks, language teachers, who are of the same native language as the learners, and probably some autio-visual facilities sometimes used as teaching aids and technology.The mutual or small group communication of the given tasks present learners to a "meeting of minds" (Candlin, 1991), and can thus be considered as practical ways to encourage learners in genuine communication and by these means practise using their strategic competence effectively to make their communication effective. In other words, using these procedures within appropriate communicative activities, the teachers can conduct learners to increase their ability to use effective strategies and strategies effectively, as seen in EL1 and ILa speakers' performance in this research.

When learners are actively engaged in dynamic exchanges of their intended meanings, ideas and feelings, in the TL, they attempt to creatively make the best use of their resources to capture the communicative goals. The more creative the tasks and methods of presenting them to tasks are, the more creative the learners in their strategic behaviour will be. The outcome would encourage them to stimulate their learning and using mechanisms to transmit the input into full intake and comprehensible output (Swain, 1985). This study, if not more, at least suggests that emphasis should be on communicative language teaching, classrooms should be divided into smaller group activities, communicative methods must be flexible across communicative tasks and language proficiency, as learners' SC demands. All these would foster acquisition via communicatively task-based learner-centred classrooms in instructed SLA and use.

CHAPTER SIX
CONCLUSIONS AND SUGGESTIONS FOR FURTHER RESEARCH

In this last chapter, I shall present some possible conclusions that might be drawn from the findings of this study. The conclusions are concerned with IL-conformity in strategic competence relating to task variability, language proficiency, and effective use of strategic competence. Then,I shall offer some tentative suggestions that might be used for future research into SLA and IL use within the framework of IL-conformity in general, and strategic competence in particular.

6.1. Preliminaries: a Word of Caution

It was previously pointed out that this study is a starting point, attempting to draw attention to SLA research, within the framework of IL-conformity, mainly at communicative levels of language. As a case study and to taste the working capacity of the framework, strategic competence was touched upon in a limited number of primary and secondary languages. This competence was chosen because it is a new concept in research into F/SLA and use and encompasses both cognitive and linguistic processes, which are the two demands of L1/L2 development (Bialystok, 1994). The IL speakers were different in "degree levels", rather than in "type" or L1 backgrounds. Therefore, before any conclusions are drawn from the findings, like the implications, it should be noted that conclusions and generalisations must be regarded with caution in view of the following:

Firstly, one has to be cautious of overextending the findings of any SLA studies, both in theory and practice; a danger that Selinker (1992) warns of when he criticises overgeneralising the results of a particular IL study to

"an entire IL without taking into account the problem of genre and discourse domains in IL learning" (p.242).

Secondly, the investigation seems to illustrate that IL SC has conformity with the similarities of the two L1s across various tasks, with more developed L2 having more conformity. Yet, because of the limited number of languages used, the study needs to be extended by further research in the same directions as the present one to provide more data from the performance of SC of speakers of other L1s and ILs of different L1 backgrounds for confidential generalisations; this study was done just as the first attempt to raise more questions than it answers. It is in other words a "hypothesis raising" rather than "hypothesis testing" study, though two hypotheses were originally formulated and tested here. The methodology and tasks employed in this study proved to be working and goal-achieving for the purposes of similar studies of this type. The conclusions drawn and the generalisations made are tentative and "consciousness-raising" for SLA researchers and to some extent suggestive for further research, as will be propounded.

Thirdly, it is expected that the findings of this study with other studies in the same direction will demonstrate that not only IL strategic competence can be looked upon within IL-conformity framework in referential communication, but also other aspects of IL can be investigated within this framework. Then, it will be more possible to study IL, as a natural language, in all aspects, namely in its communicative dimensions, rather than merely, or mostly, in its grammatical aspects.

6.2. General Features and Principles of Strategic Competence

The major undertaking of the present study was to find whether or not the L2 learners' strategic competence used to overcome referential communication problems has consistency with the similarities of the same competence in native languages. The study basically attempted to

answer the questions triggered first by Eckman's (1989, 1991) notions of typological conformity and raised by Tarone (1980), Bialystok (1984, 1990), Yule and Tarone (1990) and Shaw (1992) that there are some universals for strategic competence shared by all natural languages including ILs. It was originally hypothesized that if the similarities of the competence among a group of different L1s are sorted out, there will be some general features of (L1) strategic competence with which IL will show conformity across different tasks.

The core interest in this investigation, thus, has been to identify certain types of compensatory strategies that occur in the performance of L1 and IL speakers in common as instances that show consistency, or conformity, of the latter with the similarities of the two L1s. A corollary of this attempt would be an answer to some of the questions concerning the processes of IL conformity in SC.

To identify the general principles underlying the concept that are activated for solving communication problems, as the primary steps, two major problems had to be tackled: (i) Strategic competence in L1s had to be elucidated and its performance established, because there were still hesitations about the existence of this competence in L1, on the assumptions that the phenomenon is unique to IL (see chapter two); (ii) and, for the same reason, no corpora of the performance of SC and the similarities of this competence among various L1s were available. The similarities had to be sorted out by comparing strategic competence of native speakers of a set of different L1s doing the same communicative tasks.

To begin with, two groups of different native speakers' SC were elicited and compared. It was evidenced that strategic competence **in L1s does exist** and is also activated when their native speakers encounter communicative problems.

The heavily similar performance of the competence among the groups of L1s leads one to conclude that there

are certain underlying principles of strategic ability in referential communication that are held in common for primary languages. Since the two L1s compared in this study are so drastically distant that it is unlikely that they can influence each other, one can also tentatively conclude that these processes are general principles of strategic competence.

The results of the study supported the hypothesis that there is some sort of conformity between IL and the similarities of the primary languages in SC (evidenced and discussed in chapters 4 and 5). To believe that this conformity exists per se implies and conclusively denotes that: First of all, such general principles do exist with which ILs show consistency, otherwise IL-conformity would be meaningless. Secondly, both L1 and IL, at any stage of development, have SC which may overlap to certain extent when dealing with similar communicative problems.

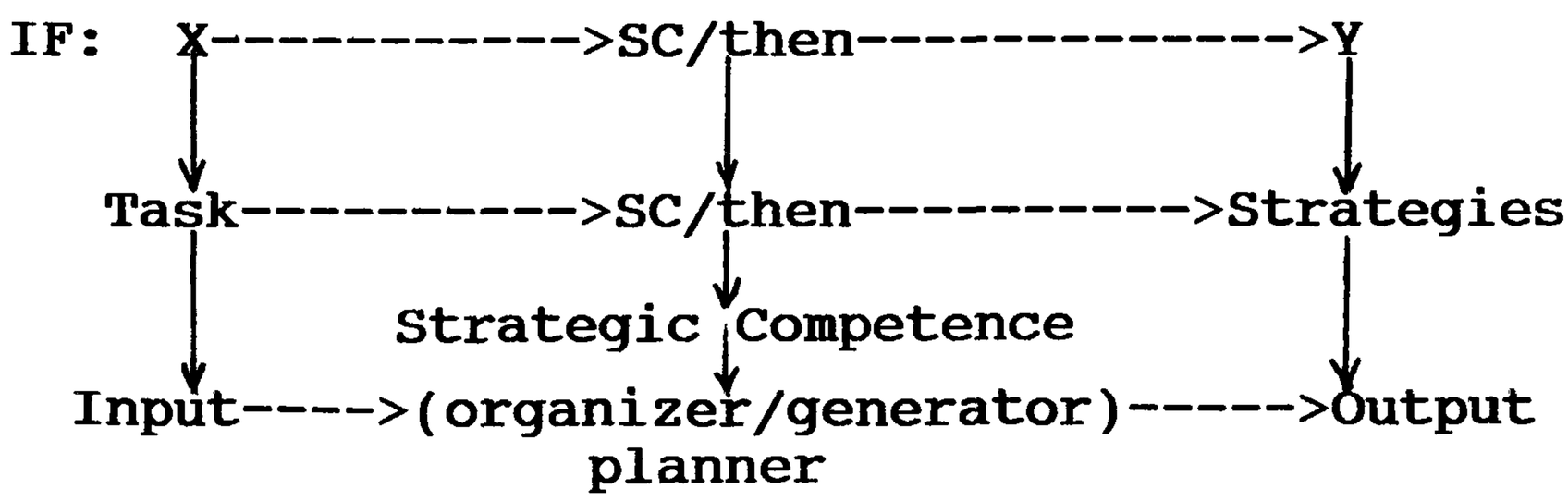
Ellis (1988) and Shaw (1992) maintain that a linguistic phenomenon is universal if it occurs in the speech of L1 speakers and IL learners. If this proposition is correct, one can conclude that: (i) strategic competence is a general (universal) language-related phenomenon, as it operates in both L1 and IL to generate compensatory strategies. (ii) This competence is partially activated by general underlying processes to generate certain similar strategies in both L1s and ILs. These strategies can be also perceived as general, or universal, features of this competence, as they occur similarly in the speech acts of L1 speakers of two highly distant languages (English and Farsi) and IL speakers of two different L2 proficiency. Hopefully, more studies will provide more information for stronger claims and generalisations.

6.3. IL-conformity in Strategic Competence in Referential communication is not Task-dependent

It was also the aim of this study to discover whether or not IL-conformity in referential communication is task-based. The subjects' used different compensatory

strategies to handle different tasks, based on the properties of the referents. One can therefore conclude that SC is activated according to the features and properties of the given tasks. Thus task and context are two of the influencing factors in processing the competence to generate compensatory strategies, as discussed before (see 4.4.). Despite these facts, in performing each task, IL speakers' strategic behaviour followed, to a certain degree, the same patterns of regularities as those used similarly by the speakers of the two L1s in common.

The nature and the number of the tasks used in the experiment, as the results denoted, were sufficiently eliciting and the subjects' strategic reactions to the tasks informative enough to evoke such a conclusive inference. The subjects' miscellaneous performance of SC across three heterogeneous elicitation tasks reveals that their strategic behaviour occurs systematically, not incidentally. So, there seems to be some systematic relationships between type of task, context/activity and the performance of L1 and/or IL SC in referential communication. The following logical "if-then" conditions state such relationships,as hypothesized in this research (see the second part of Hypothesis 1, chapter three).



For IL-conformity processes, such variation was not very effective. That is to say, in spite of task variation, IL-conformity occurred in the performance of the two IL groups using their SC both within each and across various tasks wherever the two L1 groups' SC disclosed similarities. Consequently, in the light of the findings of the present study, two generalisations may be

circumspectly concluded: (a) In operating this competence to generate compensatory strategies IL-conformity is not task-based; it is a process observable across various communicative tasks, i. e. whenever the same competence in two, and probably more, L1s overlap and operate according to the same principles, IL is expected to conform with such principles. (b) The performance of SC in referential communication in L1 and L2 is task-based; speakers use various strategies for various communicative tasks/activities. However,further studies, will hopefully provide more supporting data for these tentative generalisations, mainly the first one.

6.4. The Relationships Between IL-conformity and Language Proficiency in Referential Communication

In this study both groups of IL speakers demonstrated conformity to certain degree with the similarities of the L1s involved.The number of verifying instances--those instances confirming the hypotheses--in the performance of ILa speakers' SC are more than those of ILb group. Conversely, the falsifying instances in the former are less than those in the latter (see table 31). These document logical relationships between the degree of IL-conformity and levels of L2 proficiency in the performance of this competence, or using compensatory strategies, in referential communication.

The degree of effectiveness of the strategies that IL speakers use appears to be even more proficiency-based than the IL-conformity itself. This can be inferred and concluded from the comparisons of the degree of effectiveness of the strategies that both groups used to solve their communication problems. In short, the higher the IL proficiency level is, the more IL-conformity and the more effective the strategies will be.

6.5. Suggestions for Further Research

The IL-conformity framework used in this study and strategic competence examined within this framework

suggest a number of areas which call for future research into aspects of SLA and use. Most important in this regard are the two areas of research as the off-spring of the present one: (i) The IL-conformity itself as a framework for studies on aspects of SLA in general, and (ii) strategic competence in L1 and L2 development, within and out of this framework, in particular. Both as new concepts in SLA research can, and it is suggested should, be taken into consideration with respect to task variability and variability in L2 proficiency levels. For the former,the framework can be working in studies on the grammatical (phonology and syntax),semantic and pragmatic aspects of language. For the latter, studying strategic competence of L1 and IL speakers of other languages can provide more valid and reliable data to increase our understanding of the nature of this phenomenon, the general language-related properties of this competence and the extent to which ILs of other ESL students may have conformity with these general, properties of this phenomenon.

With respect to the former, a set of suggestions can be put forward. First of all, the framework can be used in studying IL structural conformity with universals of grammar, UG or implicational universals (see chapter three). Doing this, the IL-conformity hypotheses should be tested across different elicitation tasks and language proficiency levels; these are the two reliable means for testing such and similar hypotheses, as mentioned before. The development of IL "semantic competence" can also be approached within this framework. Following Blum-Kulka and Levenston's (1983) procedures and the methodology used in the present research, one can investigate the processes of developing semantic competence in L1 and the extent to which IL-conformity is observable in acquiring L2 semantic competence by learners of different L1 backgrounds. Similarly,one can study different aspects of pragmatic competence, or "E-language" (Chomsky, 1980:20), to discover the similarities of this competence, in

features and underlying principles, in the performance of L1 speakers of the given languages and to see the degree to which the speech acts of L2 learners of different L2 proficiency levels and/or L1 backgrounds demonstrate consistency with those principles. The results and findings of all these and similar studies will certainly have pedagogical implications in instructed SLA and use.

For the latter, studying SC, the concept can also be investigated in a number of ways. First of all, the trend needs to be approached in the same directions as the present study with speakers of other L1s and ILs of different native languages. This study was occasionally referred to as a starting point which calls for more data from further research to ascertain the generalisation and possibly predictions that may be made for the performance and development of this competence in both L1 and IL. Once more, the continuation of this departure by other studies in both scope and aims should be emphasised

The universal aspects of SC have to be found and listed. I complained before about the lack of lucid corpora of the performance of the notion (see chapter three, 3.3.3., and chapter four,methodology section), and the problems that researchers confront in such cases. The primary significance of such studies can be to enrich the art with the corpora from the performance of a variety of both L1 speakers and L2 learners to be used for comparative studies, categorising universals of this competence, and determining the IL-conformity with these universals.

Secondly, the other research area worth pursuing in the same direction is strategic competence in written discourse. Most research into communication and, particularly, compensatory strategies has focused on the speakers' oral discourse. The questions regarding the operations of this competence to solve communication problems in writing have remained unanswered. One can thus ask whether L1 and/or IL speakers' SC in written referential communication operates the similarly or

differently in dealing with various tasks on the one hand, and if it operates the same as or differently from the ways it does in oral discourse on the other. In other words, whether this competence is activated similarly in the two productive language skills, oral and written, in referential communication; and, whether or not the phenomenon discloses the same conformity with that of L1 in written discourse as it does in oral discourse in referential communication.

Further research is also required with respect to the operation of SC to overcome the grammatical and phonological problems in language use in SLA. Although lexical demands have been more recognised to be more important than grammar and phonology in language communication (Roberts, 1986; Kellerman, 1991), lack of grammatical and phonological knowledge will cause communication problems, too. Sometimes mispronunciations, or the use of incorrect stress and intonation, cause miscommunication even among native speakers. Thus it is worth carrying out studies to find out the ways L2 learners (I emphasise L2 learners because they are more concerned with this point) tackle the phonological and/or grammatical problems raising from the required linguistic deficits in communicating in the TL. If a SLA researcher takes the risk of undertaking any study in these areas within the framework of IL-conformity, fortunately,there are already well-established corpora and principles to rely on in observing both L1 and IL speakers' use of SC to solve grammatical problems and determining the processes of IL- conformity in these areas. The results, moreover, may shed light on whether there are two types of strategic competence: grammatical strategic competence and communicative strategic competence, each operating separately in its own field, or there is only one strategic competence that operates to solve communication problems whether they are grammatical, or pragmatic.

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APPENDICES

APPENDIX ONE (I)

THE PILOT STUDY

The following tasks were used to elicit the L1 and IL speakers' strategic competence in the pilot study.

INSTRUCTIONS

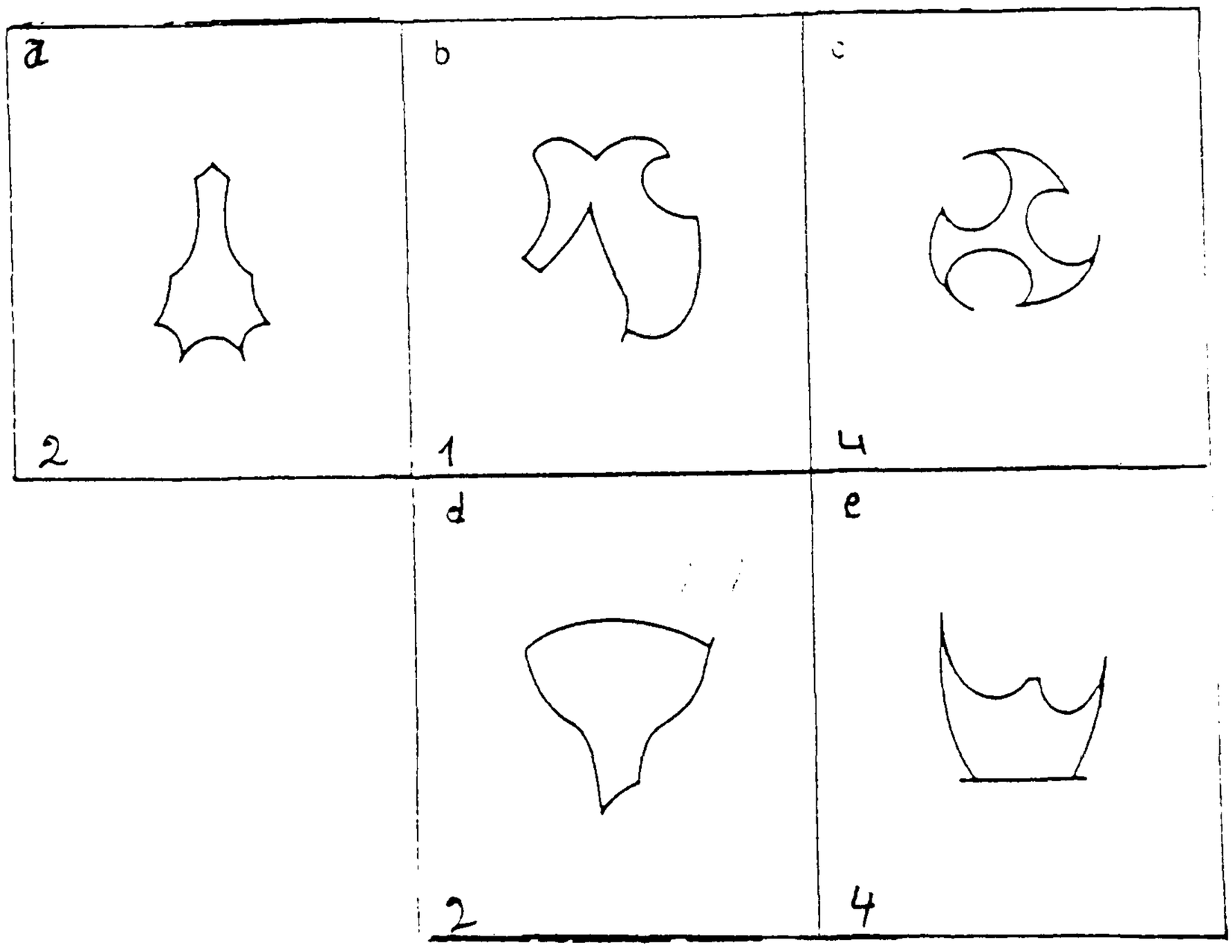
Dear student/speaker

Thank you very much for spending time and doing this task as the speaker. In this experiment you will be given some tasks/activities. Please read the instructions before you do each task.

(1) Task one: Abstract shapes

(i) The Speaker's Task

In The following there are five unconventional (abstract) / shapes. The shapes do not have any particular names. Your partner/listener has several alternatives for each shape. Please describe each shape to your partner/listener so that s/he can identify the shape that you are describing among a set of more shapes.



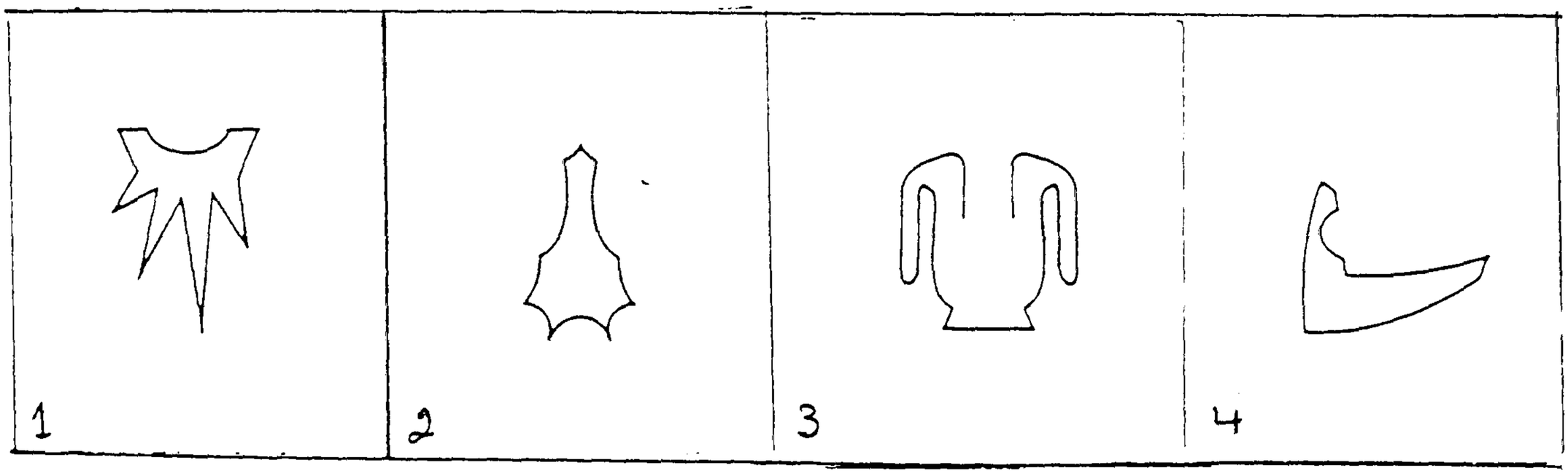
Task one: Abstract shapes

(ii) **The listener's Task**

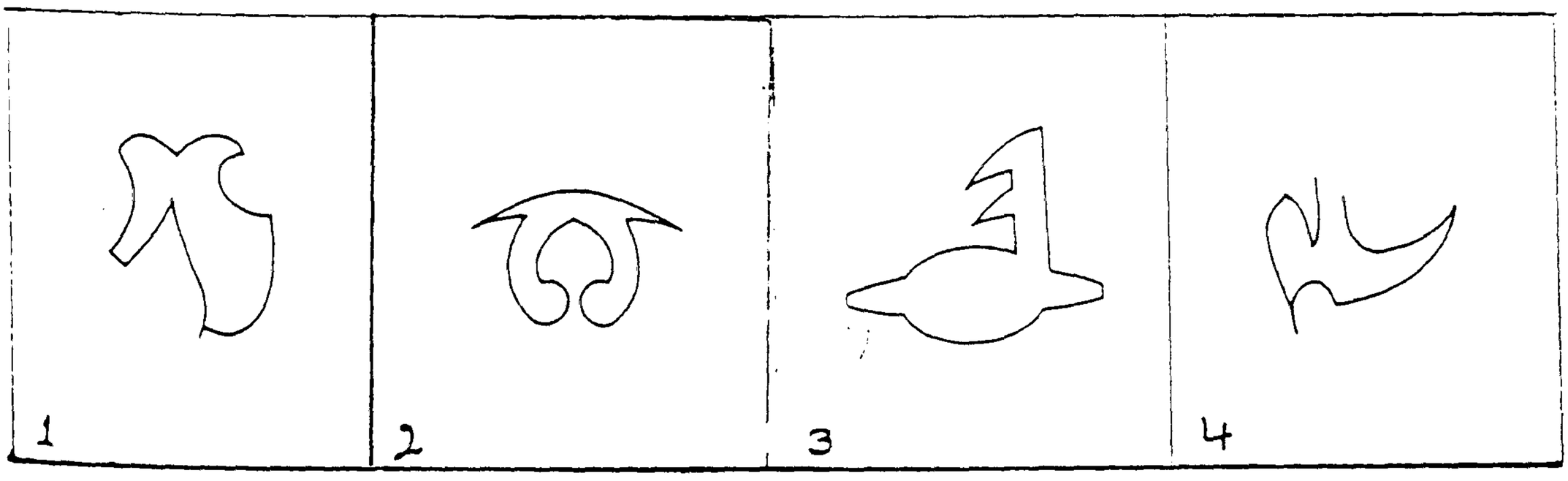
Dear student/listener

Thank you very much for spending your time doing this task. In the following you will be given five sets of unconventional shapes. In each set,there are four shapes. Your partner, the speaker, describes only one of them. Please listen to him/her and try to guess the intended shapes.

A



B



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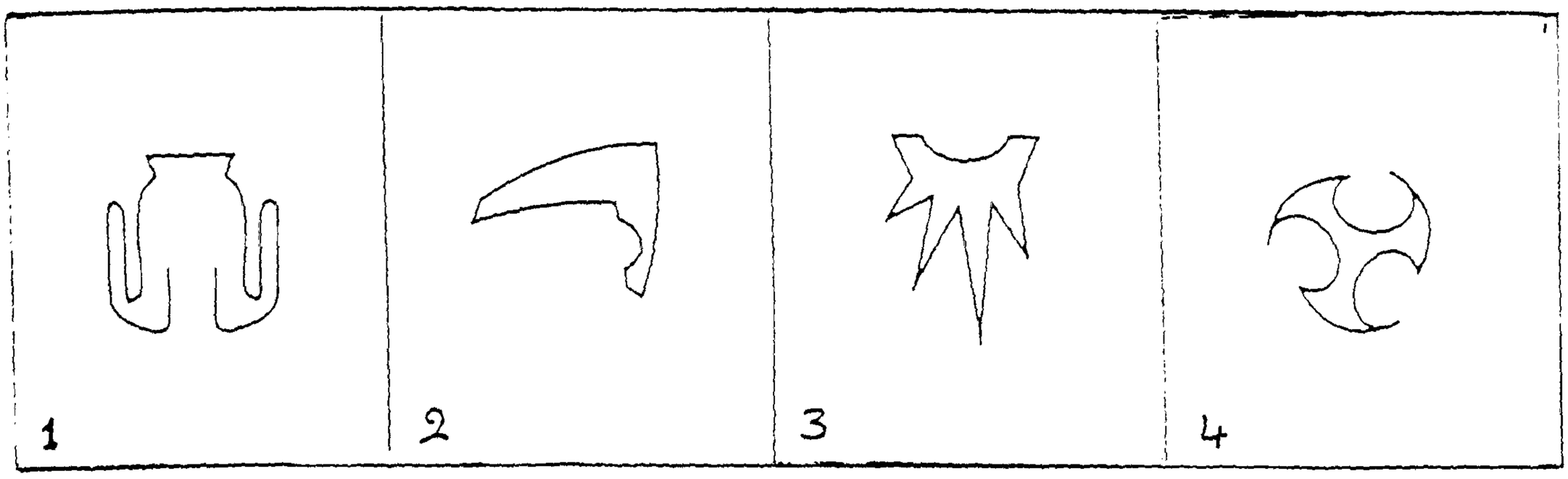

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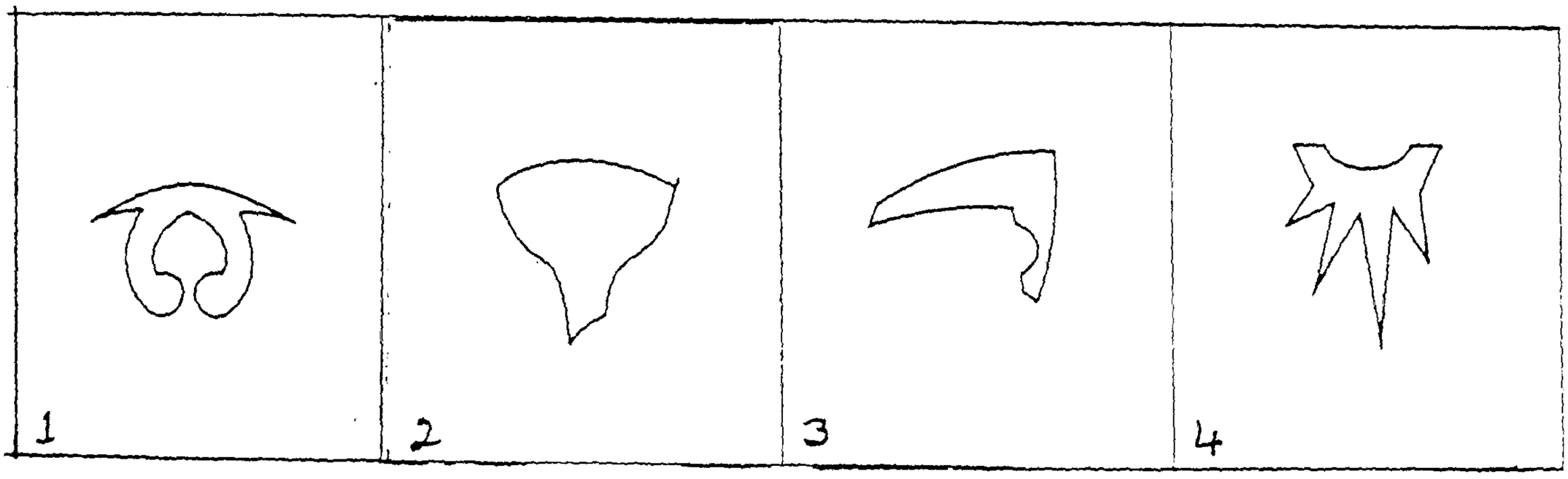
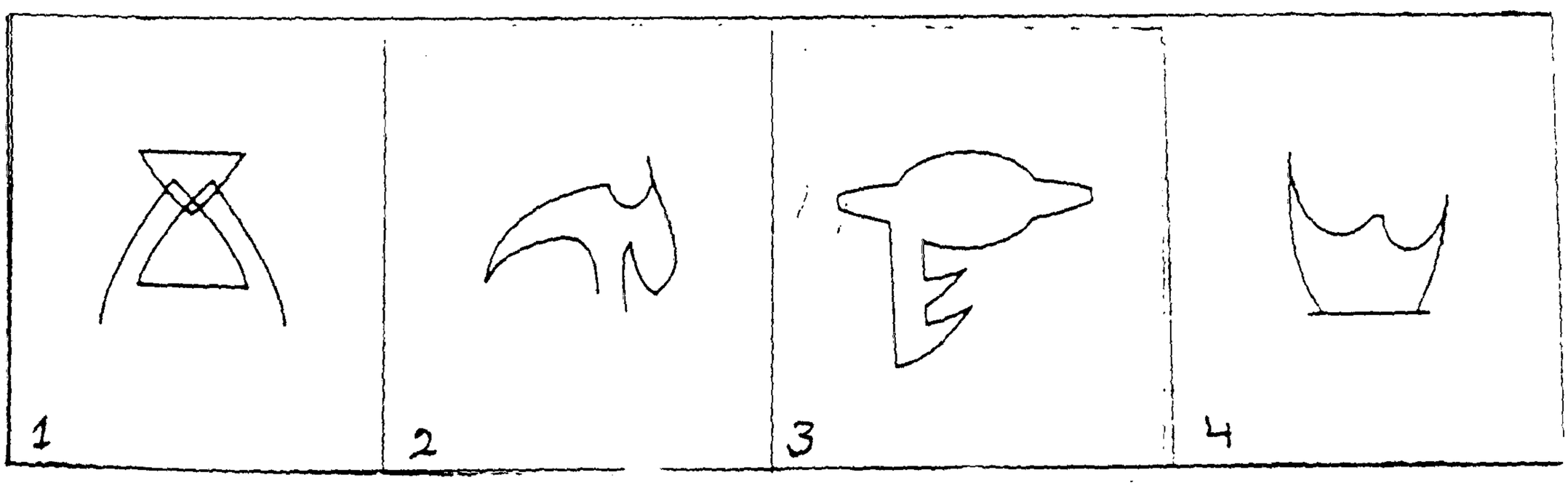


E



(2) Task Two: Abstract Concepts

(i) The speaker's task

Dear student/speaker

In the following there are five words; each word conveys an abstract concept. Please explain each concept to your partner, as the listener, so that s/he can identify it from a set of more concepts (words). The listener will tell you the word. If s/he is correct, please go on to the next word; if not, please explain it only once again.

"Thank you"

THE CONCEPTS

1- Freedom

2- Salvation

3- Martyrdom

4- Justice

5- Sympathy

Task Two: Abstract concepts

(ii) The listener's Task

Dear student/listene

Bel o w, you have been given some words, each word as an abstract concept. In each number, the speaker will explain only one word, a, b, c, or d. Please listen to the speaker and try to identify the word that s/he is explaining to you. Then, tell the word or the code (a,b, c, or d) to the speaker. If you are correct, s/he will go on to the next word; otherwise, s/he will explain it only once again.

"Thank you"

THE CONCEPTS

1- a. Freedom
b. Justice
c. Prisoner
d. Escape

2- a. Spirit
b. Innocent
c. Damnation
d. Salvation

3- a. Salvation
b. Murderer
c. Suicide
d. Martyrdom

4- a. Destiny
b. Jealous
c. Curiosity
d. Conduct

5- a. Grief
b. Sympathy
c. Congratulations
d. Mourning

(3) Samples of the Subjects protocols in the pilot study

(1) The referent is "e", the last referent

(i) English Native Speaker (EL1)

A: --"...er... this shape ermm... is like...er...like a crown on er... someone's head... got it?

B: number "4"?

A: yeah

(ii) Farsi Native Speaker (PL1)

(Persian Version)

A: --"i:n shekl mesle emm...ɣeik er...kolâh āst bâ chānd forou rāfteghi dār dâkhel ân... yā mesle ɣeik tâj āst... fāhmi:di:?"

B: shomâre "4"?

A: bāleh.

(ii) PL1 (English translated Version)

A: --"this shpe is like emm... a hat with some depress-ions inside it...or like a crown...Did you understand?"

B: number "4"

A: yes.

(iii) Interlanguage Speaker (IL)

A: --"...er.. this shape is... ermm near to a er... a cap or emm a crown... of kings did you understand?"

B: munber... "4"?

A: yeah

(ii) Referent number "2"

(i) EL1

A: --"... the shape looks like a honey leaf..."

B: number "2"?

A: yes.

(ii) PL1 (Original Version)

A: --"i:n shekl mesle râket dār hâle pārvâz āst dār bâlâ kheili noktiz āst... bâ do khāte monhāni ke be pâyi:n miâyād vā dār pâyi:n tārki:bi: āz chānd khāt monhāni:st... roushāne?"

B: shomârehe "2"?

A: dorost āst?

(ii) PL1 (Translated version)

A: --"it's ... like ... a flying rocket very sharp at the top...with two curved lines comming down that is composed of several lines at the bottem...clear?"

B: number "2"

A: that's right

(iii) IL

A: --"...it has a lot of ...of curved lines... with sharp... points ...especially in the bottem... with a large handle upside...did you understand?"

B: "2"?

A: yes.

Abstract Concepts

The referent is "Freedom"

(i) EL1

A: --"..erm.. to be able to do whatever you would like ... er... being able to walk in the street not being prisoner ... it would mean liberty... got it?"

B: Freedom?

A: yeah

(ii) PL1 (original version)

A: --" chi:zist ke hār fārd betāvânād ânche ke mikhâhād bekonād...yāni māhdood nābâshād... zi:er contorol kāsi nābâshād...yāni rāhâie... khob?"

B: âzâdi:

A: dorost āst...

(ii) PL1 (translated version)

A: --"something which means to be able to do whatever the individual wants to ... do ... or without being controlled .... means to be released... right?"

B: Freedom?

A: That's right

(iii) IL

A: --"...it's a noun ...a ..an adjective <quality> ... everybody likes to have it .. not being under the control of others ... one can do and decide by himself ... can say his ideas.... did you find?"

B: ermm... freedom?

A: yes, correct.

4. Samples of Statistical Analyses carried out in the pilot study

Table(1): The comparison between the total strategies used similarly by EL1 and PL1, and those of IL conformity.

Groups	$\bar{X}$	SD
Total	44	6.15
Conf.	34	7.96
n= 6 t= 2.43; df.=10; p< .05		

Table (2): Comparison between the total strategies used similarly by EL1 and PL1 and those which showed IL conformity in task one(1).

Groups .	$\bar{X}$	SD
similarity	29	5.69
conformity	24	6.43
n= 6 . t= 1.25; df.=10; p< 01 (ns)		

Table (3): Comparison of the total strategies used similarly by the L1 speakers in task 2, and those that showed the IL conformity

Groups .	$\bar{X}$	SD
similarity	14	2.89
conformity	10	2.2
n=6; t= 1.7 ; df=10 P<.1 (ns)		

APPENDIX TWO (II)

L2 LEARNERS' SCORES ON LANGUAGE PROFICIENCY

Table (1): Differences between the two goups of L2 learners' language proficiency levels in both MCHE tests and oral proficiency.

	Groups			
	ILa		ILb	
	$\bar{X}$	SD	$\bar{X}$	SD
Teasts				
Oral Prof.	80.43	6.11	66.78	4.95
MCHE	82.12	4.65	72. 81	3.48
	n=30;	df=58		

APPENDIX THREE (III)
TASKS OF ELICITATION USED IN THE EXPERIMENT

(1) Task One : Abstract shapes/ Unconventional shapes

(i) The speakers' task

DIRECTIONS

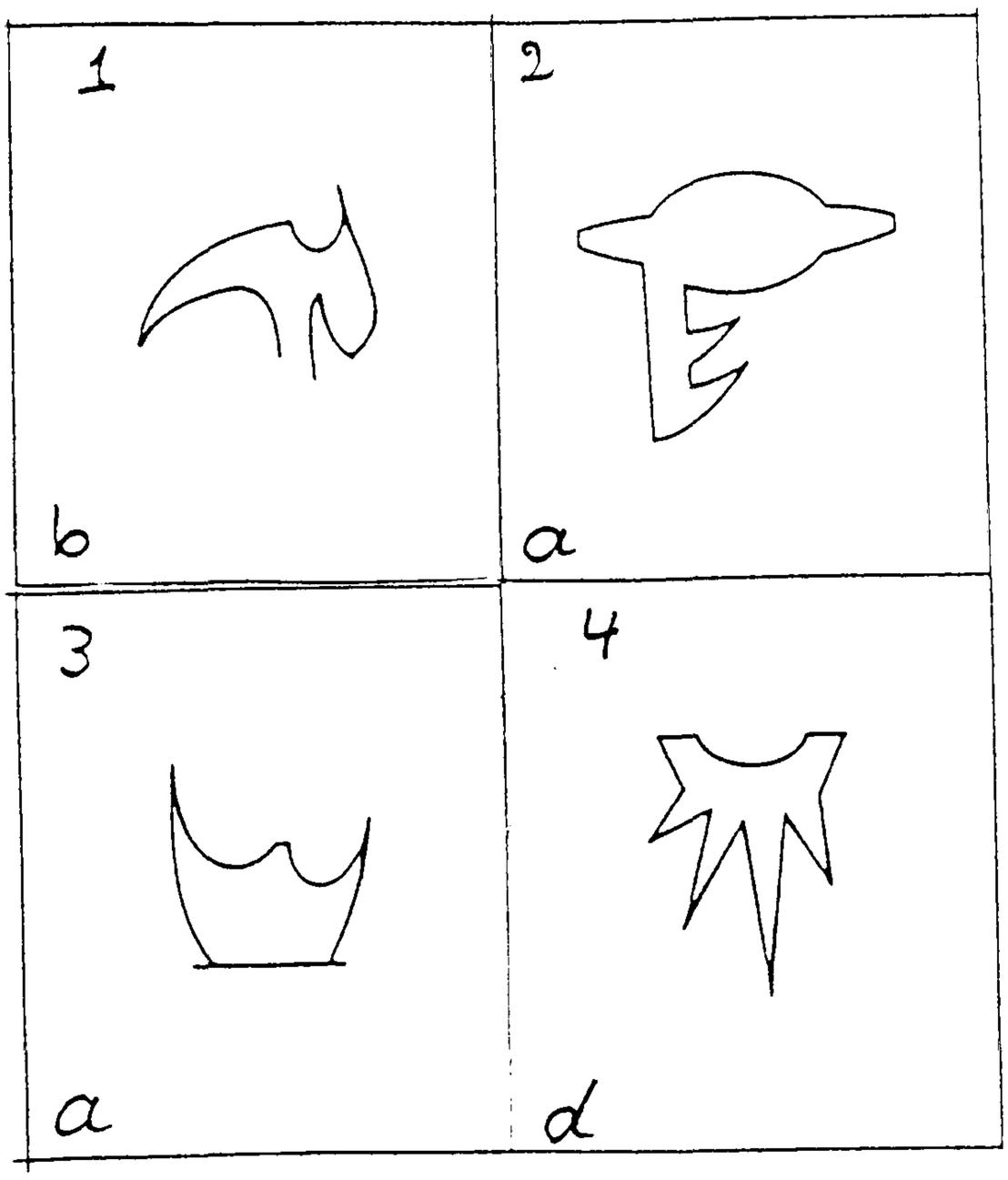
Dear student/speaker

Thank you very much for taking part in this experiment. Please read the instructions before doing each task.

TASK ONE (1), part A: Unconventional shapes

This task (in part A) consists of four (4) shapes. Please describe each shape to your partner (as the listener) so that s/he can identify the shape that you are describing among a set of shapes. In the listener's task,each shape has been coded alphabetically. For each shape, the listener will tell you the code to indicate that s/he's got the shape (you have the same coded shapes in another sheet to check if s/he is correct). As soon as the listener confirms that s/he's got the described shapes,if s/he is correct, please go on to the next shapes; if not,please describe the same shape just once more.

"Thank you"

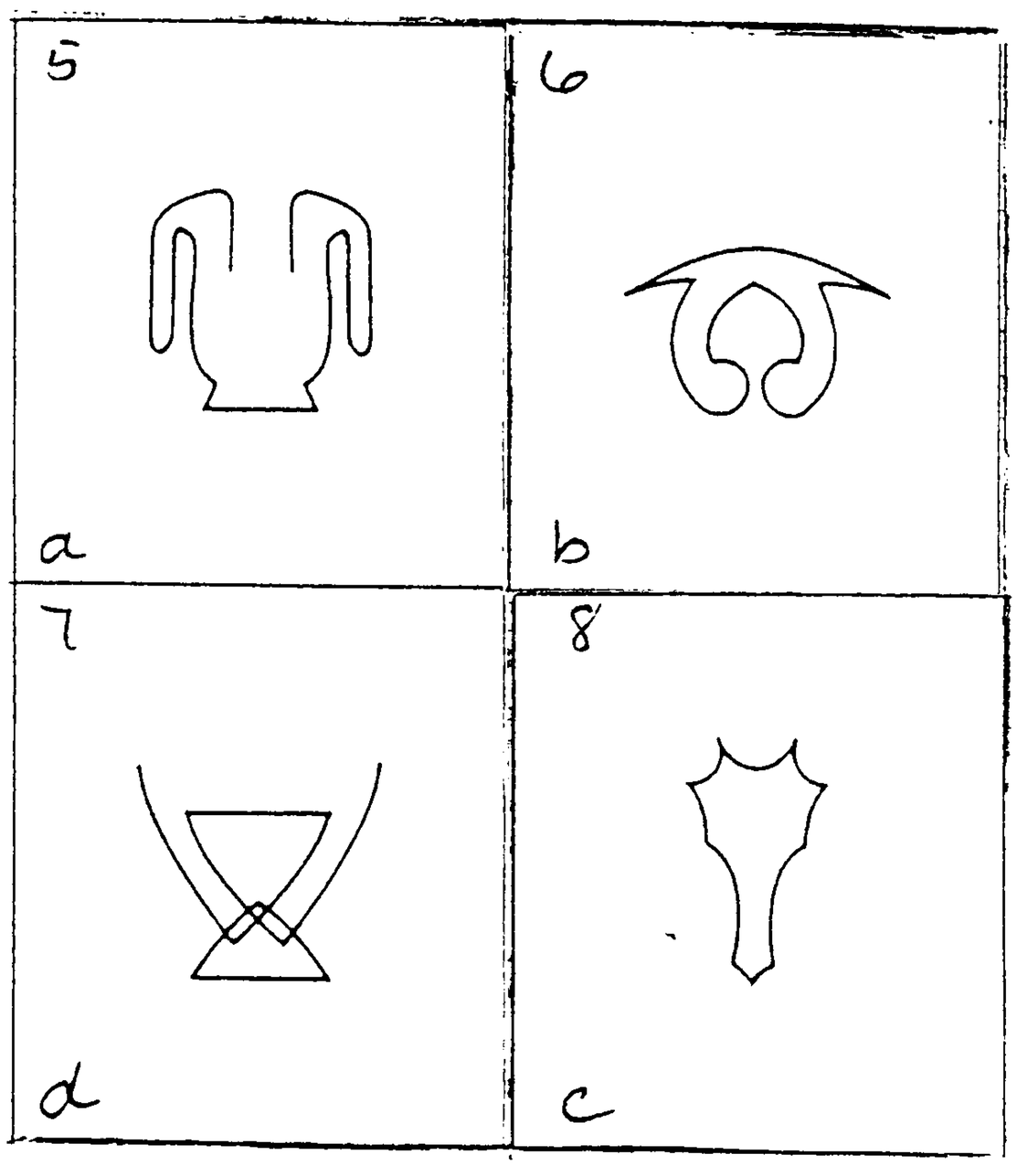


TASK ONE (1), part B: Abstract/unconventional shapes

Dear student/speaker/

This part also consists of four (4) shapes. In doing this part, please follow the same procedures as you did for part A.

"Thank you"



TASK ONE (1): The listener's Task

Dear student/listener

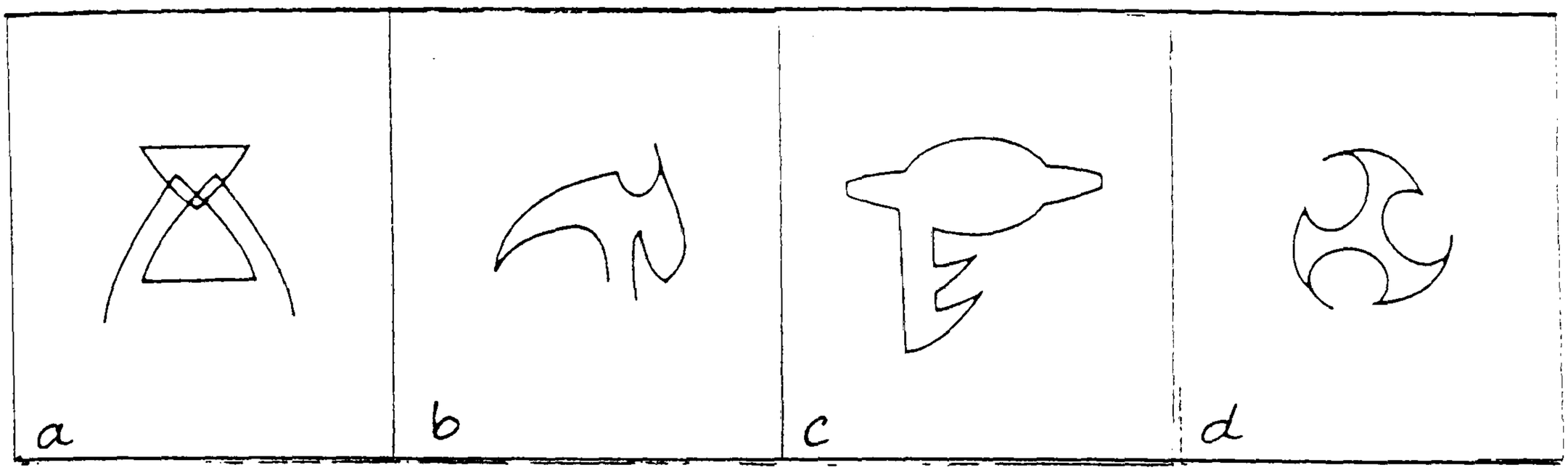
Thank you very much for taking part in this experiment. Please read the instructions before doing each task.

<u>TASK ONE (1), part A: Unconventional Shapes</u>

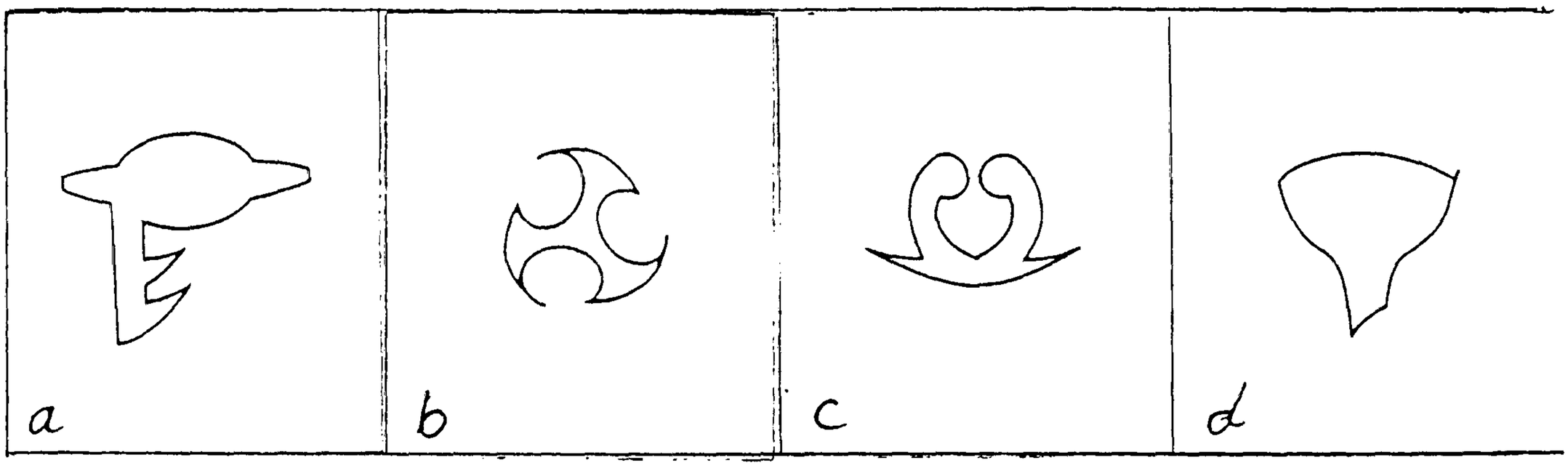
Your partner as "the speaker" will describe only four (4) of the shapes that you, as the listener, have in your task, part (A). Please listen to her/him and try to identify the shape that s/he is describing. As you see, the shapes in your task have been coded alphabetically (A, B, C, ...). As soon as you've got the correct shape, please say the code of the shape to the speaker. If you are correct, s/he will go on to the next shape; if not, s/he will describe the same shape just once more.

"Thank you"

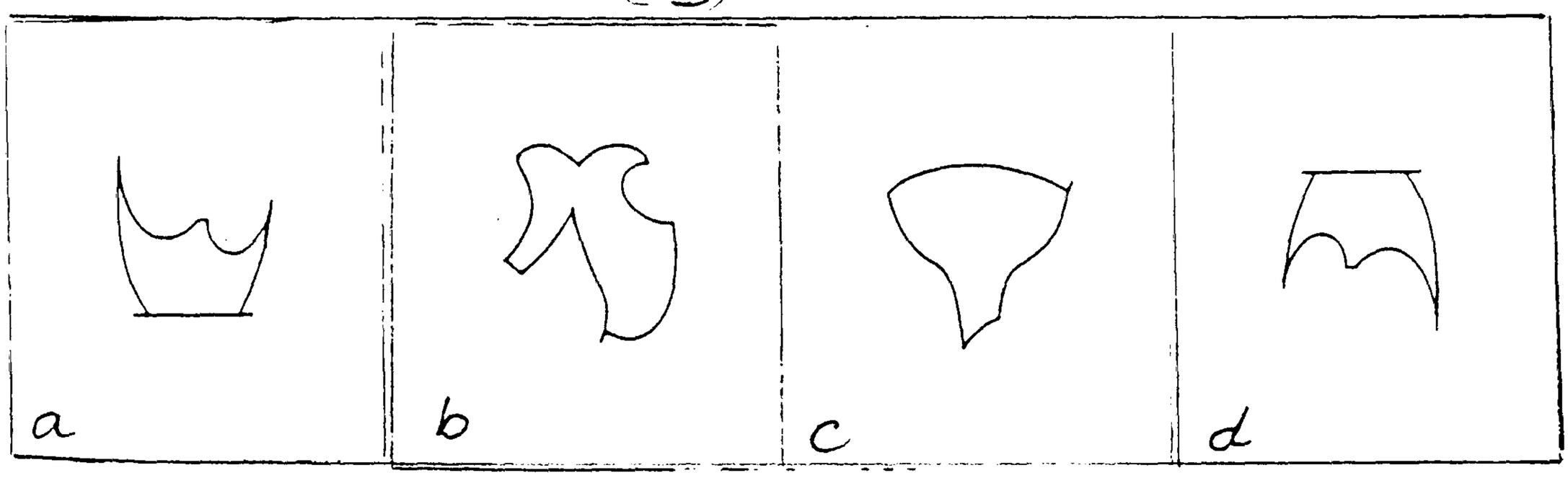
(1)



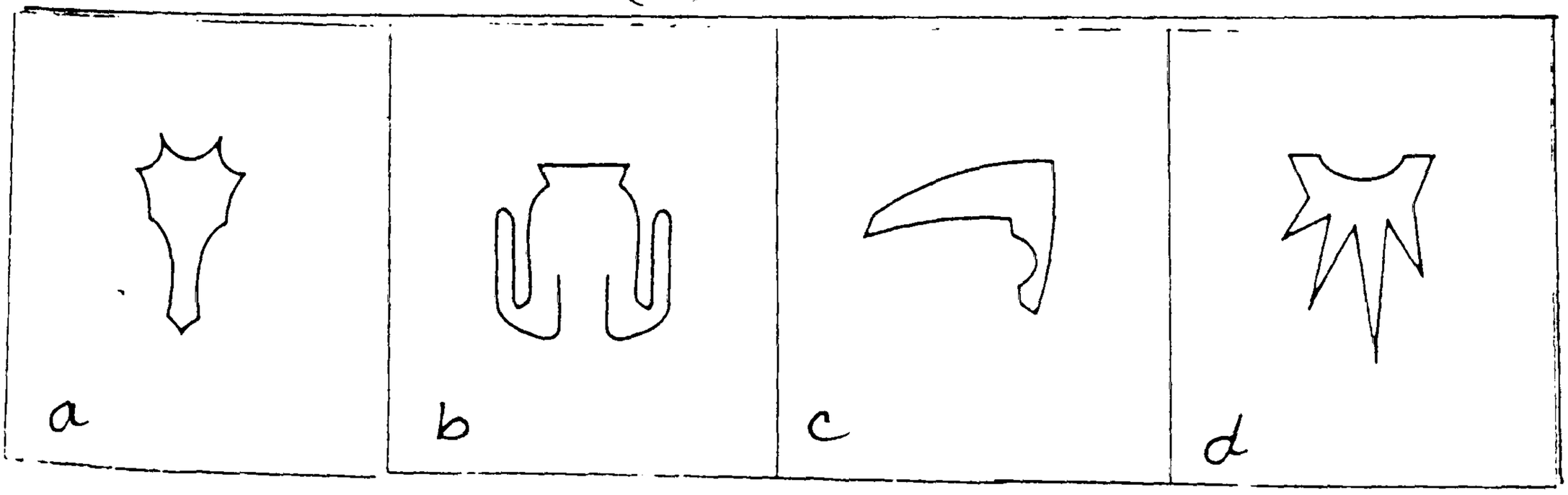
(2)



(3)



(4)

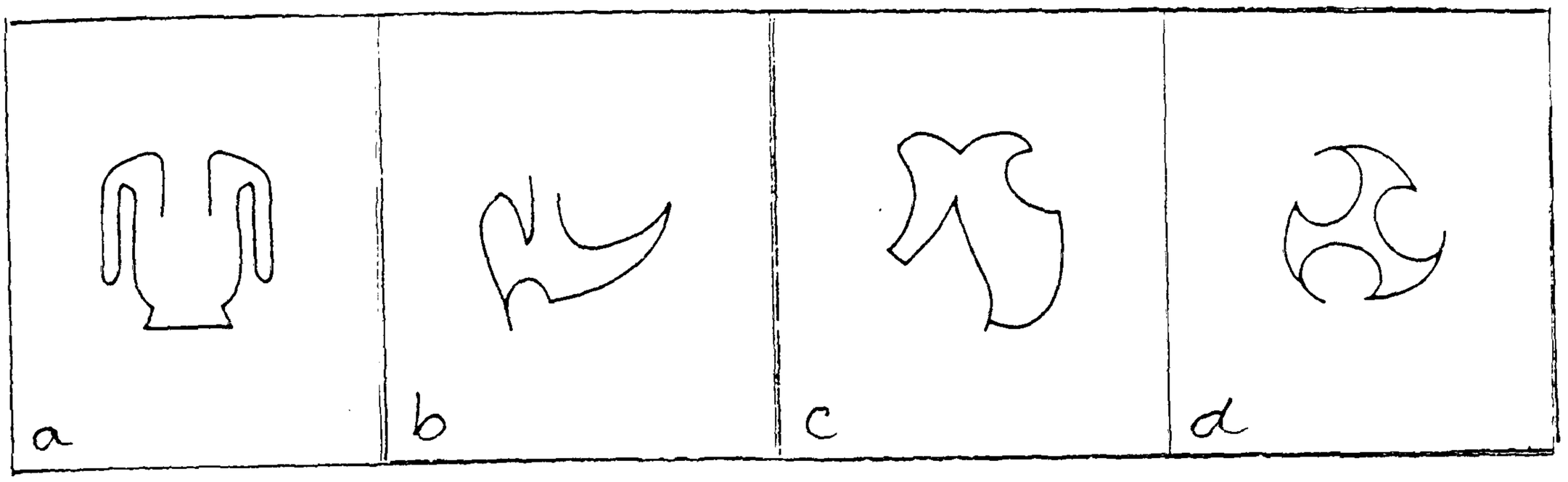


Dear student/listener

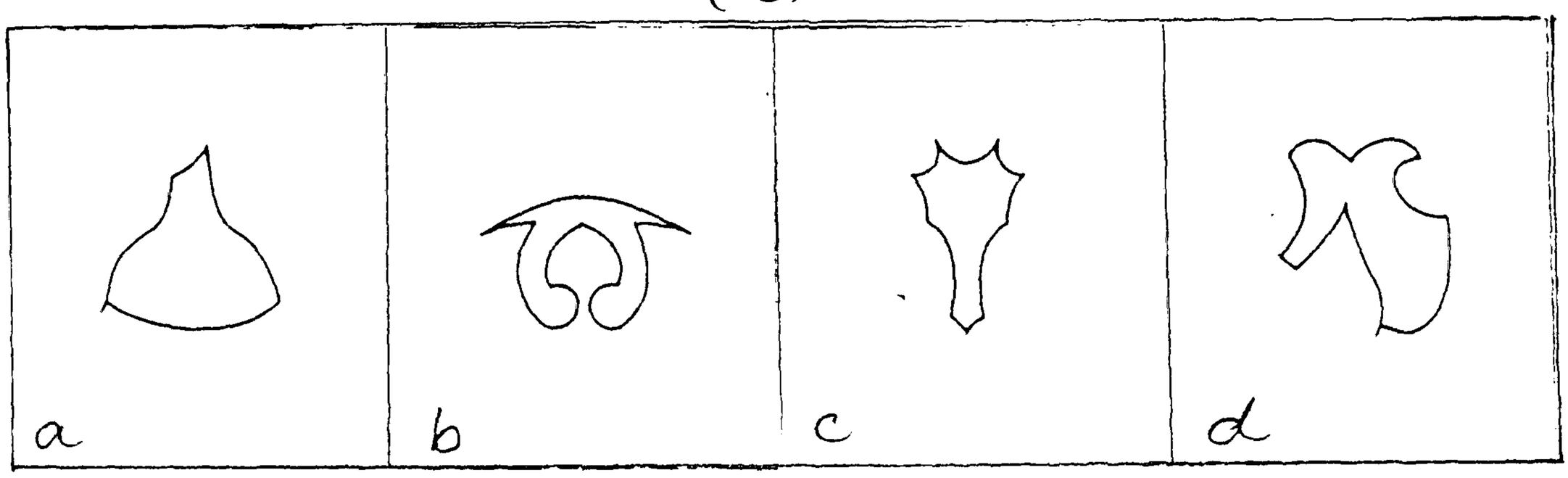
This task (in part B) also consists of four (4) shapes. In doing this part, please follow the same procedures as you did for part A.

"Thank you"

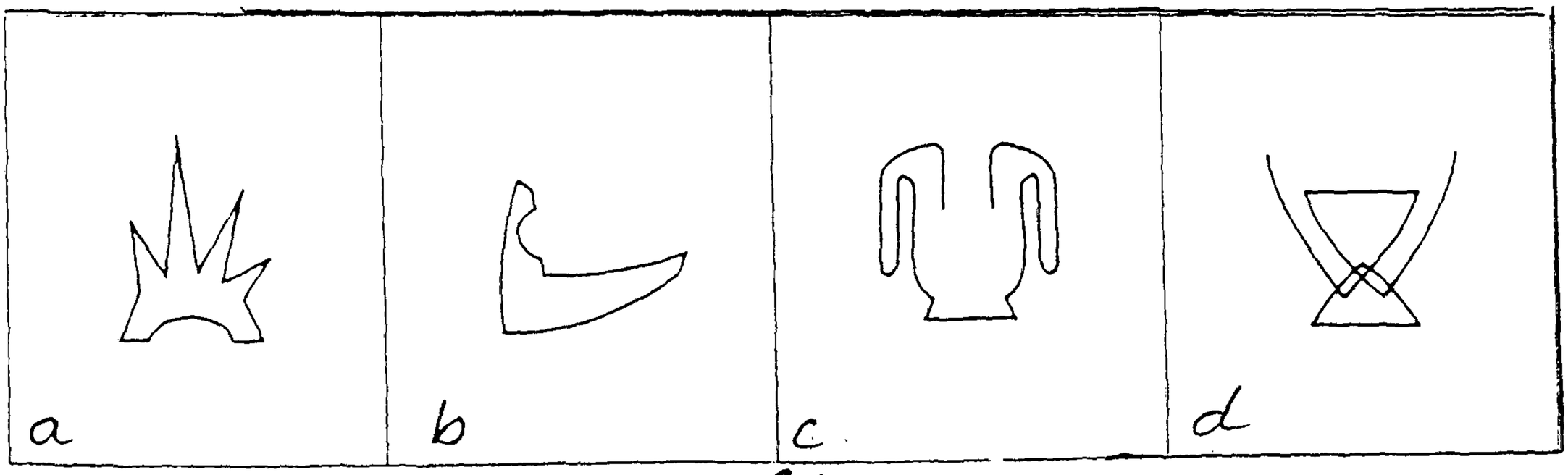
(5)



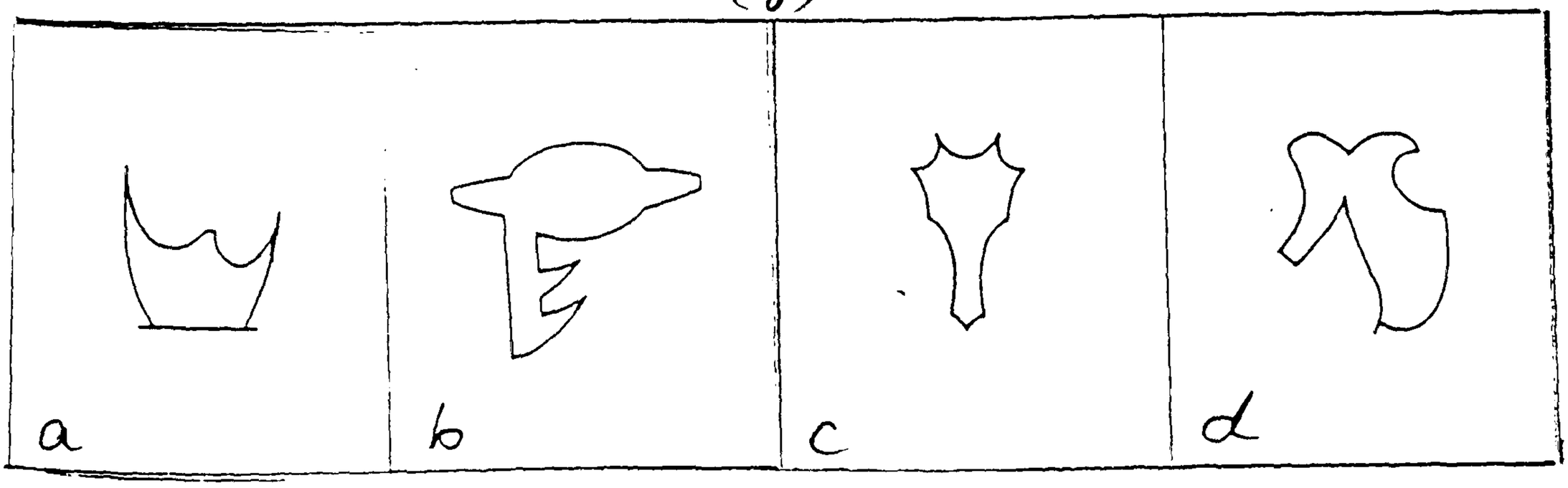
(6)



(7)



(8)



TASK TWO (2): ABSTRACT CONCEPTS

Dear student/speaker:

Task two consists of eight (8) abstract concepts. For each, the listener has some more alternatives. Please explain each concept to the listener so that s/he can identify it among other similar concepts. The listener will say the identified concept. If s/he is correct, please go on to the next concept; if not, please explain the same concept just once more. You may request for repetition if required.

"Thank you"

The concepts are as follows:

1- jealous

2- justice

3- flattery

4- pessimism

5- sympathy

6- optimism

7- salvation

8- beauty

ABSTRACT CONCEPTS

Dear student/listener:

Task two consists of eight (8) concepts. In each of the following items, the speaker explains just one concept as the intended referent. Please listen to the speaker and try to identify that concept, then tell it to the speaker. If you are correct, s/he will go on to the next concept; if not, s/he will explain the same concept only once more. You may request for repetition if required.

"Thank you"

The referent and non-referent concepts are as follows:

1- a. destiny c. jealous e. amazing
   b. curious d. conduct

2- a. justice c. freedom e. peace
   b. forgiveness d. honesty

3- a. greed c. flattery e. worship
   b. love d. charity

4- a. honesty c. self-sacrifice e. faith
   b. optimism d. pessimism

5- a. grief c. congratulation e. complaining
   b. sympathy d. confidence

6- a. pessimism c. optimism e. conciousness
   b. cheat d. happiness

7- a. salvation c. sinfulness e. praying
   c. slavery d. damnation

8- a. motivation c. reward e. attraction
   b. beauty d. curiousity

TASK THREE (3): NARRATIVES

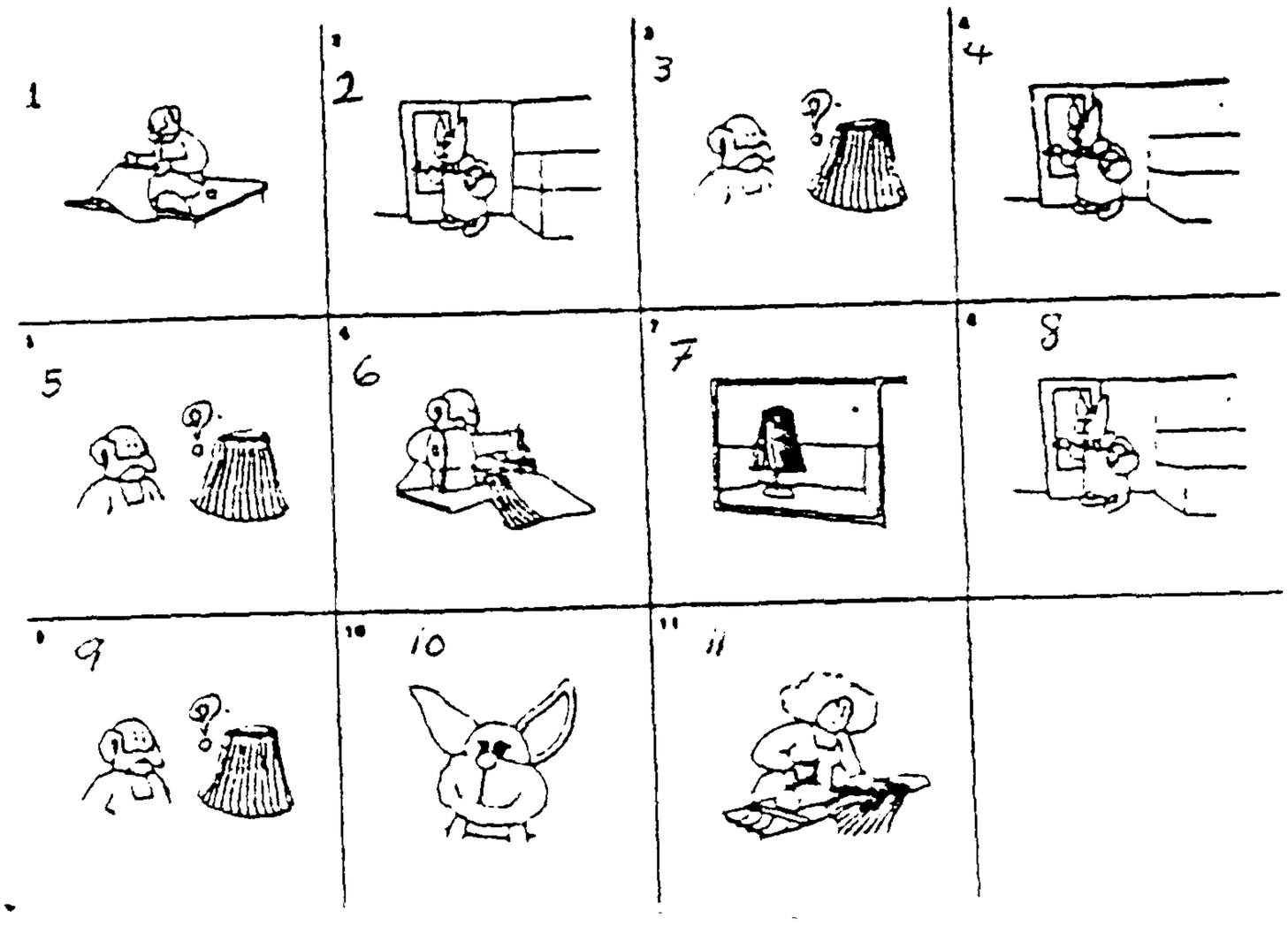
Dear Student/Speaker:

In each of the following stories, there are some blanks. For each, the key word and the number of the picture that you can use to help the listener to fill-in each blank have been given. The listener has also the same passages with the same blnaks. Retelling the story, please explain the key word and describe the picture for each blank so that the listener can identify the correct word that you are explaining and use that word to fill-in the appropriate blank. Please explain each word and describe each picture for each blank, even if you have done it before. In each blank, the listener will tell you the word. If s/he is correct, please go on the next blank; if not, please do it just once more. The listener may ask for repetition.

"Thank you"

STORY/NARRATIVE NO. ONE (1)

Once upn the time there was (1) . One day, (2) entered his shop. 'Good morning', it said, 'Do you have (3) ? 'No', the (1) said, 'I don't have any'. 'Oh',said the (2) and it left. The next morning, however, it again stepped into the shop.'Good morning (1) , have you got any (3) ? 'No, I'm sorry, the (1) answered. 'Oh, the (2) said, and again it left. The (1) began to feel sorry for the (2) and decided to add (3) to his collection of clothes. The next morning he had one hanging nicely on (4) in the (5) , and when the (2) came in and again asked for (3) , the (1) was pleased to say, 'Yes, now I do have one'. Then the (2) just grinned and said, 'They're difficult to iron, aren't they?"



THE KEY WORDS:

1- tailor (piture no. 1, 3, 5, 6,)

2- rabbit (picture no. 2, 4, 8, 10)

3- pleated skirts (pic. no. 3, 5, 7, 9)

4- clothes-hanger (pics. no., 7)

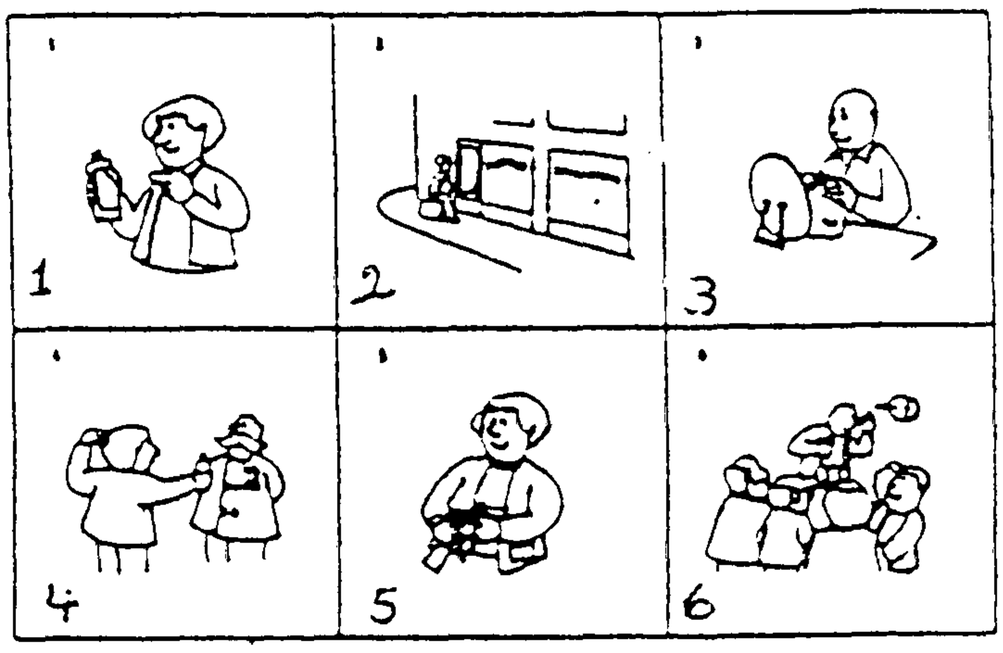
5- shopwindow (pics. no., 7)

STORY/NARRATIVE NO. TWO (2)

Dear Student/Speaker:

For this story please do the same procedures as you have done for story/narratives **NO. ONE (1):**

There once was a (1) in (2) . Each day he set out to try and sell his product to (3) . Now, this (1) happened to be (4) himself, but to improve his buisness he had bought hiself a (5) and he led all (3) to believe that he owned his beautiful head of hair to his new product. In this way he sold quite a lot, until, one day, the wind blew his (5) during the annual open air demonstration. That put an embarressing end to his profitable business.



THE KEY WORDS:

1- salesman (pic. no. 1)

2- hair-restorer (pic. no. 2)

3- hair-dresser (pic. no. 3)

4- bald (pic. no. 3)

5- wig (pic. no. 4)

The Listeners' Tasks

TASK NO. THREE: (3) NARRATIVES

Dear Student/Listener:

In each of the following narratives (no. 1 and 2). you will be given some pictures. Your partner, the speaker, will tell you the narrative by describing the pictures. The pictures that you have are disordered. What we would like you to do is first to listen to the speaker carefully and then to arrange the approprite pictures in the same order as s/he describe. Note that there are more pictures than your partner describes. You may say the number of each picture, or its name, to him/her. If you are correct, s/he will describe the next picture; if not, s/he will do that just once more. You may request for repetition if required.

"Thank you"

STOYR/NARRATIVE NO. ONE (1):

STORY/NARRATIVE NO. TWO (2):

Dear Student/Listener:

In doing this narrative, please do the same procedures as you have done for NARRATIVE NO.ONE (1) .

APPENDIX IV
STATISTICAL ANALYSES

(1) Measurement One

Table (1): Number and type of strategies that used by speakers in each group performing all the given tasks

A= Linguistic Strategies B= Conceptual Strategies
C= Interactional Strategies D= Total Strategies Used

No.	EL1				PL1				ILa				ILb			
	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
1-	17	33	32	82	20	36	32	88	20	34	34	88	39	38	47	124
2-	17	30	37	84	21	33	37	91	34	32	43	109	47	48	59	154
3-	19	34	32	85	24	36	37	97	33	41	41	111	41	56	56	155
4-	21	29	37	87	25	26	35	86	33	35	39	107	50	43	53	146
5-	22	28	42	92	26	27	41	92	34	30	47	111	41	45	58	144
6-	26	28	39	93	21	30	38	89	28	32	44	104	43	38	38	142
7-	27	30	42	99	25	28	39	93	29	34	48	111	51	41	62	154
8-	17	29	37	83	18	32	36	86	22	33	50	105	26	39	56	121
9-	17	32	42	91	18	32	41	91	29	38	48	112	40	38	66	144
10-	16	23	37	78	18	27	38	83	29	38	48	114	42	39	64	145
11-	22	28	35	85	21	32	39	91	27	32	46	105	34	40	52	126
12-	23	33	38	94	23	32	38	93	21	37	44	102	30	44	54	128
13-	22	28	40	90	21	26	38	85	28	32	42	102	39	47	57	143
14-	21	27	40	88	21	29	34	84	25	31	41	97	38	41	67	146
15-	23	29	37	89	23	31	30	84	27	34	40	101	35	45	61	141
16-	24	26	37	87	24	28	32	84	27	30	43	100	33	39	60	132
17-	23	27	37	87	24	30	33	87	29	32	43	104	40	40	55	135
18-	23	29	39	91	24	28	36	88	34	33	41	108	47	39	52	138
19-	25	29	37	91	22	30	36	88	30	33	43	106	39	39	49	127
20-	24	33	39	96	23	33	35	91	27	35	44	106	38	45	58	141
21-	23	39	36	88	22	29	31	82	29	32	39	100	36	40	47	123
22-	24	29	37	90	22	29	35	86	26	34	39	99	34	44	48	126
23-	25	27	35	87	22	28	36	86	31	33	39	103	41	44	45	130
24-	21	29	35	85	26	29	34	89	32	33	41	106	39	41	48	128
25-	22	30	38	90	24	27	36	88	34	35	40	109	48	45	52	145
26-	17	24	38	79	19	27	38	84	28	37	47	112	42	40	63	145
27-	23	34	39	96	24	32	36	92	21	38	43	102	32	43	53	128
28-	21	28	41	90	22	29	34	85	26	30	41	97	36	42	66	144
29-	22	30	37	87	23	28	33	84	29	34	40	104	37	41	46	124
30-	23	30	39	92	24	28	35	87	26	35	40	101	35	43	49	127

Table (2): The total number of strategies that each speaker used for each individual task.

	EL1 strategies				PL1 strategies				ILa strategies				ILb strategies			
	Tasks				Tasks				Tasks				Tasks			
NO	1	2	3	all	1	2	3	all	1	2	3	all	1	2	3	all
1.	31.23	28	82		31	28	29	88	31	30	27	88	43	36	45	124
2.	29	24	31	84	30	31	30	91	38	35	36	109	54	48	52	154
3.	30	25	30	85	32	29	36	97	39	32	40	111	56	41	58	155
4.	30	27	30	87	29	27	30	86	37	30	40	107	51	39	56	146
5.	31	28	33	92	28	32	34	94	38	32	41	111	51	46	47	144
6.	32	34	27	93	31	31	27	89	36	33	35	104	47	43	42	142
7.	30	35	34	99	28	33	32	93	38	40	33	111	49	44	61	154
8.	27	26	30	83	29	28	29	86	35	34	38	105	45	32	44	121
9.	30	30	31	91	28	32	31	91	34	36	42	112	44	47	53	144
10.	24	23	31	78	25	27	31	83	38	33	43	114	47	45	53	145
11.	27	30	28	85	31	33	27	91	38	33	34	105	45	38	43	126
12.	34	29	31	94	28	31	34	93	38	31	33	102	43	46	39	128
13.	32	26	32	90	30	24	31	85	33	31	38	102	52	42	49	143
14.	29	27	32	88	28	26	30	84	32	30	35	97	50	47	49	146
15.	30	26	33	89	29	26	29	84	36	30	35	101	47	43	51	141
16.	28	30	29	87	29	27	28	84	34	30	36	100	44	40	48	132
17.	30	28	29	87	31	27	29	87	35	32	37	104	49	41	45	135
18.	33	30	28	91	32	39	27	88	39	34	35	108	51	45	42	138
19.	33	27	31	91	32	27	29	88	42	32	32	106	47	40	40	127
20.	37	31	28	96	33	29	29	91	40	32	34	106	52	42	47	141
21.	32	27	29	88	26	29	27	82	36	33	31	100	48	36	39	123
22.	32	30	28	90	32	26	28	86	38	33	28	99	49	39	38	126
23.	31	27	29	87	31	27	28	86	36	34	33	103	45	43	42	130
24.	33	27	26	86	31	30	28	89	38	33	35	106	37	40	41	128
25.	31	28	31	90	29	28	31	88	38	30	41	109	50	39	56	145
26.	25	23	31	79	25	28	31	84	37	33	42	112	47	44	54	145
27.	35	29	32	96	28	30	34	92	38	30	34	102	42	46	40	128
28.	30	27	33	90	28	26	31	85	32	30	35	97	49	47	48	144
29.	32	28	29	89	28	26	30	84	37	34	32	103	48	37	39	124
30.	33	30	29	92	31.	27	29	87	38	34	29	101	47	41	39	127

(a) Within Group Comparisons

Table (3): Comparisons of the type of strategies used by EL1 speakers across the given tasks.

subgroups	$\bar{X}$	SD	$\bar{X}$	SD	t-value
(1) Task 1 v.s. 2	30.7	2.71	28.13	2.77	3.62**
(2) Task 1 v.s. 3	30.7	1.71	29.8	1.44	2.19*
(3) Task 2 v.s 3	28.13	2.77	29.8	1.94	2.69*

n=30; df=58; *=P<.05; **=P<.01; ***=P<.001

Table (4): Comparisons of type of strategies used by PL1 speakers across the given tasks.

subgroups	$\bar{X}$	SD	$\bar{X}$	SD	t-value
(1) Task 1 v.s. 2	29.43	2.04	28.8	2.97	2.88*
(2) Task 1 v.s. 3	29.43	2.04	30.37	2.25	-3.03**
(3) Task 2 v.s. 3	28.8	2.97	30.37	2.25	-2.31*

n=30; df=58; *=P<.05; **=P<.01; ***=P<.001

Table (5): Comparisons of type of strategies used by ILa speakers across the given given tasks.

subgroups	$\bar{X}$	SD	$\bar{X}$	SD	t-value
(1) Task 1 v.s. 2	36.63	2.46	32.47	2.19	6.93***
(2) Task 1 v.s. 3	36.63	2.46	35.47	4.1	2.67*
(3) Task 2 v.s. 3	32.47	2.19	35.47	4.1	-3.53**

n=30; df=58 *=P<.05; **=P<.01; ***=P<.001

Table (6): Comparisons of type of strategies used by ILb speakers across the given tasks.

subgroups	$\bar{X}$	SD	$\bar{X}$	SD	t-value
(1) Task 1 v.s. 2	47.63	3.83	41.9	3.83	5.79***
(2) Task 1 v.s. 3	47.63	3.83	46.67	6.39	2.29*
(3) Task 2 v.s. 3	41.9	3.83	46.67	6.39	5.36***

n=30; df=58; *=P<.05; **=P<.01; ***=P<.001

(b): Between Group Comparisons

Table (7): Comparisons of linguistic strategies used by groups of subjects (between group comparisons).

groups	$\bar{X}$	SD	$\bar{X}$	SD	t-value
(1) **EL1/PL1**	21.67	2.88	22.33	2.88	-0.89 (ns)
(2) **EL1/ILa**	21.67	2.88	28.27	3.87	-7.5***
(3) **EL1/ILb**	21 67	2.88	39.1	5.66	-15.03***
(4) **PL1/ILa**	22.33	2.23	28.27	3.87	-7.24***
(5) **PL1/ILb**	22.33	2.23	39.1	5.66	-15.11***
(6) **ILa/ILb**	28.27	3.87	39.1	5.66	-8.67***

n=30; df=58; *=P<.05; **=P<.01; ;***=P<.001

Table (8): Comparisons of conceptual strategies used by groups of subjects (between group comparisons).

groups	$\bar{X}$	SD	$\bar{X}$	SD	t-value
(1) **EL1/PL1**	29.5	3.12	29.73	2.62	-0.31 (ns)
(2) **EL1/ILa**	29.5	3.12	33.9	2.61	-5.95***
(3) **EL1/ILb**	29.73	3.12	42.73	3.73	-19.12***
(4) **PL1/ILa**	29.73	2.62	33.9	2.61	-6.13***
(5) **PL1/ILb**	29.73	2.62	42.23	3.73	-15.06***
(6) **ILa/ILb**	33.9	2.61	42.23	3.73	-10.04***

n=30; df=58; *=P<.05; **=P<.01; ***=P<.001

Table (9): Comparisons of interactional strategies used across groups of subjects (between group comparisons).

groups	$\bar{X}$	SD	$\bar{X}$	SD	t-value
(1) EL1/PL1	37.7	2.45	35.77	2.68	2.92*
(2) EL1/ILa	37.7	2.45	42.6	3.49	-6.28***
(3) EL1/ILb	37.7	2.45	54.7	7.15	-12.325***
(4) PL1/ILa	35.77	2.68	42.6	3.49	-8.54***
(5) PL1/ILb	35.77	2.68	54.7	7.15	-13.62***
(6) ILa/ILb	42.6	3.49	54.7	7.15	-8.34***

n=30; df=58; *=P<.05; **=P<.01; ***=P<.001

Table (9a): Comparisons of total strategies used by speakers in all groups (between group comparisons).

Groups	$\bar{X}$	SD	$\bar{X}$	SD	t-value
(1) EL1/PL1.	88.93	5.16	87.87	3.64	0.92 (ns)
(2) EL1/ILa	88.93	5.16	104.5	5.57	-11.2***
(3) EL1/ILb	88.99	5.16	136.87	10.1	-23.16***
(4) PL1/ILa	87.87	3.64	104.5	5.5	-13.87***
(5) PL1/ILb	87.87	3.64	136.87	10.1	-25***
(6) ILa/ILb	104.5	5.57	136.87	10.1	-15.34***

n=30; df=58; *=.05; **=.01; ***=.001

(2) Measurement Two

Table (10): Calculations of the taxonomy of compensatory strategies and number of IL-conformity in ILa and ILb in Task (I).

Type of Strategies		Number of strategies								
		Linguistic (Superordination) Strategies								
Groups of comparisons		1	2	3	4	5	6	7	8	total
S	EL1	11	12	4	8	6	7	2	5	55
U	PL1	9	5	2	5	13	8	2	6	50
P	Taxonomy	8	5	2	4	6	7	2	2	36
E	ILa-conf.	7	2	2	4	5	4	2	2	28
R	ILb-conf.	4	3	1	2	2	2	3	3	20
		Conceptual Strategies								
H	EL1	23	25	28	11	27	14	19	21	168
O	PL1	23	27	23	20	23	15	24	25	180
L	Taxo.	21	20	21	10	22	14	17	20	145
I	ILa-conf.	19	19	22	10	20	13	16	19	138
.	ILb-conf.	16	14	13	15	16	10	12	14	110
P	EL1	21	21	19	38	18	34	26	32	209
A	PL1	19	24	13	34	29	32	34	28	213
R	Taxo.	18	20	11	32	16	30	25	26	178
T	ILa-conf.	16	17	10	28	15	27	24	23	160
.	ILb-conf.	13	13	8	24	13	24	23	20	138
L	EL1	14	11	13	13	11	12	14	8	96
I	PL1	18	12	20	9	12	12	7	8	98
N	Taxo.	13	10	11	8	11	10	7	6	76
I	ILa-conf.	11	9	10	8	10	9	5	5	67
.	ILb-conf.	9	8	9	8	8	8	4	5	59
		Total Conceptual Strategies								
T	EL1	58	57	60	62	56	60	59	61	473
O	PL1	60	63	56	63	64	59	65	61	491
T	Taxo.	52	50	43	50	49	54	49	52	399
A	ILa	46	45	42	46	45	49	45	47	365
L	ILb	38	35	32	47	39	49	39	39	318
		Interactional Strategies								
C	EL1	19	10	16	14	7	14	10	5	95
H	Pl1	12	11	9	14	6	12	12	5	81
E	Taxo.	12	10	9	12	5	11	12	4	75
C	ILa-conf.	10	9	8	10	4	9	10	3	63
K	ILb-conf.	10	9	7	9	5	8	9	4	61
S	EL1	1	5	5	5	7	11	2	1	37
E	PL1	1	2	8	2	2	3	11	1	30
L	Taxo	1	2	5	2	2	3	2	1	18
F	ILa-conf.	1	1	3	1	2	1	2	1	12
.	ILb-conf.	1	2	4	1	2	3	2	1	16
C	EL1	28	30	30	30	30	30	30	30	238
O	PL1	29	26	27	28	23	27	27	29	216
M	Taxo.	28	25	26	27	22	26	25	27	206
P	ILa-conf.	27	25	25	27	20	25	25	25	199
.	ILb-conf.	28	25	26	27	22	26	25	27	206

Table (11): Calculations and Measurements of IL-conformity with the taxonomy of SC in the performance of ILa and ILb speakers using total conceptual strategies in Task I, in terms of number of subjects

gorups	$\bar{X}$	SD	$\bar{X}$	SD	t-value
EL1/PL1	15.77	4.23	16.37	5.08	-.5
Taxo/TLa	3.3	4.01	12.17	3.53	1.15
Taxo/ILb	13.3	4.01	10.6	3.16	2.9***
ILa/ILa	12.17	3.53	10.6	3.16	1.38

n=30; df=58; *=p<.05; **=P<.02;***P<.01;*+=P<.001

Table (12): Calculations of the taxonomy of compensatory strategies and number of IL-conformity in ILa and ILb in Task (II)

Types of Strategies Groups		Number of strategies referents 1	2	3	4	5	6	7	8	Total
		Linguistic Strategies								
MET	EL1	7	7	6	6	7	12	3	2	50
	PL1	11	13	5	9	6	11	8	7	70
	Taxo.	6	7	5	5	6	10	3	2	44
A	ILa-conf.	5	6	5	3	4	8	2	2	35
	ILb-conf.	3	3	2	2	1	4	--	--	15
SUP.	EL1	4	--	8	5	2	5	18	2	44
	PL1	12	8	6	8	5	6	6	7	58
	Taxo.	4	--	5	5	2	4	5	2	27
R	ILa-conf.	4	--	4	5	1	3	5	2	24
.	ILb-conf.	3	--	2	3	2	2	5	3	20
SYN	EL1	22	25	8	9	--	6	24	22	116
	PL1	22	20	12	9	4	6	24	21	118
	Taxo.	21	20	7	8	--	5	22	20	103
O	ILa-conf.	15	18	7	8	--	4	19	19	72
N	ILb-conf.	9	11	4	4	--	2	6	9	45
ANT	EL1	3	5	--	9	2	16	7	10	52
	PL1	3	--	4	7	--	14	6	12	46
	Taxo.	3	--	--	6	--	12	6	10	37
O	ILa-conf.	2	--	--	5	--	12	1	8	28
N	ILb-conf.	3	--	--	4	--	9	2	5	23
TA	EL1	32	37	14	24	9	34	34	34	218
O	PL1	36	33	21	25	12	32	36	35	230
T	Taxo.	34	27	18	24	8	33	36	34	214
A	ILa-conf.	26	24	16	21	6	27	27	31	178
L	ILb-conf.	19	15	9	13	3	17	13	17	106
		Conceptual Strategies								
HOL	EL1	5	7	6	4	6	4	10	5	47
	PL1	7	8	5	3	4	5	4	6	42
	Taxo.	5	6	5	3	4	4	3	5	35
I	ILa-conf.	4	6	5	3	4	4	3	4	33
	ILb-conf.	3	3	3	3	2	2	1	2	19
ANA	EL1	15	15	21	22	20	16	7	11	127
	PL1	16	16	17	19	21	20	4	13	126
	Taxo.	14	13	16	17	18	16	3	9	106
L	ILa-conf.	13	11	15	14	17	14	3	8	95
.	ILb-conf.	9	10	11	11	13	10	3	6	73
TO	EL1	20	22	27	26	26	20	17	16	174
	PL1	23	24	22	22	25	25	8	19	168
T	Taxo.	19	19	21	20	22	20	6	14	141
A	ILa-conf.	17	17	20	17	21	18	6	12	128
L	ILb-conf.	12	13	14	14	15	14	4	8	94
		Interactional Strategies								
CHE	EL1	4	16	5	9	11	14	7	7	73
	PL1	8	13	9	7	13	6	7	7	70
	Taxo.	4	11	4	5	9	6	5	6	50
C	ILa-conf.	3	11	4	4	8	4	5	5	44
K	ILb-conf.	4	11	4	5	9	4	5	4	46
SEL	EL1	2	3	3	2	4	4	11	2	31
	PL1	4	9	6	7	4	5	4	3	42
	Taxo.	1	2	2	1	2	3	4	1	16
F	ILa-conf.	--	2	2	1	2	2	3	1	13
.	ILb-conf.	1	2	2	1	2	2	3	1	14

Table (13): Calculations of the IL-conformity with the taxonomy of SC in total linguistic strategies in task II, in terms of the number of subjects.

Groups	$\bar{X}$	SD	$\bar{X}$	SD	t-value
EL1/PL1	7.27	2.83	7.67	3.06	0.53
Taxo./ILa	7.13	3.01	5.93	2.81	1.6
Taxo./ILb	3.13	2.6	3.53	1.67	5.71*+
ILa/ILb	5.93	2.81	3.53	1.67	4.07

n=30; df=58; *=P<.05; **=P<.02; ***=P<.01; *+=P<.001

Table (14): Calculations of the IL-conformity with the taxonomy of SC in total conceptual strategies in task II, in terms of number of subjects.

Groups	$\bar{X}$	D	$\bar{X}$	SD	t-value
EL1/PL1	5.8	2.76	5.6	2.46	0.29
Taxo./ILa	4.7	2.34	4.27	2.01	0.71
Taxo./ILb	4.7	2.34	3.13	1.89	2.85*
ILa/ ILb	4.27	2.01	3.13	1.89	2.28*

n=30; df=58; *=P<.05;**=P<.02; ***P<.01; *+=P<.001

Table (15): Calculations of IL-conformity the taxonomy in ILa and ILb in Task (III).

Types of Strategies Groups		Number of strategies: referents 1	2	3	4	5	6	7	8	9	10	Total
		Linguistic Strategies										
M	EL1	3	4	6	10	9	6	12	10	4	--	64
E	PL1	4	8	1	6	9	5	12	10	6	--	61
T	Taxo.	2	4	--	5	8	5	10	8	3	--	45
A	ILa-conf.	1	3	--	5	8	3	8	6	3	--	37
	ILb-conf.	-	1	-	3	6	4	5	4	3	--	26
S	EL1	3	2	8	6	2	2	8	7	3	3	44
U	PL1	3	6	9	5	5	9	6	7	5	-	55
P	Taxoo.	3	2	7	4	1	2	5	5	3	-	32
R	ILa-conf.	3	2	2	3	1	2	4	5	2	-	24
.	ILa-conf.	3	1	2	1	-	2	3	3	2	-	17
S	EL1	2	-	23	6		9	4	14	18	11	87
Y	PL1	3	4	11	3	5	9	5	13	18	8	79
N	Taxo.	2	-	10	2	-	8	4	10	16	6	58
O	ILa-conf.	2	-	8	2	-	6	3	8	14	6	49
N	ILb-conf.	1	-	5	-	-	3	2	5	7	3	26
A	EL1	-	2	-	-	-	1	1	-	2	-	6
N	PL1	2	2	-	-	1	2	-	2	2	1	12
T	Taxo.	-	2	-	-	-	1	-	-	1	-	4
O	ILa conf.	-	2	-	-	-	1	-	-	-	-	3
N	ILb-conf.	-	2	-	-	-	-	-	-	-	-	2
T	EL1	8	8	32	23	11	18	25	31	27	14	201
O	PL1	12	20	21	14	20	25	23	32	31	9	207
T	Taxo.	7	8	17	11	9	16	19	23	23	6	139
A	ILa-conf.	6	7	10	10	9	12	15	19	19	6	113
L	ILb-conf.	4	4	7	4	6	9	10	12	12	3	71
		Conceptual Strategies										
H	EL1	2	6	8	7	9	5	6	7	8	10	68
O	PL1	4	5	7	6	3	3	2	4	9	8	51
L	Taxo.	1	3	5	5	2	2	-	3	5	6	32
I	ILa-conf.	1	2	4	3	1	1	-	2	3	4	21
.	ILb-conf.	1	2	3	3	1	-	-	2	3	3	13
A	EL1	28	23	7	24	21	15	19	19	8	6	170
N	PL1	24	18	19	22	15	21	21	15	11	6	172
L	Taxo.	21	17	7	20	13	13	17	13	6	4	131
Y	ILa-conf.	18	15	5	16	10	11	14	10	5	2	106
T	ILb-conf.	14	12	5	13	6	6	8	8	2	1	75
T	EL1	30	29	15	31	30	20	25	26	16	16	238
O	PL1	28	23	26	28	18	24	23	19	20	14	223
T	Taxo.	22	20	12	25	15	15	17	16	11	10	163
A	ILa-conf.	18	17	8	19	11	12	14	12	8	6	125
L	ILb-conf.	14	14	6	15	7	6	8	10	4	4	88
		Interactional Strategies										
C	EL1	5	3	3	10	4	6	10	10	7	9	67
H	PL1	4	11	7	8	6	8	9	11	8	8	80
E	Taxo.	3	2	2	6	3	4	8	9	5	7	49
C	ILa-conf.	2	1	2	4	1	3	5	8	3	5	34
K	ILb-conf.	2	2	-	4	2	1	6	8	1	5	31
S	EL1	1	6	4	7	6	3	7	5	4	2	45
E	PL1	1	7	5	4	3	6	6	10	2	4	48
L	Taxo.	-	4	3	2	2	3	5	4	1	1	25
F	ILa-conf.	-	2	2	-	1	2	3	2	-	-	12
.	ILb-conf.	-	3	3	2	1	1	4	2	-	1	17
C	ILa-conf.	30	30	30	30	30	30	30	30	30	30	300
O	ILb-conf.	29	30	29	28	29	29	29	28	29	28	288
M	Taxo.	29	30	29	28	29	29	29	28	29	28	288
P	ILa-conf.	27	29	27	26	27	27	29	27	27	27	273
.	ILb-conf.	29	30	30	27	29	29	29	28	29	28	288
T	EL1	36	39	37	47	40	39	47	45	41	41	412
O	PL1	34	47	41	40	38	43	44	49	39	40	415
T	Taxo.	32	36	34	36	34	36	42	41	35	36	342
T	ILa-conf.	29	32	31	30	29	32	32	37	30	32	319
AL	ILb-conf.	29	32	31	30	29	32	37	37	30	32	319

Table (16): Calculations of IL-conformity with the Taxonomy of SC in the performance of ILa and ILb speakers in using total linguistic strategies in tasks III, in terms of number of subjects.

Groups	$\bar{X}$	SD	$\bar{X}$	SD	t-value
EL1/PL1	6.7	3.09	6.9	3.21	-.2
Taxo./ILa	4.63	2.54	3.77	2.13	1.14
Taxo./ILb	4.63	2.54	2.67	1.52	3.52**
ILa/ILb	3.77	2.13	2.67	1.52	2.29*

n=30; df=58; *+P<.05; **=P<.02; ***=P<.01; *+=P<.001

Table (17): Calculations of IL-conformity with the Taxonomy of SC in the performance of ILa and ILb speakers in using total conceptual strategies in task III, in terms of number of subjects.

Groups	$\bar{X}$	SD	$\bar{X}$	SD	t-value
EL1/PL1	7.93	4.08	7.43	3.96	0.48
Taxo./ILa	5.43	3.51	4.17	3.11	1.47
Taxo./ILb	5.43	3.51	2.93	2.06	3.38***
ILa/ILb	4.17	3.11	2.93	2.06	2.7**

n=30;df=58;*=P<.05;**=P<.02; ***=P<.01;*+=P<.001

Table (18): Calculations of IL-conformity with the Taxonomy of SC in the performance of ILa and ILb speakers in using total conceptual strategies in task III, in terms of number of subjects.

Groups	$\bar{X}$	SD	$\bar{X}$	SD	t-value
EL1/PL1	13.73	5.18	13.83	5.01	0.075
Taxo./ILa	12.7	4.66	10.47	3.96	1.94
Taxo./ILb.	12.7	4.66	10.63	3.96	1.8
ILa/ILb	10.47	3.96	10.63	4.23	0.15

n=30;df.=58;*=P<.05;**=P<.02;***=P<.01;*+=P<.001

(3) Measurement Four

Table (19): Percentages of the degree of Dependence and/or Independence of Conceptual and Linguistic Strategies in tasks Two and Three, as determined by the judges.

	Strategies/Tasks					
	Super.	Meta.	Syno.	Anto.	Holi.	Analit.
Degree			**EL1**			
Indep.						
Ts. 2	--	--	14/87.5	5/62.2	4/57.14	16/88.89
Ts. 3	--	--	10/83.34	3/ 75	6/60	19/82.61
Depend.						
Ts.2	6/85.71	4/67.67	--	--	1/14.29	--
Ts.3	6/75	5/71	--	--	1/10	1/4.35
Mod.						
Ts.2	1/14.29	2/33.33	2/12.5	2/25	2/28.57	2/11.11
Ts.3	--	--	1/8.33	1/25	2/20	3/13.04
Unans.						
Ts.2	--	--	--	1/12.5	--	--
Ts.3	2/25	2/28.57	1/8.33	--	1/10	--
Total						
Ts.2	7/100	6/100	16/100	8/100	7/100	18/100
Ts.3	8/100	7/100	12/100	4/100	10/100	23/100
			PL1			
Indep.						
Ts.2	--	--	18/85.71	5.55.56	4.51.4	5.93.75
Ts.3	--	--	10/80	3/95	5/62.5	21/80.77
Depend.						
Ts.2	6/66.67	5/62.5	--	--	--	--
Ts.3	4/57.14	4/66.67	--	--	--	--
Mod.						
Ts.2	2/22.22	3/37.5	3/14.29	3/33.33	3/42.86	1/6.25
Ts.3	2/28.57	1/16.67	2/20	1/25	2/25	3/11.54
Unans.						
Ts.2	1/11.11	--	--	1/11.11	--	--
Ts.3	1/14.29	1/16.67	--	--	1/12.5	2/7.69
Total						
Ts.2	9/100	8/100	21/100	9/100	7/100	16/100
Ts.3	7/100	6/100	10/100	4/100	8/100	--
			ILa			
Indep.						
Ts.2	--	--	10/76.92	5/71.42	5/55.55	17/85
Ts.3	--	--	9/81.8	2/66.67	4/50	16/76.19
Depen.						
Ts.2	8/80	9/90	--	--	1/11.11	--
Ts.3	6/100	5/71.43	--	--	2/25	1.4.76
Mod.						
Ts.2	--	1/10	3/23.02	2/28.57	3.33.33	3.15
Ts.3	--	2/28.57	2/18.2	1/33.33	2/25	4/19.05
Unans.						
Ts.2	2/20	--	--	--	--	--
Ts.3	--	--	--	--	--	--
Total						
Ts.2	10/100	10/100	13/100	7/100	9/100	20/100
Ts.3	6/100	7/100	11/100	3/100	8/100	21/100
			ILb			
Indep.						
Ts.2	--	--	5/62	5/55.56	5/50	15/75
Ts.3	--	--	6/75	3/75	4/44.44	17/70.83
Depend.						
Ts.2	11/91.67	13/100	--	--	1/10	--
Ts.3	8/88.89	8.80	--	--	2/22.22	2/8.33
Mod.						
Ts.2	--	--	3.37.5	4/44.44	4.40	5/25
Ts.3	--	2/20	2/25	1/25	3/33.33	5/20.83
Unans.						
Ts.2	1/8.33	--	--	--	1/10	--
Ts.3	1/11.11	--	--	--	--	--
Total						
Ts.2	12/100	13/100	8/100	9/100	11/100	20/100
Ts.3	9/100	10/100	8/100	4/100	9/100	24/100

APPENDIX FIVE (V)

TRANSCRIPTIONS OF THE ORIGINAL VERSIONS OF PERSIAN SPEAKERS' PROTOCOLS

A: The phonetic symbols used in transcribing Persian Speakers' language performance:

The symbol	phonetic alphabets	English Examples	Persian Examples
/a/	/æ/	m**a**n, c**a**t	/ / **a**st=is
/a/	/ɑ:/	c**ar**d,f**a**ther	/ / c**a**rd=knife
/e/	/ə,ɛ/	h**e**n, f**e**nce	/ / b**e**=to, k**e**=that
/o/	/o,ɔ/	d**oo**r, **a**ll	/ / g**o**ftan=to say
/u:/	/u:/	f**oo**l, t**oo**l	/ / g**u:**sh=ear
/i:/	/i:/	s**ee**n, m**ea**t	/ / **i:**n=this,
/ch/	/ʧ/	**ch**air, mat**ch**	/ / **ch**i:z=thing
/sh/	/ʃ/	**sh**oe pu**sh**	/ / kaf**sh**=shoe

(1) Task one (1): Abstract Shapes

* "er.. i:n mesle du ādād hāft<vv> dār fârsi āst ke be hām vāsl shodeh bâshānd..."

* "i:n em... mesle yeik noiee sāghfe māsjed āst yā... mm..gonbāde hārām āst bâ du pâyehe monhāni..emm ke be tārāfe pâi:n mi:âyād..."

* "..mm..āgār bār gārdâni mesle yeik ālâmāt dār vāsāte mm pārchāme irân mishāvād..."

Task Two: Abstarct Concepts

* "er.. i:n yeik sefāt āst ke dār mārdumi di:deh mi:shāvād ke mm... du:st nādârānd mārdume di:gār mougheeiiāte khoub vā bâlâee dār jâmeeh dâshte bâ shānd v...ā em hāmi:she mogheeiiāte khoub râbārâye khoud mikhâ:hānd ... i:n yeik sefāte kheili: bāed āst dār ghorân vā emm... dār sonnāte peiâmbār... emm.. mosālâ:mân tousieh shodehānd ke āz ân doori konānd..."

(jealous)

* "i:n yeiki āz sefāte khodâst vā peiâmbār ferestâde shode āst tâ i:n râ dār jâmeeh bār ghārâr konād er... dār jameeh yāni hāgh hār kās râ be khodāsh dâdān ... yâ: ânche râ ke lâyegh āst dâdān... emm...ke hāghe oust..."

(justice)

* "i:n māfhoom yeik mānâye māzhābi vā eslâmi dārād...ke be rouze ghiâmāt mārbout mishāvād... yāni shākhsi ke rāftâre khoub vā dini: dârād... i:n rāftâr ou: râ āz zendegie gonâh nejât midehād...

(salvation)

Task Three: Naratives

* " er.. i:n esme yeik heivâni āst dār dâstân hâye kelileh vā demneh kheili mārouf āst ke khābārhâ râ sārie dār jângāl pākhsh mi:konād vā dār dāvidān vā khâbe kheili ziâd hām kheili: mārouf āst... "

(rabbit)