



Phonological Transfer and Universal Grammar: Evidence from Arabic

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Abstract: As language teachers and educators, we are always confronted with our students speaking English which sounds Arabic-English and not English-English. We always ask ourselves what the reason is, and sometimes even blame ourselves for that, or our students for not studying well to speak well. The very idea of “Arabic-English” implies that there is a role played by Arabic in that speaking. The role played by first languages (L1) linguistic components, be they phonological, morphological, syntactic, etc. in second language acquisition (SLA) is much advocated in the literature. This role has often been referred to as L1 ‘transfer’ or otherwise interference. L1 transfer has been seen as an indispensable learning strategy made use of by second language (L2) learners at all linguistic modules of the grammar (Shormani, 2012a). L2 learners, irrespective of L1, or L2 being learned, use this strategy to resort to their L1 as a knowledge-base in L2 acquisition process (Gass & Slinker, 2008; Shormani, 2012a, 2014b). However, L1 transfer is not the only factor affecting L2 acquisition. There is almost the same portion attributed to Universal Grammar (UG) properties. Though there are ample studies concerning L1 phonological influence cross-linguistically, studies providing systematic and in-depth analyses of the Arabic phonology influence on L2 acquisition are rare, and rarer, if any at all, are the studies concerning the relation between transfer and UG, and the role they both play in acquiring English by Arabic-speaking learners. Thus, this paper aims at providing empirical evidence in support of the availability of transfer and UG in L2 acquisition, specifically, concerning acquiring phonology. 20 students majoring in English were selected randomly from two classes, namely, first and third, i.e. the same students in two different years/levels. Four phonological categories were examined, namely, consonants, vowels, stress and consonant clustering. The results indicate that both UG and transfer contribute almost equally in L2 phonology acquisition, thus, supporting the Full Transfer-Full Access hypothesis (=FTFA), first proposed by Schwartz & Sprouse (1994).

Keywords: SLA, Universal Grammar, transfer, Full Transfer-Full Access hypothesis, Arabic phonology, consonants, vowels, stress, consonants clustering

1. INTRODUCTION

Cross-linguistically, it is held that speaking English (at least in the beginning stages) is characterized as L1-based, irrespective of whatever this L1 might be. As far as Arab L2 setting is concerned, we teachers and educators are always confronted with our students speaking English which sounds Arabic-English and not English-English. We did not, however, try to figure out the hidden reasons behind that. In other words, if we take into consideration the fact that our students start learning English having a language (their L1, i.e. Arabic) existing in their minds, and that this language is very much important in their subsequent acquisition of another language, say, English, for instance, at least one of the striking reasons will be identified. This is simply due to the fact that their L1 serves as a knowledge-base they consciously and/or subconsciously resort to while learning L2, but this language, in a way or another, is different from the language they are learning. English

and Arabic belong to two different language families, Semitic and Indo-European, respectively. This implies that both languages are not linguistically related and, hence, differences are likely to be more than similarities (Shormani, forthcoming).

These differences (and similarities) have crucial roles in L2 acquisition process, given the fact that in terms of phonology, Arabic seems to be almost completely different from English. Within these similarities and differences lies the linguistic notion ‘transfer,’ on the one hand, and the role played by UG properties, on the other hand. There also lies L2 learners’ ability of developing psycholinguistic strategies, consciously and/or subconsciously employed by them in their L2 acquisition (Shormani, 2014a).

Thus, this paper aims at providing empirical evidence in support of the availability of transfer and UG



in L2 acquisition, specifically, concerning phonology. It assumes that there is some sort of complementarity between transfer and UG properties (the *Initial State* of the *Language Faculty*) in the success of L2 acquisition. Transfer, specifically negative, is widely believed to be manifested by the errors committed by L2 learners while UG contributes in correcting these errors, and learning strategies are seen as the techniques L2 learner employs consciously and/or subconsciously in exploiting UG properties to reactivate and retrigger the preset parameterized rules, hence, internalizing L2 linguistic system, and finally, leading to ultimate achievement in SLA (Shormani, 2014c).

Arab learners of English, for instance, acquire English phonology and in their acquisition it is clear that transfer from L1, i.e. Arabic into L2, i.e. English, seems to be an indispensable learning strategy. For instance, they pronounce the English phoneme /p/ as /b/ or /v/ as /f/ because both sounds, among others, do not exist in Arabic at least as phonemes. In addition, they sometimes fail to pronounce the third person singular morpheme – *s/es* when preceded by a voiced sound as in *listens* where /s/ is pronounced as /z/. They also fail to pronounce the past simple morpheme –*ed* as in *looked* where –*ed* is pronounced as /d/. Such phonological errors Arab students commit can be attributed to the insufficient knowledge in the English phonological system itself which shows their developmental or overgeneralization strategies during the learning process. They could also be attributed to transfer from Arabic, whose phonology is almost different from that of English. However, the more they get advanced in their L2 acquisition process, the more they retrigger mislearned or misacquired UG parameters, resetting them in accordance with L2 linguistic system (Shormani, 2014c).

Thus, the article proceeds as follows. In section 2, we present a brief account of the underlying foundations of both transfer and UG, examining some studies related to the scope of this paper. In section 3, we outline the methodology employed in this study, describing the participants and the procedure followed. In section 4, we discuss and analyze the data. In this section, we identify two types of transfer, namely, systematic and nonsystematic, pinpointing the role of UG in reactivating and retriggering the UG preset parameters. In section 5, we discuss the role played by UG in L2 acquisition, and section 6 concludes the paper, along with providing some pedagogical recommendations based on the results concluded with in this study.

2. PREVIOUS STUDIES

A considerable number of studies have been concerned with the role of L1 (or otherwise L1 interference) in L2 acquisition process cross-linguistically, and if there is, how much of the L1 that could influence this process. However, studies concerning the role played by transfer and UG in acquiring English as a second language by Arabic-speaking learners are almost absent. In this section, we briefly look at the studies tackled in the literature, concerning transfer, on the one hand, and those concerning the role of transfer and UG cross-linguistically.

2.1. The Concept of Transfer

If an Arabic-speaking learner of English articulates the words *pen*, *five* and *home* as /*ben*, /*faif* and /*hu:m*/, respectively, a phonologist would likely observe that the pronunciation of these words is not English, nor is it even English-like simply because native speakers of English do not articulate them as such. However, this speaker *might have heard someone articulating them* this way (say, for instance, his teacher(s)). If anything, mispronouncing such words as such clearly manifests his idiosyncratic mental representation of English phonology. The phonologist, then, would try to account for this phenomenon. He would, for example, hypothesize that the sounds /b/ occurring instead of /p/ in the word *pen*, /f/ occurring instead of /v/ in the word *five*, and /u:/ occurring instead of /əʊ/ in the word *home*, have been transferred from Arabic, given the fact that Arabic here is considered the knowledge-base the learner resorts to (at least at this stage of his acquisition), as a strategy in language acquisition process.

There is a somewhat consensus among cross-linguistic researchers that L1 influences L2 at least at the beginning stages of acquisition in ways that extend beyond borrowing or falling back on the native language, however, there is little agreement among them about what and how much of the L1 is transferred into the L2 (Tarone, 1978). Language transfer is defined as the process of using an L1 rule, structure or element in learning an L2 rule, structure or element (Shormani, 2012a). For instance, learning a task; say, X in L1 will affect the subsequent learning of a task Y in L2. In fact, one of the key concepts in behaviorist theory of language acquisition was the notion of transfer. This is the focus of the next section.

2.2. Behaviorism and Transfer

Behaviorism is a psycholinguistic approach to language acquisition in its two spheres. As for L2 acquisition, behaviorism views it as replacing the old linguistic habits with new ones (Shormani, 2012a). The



former are those belonging to L1 which is already there as a set of well-established responses in its speakers' minds. In this view, learners try to connect the habits of their L1 to those of L2. This connection actually results in language transfer or L1 interference. In fact, this view was based on Contrastive Analysis (CA) approach to SLA initiated by some scholars (see e.g. Fries, 1945; Lado, 1957) in the mid 1950s. Fries (1945, p. 9) argues that the most efficient materials for teaching are those based upon a scientific description of L1 vis-a-vis a parallel description of L2. In this respect, Lado (1957, p. 2) has supported Fries in his conception suggesting that individuals transfer the knowledge of their L1 into the L2 they are learning. Lado claims that transfer can be observed in both: production, viz. when learners attempt to speak and reception, viz. when learners attempt to grasp the language spoken to them by natives, or even nonnatives.

The main aim of CA is to compare L1 and L2 to identify the similarities and differences between both languages. Based on the result of comparison, the similar structures in L2 will be easier to learn than those different (Shormani, 2012a). CA proponents argue that transfer takes place even in similar structures, and this transfer is termed as positive. However, in the case of different structures, CA proponents argue that these structures will be difficult to learn, on the one hand, and learning them will cause errors, on the other hand (Fisiak, 1981). In this case, transfer is termed as negative. What the learners exactly do here is transfer rules and norms from their L1 to L2, and hence, resulting in errors. The latter has also been deemed as *defacilitating interference* due to the fact that L1 intervenes in the expected acquisition of L2 (see Shormani, 2012a&b, 2013, 2014b&c; Lardiere, 1998; Lardiere, 2009; White, 2003; Chomsky, 1968; Gass & Slinker, 2008; Dulay et al, 1982, among many others).

The former, however, happens when an L1 rule or norm is applied in an L2 structure rendering a well-formed structure and not the otherwise. In other words, positive transfer happens when learners apply an L1 rule in building an L2 structure and this rule exists in L2 (Richards, 1974; Shormani, 2012a&b). From a psycholinguistic point of view, behaviorists view transfer as a strategy, i.e. learners resort to transfer from their L1 trying to compensate for the lack of sufficient knowledge in L2 by falling back to their L1 for the purpose of successful communication (Shormani, 2012a). Behaviorists view language transfer as an indispensable strategy that underlies L2 acquisition, and hence, an important source of errors because L1 habits have been deeply rooted in the learner's brain and replacing such habits with new ones, the behaviorists believe, will result in interference of L1 into L2.

However, with the advent of generative syntax, specifically, the work of Chomsky in early 1960s, the strength of transfer, and behaviorism in general, was lost. This was actually based on its failure to account for those linguistically ill-formed occurrences in learner's interlanguage (IL) which are not caused by L1 as predicted by CA, nor can it account for those errors that are neither ascribed to L1 nor L2 (see Shormani, 2012a, 2014a, b&d; Dulay et al, 1982, among others). Another empirical basis against behaviorism as an approach to SLA is the developmental nature of LA process L2 learners go through irrespective of their L1s, which is similar to that of L1 acquisition. This was implemented by several scholars (see e.g. Brown, 1974; Dulay & Burt, 1974). Behaviorism also fails to account for several facts of language acquisition such as the complexity and abstraction of language to which Chomsky has provided examples such as the rules underlying the formation of questions in any language and the use of reflexive pronouns in English (Chomsky, 1968), one feels embarrassed by the quick acquisition of these given the limited input the children are exposed to. This has been termed by Chomsky as *Plato's Problem*. Further, there are too complex linguistic structures that cannot be learned so quickly from the environment around children (Chomsky, 1987, see also Shormani, 2012a, 2014c).

Generative approaches to language acquisition in its two spheres depend on the mental properties and the biological endowments every normal human is tacitly, innately and genetically is born with. These properties constitute the UG, which, in other words, constitutes the *Initial State* of the language faculty. UG is "the system of principles, conditions, and rules that are elements or properties of all human languages" (Chomsky, 1975, p. 29) and "is taken to be a characterization of the child's prelinguistic state" (Chomsky, 1981, p. 7, see also Shormani, 2014c).

Some UG proponents, Chomsky, for instance, in fact, completely ignore the role of transfer (or otherwise environment properties) of L1 during L2 acquisition process, while some others White, for instance, attribute some sort of portion to transfer, and some others, Shormani, for example, attribute an equal portion to both properties. As far as the universality of such grammar is concerned, they argue that humans inherit language features or properties that are universal to all languages which make them able to learn any language they are exposed to sufficient linguistic input of that language. If this is true, it follows that UG consists not of a particular grammar or particular rules but of a set of principles that apply to all grammars and this proves it true why a child can acquire any language irrespective of whatever his L1 might be, and if this is true, it follows that UG could be



viewed as the 'guiding force' of L1 acquisition made use of by children. UG as a theory of acquisition is characterized by the fact that it encompasses two sets of abstract rules, viz. principles which are common to all languages and parameters which are language-specific as has been alluded to above. Thus, principles are part of the innate endowment predisposed in the human 'brain' as features of all natural languages, and parameters are those rules that are peculiar to a specific language.

Thus, it could be claimed that the existence of a particular sound such as /p/ is a principle and its pronunciation is parameterized by features like voicing-devoicing. For instance, this particular phoneme is pronounced with a voicing feature in Arabic, hence, /b/ and with a devoicing feature, hence, the English /p/. Note that this does not exclude the availability of both phonemes in a language like English as a principle of UG, and that Arabic, for instance, is parameterized to select only /b/, though /p/ exists in Arabic, but as an allophone (we return to this issue in section 4.1.1). Unlike Arabic and English, however, there are also some languages like Hindi, for instance, where UG parameterizes the pronunciation of /p/. In Hindi, /p/ maintains its aspiration, though pronounced with some sort of devoicing. This also implies that there is no interference taking place from L1 into L2, hence, no transfer. If all this is true, the question is: does UG parallel transfer? Or does UG exclude the role of transfer as a linguistic phenomenon in L2 acquisition? This is, in fact, an empirical question, the answer to which is attempted in the next section.

2.3. UG and Transfer

In cognitive processing, it is held that "[t]he mental representations developed in the course of first language acquisition provide the starting point for the representations that will be developed for the second language." This is not only concerning mental developments, but also that "the attentional procedures developed for processing a first language are the basis for building up the new procedures needed for the second" (Bialystok, 1994, p. 163, see also Han, 2004). This role has in fact been held by UG, though transfer *per se*, from a UG perspective, cannot explain the developmental stages L2 learners go through even after constituting L2 initial state (Sauter, 2002). UG, thus, is expected to play a role in accounting for such developments. This role, though crucial, will be accompanied by the role of transfer, questioning, however, the extent to which UG constrains SLA and developmental processes.

In fact, Shormani (2014c) addresses this issue, proposing that both language transfer and UG are complementing each other and concluding that UG starts

from where transfer ends. In other words, if L1 and L2 differ only in terms of surface properties, it, then, follows that both transfer and UG have roles in L2 acquisition, where each is indispensable, though there are some scholars who rule out the role of transfer (see e.g. Long, 2003; White, 1990, 2003). Long, for instance, proposes a 'no parameter resetting' hypothesis, whereby L2 learners are subject to UG principles but cannot reset parameters. However, if this is true, *then how can one account for the fact that a Yemeni learner of English, for example, starts pronouncing the sound /p/ as /b/, and then, he internalizes the L2 linguistic system and builds up rules correcting his pronunciation the more he gets advanced?* The mere explanation to this issue is that such a learner is actually resetting the preset rules of L1, i.e. Arabic, in accordance with L2, i.e. English (Shormani, 2014c). In a study conducted on Saudi learners of English, Flege (1980, p. 444) argues that there is "a direct influence of phonetic characteristics of Arabic on the English stops produced by Saudi Arabians...as if they were Arabic sounds." However, there is some sort of "evidence of phonetic learning. The more experienced Saudis produced a durational contrast between word-final /p-b/, /t-d/, and /k-g/." This implies that both transfer and UG interact in shaping L2 acquisition process, however, the question is: how much of transfer and how much of UG are made use of in this process?

In fact, there are six hypotheses that try to handle the role played by transfer and UG in L2 acquisition. However, we will just focus on and review three of them, the most related to the study at hand. The first hypothesis is called *No Transfer-Full Access* (NTFA). As the name suggests, NTFA hypothesis sees SLA as "fully constrained by UG and that the final state L2 grammar is similar to the final state grammar of native speakers of the target language" which is not or rarely happening (Sauter, 2002, p. 13). This actually makes it not well-founded. In other words, NTFA hypothesis does not answer the question posed above of transferring sounds from Arabic into English (see section 4.2). Further, Platzack (1996) assumes that L2 learners, say, of English, will apply movement in English and reset the parameters of such a phenomenon only if their L1 has these features. This is not actually uncontroversial. Take English, for instance, as an L2 learned by Chinese or Korean learners, and take wh-movement as an example, these learners apply wh-movement in English, though Chinese and Korean languages do not have such a movement.

The second hypothesis is well-known as *Full Transfer-No Access* (FTNA). This hypothesis seems to be the opposite of the one discussed above. It claims "that the L1 grammar constitutes the L2 initial grammar,



which amounts to a ‘L1 final state = L2 initial state’ position” (Sauter, 2002, p.14, see also White, 2003; Clahsen & Hong, 1995). Though this hypothesis may account to some extent for the transfer of Arabic sounds into English discussed above, it fails to explain several facts L2 acquisition process is characterized with like the fact that after hesitant, breakable and inconsistent pieces of language characteristic to the beginner L2 learners’ IL system, these learners reset such parameters and in accordance with the L2 linguistic system, be they relating to phonology, syntax, semantics, etc., and this proves it true that L1 final state is never like that of L2.

Thus, it seems that the above two discussed hypotheses are not well-founded, and if this is on the right track, it was indeed necessary to seek an approach that could account for all the facts, be they relating to transfer or UG properties which take place during L2 acquisition process. This, in fact, is assumed by another formal (generative) hypothesis, the so-called *Full Transfer-Full Access* first proposed by Schwartz & Sprouse (1994), and developed in Schwartz & Sprouse (1996). Because this hypothesis is adopted here, we will discuss it with more details.

FTFA, in fact, hypothesizes that “the learner’s default hypotheses about the L2 input derive directly from the UG principles and parameter values of the L1” (Sauter, 2002, p. 16). It, thus, accounts for the transfer of the Arabic sounds discussed so far, on the one hand, and the UG properties manifested in resetting and reactivating UG parameters specific to the L2 linguistic system. If this is true, FTFA adequately and reliably accounts for all the facts that remain unexplained by previous approaches.

Further, according to FTFA, L2 learners are expected to use the grammar of their L1 as the initial state to acquire L2 linguistic system (Håkansson, 2001). This means that transfer from L1 into L2 is happening, and only then, will L2 learners access UG and reactivate and retrigger the parameters of L1 in accordance with L2. Support of FTFA hypothesis has been provided cross-linguistically (see e.g. Schwartz & Sprouse, 1994, 1996; White 1989, 2003; Jiang, 2012). One such empirical evidence comes from an experimental study conducted by Yuan (1998) who investigates Chinese reflexive *ziji* and its antecedent by the Japanese-speaking learners of English. Another study has been done investigating the Split-IP parameter and the V2 parameter, in Afrikaans by native speakers of English and German, respectively (Thráinsson, 1996). Further, Dugarova (2007) investigates Russian-speaking learners and English speaking groups to learn Chinese reflexive *ziji*. In comparison with Chinese reflexive *ziji*, the Russian

reflexive *sebja* can only take a local antecedent in finite clauses. In fact, the studies have involved learners with different L1s. For those involving English, see for example (duPlessis et al. 1987; Eubank, 1990), Turkish, see (Schwartz & Sprouse 1994, 1996), Chinese, see Yuan (1998), Italian (Clahsen 1984, Pienemann 1989), Korean (Vainikka & Young-Scholten, 1994), Russian Dugarova (2007), among other authors and languages. However, it seems that almost all the available studies have focused on examining syntactic categories. To our best knowledge, studies concerning phonological evidence for FTFA are almost absent cross-linguistically.

3. THE PRESENT STUDY

This study is to some extent longitudinal in nature. It takes place in two different stages: the first stage takes place when the participants were in their first year, and the second when they (the same) are in their third year. The first Stage is primarily set to examine L1 transfer role in L2 phonology acquisition, while the second Stage the UG role, and secondly to compare each’s role to the other.

3.1. Participants

This study involves 20 male Yemeni Arabic-speaking learners of English, department of English, Ibb University, Yemen. These 20 randomly selected learners participated twice: first during their first year, i.e. during Stage 1 of data collection in 2011. When they reached third year, the same group also participated in Stage 2 of data collection in 2013. They belong to different places, viz. Ibb City, Ba’adan, Dijbla, Sahoul, Hubaish, Taiz, etc. They have studied English for about nine years (six years at school and three at university). As far as the courses related to pronunciation are concerned, they have studied three Spoken courses, namely, Spoken English I, Spoken English II and Spoken English III, and a theoretical (specialized) course, namely, Phonology.

3.2. Phonological Categories Examined

We have examined four categories in this study, viz. some consonants, some vowels, consonant clustering and word stress. The consonants are /p, b, d, t, v, g, č, dʒ, ŋ, l/. The vowels are /ɔ:, ɜ:, e, əʊ, ei, aʊ/. Consonant clustering involves syllable-initial and syllable-final, i.e. onset and coda, respectively. More specifically, syllable-initial clusters examined are pl-, kl-, str-, and syllable-final are -kt, -ŋks, -kst and -ksts. Three levels of word stress have been investigated, namely, stress placement on first, second and third syllables. All these segments/patterns have been examined via asking the participant to pronounce 20 isolated sentences (see Appendix I) and a list of 35 words (see Appendix II).



3.3. Procedure

As pointed out in section 3.1., the data were collected in two Stages: in Stage 1, the participants were in their first year, second semester, and in Stage 2, they were in their third year, first semester. In Stage 1, the participants were asked to pronounce 20 isolated sentences and a list of 35 words (see appendices I & II). In Stage 2, they were asked to pronounce the same 20 isolated sentences and the same 35 words. Stage 1 data were recorded separately, and the same procedure was followed with respect to Stage 2 data. Their pronunciation was then transcribed and analyzed by the researchers. We have employed simple frequency count of correct and incorrect responses, those words that were pronounced correctly were counted as Correct (=Cr), and those that were not were counted as Incorrect (=Inc). Those words whose pronunciation was not clear were excluded from our corpus. The words counted each contained only one sound produced incorrectly, though some words contained more than one incorrect sound. In addition, to calculate the Overall Ease (=OE) of a phonological category α , the formula in (1) is employed:

$$(1) OE_{\alpha} = \sum_{\beta} \div \gamma \times 100 = \dots \%$$

Where α is the category, i.e. consonants, vowels, clustering or stress, \sum is the sum of, β is the number of the Cr/Inc responses, and γ is the number of segments.

For example, to calculate the OE of the correct responses (=RS) in the category *consonants* (=C) in Table (1), $\sum_{\beta} = 40$, $\gamma = 8$. Thus, the OE, following the formula in (1), is (2):

$$(2) OE_C = 40 \div 8 \times 100 = 5\%$$

Taking (1) in mind, the Overall Difficulty (=OD) of the category *C* in Table (1) is (3):

$$(3) OD_C = 760 \div 8 \times 100 = 95\%$$

We assume that the OE experienced by a particular participant involved in this study in pronouncing a particular segment equals the portion of UG. We will also assume that the OD experienced by the

same participant equals the transfer portion. Along these lines, Ferguson (1984), for instance, argues that the phonological universal repertoire of sounds which are shared by L1 and L2 does not only facilitate the acquisition process, but the learners also follow a sequence in their acquisition of L2 sounds similar to that followed when acquiring their L1 counterparts. He argues, for example, that L2 learners "tend to acquire the full phonetic details of pronunciation of /p/ and /g/ later than, or with more difficulties, than the pronunciation of /b, t, k/" (p. 252).

4. RESULTS AND DISCUSSION

As argued so far, an L2 learner passes through or experiences some sort of difficulty or ease in his acquisition process. As far as phonology is concerned, when a speaker of a language X attempting to learn the phonology of a language Y, some linguists have ascribed the difficulty or ease of learning a phonological category and/or a segment to: i) the competing phonemic categories of L1 and those of the L2 systems, ii) the allophonic membership of these phonemic categories, and iii) the distributions of these categories within their respective systems (Brière, 1966, p. 768, see also Jakobsen, 1968). Brière has also noted that the higher the degree of similarity between the L1 and L2 phonological categories, the easier it is for the speaker to learn the L2 phonological categories, and the otherwise has been held to be true.

We take these views to assume that the OD experienced is ascribed to transfer, and OE to UG properties, either relating to UG principles (those marked sounds in the phonological universal sound repertoire of both languages) or parameters (those unmarked sounds in L2 sound repertoire (see also Prince & Smolensky, 2004). In other words, the principled sounds (i.e. those shared by both languages) will be easier than those which are parametrically selected by L2 *per se*. Thus, Table (1) shows the frequency of Cr and Inc responses, OE and OD experienced by the participants of this study.

Table (1): Frequency, OE and OD in the pronunciation of consonants

Rs	Consonants									
	P	v	T	d	č	ʒ	dʒ	ŋ	OE	OD
Cr	5%	5%	15%	0%	15%	0%	0%	0%	5%	--
Inc	95%	95%	85%	100%	85%	100%	100%	100%	--	95%
TL	100%	100%	100%	100%	100%	100%	100%	100%	5%	95%



Table (2): Frequency, OE and OD in the pronunciation of vowels

Rs	Vowels							
	ɜ:	ɔ:	e	əʊ	ei	aʊ	OE	OD
Cr	0%	5%	0%	10%	0%	5%	2.5%	--
Inc	95%	100%	80%	100%	85%	100%	--	97.5%
TL	100%	100%	100%	100%	100%	100%	2.5%	97.5%

As Table (1) shows, there is a considerable difficulty experienced by the participants of this study in pronouncing the consonants examined, compared to the ease experienced by them. While the former scores 5%, the latter scores 95%. In other words, access to UG is very low in Stage 1 while transfer is very high. As a learning strategy, transfer varies from sound to another. One way out of this is that the role of UG overlaps with transfer. While the former is manifested via the OD experienced, the latter is manifested via the OE. For instance, the UG seems to work with the sounds /t/ and /č/ more than transfer while transfer seems to work more than UG with the rest of the sounds. Regarding the latter sounds, it seems that what the learner does is just transfer L1 features into L2. The same thing can be said regarding vowels as Table (2) illustrates.

Note that Tables (1&2) present Stage 1 data (collected in the first year), hence, it is expected that transfer in this stage is more than UG. This is also evidenced from the OD experienced by the participants, manifested via the high frequency (percentage) of the Inc responses, where only (2.5%) of the participants pronounce it correctly. In addition, there seem to be several aspects, characteristics, features among other things relating to transfer that are involved in the difficulty experienced by the participants but are still unclear by now (we return to this issue in section 4.1.1).

Other issues or questions concerning the type of transfer made use of by them, how, when and what factors, be they linguistic or nonlinguistic, or strategies they consciously and/or subconsciously make use of that result in such mispronunciations of the segments/patterns, whether the amount of transfer employed in pronouncing consonants, for instance, is the same in quantity (or even quality) like that in pronouncing vowels, how each segment examined differs from the other, and to what extent the phonology of Arabic differs from that of English, all these, among other related issues, need answers. Consequently, we will devote the following section to attempt most of these issues in some more details.

4.1. Types of Phonological Transfer

It has been found that there are two types of transfer. We call them *systematic* and *nonsystematic*. In the former type, we assume that there is one feature being transferred either in voicing, place or manner of articulation. In the latter, however, we hypothesize that there is more than one feature transferred from Arabic into English, and sometimes, a phoneme as a whole is transferred. It has also been found that sometimes transfer involves addition of a feature and some other times it involves reduction of some feature. Table (3) presents both types of transfer along with the sounds being transferred.

Table (3): Types of transfer

Sound Transfer	Consonant					Vowel		
	P	v	T	d	g	e	ei	ɔ:
Systematic								
Nonsystematic	ʒ	dʒ	ŋ	l		əʊ	ɜ:	aʊ



As Table (3) shows, *systematic* transfer includes the consonants /dʒ, ŋ, p, d/ and the vowels /ɜ:, ɔ: and e/. The *nonsystematic* transfer, however, includes the consonants /ʒ, dʒ, ŋ and l/ and the vowels /əʊ, aʊ and ei/. Both types will be discussed and exemplified as follows.

4.1.1. Systematic

Since systematic transfer describes the transmission of only one feature, either in voicing, place or manner of articulation, the three-term label convention will be made use of here. In voicing, for instance, there is a one-feature transfer in the pronunciation of the English voiceless bilabial stop /p/ when pronounced as /b/ which is transferred from Arabic. However, when an Arabic-speaking learner of English pronounces the voiced labiodental fricative /v/ as /f/, there is a transfer of the devoicing feature of the Arabic /f/.

4.1.1.1. Consonants

As is clear from Table (3), this category of transfer includes the consonants /p, v, t, d/. For instance, the voiceless bilabial stop /p/ is pronounced incorrectly by almost all participants. Only one participant, i.e. (5%) pronounces it correctly, and 19 participants, i.e. (95%) pronounce it incorrectly (see Table (1)). Some linguists claim that /p/ does not exist in Arabic, and hence, tracing pronouncing it as /b/ to the absence of the sound /p/ in Standard Arabic (SA) and all Arabic vernaculars. Consider the examples in (4) which exemplify this issue.

- (4).
- a. park → ba:k
 - b. pen → bin
 - c. spi:k → sbi:k
 - d. help → helb

In (4a-d), the /p/ is pronounced as /b/. As far as English as an L1 is concerned, there are some linguists (see e.g. Jakobson, 1968; Hamad, 1987) who argue that the sound /p/ is difficult even for native speakers themselves, observing that it is marked in English and, hence, it is acquired later than other sounds, say, b, /g/, for instance. If Jakobson's assumption is on the right track, it, then, follows that it must be more difficult for nonnative learners of English than it is for native ones.

What is worth mentioning here is that the sound /p/ does exist in Arabic, specifically, SA as in (5).

- (5)
- a. sapt (=Saturday)
 - b. ḍaph (=slaughtering)
 - c. laps (=ambiguity)
 - d. kapš (=lamb)
 - e. tapx (=cooking)

However, as it is indicated in (5), the occurrence of the sound /p/ is conditioned by a certain context which is [-#], where only one /t, s, ḥ, š or x/ occurs in [--]. This means that here [p] (we use the notation [] to indicate allophony) is an allophone of the Arabic /b/, and not an independent phoneme like that of English. In other words, the environments where the English /p/ occurs in Arabic can be seen clearly in the above examples where [p] occurs only in the environments schematized in (6).

- (6)
- a. #a-t#,
 - b. #a-s#
 - c. #a-ḥ#
 - d. #a-š#
 - e. #a-x#

There is perhaps no other context where [p] occurs. Now, from the environments just seen, the possibility of the occurrence of /p/ in Arabic is bound to be followed by certain voiceless sounds, namely, /t, s, ḥ, š, x/.

Another issue concerning the voiceless bilabial stop /p/ and noticed in our data is that some participants of the study try to pronounce it correctly and thus pronouncing the /b/ as /p/ as illustrated in (7).

- (7)
- a. problem → prəuplem
 - b. backbones → bækrəuns

What happens here is presumably that the learner tries to hypercorrect his pronunciation, hence, resulting in such an error (Brière, 1966; Gass and Slinker, 2008; Shormani, 2012a&b). Arabic does not have a voiced labiodental fricative /v/; it does have a voiceless labiodental fricative /f/, however. As shown in Table (1), this sound constitutes a considerable difficulty for the participants of this study as only (15%), of them pronounce it correctly. Based on their L1 as a knowledge-base source, they transfer the voicelessness feature of the Arabic /f/, hence, pronouncing /v/ as /f/, as the examples in (8) show.

- (8)
- a. vomit → vamıt
 - b. level → lefəl
 - c. move → mu:f

Here, the learner tries to find out whether there is an equivalent sound in Arabic so that he could substitute that sound for one of these. Thus, the most



associated sound with /v/ is the Arabic /f/, where the difference is only in voicing.

Another example of systematic transfer is what happens with pronouncing the voiced alveolar stop /d/. As can be seen in Table (1), it is pronounced incorrectly by almost all participants. Like the voiceless bilabial stop /p/, only one participant, i.e. (5%) pronounces it correctly, and 19 participants, i.e. (95%) pronounce it incorrectly. However, unlike /p/, the incorrect pronunciation could not be traced to the absence of the sound /d/ in SA or Yemeni Arabic (YA), simply because /d/ exists in Arabic as an independent phoneme, but rather to some sort of difference between both phonemes in both languages. Let us first consider the examples in (9).

- (9) a. door → *du:r*
 b. undo → *ʌn'du:*
 c. feed → *fi:d*

This some sort of difference between Arabic's /d/ and that of English is that while the former is dental (more correctly dento-alveolar, symbolized as *ḏ*), the latter is alveolar. If this is true, it could be argued that what the learner does is transfer one feature/property of the Arabic's /d/ into the English one. This actually makes it clear that transfer is not confined to the whole set of features of a phoneme as in the case of substituting the Arabic /j/ for the English /g/ as we will shortly see, but rather even one feature could systematically be transferred. In other words, the learner here transfers only the 'dentalness' which is a feature of the Arabic /ḏ/ into English, hence, resulting in pronouncing the English /d/ as /ḏ/. The same thing happens with the voiceless alveolar stop /t/, where dentalness feature is transferred from Arabic into English when pronouncing the English /t/. However, the transfer is not as much as that taking place with /d/ as is clear from Table (1). (80%), i.e. 16 participants have pronounced /t/ as the Arabic dental /ḏ/.

The systematic transfer is also manifested in the pronunciation of the voiced velar stop /g/. This sound is pronounced as /j/, i.e. a voiced palato-velar affricate. As Table (1) shows, the consonant /g/ constitutes a considerable difficulty for the participants of this study. Consider the examples in (10).

- (10)
 a. go → *ju*
 b. goal → *jəul*
 c. google → *jujl*

In fact, this difficulty has been noticed by many Arab linguists (see e.g. Hamad, 1987; Abu-Rabia, 2006; Alqazweeni, 1990). They argue that Arab learners of

English, especially beginners, including Egyptians, Jordanians, Iraqis and Syrians, Lebanese and Algerians, pronounced /g/ as /j/ even in advanced levels of learning, at the university level and after graduation. These researchers have ascribed such phenomenon to the influence of the learners' vernaculars of Arabic spoken in these countries. The researchers agree with them, simply because of citing the situation taking place in the case of our study, where /g/ is pronounced as /j/.

Further, Arab world is linguistically characterized as diglossic. In other words, in every Arab country, there are at least two co-existing varieties, viz. SA and a vernacular. Thus, as alluded to above, dialectal transfer is well documented in the literature. For instance, some scholars (see e.g. Hamad, 1987; Alqazweeni, 1990) have noticed that some features of Egyptian Arabic are also transferred by some Egyptian learners of English. Consider, for example, the examples in (11), where the voiced dental fricative /ð/ and the voiceless dental fricative /θ/ are pronounced by some Egyptian learners as /z/ and /s/, respectively.

- (11)
 a. that → *zæt*
 b. three → *sri:*

In addition, dialectal transfer has also been noticed in our data. As Table (1) shows, there is only one participant who pronounces the sound /g/ correctly, for instance,. When asking this participant about his native place, he said that he is from Taiz, where even the Arabic sound /j/ is pronounced as /g/. In fact, as university teachers, we have been observing our Taizi students who almost always pronounce /j/ as in *just /jʌst/* as */gʌst/*.

To recapitulate, transfer is a strategy used by SL learners in which interference, as has been stated earlier, is indispensable. In that transfer is an indispensable learning strategy employed by foreign language learners at all levels of proficiency (Shormani, 2012a). The influence of the learner's linguistic background continues throughout the learning process, not only that but it plays an essential role in learning the L2 linguistic system. As Corder (1981, p. 195) asserts, "[t]he part played by the mother tongue in the acquisition of a second language is a good deal more pervasive and subtle than has been traditionally believed. It plays a part at the start of learning, in the process of learning and in the use of the target language in communication." So, what the Arab learner does is just extend or reduce his native sound by adding or dropping a feature or a set of features from the native sound he already has had. However, one may postulate that it may be easier for an Arab learner to learn the English /p/, because all what he has to do is just drop



the voiceless feature and replace it with the voiced one, which is not borne out, at least in Stage 1.

4.1.1.2. Vowels

As argued above, a consonant is described in terms of a three-factor criterion (usually referred as three-term label). In the case of vowels, we assume that there exists some sort of three-factor criterion. These are: the state of mouth, i.e. close, mid-close, mid-open and open, the part of the tongue involved, i.e. front, center and back, and the state of lips, i.e. either rounded or unrounded. In fact, it has been found that the same difficulty is encountered in vowels, be they monophthongs or diphthongs by the subjects under study. The same thing happens here, with a variant degree, i.e. students resort to their mother tongue as a knowledge-base, hence, transferring some features from Arabic into English. As Table (2) shows, vowels also get transferred from Arabic into English. Like consonants, transfer taking place in the case of vowels is categorized into systematic and nonsystematic. There are six vowels involved in this study, three monophthongs namely, /ɜ:/, /ɔ:/ and /e/ and three diphthongs, viz. /əʊ/, and /aʊ/. In this section, we examine the systematic transfer and rerun to nonsystematic in section 4.1.2.2.

As stated above, the vowels where systematic transfer takes place include the front mid open unrounded /e/. This sound has been argued (see e.g. Hamad, 1987; Ibrahim, 1988; Alqazweeni, 1990) to be one of the most difficult and latest-to-acquire vowels by Arabic-speaking learners of English, as it does not exist in Arabic. The learners resort to Arabic and substitute it with /i/ and sometimes with /a/ which both exist in Arabic. Consider (12) which exemplifies this issue.

- (12)
- a. pen → *pin/*
 - b. end → *ind*
 - c. again → *ə'gi:n /ə'ji:n*
 - d. second → */sakənd/*

As can be seen in the examples listed in (12), there is some sort of systematic transfer where the sound /e/ has been substituted by the front mid-close unrounded /i/. The systematic transfer here lies in one aspect, namely, the state of the mouth, i.e. from mid-open into mid-close. This type of transfer is clear in (12a-c). In (12d), however, the sound /e/ has been substituted by /a/. We consider this a systematic transfer simply because, as assumed in our criterion (see section 4.1.1.1), it is only one feature that is transferred. It is worth noting here that (Hamad, 1987) claims that in (12d), the sound /e/ is substituted with /ə/. In fact, we do not agree with his claim simply because the transfer was so clear in our corpus where /a/ is transferred. It could be true in the

case of Hamad's study, maybe because of involving participants from different diglossic backgrounds.

The second sound in this category is the diphthong /ei/. Like the sound /e/, the systematic transfer here lies in the state of the mouth. This point is exemplified in (13).

- (13)
- b. aim → *i:m*
 - c. name → *ni:m*
 - d. they → *ði:*

There is an important point to address here with respect to the diphthong /ei/. Ibbi dialect, specifically, Ibb City dialect, the sound /ei/ exists in this dialect, as in the words *keif* (how), *ʕeib* (shame), etc. but we found no trace for transfer of this sound into English. There was one participant from Ibb City, but this learner did not transfer this sound into English. We have no accurate explanation for this particular point at the moment, hence, we will leave it for future studies.

The third sound representing systematic transfer is the back mid open rounded /ɔ:/. This vowel is most substituted with /u/ and sometimes /u:/. This is exemplified in (14).

- (14)
- a. taught → *tut*
 - b. small → *smu:l*

In (14a), the sound /ɔ:/ is pronounced as /u/ in the word *taught*. In (14b), however, it is pronounced as /u:/ in the word *small*.

4.1.2. Nonsystematic Transfer

In this section, we tackle nonsystematic transfer.

4.1.2.1 Consonants

The consonants in this type as shown in Table (3) are /ʒ, dʒ, ŋ, ʃ/. What is common to this type of transfer is that it takes place with sounds that have neither Arabic phonemic counterparts nor allophonic ones.

For instance, the nasal velar voiced /ŋ/ is one of the consonants examined in this study, where nonsystematic transfer is observed. In that, sometimes it is pronounced /nʃ/ as in (15&b). Some other times it is pronounced /j-nʃ/ as in (15c&d), and some others /ng/ as in (15e).

- (15)
- a. thank → *θænk*
 - b. link → *link*
 - c. sing → *sinʃ*



- d. going → *juinj*
e. writings → *raitingz*

Interestingly, one of the remarkable examples of nonsystematic transfer observed in this study is that taking place when pronouncing /ŋ/. It was somehow difficult for us to handle such transfer, particularly, the fact that sometimes two sounds get transferred, thus, it is technically inconsistent, compared to that happening with other sounds in this category. It is true, however, that the L1 is the main reason, though dialectal influence was also observed, specifically regarding (15e), where Taizi dialect was dominant, as has been stated above.

Similarly, the fricative palatal voiced /ʒ/ has been observed to be rendered into different sounds as (16) shows.

- (16)
a. measure → *mijr*
b. measure → *migr*
c. vision → *višn*

Here, the data collected show that the sound /g/ has been rendered into 3 sounds, namely, /j/, g and š/, respectively. Interestingly, however, there is some sort of environment constraint. In other words, it was noticed that the sound /g/, for instance, occurs only in pronouncing the word *measure*, and never occurs in words like *measure*, *pleasure*, etc., for which we have no justification in the moment. It has also been observed that the sound /ʒ/ never appears amongst the data, which means that it constitutes a huge difficulty.

As far as the fricative alveo-palatal voiced /dʒ/ is concerned, it has been observed that the rendered sounds in the pronunciation of /ʒ/ are the same sounds that are rendered from the pronunciation of /dʒ/, as is clear from (17).

- (17)
a. just → *ʃast*
b. changes → *čīnšiz*
c. changes → *čīngz*

Now, the question we have to address here is that in the case of the /ŋ/ and /ʒ/ which Arabic does not have even equivalent sounds for both of them, what can be followed by the learners in learning them? Alternatively, how can the learners manage learning these two sounds? A plausible answer to this question is found in (Hamad, 1987) and (Abu-Rabia, 2006). They maintain that in the case of /dʒ/ and /ʒ/ (and even /ŋ/) Arab learners try to find a sound (or even sounds) which can be associated with each and substitute it for that.

Another consonant representing this category of transfer is the lateral alveolar liquid voiced /l/. It has been held that /l/ is one of the most problematic sounds that encounter Arab learners of English. The difficulty lies in the fact that /l/ in English has two allophones, viz. emphatic (dark) and non-emphatic (clear), as far as British English is concerned. The clear /l/ occurs before vowels and the dark /l/ after vowels (Balasubramanian & Eliezar, 1996). Arabic speakers fail to pronounce the dark /l/, and thus, pronouncing it as /l/. Examples presented in (18) demonstrate this point:

- (18)
a. little → *litl*
b. cultural → */kʌlčrəl/*

These examples demonstrate that Arab learners of English make errors in pronouncing the emphatic /l/ because they pronounce it as the non-emphatic /l/. Many linguists have attributed this to the lack of an emphatic /l/ in Arabic stating that Arabic does not have the emphatic /l/, but has the clear /l/ as in the words *kalaam* (speech), *kul* (all), etc. Contra these views, we argue here that Arabic does have the emphatic /l/ in words like *ʔalaah* (God), *ʔalaal* (ignorance), *faʔl* (class), etc. However, it seems that the occurrence of the dark /l/ is contextualized, in the sense that it occurs only in contexts where it is preceded by emphatic palatalized sounds like /ð, t, s, d, etc/. In fact, some scholars claim that Arabic has the dark /l/ but as an allophone (see e.g. Hamad, 1986; Zughoul, 1979).

Since the emphatic /l/ in English is also conditioned by environmental restrictions, i.e. preceded by a vowel, it could be claimed that the SA emphatic /l/ is presumably a phoneme. Further, as far as nonstandard dialects are concerned, in Kuwaiti Arabic (and perhaps some other Gulf dialects), the clear /l/ rarely occurs while the emphatic /l/ is frequently made use of (cf. Alqazweeni, 1990). As far as YA is concerned, there are two /l/ phonemes, i.e. the clear /l/ and the emphatic /l/. If our argument is on the right track, the question is: why is it that Arabic-speaking learners of English, Yemenis in our case, find it so difficult to pronounce the emphatic /l/? To put it the otherwise, why is it that the emphatic /l/ is not/rarely transferred, even in the beginning stages?

Along these lines, some scholars (see e.g. Ferguson, 1956) argue that the emphatic /l/ in Arabic is bound to Classical Arabic (CIA) and SA (see also Hamad, 1986). To them, nonstandard varieties of Arabic do not have the emphatic /l/. This, they claim, is the reason behind the considerable difficulty Arab learners encounter in pronouncing the emphatic /l/ of English as they are most influenced by their particular Arabic



vernaculars. Contra these views, and as pointed out above, the emphatic /ʔ/ is not bound to CIA and SA, but rather it is available in nonstandard varieties like all Arabic dialects. Good evidence is the word *ʔalaah* (God) which spoken with the emphatic /ʔ/ in all Arabic-speaking countries. For instance, in YA (and all Arabic dialects) the emphatic /ʔ/ is used the same way it is in SA (or even CIA). Consider (19).

- (19)
- a. /faʃl/ (=class)
 - b. /ðil/ (=shadow)
 - c. /ðil/ (=lost)

It seems, however, that the claim made by (Ferguson, 1956; Hamad, 1986) is not on the right track. In addition, words presented in (19) are pronounced by all Arabs irrespective of the country they belong to, for instance, e.g. Egyptians, Iraqis, Yemenis, Moroccans, Syrians, etc. all pronounce these words with the emphatic /ʔ/. It seems to us that the reason might be something else, which, we think, is the teacher's competence. In that if the learner hears his teachers beginning at school and ending at University pronouncing the emphatic /ʔ/ as /l/, then, how to expect him to pronounce it correctly!?

In addition, examples presented in (19) involve monosyllabic words. However, the emphatic /ʔ/, in fact, occurs in polysyllable words as well, as (20) shows.

- (20)
- a. /talæl/ (a name of a male person)
 - b. /datæl/ (=ignorance)
 - c. /miðatæt/ (=umbrellas)

The last sound in this category is /č/. Unlike the consonants in this type of transfer, /č/ transfer seems to be more concomitant, i.e. it has only one rendered sound, viz. /š/ as the examples in (21) show.

- (21)
- a. choose → *šu:z*
 - b. picture → *pikšar*

However, it seems that the transfer taking place in relation to /č/ is more systematic than nonsystematic. Thus, one might wonder why is /č/ not listed in systematic transfer category. In fact, we intentionally classify it as a nonsystematic transfer due to the fact that unlike those in systematic transfer, there seems to be something peculiar to /č/ *per se*. In other words, there is presumably some sort of reduction whereby the learner reduces /č/ into /š/. This can be observed by taking the difference between /č/ and /š/ as a criterion, i.e. the difference between the former and the latter is that while /č/ is alveo-palatal, /š/ is only palatal. In other words,

learners seem to eliminate/reduce the alveolarness from /č/, hence, pronouncing it as /š/.

4.1.2.2. Vowels

As is clear in Table (2), this category of transfer includes three sounds: a monophthong and two diphthongs, namely, /ɜ:/, əʊ and aʊ/. In what follows, these are discussed and exemplified.

The first sound in this category is the central mid-close unrounded /ɜ:/. This sound scores a high rank in our corpus (see Table (2)). Consider (22).

- (22)
- a. bird → bird
 - b. work → wɔrk

The nonsystematic transfer taking place in the case of /ɜ:/ is that there are two features being transferred. In the case of /i/, as in (22b), for instance, the part of the tongue is changed from central into front, and the state of the mouth changes from approximately mid-open into approximately mid-close. The state of lips remains unchanged. In (22b), however, nonsystematic transfer is so clear, i.e. there are three features transferred. The part of the tongue changes from central into back, the state of lips changes from unrounded into rounded, and the state of the mouth changes from approximately mid-open into open.

Another sound representing nonsystematic transfer is the diphthong /əʊ/. This diphthong also causes a considerable difficulty for Arabic-speaking learners of English. The nonsystematic transfer lies in that different features are transferred from Arabic, and, hence, learners substitute /ʊ-u/ and sometimes /u:/ for it. This is exemplified in (23).

- (23)
- a. over → *ʊ-uvar*
 - b. low → *lu:*

Thus, taking our previous criteria in transfer, it is expected that several features have been reduced in pronouncing /əʊ/ as the Arabic /ʊ-u/ in (22a) and /u:/ in (23b). (These features are perhaps what makes up the sound /əʊ/ (qua made up of two sounds /ə/ and /ʊ/)). However, what happens here is that there is some sort of reduction, i.e. the sound /əʊ/ has been reduced to either /ʊ-u/ as in (22a) or /u:/ as in (22b).

The third sound in this category is the diphthong /aʊ/. This sound is pronounced as /wʊ/ and /ævi/. These two different pronunciations are exemplified in (24).



(24)

- a. now → *næʊ*
- b. house → *hæʊs*

As stated above, these diphthongs are the most problematic sounds to acquire by Arab learners of English including Yemenis. The difficulty lies in the fact that these diphthongs do not exist in Arabic language though some of them exist in some vernaculars, but as far as CL and SA are concerned, they do not exist. For instance, in Arabic we have the diphthong /æʊ/ in words like *xæʊ* (-in) (roughly empty). However, in YA we have the sound /aʊ/ in words like *xaw* (a name of a place in Ibb governorate). Thus, it seems that Arab learners (including Yemenis) perhaps have to acquire them as new elements in the L2 they are acquiring, which depend on UG *per se*.

A very important issue to be addressed here is that according to the criteria followed by contrastive analysis (and behaviorism in general), learning of the similar features between both languages will be easier. However, one fails to account for some phenomena which prove that this might not be true. In other words, Arabic and English have the sound /t/, and thus, it is expected that Arab learners of English find no difficulty in learning this sound, however, it was observed that this is not the case, i.e. when an Arab learner pronounces the English /t/, it is easy to notice that his accent is not English (or even English-like). What he does is only transfer the features of /t/ from Arabic into English. However, in a close examination of both sounds in both languages, one is certain to find differences between the two phonemes. For instance, the Arabic /t/ is a voiceless dental stop whereas the English /t/ is a voiceless alveolar

stop. The same thing can be said regarding the Arabic and English /d/ with the voicing difference, however. Therefore, if this is a type of positive transfer, it may not be held true at least in terms of phonology and especially in Arabic. This also casts some doubts on the behaviorist assumption. Needless to say, much research is needed to prove this point true.

4.2. Clustering

Central to clustering is the notion ‘syllable.’ A syllable can be defined as a phonological unit consisting of three constituents/elements: onset, nucleus and coda, the compulsory element of which is the nucleus. Onset is known as the consonant(s) that occupy the initial position of a syllable, nucleus is the vowel and coda is the consonant(s) that occupy the final position of a syllable. Onset takes the form of 0-3 consonants while coda takes the form of 0-4 consonants, however, nucleus is *only* one. Consequently, clustering takes place in the onset and coda.

Clustering can be simply defined as a phonological process in which consonants are grouped together in one unit. The latter is known as a ‘cluster.’ In English, there are two types of clustering, viz. initial and final. In the former, up to three consonants can be clustered and in the latter, up to four consonants. These can be exemplified in the English word *strengths* /str-e-ŋgθs/. In this study, seven English clusters (three syllable-initial and four syllable-final) are involved as presented in Table (4) along with their frequency of (in)correctness.

Table (4): Consonant clustering

Rs	Cluster								
	Initial			Final					
	pl-	kl-	str-	-kt	-ŋks	-kst	-ksts	Ease	Diff.
Cr	100	70	50	100	40	40	0.	43%	--
Inc	0.	30	50	0.	60	40	100	--	57%
TL	100	100	100	100	100	100	100	43%	57%

Before discussing the problems faced by the participants of this study in clustering, a brief look at how clustering works in Arabic is in order. According to Balasubramanian & Eliezar's (1996, p. 209), “Arabic [SA and YA] does not permit consonant-cluster in the word initial position. The maximum number of consonants that can occur together at the end of an Arabic word (syllable) is TWO” (emphasis in the original), though in Palestinian or Syrian Arabic, initial consonant clustering is much observed as in the word *kleb* (dog). Clustering and syllabification in Arabic is briefly looked at in what follows, consider the examples in (25).

(25)

- a. CV as in /*laʕ*/ (=no)
- b. CVC as in /*fu:l*/ (=beans)
- c. CVCC as in /*qalb*/ (=heart)

Examples presented in (25) show the types of syllable and consonant clustering Arabic has. In (25), there is only one consonant cluster in Arabic, which can occur at the end of a syllable as in (25c).



With this brief look at Arabic clustering in mind, the difficulty encountered by the participants of this study is discussed as follows. Consider first examples of pronunciation of some words representing final clusters in (26).

(26)

- a. next → /nekist/
- b. texts → /tekistis/
- c. thanks → /θæŋkis/

In these examples, transfer is so obvious, there is a systematic transfer in which the learners transfer Arabic syllabification and clustering into English. As for syllabification, see the words presented so far. As for clustering, only a two-consonant cluster is formed. What the learner does here is follow the cluster patterning of Arabic. For instance, in (26a), the word *next* has been pronounced as *nekist* instead of *nekst*. This syllable, for instance, has a final cluster consisting of three consonants, namely, /k/, /s/ and /t/. The learner inserts the vowel /i/ after /k/, hence, leaving a cluster consisting of /s and t/. In (26b), the learner pronounces the word *texts* as *tekistis*, inserting the vowel /i/ twice after /k/ and before /s/. Here, too, he/she leaves a cluster consisting merely of two consonants, namely, /s/ and /t/. The same thing can be observed in (26c). Regarding the final -kt, a very crucial conclusion can be pinpointed here. Though a two-consonant cluster is not possible in SA, the fact that -kt is pronounced correctly by all participants can only be traced to UG. Else, there is no any other reason/factor that could be involved in such an accurate pronunciation.

As for initial clustering, it has been found in our corpus that all words having the initial cluster pl- are pronounced correctly, and this could also be attributed to UG alone, perhaps like the final -kt discussed above. However, words having kl- cluster present some sort of difficulty for the participants, but only in some words. For instance, words like *clean*, *clerk*, etc. were pronounced correctly; see (27a), for instance. However, the word *cluster*, and perhaps alone, presents a considerable difficulty for them. Only one student (out of twenty) pronounces it correctly as (27b) illustrates.

(27)

- a. clean → *kli:n*
- b. cluster → *kalastar*

There is no problem in pronouncing words like *clean* as in (27a). However, the word *cluster* is pronounced *kalastar*, where the learner inserts the sound /a/ after /k/ as clear in (27b). In fact, pronouncing the initial cluster kl- in some words correctly, while

pronouncing it incorrectly in the word *cluster*, is surprising to us, and we have no adequate explanation for such a phenomenon in the moment. In other words, it could be claimed that while pronouncing the word *cluster* as *kalastar* could be ascribed to transfer from Arabic, pronouncing words like *clean* correctly remains mysterious, and we leave this point for future studies.

As clear in Table (4), the initial cluster str- presents a considerable difficulty for the learners under study, i.e. about (50%) of the participants pronounce this cluster in words like *street*, *strike*, etc. incorrectly. Consider the word *street*, for instance, as in (28).

(28)

- a. street → *istri:t*
- b. street → *sitri:t*

Like the strategy, i.e. vowel insertion, employed in pronouncing the words in (26) in final clusters, the learner here inserts the vowel /i/ in the beginning as in (28a), and after /s/ as in (28b), thus, leaving a two-consonant cluster the same way he does in examples like (26) above. This could be attributed to transferring Arabic clustering patterning into English.

One might also encounter a question like what is the influence of Arabic clustering on the pronunciation of Arab learners of English? Or how does this affect Arab learners' pronunciation of English tri- and quadric consonant-clustering words? One way to explain this is that since in Arabic, i.e. L1, they used to pronounce only di-consonant-clustering syllables/words (and only in final positions), it is perhaps difficult for them to cope with English words having tri- and quadric consonant clusters. This will lead to difficulties encountering Arab learners of English in pronouncing such words, in general, and Yemenis in particular, and thus, making them insert vowels before, after or in-between those consonant clusters. This actually results in deviation from the norms of English.

Examples in (28) also provide good evidence in support of FTFA. In other words, Arab learners in general and Yemenis in particular overcome the difficulty of tri- and quadric consonant-clustering syllables/words in the beginning stages of their acquisition by inserting vowels, wherever they find difficulty facing them. For instance, they insert the vowel /i/ before and after /s/ in pronouncing the word, *street*. They insert the vowel, /i/ after /k/ and /i/ before /st/ in pronouncing the word, *next* and so on. In addition, one can also observe that the way they insert the vowels is systematic. They maintain two consonant-clustering whether at the beginning, middle or at the end of



syllables/words as can be seen clearly from the examples above which go parallel with what they used to do in pronouncing words in their L1, hence, good evidence for transfer at this stage of their learning of English.

4.3. Stress

Unlike some languages like French (where the last syllable is usually stressed), Polish (where the syllable before the last-the penultimate syllable- is usually stressed) or Czech (where the first syllable is usually stressed), stress placement in English is a complex phenomenon. This makes it even harder for L2 learners of English. Deciding where to place stress depends on several factors. These are summarized in (29) (from Roach, 2009, p. 88).

- i) Whether the word is morphologically simple, or whether it is complex as a result either of containing one or more affixes (i.e. prefixes or suffixes) or of being a compound word.
- ii) What the grammatical category of the word is (noun, verb, adjective, etc.).
- iii) How many syllables the word has.
- iv) What the phonological structure of those syllables is.

As far as Arabic is concerned, stress is a well-known phenomenon. In CIA/SA, there are two rules that determine stress. These are summarized in (30) (from McCarthy 1979, p. 65ff, see also Ibrahim, 1988).

- (30)
- a. stress the superheavy ultima (final) syllable, otherwise,
 - b. stress the rightmost nonfinal syllable, otherwise,
 - c. stress the first syllable

(31) suggests that there are at least three levels of stress in Arabic, on the basis of which we will try to exemplify stress patterning in Arabic. As far as YA is concerned, we will assume that the same rules are held. In fact, YA is the nearest vernacular to SA. For instance, (32) exemplifies stress in YA in three levels, viz. first as in (32a), second, as in (32b) and third as in (32c).

- (32)
- a. 'kaatib
 - b. ki'taab
 - c. mana'raat

Many linguists ascertain that stress is important in communication, and that intelligibility depends to some extent on stress. As noted by Ibrahim (1988), Kingdon (1958) reported an anecdote as evidence that stress contributes much to the intelligibility of an utterance. The anecdote is as follows. A German-speaking student living in London, who, substituting /*kemdntaun*/ for /*'kamdɔ 'taun*/ (Camden Town) at a subway station was frequently misunderstood as uttering

the single-stressed /*kensijɔn*/ and was given the wrong ticket each time. Another phenomenon affected by wrong placement of stress is comprehensibility on the part of the listener. For example, the placement of full stress on syllables that are not normally unstressed (known as weak syllables) will inappropriately substitute /*æ*/, /*ɔ*/ and /*e*/ for the reduced vowel /*ə*/ in the words *can*, *from* and *present* which distorts meaning. For instance, if the word *can* is pronounced as *kæn*, the sentence will have a different meaning from the one in which it is pronounced as *kən*. To clearly see how stress placement affects meaning, consider the sentence *Ali can drive this car* presented in (33).

- (33)
- a. `ʕali kən draiv ðis ka:(r)
 - b. ʕali `kæn draiv ðis ka:(r)
 - c. ʕali kən `draiv ðis ka:(r)
 - d. ʕali kən draiv `ðis ka:(r)
 - e. ʕali kən draiv ðis `ka:(r)

The meaning of (33a) is *It is Ali and no one else who is able to drive this car*. In (33b), the meaning is *Ali is able to drive this car, as a response to someone who doubts that*, for instance. In (33c), the meaning may be that *It is possible for Ali to drive this car*. In (33d), the meaning is that *Ali is able only to drive this particular car* (and perhaps no other car), and in (33e), the meaning is that *Ali is not able to drive this car*. In fact, there might be several meanings that can be drawn from each sentence in (33a-e), specifically, if intonation and pitch are made use of in interjection, interrogation, etc.

Recently, any produced piece of language is taken by Minimalism and/or Optimality Theory to be the sum of processing sound and meaning, where the former precisely consists in phonology, and the latter in semantics. This piece of language will be processed, hence, comprehended by the two interlocutors if and only if it has full interpretation at these two mental interfaces of the computational system of the language faculty. In other words, if such a piece of language reaches the interfaces ill-processed (i.e. pronounced incorrectly irrespective of the ill-pronounced segment(s)), it will be spelled-out as such, which in turn results in unintelligibility of this mispronounced piece of language, and possibly communication as a whole will be 'distorted.' In fact, this sound-meaning interrelation represents the optimal solution to legibility conditions imposed by/on language (see Chomsky, 2000, et seq; Prince & Smolensky, 2004; Broekhuis & Woolford, 2010, among many others).

The words involved in our study to assess stress by the participants of this study are presented in Table (5) along with their (in)correct frequency.

**Table (5): Stressed syllables and (in)correct frequency**

Rs	Syllable				
	First	Second	Third		
	'pleznt/	iks'pensiv	fəʊtə'græfik	ease	Diff
Cr	100%	5%	.0%	35%	
In	0.0%	95%	100	--	65%
TL	100%	100%	100%	35%	65%

Table (6): Summary of OE and OD in Stage 2

Segment	Consonants	Vowels	Clustering	Stress
2 OE	35%	48.75%	78.5%	45%
2 OD	65%	52.25%	22%	55%
TL	100%	100%	100%	100%

As Table (5) shows, there seems to be no difficulty experienced by the participants regarding stress placement on the first syllable. In that all the participants have placed the stress on the first syllable of the word /'pleznt/. However, they encounter great deal of difficulty in placing the stress on the second and third syllable. Only one student places the stress correctly on the second syllable of the word /iks'pensiv/. Regarding stress placement on the third syllable, no participant could place it in the word /fəʊtə'græfik/.

If the participants of this study (and we assume all Arabic-speaking learners) encounter this much difficulty in acquiring stress, the question is: why is it so, specifically if L1, i.e. Arabic has stress patterning similar (but not identical) to that of English? Put simply, why is it that transfer does not take place in stress while it is very much observed in other phonological aspects? This is, in fact, an empirical question the answer to which requires us to address the linguistic and nonlinguistic factors that may have some sort of contribution in all this (we return to this issue in the next section).

5. UG AND PARAMETERS RESETTING

In section 4, we have been focusing on the role of transfer, analyzing, discussing and exemplifying Stage 1 data, and providing empirical evidence for the role of phonological transfer in L2 acquisition. In this section, Stage 2 data will be discussed and exemplified having the aim of providing empirical evidence for the role of UG properties in L2 acquisition. Stage 2 data were collected while the participants are in their third year (see section 3), which means that they have acquired much of the language in different modules. Taking our assumption made so far that OE equals the role of UG in SLA, and the OD the transfer, it could suffice here to only focus on these two factors to analyze Stage 2 data. This is summarized in Table (6).

As Table (6) shows, it seems that UG role is enhanced. This is evidenced by the high performance represented by OE values in Stage 2 compared to that of Stage 1. For OE and OD in Stage 1, they could be elicited from Tables (1-5), and Table (7) summarizes the results presented in those Tables.

Table (7): Summary of OE and OD in Stage 1

Segment	Consonants	Vowels	Clustering	Stress
1 OE	45%	48.75%	78.5%	45%
1 OD	55%	52.25%	22.6%	55%
TL	100%	100%	100%	100%

Table (8): The role of UG

Category	Consonants	Vowels	Clustering	Stress
OE Stage 2	45%	48.75%	78.5%	45%
Stage 1	5%	2.5%	43%	35%
OE2/OE1	40%	46.25%	35.5%	10%



Comparing, now, the OE in Table (6) to that in Table (7), and calculating the difference, i.e. OE2/OE1, the role of UG taking place in this period could be elicited. This role is manifested via the participants' ability in reactivating and retriggering the preset UG parameters, which was clearly observed in Stage 1. This is summarized in Table (8).

As Table (8) shows, the role of UG in L2 acquisition parallels the role of transfer, and sometimes exceeds it. In almost two years of study (in which the study was conducted), UG has played much in resetting the preset rules in accordance with L1, i.e. Arabic, manifested by transfer. In other words, if we assume that the recorded performance of the participants in Stage 1 was based on transfer (though UG has a role, though very less manifested via OE in Stage1), the role of UG in Stage 2 cannot be denied. This role is manifested via the participants' correct pronunciation of the categories presented to them. If this analysis is on the right track, it lends strong support to our assumption that transfer plays a role in the early stages of L2 acquisition process.

However, the role played by UG properties appears to occur the more learners get advanced. What they do is just reset (i.e. reactive and retrigger) the preset UG rules, but now in accordance with L2. This resetting of such preset rules indicates that UG is still accessed by L2 learners, on the one hand, and that this access is *Full*, on the other hand. One piece of evidence in support of this is the so many learners of L2, say, English, from all over the world, who have native or native-like proficiency in English. This, in a way or another, suggests that L2 learners have a *Full Access* to UG, and taking our conclusion in section 4 that in the early stages of L2 acquisition, there is a Full Transfer, our proposal of Full Transfer/Full Access is now borne out.

If, thus, L2 learners still have *Full* access to UG principles and parameters, the question is: why is it that the participants' performance is not the expected one? In fact, this is a very crucial question the answer to which has been attempted in Shormani (2014c). He ascertains that there are several factors affecting L2 learners performance and also constrain UG role. These factors include linguistic and nonlinguistic. The former is represented by L2 linguistic factors affecting the input to such learners, the latter, however, includes factors like age, motivation, attitudes towards L2 and its speakers, interest, etc., hence, acquiring native or native-like proficiency is certainly constrained by all these factors (Shormani, 2014c).

How UG (and accessing it) is affected by linguistic input presented to L2 learners could be captured by the way it is presented (i.e. quantitatively and/or qualitatively), and the method(s) followed in presenting it, input modeling, and the teacher's knowledge (the competence in L2 linguistic system, be it in phonology, morphology, syntax, semantics, etc. Shormani, 2014c). For instance, if input is authentic, access to UG will be much better than if it is nonauthentic. As far as phonology is concerned, if the teacher's competence in English phonology is adequate, the learner's chance to access UG will be high and vice versa, among the other factors. The nonlinguistic factors, however, include age (see Birdsong, 1992, 1999; Bongaerts, 1999; Shormani, 2012a, 2013, among many others), motivation (see Han, 2004, in the case of professor Wu's attitudes towards L2 and its speakers, classroom facilities, teachers, fossilization (see White, 2003; Long, 2003; Shormani, 2012a, 2013; Han, 2004).

In addition, it is expected that all these factors will have negative impact on L2 learners' access to UG simply because in L2 acquisition in a foreign context, the setting is the classroom, and here, lies the substantial problem, i.e. the linguistic input is not authentic, the source of which is often nonnative teachers, i.e. foreign teachers (whose pronunciation is not well enough to enable L2 learners to reactive and retrigger UG principles and parameters in accordance with L2 linguistic system). We discuss these factors in some more details with respect to the categories/segments investigated in this study in what follows.

One striking issue worth addressing here is with respect to stress. The only category examined which undergoes no significant change in Stage 2. As is clear in Table (8), the difference between Stage 1 and Stage 2 with respect to OE is only (10%). Since word stress is to some extent similar in both languages, and from a UG point of view, it is expected that stress will not be a problem for Arabic-speaking learners of English. However, this seems not to be the case, i.e. stress constitutes the most difficult aspect for the participants of this study and Arab learners of English in general. If, as has been held so far, L2 learners still have access to UG, and supposing that English stress differs from that of Arabic, learners are expected to reset the stress parameters of English. However, this is, in fact, conditioned by the linguistic input presented to the learners in terms of authenticity.

In other words, the question here lies with the English input learners are exposed to, and since such learners are exposed to linguistic input the source of



which is the teacher who is actually a foreign one, it could be assumed that there is something wrong with this input. This seems to be a reasonable conclusion, given the fact that almost all Yemeni English teachers beginning at school and continuing to university are not well-equipped with native or even native-like accent.

In addition, since the learning process is confined to classroom, this setting is expected to be affected by the time allotted (only 90 minutes at the university level). Other settings like the state of the classroom, the number of learners in the classroom, the electronic facilities, etc. are also important variables in the success of learning process. All these are considered barriers preventing L2 learners, Yemenis, in our case, from accessing the UG as it should be, hence, banning resetting the parameters that were previously wrongly acquired.

The influence of these factors can be easily observed if we look closely at OD and the values it has for each category examined (see Table (7)). In other words, if OD parallels the role of transfer (or otherwise L1 interference), as was assumed so far, it is clear that even in Stage 2, transfer is still there, (though its portion gets lessened the more the learners get advanced). For instance, it is unlikely to expect the learners to reset a particular parameter of, say, voicing, for example, in pronouncing the English /p/ as /b/ if the teacher teaching them is pronouncing it as /b/, or a three-consonant-final clustering parameter if the teacher is pronouncing *asked* /ast/ as *askid*/, and so on. It is presumably not possible also to expect a learner in a classroom, having 150 students (in one group as in the case of our study), to have the chance of access to UG the same way another learner in a classroom having maximum 20-30 students!

Another context which affects (or at least delays access to UG) is using electronic devices, teaching aids-audio or visual-like cassettes, movies, etc. If the L2 learner is exposed to such phonological facilities as watching a video where a native English (either British or American) speaker is showing how /p/ is pronounced, this learner will be able to reset voicing parameter fast, adequately and efficiently. The same (though with a different scope) can be said about other factors, and how they affect L2 learners' access to UG.

In addition, that the learner is able to reset UG parameters even in setting where linguistic and nonlinguistic factors affect acquisition process negatively, like our case, where all the aiding factors are almost absent gives us strong empirical evidence that L2 learners still have *Full* and *Direct* access to UG (cf. Shormani, 2014c). One could also assume that the more

the learners get advanced; the role played by transfer is replaced by that of the UG, though in the absence of such learning facilities. One piece of evidence in support of this is that in Stage 2 more than half of the participants pronounce the words presented to them correctly, irrespective of the category examined. One way to explain this is only to think of the role of UG. In other words, comparing OE in both Stages, it is likely to assume that the learners have reset the parameters concerning each category. Take, for instance, the category *C*, and take the sound /p/ as an example. Almost all the participants pronounce it as /b/ in Stage 1 (see Table(1)) and as /p/ in Stage 2, and since only voicing was found to be problematic, it is likely to assume that *voicing parameter* was reset by the participants, *and in fact, there is no any other reason the change could be ascribed to.*

Looking again at Table (8), it is clear that the role of UG is significant in all the categories, except stress. There is only very less change in stress, i.e. 10% difference between Stage 1 and Stage 2. As has been pointed out so far that stress in English is almost similar to that of Arabic, the fact that neither transfer nor UG role attributes in bettering the participants' performance in stress remains a mystery! As for transfer, interference from Arabic into English has nothing to do with the participants' poor performance, specifically, regarding placing stress on the second and third syllables, since if there were, there could have been a significant change.

It could also be claimed that the main reason for not reactivating or retriggering stress principles and parameters in accordance with L2 (qua no parameter resetting is possible here) is the linguistic and nonlinguistic factors discussed above. It could have also to do with the confusion of stress patterning in English word class/category. In other words, some English words have a particular stress pattern when belonging to a particular grammatical category but having another stress pattern when belonging to another grammatical category. For instance, words like *present*, *conduct*, *absent* and *correct* have stress placed on the first syllable when they are nouns and/or adjectives, but having stress placed on the second syllable when they are verbs. Morphologically, Arabic has conversion process, but it does not have this feature, i.e. stress patterning alternation.

6. CONCLUSION AND PEDAGOGICAL IMPLICATIONS

Whether the proposals developed in this article are compatible with adequate SLA process is determined by their practical aspects which have to be applied. The



role played by L1 into L2 acquisition is much evidenced in L2 learners' IL. Compared to children, it is widely held that L2 adult learners "never seem capable of ridding themselves entirely of foreign accent" (Scovel, 1969, p.245, see also Flege, 1980, 1981). Normal children almost "learn to recognize and pronounce the sounds of . . . their speech community so well that . . . their speech lacks any trace of the foreign accent of people who learn the language later" (Ferguson & Garnica 1975, p. 154, see also Flege, 1981). This is mostly mirrored by the deviant utterances L2 adult learners produce, and we have provided ample evidence for this role. The same thing has also been done regarding the role of UG in SLA process and much evidence has been provided.

Be that as it may, successful SLA teachers should pay much attention to the practical aspect of any theory, i.e. how to get our students out of pronunciation dilemma, for instance, depends heavily on leading them to practice their acquired knowledge. In fact, it is a real dilemma whose affects 'accompany' L2 learners cross-linguistically, and Arabic-speaking learners of English in particular, for their whole academic life; there are so many teachers and even PhD holders (the authors of this article are not excluded) who suffer from phonological problems, and almost always teach their students while their pronunciation sounds almost foreign.

Having in mind the indispensable role of transfer, on the one hand, and that of UG, on the other hand, in L2 acquisition process, it could well be argued that these two substantial components, among others, could be thought of as the basis on which we guide our students and remedy their lack of strong competence in L2 linguistic system. As far as transfer is concerned, we strongly recommend a comparative course in phonology of Arabic and English. This course could be constructed on the basis of a contrastive analysis perspective on phonetics and phonology of both languages, perhaps along the lines argued for by Fisiak (1981). In this course, syllabus makers could possibly focus on the differences and similarities between both languages. Teachers, on the other hand, could focus on how to draw their students' attention to these two phenomena.

Regarding the similarities, teachers, for instance, could point out that there is no problem in transferring similar segments from Arabic into English. For example, if an Arabic-speaking learner transfers the voiced dental fricative /ð/, there will be no problem simply because this sound exists in both languages. However, caution is in order here. In other words, there are some sounds like /t/ and /d/, for instance, which, if transferred from Arabic into English, this transfer leads to deviation. It is true that

both sounds exist in both languages, but depending on this, what we term as pseudo-similarity, is, in fact, misleading. In that, the Arabic /t/ and /d/ are alveo-dental while the English /t/ and /d/ are purely alveolar, hence, dentalness feature is absent in English ones, and if these two sounds are transferred, the result is deviant articulation, specifically, in terms of dentalness, as has been discussed in (section 4.1.1).

Further, these procedures could also be made use of in other classes like Spoken English and Phonetics and Phonology classes. In these classes, similarities could be focused on, in the sense that L2 learners should be directed to these similarities and where and when similar features, if transferred, cause no deviation, and where and when they do. Spoken teachers are advised to teach their students the basic theoretical phonological segments in Spoken I.

In Spoken II, it is recommended that teachers follow learner-centered approach, in which the teachers' role is monitoring their students and helping them discover their errors/mistakes and try to let them correct themselves as much as they could. Teachers could divide their students into groups consisting of three-to-four students (not more than that) and let them choose topics to talk about. These include (but not limited to) topics like *At the Airport*, *At the restaurant*, *At Post office*, and may extend to topics related to their own environment with the purpose of only practicing speaking. In Spoken III, if any, teachers could focus on debate and argumentation. Students can choose the topics of debate themselves or with the help of the teacher, assigning them some topics related to *woman's education*, *woman's work in Arab society*, among others.

While monitoring such activities, teachers are advised to highlight the phonological similarities between both languages and how to get benefit from them in acquiring English, and where they are problematic. Further, Spoken classes could involve some drills such as group-work, pair-work and even individual drills, and thus, teachers are advised to subject their students to extensive practices, make use of native speaker videos, conversations, some native-oriented materials which provide learners with and compensate them for the lack of authentic English. If we apply these techniques and teaching-aids, it is expected that they will enable learners to have a full access to UG, hence, triggering and reactivating the preset rules that have been set as a consequence of transfer from Arabic.

Since the phonetics and phonology course is theoretical in nature, teachers are advised to make clear how the similarities, but from a theoretical perspective,



including the nature of such similarities, are not always error-preventing. For instance, there is a similarity, say, for example, between the Arabic and English /t/, but only in some features, as has been discussed above, and so, pronouncing the English /t/ as Arabic /t/ is problematic. One more point to consider here is that English differs from alphabetic languages like Arabic or Hindi where there is some kind of one-to-one correspondence between letters and sounds. In Arabic, the concept of correspondence can be exemplified in the pronunciation of the word *katab(-a)* ([he] wrote) where the letter *k* is pronounced /k/, the letter *t* is pronounced /t/ and the letter *b* is pronounced /b/ in addition to what is called *harakaat* represented by the vowel sound /a/ in this word. This leads some scholars to assert that Arabic is a phonetically spelt language. This constitutes the source of interference, i.e. Arabic speakers have a tendency to pronounce each and every letter in a word in the same way they do when pronouncing Arabic words.

In English, however, there is no such correspondence between letters and sounds. The word *enough*, for instance, consisting of the letters, viz. *e-n-o-u-g-h* is pronounced as /ɪnʌf/ where the letter *e* is pronounced /i/, the letters *ou* are pronounced /ʌ/ and the letters *gh* are pronounced /f/. Thus, teachers are advised to pinpoint this difference in phonetic and phonology classes, to make their students aware of what goes with what in a word or even a syllable. Syllabus makers could also focus on this particular aspect in their preparation of not only university courses but also school ones.

As for the differences, teachers could also pinpoint these differences and guide students to avoid the problems arising from them. Teachers are advised to pinpoint some phonological aspects like stress, for instance, and that though there is some sort of similarity between Arabic and English, differences are likely to be more. For instance, in Arabic the stress placement does not change with respect to word class. However, this is a very essential aspect of word stress placement in English as has been discussed so far regarding words like *present*, *conduct*, etc. which have stress placed on the first syllable when they are nouns and/or adjectives, but having stress placed on the second syllable when they are verbs. In our study, it has been found that stress constitutes a 'real' barrier to ultimate SLA, specifically, concerning Arabic-learners of English, and since stress plays a substantial role in intelligibility between speech interlocutors, it is recommended that students be subjected to extensive stress drills and activities, in-and-out classroom, with strict monitoring.

To recapitulate, the role of transfer and UG properties in SLA is crucial, indeed, and the idea of making use of these two factors in reaching ultimate achievement in SLA process is, in fact, in the hands of teachers, and teachers alone. We teachers can make our students successful in their acquisition responsibility or not. Transfer is a psycholinguistic strategy made use of by the learners, consciously and/or subconsciously, in serious attempts to cope with the L2 linguistic system they are acquiring, and the teachers' sacred mission starts from where transfer ends. In that, we teachers have to exploit this in enabling our students to reactivate and retrigger the UG principles and parameters that have been set previously wrongly as a result of transfer.

Language is an accumulative phenomenon, perfect in itself, sometimes clear, but some other times so much vague, could be affected by several and various factors, relating or not relating to it, and it is we teachers who could take all these factors into consideration to utilize and 'instill' the expected linguistic competence, irrespective of the module of the grammar involved, in our students' minds.

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Appendix I: Isolated Sentences

I have ten books.
This is my photo.
It is photographic.
You can leave now.
Where is your house?
This is my photograph
Weather is pleasant here.
Children are flying birds
You have broken my pen.
Choose your friend carefully
This shirt is very expensive
There are many reading texts.
I stressed it and helped my teacher.
She played it and asked me to do so.
My problem is to wait for ten minutes.
My father has a problem with backbones
Show me your name and open the door?
I will do it the same way they have done it.
He is going home tomorrow to help his father
I am in level two but I can't speak English well?

Appendix II: List of Words

park	vomit
move	feed
undo	goolge
again	second
aim	taught
small	all
thank	ink
sing	going
writings	measure
vision	just
changes	little
cultural	picture
work	over
low	next
texts	thanks
clean	cluster
street	clerk
strike	