

Different Degrees of Accent in Foreign/Second Language Learning: a Case of Overcompensation¹

Edward Y. Odisho, Ph.D.

Professor Emeritus

e-odisho@neiu.edu

Northeastern Illinois University, Chicago (USA)

1- Introductory Remarks

Everyone dealing with Foreign Language (FL) or Second Language (L2) teaching at a professional level encounters different learning situations. The focus of this study is on an example of pronunciation difficulties that breeds major accent. The comparative scenario here is that of Arab natives learning English with specific highlight on their level of difficulty in mastering the /p/ sound as opposed to /b/. The significance of this study is justified by the linguistic fact that the phonological contrast of /b/ vs. /p/ in English is of high frequency of occurrence as opposed to the absence of such contrast in Arabic as the /p/ is missing. Its absence renders the /p/ some sort of *shibboleth* and very distinct and momentous source of both *phonetic* and *phonological* accent for many Arab learners of English. Obviously, every adult learner of FL/L2 manifests a certain degree of phonetic/phonological difficulty; however, when the difficulty results in serious semantic confusion the difficulty has to be remedied. Imagine if in a conversation common English words such as <park, pray, peak, pill, pig, pit > etc... are being rendered as <bark, bray, beak, bill, big, bit > .

This study goes beyond the general fact that /p/ is a major source of accent for Arab learners of English. It also produces evidence to *identify* different degrees of difficulty with different learners as well as highlights and accounts for a rare phonetic phenomenon identified here as *overcompensation*. In this case the overcompensation reveals itself through the reversal of the use of /p/ and /b/ in both oral and written formats.

At the very outset, a few terms in this study should be clarified. *First*, the

¹ Dedicated to Professor Maria da Graça Pinto, a superb lady and genuine scholar.

'cognitive approach' denotes the intentional and systematic involvement of the brain in neuronizing the alien sound or sounds through multiple sensory modalities: auditory, visual, tactile-kinesthetic and even proprioceptive. *Second*, the 'cognitive inventory' is synonymous with phonological inventory which in itself is the process of abstraction of hundreds of contextual phonetic (concrete) variations of sounds under the rubric of only scores of abstract units commonly known as phonemes. The rationale for using 'cognitive inventory' in lieu of 'phonology' is to highlight the significance of cognitive processing of any alien sound of the target language to be internalized on equal footing with L1 inventory of phonemes. If the targeted FL/L2 phoneme fails to become part of L1 cognitive inventory, the result is what is commonly identified as *accent*. In any efficient and effective teaching of pronunciation, the primary goal should be the minimization of accent to the extent of evading semantic confusion. Functionally, accent has lately been identified in two forms: *phonological accent* vs. *phonetic accent* (Odisho, 2003; 2007; 2016). Simply, the former represents a mispronunciation of FL/L2 sounds that results in semantic change such as a Hispanic learner of English pronouncing the word <very> as <berry> or a German learner of English rendering the word <joke> as <choke>. As for phonetic accent, it stands for a mispronunciation that does not directly lead to a semantic change such as an Englishman turning the Arabic trill [r] or tap [R] into an approximant [ɹ].

Because the pair /p, b/ is of high frequency of occurrence in English, both phonetically and phonologically, its confusion by Arab learners renders their accent extraordinarily perceptible

2- A Comprehensive Assessment of the Problem

A recent reexamination of the /p/ problem for adult Arab learners of English seems to go beyond just being a general one. It indicates different degrees of failure or success in mastering its pronunciation ranging from *overall* difficulty to *occasional* one. It is this *hierarchy* of the difficulty or ease with which /p/ is managed and its interchange with /b/ orally and orthographically that have justified a reconsideration of the problem.

In terms of the cognitive approach to teaching pronunciation (Odisho,

2007; 2014), the success in mastering an unfamiliar sound depends on the degree of cognitive recognition (neuronization) of the targeted sound. Primarily, the ease of neuronization depends on the age of the learner as well as the particular *approach* used in teaching. Such conditions often determine if the degree of *proficiency* matches that of the native speaker or be near-native in different contexts such as in *isolation*, in *word context* and in *discourse* or whether the proficiency will deteriorate progressively according to those three contexts. Furthermore, if the proficiency is not native-like then there may appear some indications of *overcompensation* according to which the anxiety of the learner in anticipation of the difficult sound leads not only to its mispronunciation, but also to its alternation with its nearest cognate. In this case, the anxiety of the native speaker of Arabic in anticipation of a /p/ sound results in its confusion with /b/ as well as their *reversal*. For example, <pet> may be rendered <bet> and vice versa. The reversal can occasionally be so robust that it even permeates the orthographic (written) spelling.

Part of the confusion in the use and pronunciation of /p/ and /b/ can be attributed to the standard orthographic system of Arabic which does not have an alphabet character for <p>; therefore, all <p>s of foreign languages are transliterated in Arabic texts as s. Thus, if the native Arab is reading a text which has transliterated words/names containing /p/ or /b/, he often tends to get confused as to which one is the intended sound in the original text. The ‘p-anxiety’ entices the ‘educated’ reader or even the speaker to opt for some form of ‘p’-like sound even if the sound is actually /b/. For instance, the in the names of politicians such as <Bill Clinton> and <Tony Blair> etc... are correctly transcribed with <ب> = in their Arabic transliteration, e.g. <بنتن لك لب> and <ينوت ري لب>, respectively; however, it is not uncommon to hear many educated Arabs pronounce the /b/ in those names with what clearly sounds as ‘p’. This is a typical example of overcompensation. Additionally, another example of overcompensation is noticed with learners who are able to pronounce the /p/ as opposed to /b/ when in isolation, but experience some confusion when the two sounds occur in the context of one word (e.g. **public**), in two adjacent words (e.g. **public broadcast**) and more so in discourse when the /p/ and /b/ keep appearing sporadically.

All those pronunciation scenarios are worthy of investigation in order to understand the underlying cause of such problems of mispronunciation and subsequently develop an effective approach to handle them.

3. A Description of Bilabial Plosives in English and Arabic

In order to identify the cause of the difficulty in mastering sounds alien to one's L1 phonology and to design the most appropriate approach to overcoming the difficulty, it is absolutely necessary for the teacher to know the phonetic nature of the sounds in question. Generally speaking, the /b/ in both Arabic and English is phonetically identified as *voiced bilabial plosive*, whereas the English /p/ is a *voiceless bilabial plosive*. A more phonetically refined description of English /p/ requires the addition of the feature 'aspiration' to be transcribed narrowly as [p^h]. This refined featural description of English /p/ sets it apart from both English and Arabic /b/ in two distinctive features, namely *voicing* and *aspiration* (table 1). Although phonologically the feature 'voicing' is enough to set the English /p/ apart from Arabic /b/, yet highlighting the feature 'aspiration' enhances the phonetic features of /p/ as opposed to /b/ and renders it more perceptible by Arab learners when its teaching is tackled. Actually, the learner can 'see' the aspiration feature when the sound is produced while a flimsy paper is placed in front of the lips as aspiration is a *puff-of-air* following the release of /p/.

Table 1 - Phonetic differences between English and Arabic bilabial plosives

Distinctive Feature	[b]	[p]	[p ^h]
Stop	+	+	+
Voice	+	-	-
Aspiration	-	-	+

Interestingly, it is worth noting that Arabic /b/ and English /p/ have some contextual variants which can also contribute to designing the orientation of

an Arab learner of English in his/her endeavor to master the /p/. For instance, in English the /p/ has an *unaspirated* variant in the context of s-initiated consonant clusters such as <sp_> in <spin> and <spade> which brings it one feature nearer to /b/. More interestingly, in spite of the fact that Arabic does not have a /p/ *phoneme*, certain *allophonic* variants of /b/ = <ب> tend to be recognized phonetically as [p^h] due to contextual phonetic assimilation. For example, the <ب, b> in <ءادتبا> (beginning) or <مأسئبأ> (smiling) are typically pronounced as aspirated [p^h]. Unfortunately, however, the presence of allophonic variants of a certain sound in a given L1 does not *directly* enable its native speaker to successfully pronounce its phonemic counterparts in a targeted FL/L2 language (Odisho, 2014). Neurolinguistically (cognitively), the brain of the native speaker of a given language does not neuronize the allophonic variants of its phonemes. This is a universal human mechanism to avoid neurolinguistically overstraining the brain with thousands of allophonic variants in any given human language. Nevertheless, the existence of allophonic variants in L1 *could* be incorporated in a carefully designed multisensory/multicognitive-oriented lesson plan to serve as a stepping stone in the direction of the targeted phoneme of FL/L2.

4. Evidence and Data

All forms in which an adult Arab learner of English displays his success or failure in the proper pronunciation of /p/, be it in isolation, in word-context or in discourse, are explicable in terms of the degree to which the /p/ (as opposed to /b/) is *cognitively* perceived and recognized by the learner.

Besides the lengthy classroom experience of this writer, data to bear evidence to this problem are drawn from actual recordings on YouTube of native Arabs pronouncing English words or conducting a discourse. For instance, the Kurdish town in Syria 'Kobani' and the disease 'Ebola' have been heard pronounced as 'Kopani' and 'Epola'. Such renditions have been detected in the speech of educated native Arabs whose education seems to have been primarily through the medium of Arabic language with limited formal instruction in English and exposure to its native speakers.

Data in table 2 collected exclusively from the video (<https://www>.

[youtube.com/watch?v=e3n5yZSOJz4](https://www.youtube.com/watch?v=e3n5yZSOJz4))² of one person indicate noticeable fluctuations and inconsistencies in the pronunciation of /p/ and /b/ with a tendency towards overcompensation.

Table 2 - Examples of inconsistent renditions of /p/ and /b/.

Sound in Isolation	No. of Correct Realizations	Sound in Context of	No. of Incorrect Realizations
/b/	4	< problem >	< proplem > 2 ³
/p/	4	< produce >	< broduce > 2
		< but >	< put > 2
		< example >	< examble > 2

Oddly enough, this subject, who seems to be an ESL student, claims that his video was intended for teaching native speakers of Arabic how to distinguish a /p/ from a /b/. He succeeds in the pronunciation of /p/ and /b/ in isolation, but he fails noticeably in distinguishing them in the context of words and more so in discourse. For instance, his renditions of < problem >, < produce > and < example > yield < proplem >, < broduce > and < examble >, respectively. What is worth noticing is the fact that his /p/ in isolation is enunciated forcefully with very perceptible aspiration usually preceded by a short pause as if the subject is mentally preparing himself for a conscious enunciation. This consciousness indicates that the subject has not yet cognitively internalized the /p/ properly. Unquestionably, the subject gives the impression that he is a beginner ESL student with low proficiency because he commits several other pronunciation errors unrelated to < b > and < p > as well as serious syntactical blunders.

Table 3 below, (<https://www.youtube.com/watch?v=-eHvBqWvjwA>)⁴ represents data that are patently different from the ones cited in table 2. Here, both the proficiency of this subject in both Arabic and English are all

² Video titled (b and p Sounds for Arab ESL Students). Also watch video titled: *English Speaking Exam* (<https://www.youtube.com/watch?v=WxYtWE30yP0>) for more tokens.

³ No doubt, its rendition as < broblem > has also been commonly noticed with other subjects.

⁴ Videos titled: FEEM Lecture: Islamism and Modernity; also video titled: Egyptian Liberal Thinker (<https://www.youtube.com/watch?v=HGGyEoTfVME>).

very impressive. His mastery of English syntax, lexicon and pronunciation, in general, is admirable. He has only a few minor pronunciation problems which by any objective judgment are rarely noticeable except when carefully assessed by an educated native speaker of English or scrutinized by an experienced phonetician. One such problem pertinent to the core of the theme under discussion is related to the incidental confusion of /b/ and /p/ especially in words containing the two sounds simultaneously such as in <public> and <problem> where the /b/ is replaced with a mellow /p/ which, in turn, amounts to *overcompensation*. It is noteworthy that such overcompensation in the context of those two examples cannot be attributed to any progressive or regressive phonetic assimilation that can devoice the /b/s and make them sound as /p/s; however, in the case of his <public> or <problem> the devoicing of /b/ is not likely, as the /b/ is occurring in fully-voiced contexts, i.e. <-ubl-> and <-obl->. There must be another factor that is the culprit. Apparently, the same factor may explain similar instances of overcompensation of /b/ in words such as <but>, <battle> and <abandoned> that are detected occasionally in his speech.

Table 3 - Examples of incidental overcompensation of /b/ and /p/.

Word	Mispronunciation
<public>	<puplic>
<problem>	<proplem>
<republic>	<repuplic>
<but>	<put>
<battle>	<pattle>
<abandoned>	<apandoned>

5- Underlying Roots of the Problem

It is a well-established fact that the process of native language internalization by a child is drastically different from that of an adult attempting an FL/L2. The former process is consistently described as

'acquisition' which is involuntary, effortless, and subconscious, whereas the latter is commonly known as 'learning' and is mostly voluntary, effortful and conscious. No doubt, there is always some degree of overlap between the two phenomena, but they still manifest other momentous characteristics that set them apart. There is ample evidence that the perfection in the mastery of L1, especially its pronunciation, falls primarily within the years of childhood ranging from birth to puberty and even early adolescence. Once a child is fully immersed in L1 linguistic *context* and *situation*, he/she will grow up accentless, but he/she will highly likely, beyond that period, manifest a certain degree of accent in FL/L2. Needless to say, oftentimes, the older the person is, the heavier the accent. It is the inherent cognitive bias to L1 phonology that interferes with the accurate perception, recognition, hence production, of FL/L2 sounds that are not part of L1 phonology. The reason why a child grows up accentless is attributed to the full-time engagement of his brain in neuronizing all the articulatory maneuvers for sound production and their acoustic impressions, in context and out of context conjoined with the rules that govern his phonology. To put it differently, the concrete speech sounds are gradually transformed into abstract units in the brain traditionally known as phonemes. Once this concrete-to-abstract transformation takes place, the child gradually becomes psycholinguistically superbly sensitive to his native sounds, but less sensitive or, at times, utterly insensitive (almost 'deaf') to sounds that are absent in his language. Thus, the reason why many native Arabs have a problem with the proper production of /p/ sound is simply because it is not part of their L1 cognitive inventory (phonology). It is, therefore, absolutely natural that if the brain of a listener fails to *perceive* and *recognize* an alien sound, the adult person will, most likely, *produce* it incorrectly.

The lack of an early and/or intense orientation to sounds alien to one's native phonology is the foremost reason why the potential for correct rendition of those alien sounds gradually erodes. Thus, early exposure affords children more time for the neuronization of L1 phonology as well as L2 or even L3 phonology.

A different perspective to assess the process of phonology acquisition and the difficulties ensuing with older age lies in the fact that phonology is the only linguistic level in the hierarchy of human language structure

that is *mono-dimensional*. At this level, individual speech sounds are mere acoustic signals usually devoid of any semantic and syntactical content to assist with their accurate retention. Unlike phonology, it is at the level of morphology and syntax that the linguistic signals become multi-dimensional with acoustic, syntactical and/or semantic content. Thus, because phonology is exclusively acoustic and is the first linguistic input to which the child is exposed, it is, therefore, the earliest that is neuronized. The perfection with which children master their L1 phonetic and phonology repertoire is *usually* once in a lifetime occurrence. The same degree of perfection may be attained when the child is fully immersed in two or even three languages.⁵

This perfection gradually erodes with age in attempting FL/L2 phonology, in particular⁶. It is this erosion in the case of adults embarking on FL/L2 that breeds what is known as accent in its two forms of *phonological* and *phonetic*. Naturally, the erosion continues with older age. Nevertheless, it should be emphasized that the erosion is not the result of loss in the *physical plasticity* of the *vocal organs* as much as it is a consequence of the loss of *neural plasticity* for sounds outside the realm of the native phonology. Looking at accent from a cognitive perspective, the perfection with which a child masters L1 sounds gradually breeds insensitivity in the perception/production of L2 sounds by an adult (Port, 2007). In sum, it is the phonology of L1 internalized in childhood that imposes phonetic constraints on the precise perception, recognition and production of FL/L2 sounds when attempted in adulthood.

6 - A more Refined Explanation of Overcompensation in /b/ and /p/ Pronunciation

It is quite straightforward to explain why an adult native speaker of Arabic learning English experiences difficulty in the pronunciation of /p/ and confuses it with /b/: simply, it is outside the realm of his L1 phonology as well as absent from its orthography. However, it is not as straightforward to

⁵ As a child, the writer was raised trilingual in the city of Kirkuk/Iraq with full immersion in Assyrian (Modern Aramaic), Arabic and Turkmani. Orally, he always feels that the latter two languages amount to the status of his mother tongue, Assyrian.

⁶ Erosion does not necessarily include morphology, syntax and lexicon in which many adult FL/L2 learners can excel.

explain why the learner confuses the pronunciation of /b/ and /p/ even if he, after some orientation, manages to produce each sound when in isolation. Based on the tokens cited in tables 2 and 3 there seem to be two levels of explanation as indicated below.

6.1. Instructional Explanation of Overcompensation

Instructional explanation does not simply stand for the duration of which a person is exposed to FL/L2; rather, it may include the age at which the exposure takes place and its intensiveness; quality of instruction; the approach used in teaching pronunciation, among others. With regard to duration, it is self-explanatory: the longer the exposure—*ceteris paribus*—the less the confusion between the two sounds. As for the age of the learner, there is no doubt, whatsoever, the younger the age the better the mastery of FL/L2 phonology. Quality of instruction, its intensiveness and the approach implemented are often interrelated. It is not enough to have a conscientious instructor; what really matters is the methodology and/or approach to which he/she adheres and implements the instruction accordingly. To illustrate, during the first three decades of the five decades of the teaching career of this writer, different methods have been used according to their availability in the field. At times, an eclectic approach was used combining different methods according to their suitability. It was only during the last two decades of his career that he settled on what he developed and labeled as ‘multisensory multicognitive approach’ particularly geared towards *contrastive phonetics and phonology*. The approach simply involves a combination of the relevant sensory modalities coupled with the needed cognitive modalities (Odisho, 2003; 2007; 2014). Accordingly, when teaching pronunciation to adults targeting FL/L2, the instructor has to empower the brain to be familiar with the alien sounds through a combination of sensory modalities, namely, auditory, visual, tactile-kinesthetic and proprioceptive conduits. Conjointly, with those sensory modalities, other relevant cognitive modalities, such as thinking, analyzing, synthesizing, associating etc., should be manipulated. The *brain* has to *perceive* and *recognize* a given sound in order to be able to *produce* it correctly. The traditional *audiolingual* procedure in the form of repeat-after-the-instructor’s modeling may benefit predominantly young learners and a few linguistically gifted adults. It is a well-established fact

throughout the world that foreign languages in K-12 grades are usually taught by non-native speakers many of whom may have an accent—at times a serious *phonological accent*. Such teachers serve as a bad model for their young students in matters of pronunciation because they unintentionally transmit their accent to their students. To reflect on his English language teaching career in Iraq, the writer came across scores of English language teachers in elementary schools who failed to pronounce the /p/. This failure was more tangible in the southern parts of Iraq than its northern parts as the latter had Kurdish, Turkmani, Assyrian and Armenian minorities whose native languages have a /b/ vs. /p/ phonological contrast.

6.2. Cognitive Explanation of Overcompensation

Cognitive explanation simply means the degree to which the brain manages to neuronize the targeted sounds which, in turn, implies a three-step progression in the process of enabling the brain to first *perceive* the new sound, then *recognize* it and finally be able to *produce* it subconsciously both in isolation and in context. It is a fact that adults embarking on FL/L2 are highly likely to show insensitivity to alien sounds outside the realm of their L1 phonology. They experience what has been labeled as *psycholinguistic deafness* or insensitivity (Odisho, 2003; 2014) in perceiving and recognizing phonological contrasts when embarking on learning other languages. Thus, any teaching of pronunciation should thoroughly follow the natural three-phase procedure of child sound acquisition in the sequence of *perception*, *recognition* and *production*. This triangular formation is highly consistent with the three-phase cognitive procedure of *registration*, *retention* and *retrieval* (Arnold, 1984; Levitt, 1981).

Sequencing of stages is significant and bypassing a stage may negatively impact the outcome. For instance, with insufficient and improper exposure to unfamiliar sounds, it is highly unlikely to succeed in producing them. A serious flaw in the traditional approaches to the teaching of pronunciation is attributed to either insufficient dwelling on the perception and recognition stages or their total negligence. Those two conditions lead to an immediate jump to the production stage a condition that may be so incompatible with the learning styles of adults.

The suggested triangular procedures are cognitive in nature. They assume

that the learner may not cognitively perceive the alien sound because it is not part of his phonological inventory, hence fails to recognize it in preparation for its correct rendition. With the failure to perceive the incoming sound, the learner is vulnerable to substitute it with one of L1 sounds or at best produce a sound that is not the intended one; in both cases, he misses the targeted sound.

In sum, for the successful mastery of any FL/L2 new sound by an *adult learner*, he should behave like a child in the gradual transformation of the targeted sound in his native linguistic environment into a cognitive entity through the process of neuronization which is completed slowly but steadily. Once the process of neuronization is completed, the targeted sound becomes a cognitive unit (phoneme) much like those of his native language resulting in *L1 phonology-plus*.

7- Reconsideration and Discussion of Data

The subject of table 2 is a young adult student of ESL. All in all, the materials examined from his video reveal a clear-cut case of mispronunciation and/or overcompensation of /p/. His condition implies that his cognitive familiarity with /p/ and its phonetic contrast with /b/ are only at an initial stage. This accounts for the fact that he succeeds in pronouncing a premeditated and belabored /p/ in isolation, but he muddles it up with /b/ when contextualized.

As pointed out earlier on, data in table 3 are collected from the speeches of a subject who is a highly educated intellectual with excellent competency in both Arabic and English. With regard to English, there is some indication that his extensive exposure to *native* or *near-native* pronunciation of English seems to have taken place in adulthood rather than in his early formal education. He has excellent mastery of its syntax with very opulent lexicon and overall impressive pronunciation for a non-native speaker of English. Over two hours of carefully listening to his video-taped materials, only a few problems of pronunciation are noticed most of which are minor and often resulting in phonetic accent rather than phonological accent. Foremost of those phonetic mispronunciations involve the splitting of *consonant clusters*⁷

⁷ 'Consonant cluster' is a combination of two or more consonants that structurally belong to one syllable, whereas 'abutting consonants' is a combination of consonants that is spread over two syllables. Thus, <tf> consonants in

by inserting a short vowel, mostly a *kasrah*-like (فِرس ك) [ɪ] as in pronouncing <against> as [ə'gɛnst] instead of [ə'gɛnɪst]. This mispronunciation recurred in other words such as in <install>, <worked>, <instance>, <first>, <exploded>, <asked> etc...which sounded as [ɪns'tɔl]; 'wɜrkɪd; 'ɪnstəns; 'fɪrst; ɪkspləʊd; 'ɑskɪt⁸ in lieu of [ɪns'tɔl; 'wɜrkt; 'ɪnstəns; 'fɪrst; ɪkspləʊd; 'ɑskt]], respectively. Another feature which constituted a mispronunciation was the shift in primary stress. A typical case is with verbs that end with <-ize>, <-ify> and <-ate> suffixes as in <**m**arginalize>, <**q**ualify> and <**o**rchestrate> in which the stress was shifted to the final syllable instead of first: <marginal**ize**>, <qual**ify**> and <orchest**rate**>. Undoubtedly, the most pertinent examples to the focus of this study are those regarding the overcompensation in the proper rendition of /b/ and /p/ as cited in table 3.

Being familiar with the linguistic competency of this subject through mass media outlets, it was a surprise to notice a few undeniable instances of overcompensation with /p/ and /b/. This subject's case is similar to this writer's case or almost anybody's case whose early professional exposure to FL/L2 has been in a non-native environment and perhaps through non-native instructors. In such cases, there will always be some residues from L1 in FL/L2 regardless of how minor or major. There is no indication, whatsoever, that he has difficulty with the pronunciation of /p/ and /b/ in isolation. There is slight evidence of overcompensation of /p/ and /b/ in the context of words; and even more so when the two sounds occur in the context of one word (e.g., **public**, **problem** etc...) or one sentence and more so in extended discourse. In particular, the state of discourse enhances the domain of attention and focus when additional syntactical and semantic requirements are infused leading to the distraction of the brain from focusing on pronunciation exclusively. It is at this juncture that overcompensation is triggered due to incidental interference with focus on the pronunciation of the challenging sounds. Cognitively, this implies that the internalization of /p/ vs. /b/ contrast is not yet fully neuronized to become subconscious and match the level of the native speaker proficiency. In spite of all this, his instances of mispronunciation or overcompensation are minimal, in fact

<catfish> belong to two syllables, whereas the combination <tr> in <contract> is a cluster because it belongs to one syllable (Odisho, 1979).

⁸ The phonetic transcription of pronunciation is approximate; only the locations of breaking the clusters are marked in bold and underlined.

negligible as they do not interfere with meaning and result only in phonetic accent *not phonological*.

8- Conclusions

A general and comprehensive account of the mispronunciation of any FL/L2 sound by any non-native learner is attributed to the deficiency in his/her cognitive internalization (neuronization) of the targeted sound. The brain of the learner has to thoroughly and correctly *perceive* and *recognize* the targeted sound in order to *produce* it very smoothly with minimal detection of phonological or phonetic accent not just *in isolation*, but rather in all forms and contexts in which it occurs. To accomplish this level of proficiency, the learner has to satisfy the following requirements, jointly or severally. 1) Exposed to FL/L2 in its native environment and/or its native speakers: the younger and longer the better. 2) Instructed thoroughly by an instructor whose pronunciation of the targeted FL/L2 is not distinctly influenced by his/her L1 phonology. 3) Exposed to teaching approaches which employ instructional strategies that go beyond the mechanical drilling of 'repeat-after-the-me'. 4) Worked hard and spent long hours in consolidating his/her pursuit of the targeted FL/L2 pronunciation. The case of this writer during his doctoral studies in England is a case in point; he, for instance, spent long hours and days in rectifying many of his erroneous word stress placement patterns among other mispronunciation patterns that he inherited from his earlier non-native English language education and overall linguistic upbringing.

All four conditions above do not seem to be thoroughly valid for the subjects in videos 1 & 2 because they still experience difficulty in pronouncing /p/ and manifest marked overcompensation with /b/ and /p/. Unlike the subjects in those two video, it is somewhat difficult to give a straightforward explanation with regard to the occasional overcompensations of /p/, /b/ of the subject in videos 3 & 4. With all his vast exposure to English and competency in almost all aspects of it, he still lets some instances of overcompensation slip through. It is to be admitted that those instances were difficult to capture without thorough scrutiny. Working on a cognitive approach to teaching pronunciation for over two decades, geared the writer to the conclusion

that accent is the outcome of a cognitive deficit between what is known in psycholinguistics as language *acquisition* vs. language *learning*, especially in the domain of phonology which is the earliest linguistic level a child internalizes. In light of this distinction, it is the view here that the subject in videos 3 & 4 had his sporadic leftovers in the form of overcompensation of /p/ and /b/, first and foremost, for the following reasons. *First*, the absence of sound /p/ in Arabic phonology grants the /b/ a much potent psycholinguistic role that occasionally overrides the /p/ in specific contexts. *Second*, the overcompensation kicks in more perceptibly in words containing both /p/ and /b/ or appearing in two adjacent words and more so in extensive discourse. This is most likely attributed to some sort of momentary loss of focus on pronunciation due to handling complex content-laden discourses which the subject often conducts. Such content-laden discourses require extensive and diversified lexicon the items of which have to be syntactically knit together to generate the targeted semantically rich message. All those lexical, syntactic and semantic prerequisites for his presentations tend occasionally to impose some pronunciation constraints typically in this case the accidental instances of /p/ and /b/ overcompensation. All in all, and regardless of those few instances of deviation from the targeted instances of pronunciation, the subject has, indeed, a near-native competency and proficiency in English.

REFERENCES

- Arnold, Magda B. (1984). *Memory and the brain*. Hillsdale, New Jersey: LEA Publishers.
- Gardner, Howard. (1983). *Frames of mind: the theory of multiple intelligences*. New York: Basic Books.
- _____. (1993). *Creating minds: an anatomy of creativity seen through the lives of Freud, Einstein, Picasso, Stravinsky, Graham, and Gandhi*. New York: Basic books.
- Handbook of the international phonetic association* (1999). Cambridge: Cambridge University.
- Levitt, Robert A. (1981). *Physiological psychology*. New York: Holt, Rinehart & Winston.
- Odisho, Edward Y. (1979). Consonant clusters and abutting consonants. *System*, Vol. 7, 205-210.
- _____. (2003). *Techniques of teaching pronunciation in ESL, bilingual and foreign language classes*. München: Lincom-Europa.
- _____. (2007). A Multisensory, Multicognitive Approach to Teaching Pronunciation. *Linguística: Revista de Estudos Linguísticos da Universidade do Porto*, Vol. 2, 3-28.
- _____. (2014) *Pronunciation is in the brain not in the mouth: A Cognitive approach to teaching it*. Piscataway/New Jersey: Gorgias Press.
- _____. (2016) The Weight of Phonological vs. Phonetic Accent in Teaching Pronunciation: Implications and applications, *Linguarum Arena*, Vol. 7, 31-48.
- Port, Robert F. (2007). The graphical basis of phones and phonemes. Murray Munro and Ocke-Schwen Bohn, eds. 349-365) *Second-language speech learning: the role of language experience in speech perception and production*. Amsterdam: John Benjamin Publishing Co.