pronounced. Consequently, Arabic speakers tend to make an erroneous analogy by applying the same gemination pattern to English words such as, arrive and connect, which they pronounce as /ərrayv/ and /konnikt/ or /kunnikt/, respectively.


8. Arabic differentiates between two kinds of ʿil (the definite article). One is the moon ʿil- in which the 1 does not assimilate, and another is called the sun ʿil-, in which the 1 undergoes regressive assimilation.
NOTES

1. phonemes in parentheses are not represented in each regional variety of Jordanian Arabic. Some of them are dialect specific, and no one speaker utilizes them all. In arriving at this chart we benefited from Al-Ani (1970), Altoma (1969), and Butros (1963).


3. For a detailed study of emphasis in Arabic see Harrell- (1957), Obrecht (1968), Jokobson (1957), Jakobson et al. (1952), and Al-Ani (1970): Emphasis is mainly characterized by a slight retraction of the tongue and a raising of its back accompanied by constriction in the pharyngeal area. It is represented by a subscript dot under the pertinent phoneme.

4. In making this chart we benefited from Al-Ani 1970 and Butros 1963.

5. This chart was adopted, with modification, from Ladefoged (1975). P. 34.

6. Gemination is pronouncing the same consonant twice without a pause. It involves the prolongation of the constituents and a longer closure of stops. the geminated consonant clusters contrast with their corresponding consonants, e.g.,

/ɡaḍara/ "he came"
/naḍara/ "he prepared"
/kasara/ "he broke"
/kassara/ "he destroyed"

These examples show how the consonant is doubled, which makes it legitimate to refer to gemination as "doubling." Gemination in Arabic is usually represented by a diacritic mark called shaddah 
, which appears above the pertinent consonant, e.g. madda 'stretched' or extended', is believed to have the underlying structure (mad-da), according to which it is
phonological and morpho-phonemic rules of Arabic particularly in the areas of assimilation, emphasis, gemination, stress, epenthesis, and syncope. The paper has also argued that the phoneme /v/ has been added to the phonological system of Arabic as a result of the flow of English loanwords.

As far as morphology is concerned, this research has provided evidence that loanwords undergo Arabic rules of both inflectional and derivational morphology.

In the area of sociolinguistics, our research has revealed that the spread of English loanwords in Jordanian Arabic has been accompanied by the emergence of a socially prestigious Jordan dialect marked by the overuse of English loanwords.
English is adequate and their pronunciation is native-like. Thus, the use of English loans in the speech of this group is associated with high culture and prestige. Speakers belonging to this group hardly ever use any of the Arabic words for complimentation and salutation; on the contrary, they thrive on words like: *merci, bye-bye, hi, okay, bon-jour*, etc.

2. Proponents of the second trend utilize loanwords unknowingly -- unintentionally -- since a large number of them are integrated into the colloquial and the standard varieties of Arabic. Naturally, the influence of native Arabic phonology and morphology on the production of such loans is tremendous. The morpho-phonemic adaptation of some loanwords into Jordanian Arabic is rather complete. This group consists mainly of the average people (i.e., the semi-educated or the illiterate). Thus, the words *hās, kamara, talafūn, rādyu, taksi, sinama, blūzi, bēbi*, etc. are no different to them than other, genuine Arabic words.

3. Contrary to the first trend, proponents of the third trend who are called "classicists," resist all traces of foreign encroachment which violate the purity of Arabic. They do their utmost to block all forms of linguistic change. As a consequence, the search for genuine Arabic terminology has always been encouraged. This group is best represented by the religious men and the zealous Arab linguists in the Arab academies. Their efforts have been very effective in coining pure Arabic terminology for any foreign additions of which the following words are only examples: *alhāf, fikrī, farij, nakhfūk, miqadd, kawābih*, for *television, computer, clutch, exhaust, shuttle, steering-wheel, and brakes*, respectively.

V. Conclusion:

This paper has provided evidence concerning morpho-phonemic changes affecting English loanwords into Jordanian Arabic. It has shown and argued that English loanwords into Arabic usually obey the
The fact that the flow of loanwords into Jordanian Arabic is best recognized in the colloquial variety of Jordanian Arabic arouses some doubts about the status of the colloquials and how they compete with the standard. Nevertheless, it is important to note that research findings (El-Dash and Tucker 1975, Nader 1968, Ferguson 1960, Suleiman 1985) have shown beyond doubt that standard Arabic is superior to any of the regional varieties and there is no reason to believe that the presence of loanwords in the regional varieties would result in expanding the realm of the colloquials at the expense of the standard variety. In principle, the two varieties are quite separate since each of them serves different purposes and situations. Thus, the fact that the colloquials are more receptive to loanwords does not pose any threat to standard Arabic since their domains are quite different. In fact, what we refer as loanwords are not often recognized as such by most of the speakers of colloquial Arabic who are either illiterate or modestly educated at best. This suggests that the spread of the colloquials is not bound by the presence or absence of loanwords.

Concerning the use of loanwords and social status, the overuse of loanwords, especially by some of the educated groups, is intentional. As some of them put it, the insertion of some English words unfamiliar to the average person is prestigious (Suleiman 1985). This is well felt among some well-to-do families whose members have spent some time abroad. But we must be aware that the English words this class uses are not the product of completely assimilated loans used by the average person. Very often, such high-status groups tend to switch codes during speech. Interestingly enough, the average person looks upon those speakers as pretentious, affected and irritating showoffs.

To sum up, we can identify three distinct trends that manifest themselves in this connection:

1. The first trend assumes that there is a systematic correlation between the linguistic behavior of a speaker and his/her social status. Proponents of this trend attribute considerable prestige to lexical innovation and the notion of borrowing. With this in mind, they strive to show that their command of
their incidence correlates with different social status groups?

Concerning the effect of borrowing on the standard language we can confidently say that Written Standard Arabic has not been greatly affected by the presence of English loanwords for the majority of these words found their way into the spoken varieties of Jordanian Arabic. We should also like to point out that whereas the Jordanian vernaculars exhibit a relatively high number of assimilated English loanwords, Modern Standard Arabic spoken by educated people contains mostly technical terms such as: computer, telex, video, and so on.

A large number of all technical terms used by educated speakers have pure Arabic equivalents, which are, nevertheless, much less used than their borrowed counterparts. In colloquial Arabic, the English loanwords are the established norm, and they do not have any pure Arabic colloquial equivalents. Arab academies are aware of the influence of borrowing on Arabic. Thus they are waging a strong campaign of Arabicization and are coining new terms in all fields. Some of the latest Arabic coinages are: qalmakkūk, alfādā ḱi alḥāsūb, qaṃar ḍistinā qi, mihrār, mityāf, mirnāḥ, and many others, which stand for 'the space shuttle', 'the computer', 'satellite', 'thermostat', 'spectrograph', and 'television', respectively. Such terms are the norm in learned journals and publications but are not used even in educated spoken Arabic.

Another point to consider with regard to Arabic is that the advent of loanwords cannot be taken to imply in any way that a potential state of bilingualism is in the making. The reason is that there is no intensive immediate culture contact promoted by geographical proximity between Jordan and the English speaking world. Thus, with this limitation in contact, the chances of real bilingualism in Jordan are virtually nil. For the greatest majority of Jordanian speakers such loans are thought to be Arabic words and nothing more, for the fluency of the average Jordanian in English is modest at best.
SINGULAR   DUAL       PLURAL        ENGLISH

γινσ   γινσέν   γινσάτ   inch
γράμ   γράμεν   γράμάτ   gram
γάλαν   γαλανέν   γαλανάτ   gallon
βάš   βάσεν   βάσατ   bus
τάξι   τάξιγνη   τάξιγγάτ   taxi
ταλαφόν   ταλαφόνεν   ταλαφόνάτ   telephone
λόρι   λοριγνη   λοριγγάτ   lorry
λίτιρ   λιτίρεν   λιτίράτ   litre'
gόλ   γόλεν   γόλατ   meter
βάνσαρ   βάνσαρεν   βάνσαρατ   goal
βοτ   βοτέν   βώτ   puncture
σίλιν   σίλιγνη   σίλιγγάτ   boots
καρτ   καρτέν   κρύτ /καρτάτ   shillings
card

TABLE 6

The above words along with many others are completely assimilated into the morphemic system of Arabic to the extent that they have acquired the regular form -āt, and the irregular 'broken' form which is often unpredictable and involves a change in the root pattern irrespective of the masculine-feminine distinction as illustrated in the last seven items in Table 6. Also observe that the dual and plural of γράμ, βάς, ταλαφόν are formed in accordance with Arabic stress rules according to which an originally long stressed vowel becomes short and unstressed immediately before a long stressed vowel. The duals of λίτιρ, mitir, and σίλιν are formed in accordance with a syncope rule that is characteristic of Arabic and that deletes i, u and ɔ in unchecked syllables before a long stressed vowel. (Awwad: 1987)

IV. The Sociolinguistic Implications of Borrowing

The fact that the number of loans in Jordanian Arabic is relatively large raises many questions. For example, how does this phenomenon affect the standard language? Does that suggest a possible change in favor of the colloquials? Also, is the spread of loanwords socially so significant that
<table>
<thead>
<tr>
<th>ARABIC</th>
<th>FROM</th>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>mbánšir</td>
<td>from</td>
<td>puncture</td>
<td>bánšar</td>
</tr>
<tr>
<td>mnárvis</td>
<td>from</td>
<td>to be nervous</td>
<td>nárvas</td>
</tr>
<tr>
<td>mfállil</td>
<td>from</td>
<td>fill</td>
<td>fállá</td>
</tr>
<tr>
<td>mfárriz</td>
<td>from</td>
<td>freeze</td>
<td>fárraz</td>
</tr>
<tr>
<td>mbárrik</td>
<td>from</td>
<td>park</td>
<td>bárrak</td>
</tr>
<tr>
<td>mtálfin</td>
<td>from</td>
<td>telephone</td>
<td>tálfan</td>
</tr>
<tr>
<td>mtálkis</td>
<td>from</td>
<td>telex</td>
<td>tálkas</td>
</tr>
</tbody>
</table>

**TABLE 4**

Loanwords in the verb category are also assimilated into Arabic and are inflected to agree with the subject in person, number, and gender, as shown in Table 5.

fánnása (masc., sing.) 'he quit work' from 'finish' or 'he fired somebody'

fánnásat (fem., sing.) 'she quit work'
fánnásu (masc., pl.) 'they quit work'
fánnásín (fem., pl.) 'they quit work'
fánnású (masc., sing.) 'they terminated him'
fánnásúha (fem., sing.) 'they terminated her'
fánnásúhum (masc., pl.) 'they terminated thir contract'
fánṣu (imp., masc., sing.) 'terminate his contract'
fannisáha (imp., fem., sing.) 'terminate her contract'
tafnis (n.) 'termination of contracts'

**TABLE 5**

Furthermore, loan nouns form their dual and plural by adding the Arabic dual and plural suffixes just like any pure Arabic nouns, as shown in Table 6.
The case for the word *camera* can be generalized to a very large inventory of loan nouns: *telephone, boots, radio, check, bus, taxi, telex, film, computer, axle, train, cassette, video, radiator, clutch, brake, racket, pipe, piston, van, freezer*, etc.

English loanwords also follow the Arabic rules of assimilation with regard to the definite article. The definite form of *kamara* is *šilkamara* 'the camera', while that of *šek* is *?iššék* 'the check', and that of *talafoon* is *ittalafoon*. 8

Also observe that adjectives are formed from loan verbs in accordance with Arabic adjective formation rules, as shown in Table 4.

<table>
<thead>
<tr>
<th>2nd person</th>
<th>singular:</th>
<th>3rd person</th>
<th>singular:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a- M</td>
<td>b- F</td>
<td>a- M</td>
</tr>
<tr>
<td></td>
<td>kámratak</td>
<td>kamraténak</td>
<td>kamraténa</td>
</tr>
<tr>
<td></td>
<td>kámratik</td>
<td>kamraténik</td>
<td>kamraténa</td>
</tr>
<tr>
<td>dual:</td>
<td>a- M</td>
<td>b- F</td>
<td>a- M</td>
</tr>
<tr>
<td></td>
<td>kámratkum</td>
<td>kamraténkum</td>
<td>kamraténhum</td>
</tr>
<tr>
<td></td>
<td>kamratkum</td>
<td>kamraténkum</td>
<td>kamraténhum</td>
</tr>
<tr>
<td>plural:</td>
<td>a- M</td>
<td>b- F</td>
<td>a- M</td>
</tr>
<tr>
<td></td>
<td>kámratkum</td>
<td>kamraténkum</td>
<td>kamraténhum</td>
</tr>
<tr>
<td></td>
<td>kamratkin</td>
<td>kamraténkin</td>
<td>kamraténhin</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>b- F</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>kamraténkin</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>kamratéthin</td>
</tr>
</tbody>
</table>

### TABLE 3

The case for the word *camera* can be generalized to a very large inventory of loan nouns: *telephone, boots, radio, check, bus, taxi, telex, film, computer, axle, train, cassette, video, radiator, clutch, brake, racket, pipe, piston, van, freezer*, etc.

English loanwords also follow the Arabic rules of assimilation with regard to the definite article. The definite form of *kamara* is *šilkamara* 'the camera', while that of *šek* is *?iššék* 'the check', and that of *talafoon* is *ittalafoon*. 8

Also observe that adjectives are formed from loan verbs in accordance with Arabic adjective formation rules, as shown in Table 4.
not all loanwords have been equally assimilated into Arabi

Although the corpus of data this study made use of is substantial, only a small portion of it will be utilized here for the purpose of illustration and exemplification. The greatest number of loanwords in Jordanian Arabic has come from English although there are a small number of Italian, French, and Turkish words. For example, the words /battariyyi/ 'battery', /makarona/ 'macaroni', /sbagatti/ 'spaghetti', /brimo/ 'primo, first class', /fatura/ 'bill' are of Italian origin. Similarly the words /roj/ 'rouge', /kwafer/ 'hairdresser', /sware/ 'soiree', /buke/ 'bouquet', /butik/ 'botique', and /sufer/ 'chauffeur' are originally French. The words /buzel/ 'icecream', /sawis/ 'sergeant', /nazik/ 'fine', /nisin/ 'medal', and /tarbus/ 'fez' come from Turkish.

The treatment of loanwords in this section aims to provide evidence that loanwords are well-established in Jordanian Arabic to the extent that they may be a potential threat to the learned variety on the level of the lexicon. A detailed account of this point will be given in section IV.

Our examination of the data has revealed that English loan nouns combine easily with Arabic bound morphemes to form the dual, the plural and the genitive, as shown for the word /kamara/ 'camera' in Table 3.

<table>
<thead>
<tr>
<th>Pronoun</th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1 st person</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>singular:</td>
<td>kármati</td>
<td>kamratáni</td>
<td>kamaráti</td>
</tr>
<tr>
<td>a- M</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b- F</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>dual:</td>
<td>kamrátna</td>
<td>kamratánnna</td>
<td>kamarátna</td>
</tr>
<tr>
<td>a- M</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b- F</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>plural:</td>
<td>kamrátna</td>
<td>kamraténnna</td>
<td>kamarátna</td>
</tr>
<tr>
<td>a- M</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b- F</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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For educated groups, the assimilation of a loanword does not affect its phonology as most loanwords are pronounced without any sound substitution. Thus, the words *vitamin* and *garage* are transferred into Arabic without any trace of native language influence. On the other hand, phonetic substitution is characteristic of uneducated groups who resort to phonetic substitution which results in devoicing.

b. Gemination: the production of geminate sounds by Arabic speakers is a characteristic feature of loanword phonology. A major factor that affects the pronunciation of Arab learners of English is the influence of the spelling system in the borrowing language (i.e. Arabic). Thus, the geminate pronunciation of certain consonants may be interpreted as a form of native language interference. Examples may be found in words like *barrakiyya/"barracks", ballon/"baloon", baṭṭariyya/"battery", etc. (cf. Blanc 1952:37)*\(^6\). Although gemination is not phonemic in English, the abundance of English doubling does pose a problem due to the wrong analogy Arabic speakers make between English and Arabic spelling.

c. Vowel lengthening: vowel lengthening is very common among Jordanian speakers especially in the final syllable of multisyllabic words. This feature is thus carried over to loanwords as shown in the following lexical items:

\[
\begin{array}{ll}
\text{aspirin} & \text{/asbirin/} \\
\text{vitamin} & \text{/vitamin/} \\
\text{carton} & \text{/karton/} \\
\text{album} & \text{/album/} \\
\text{address} & \text{/adrès/}
\end{array}
\]

III. Loanwords and the Impact of Arabic Morphology

Another important aspect of English loanwords into Arabic is their total assimilation into the morphological system of Arabic. They can be said to have been completely assimilated and accepted as new entries in the target language not only in speech but also in writing. Of course,
c. Phonological modification: this type occurs as a result of substitution, deletion, and addition. The word /tilvizyōn/ "television" presents a case of substituting /i/, and /z/ for /e/, and /ɔ/ respectively along with the modification of /-zin/ into /-zyōn/, and the deletion of /i/ in the second syllable. Phonological modification can thus be looked upon as a mixture of both phonological transfer, and phonological substitution.

Observe that changes affecting the pronunciation of English loanwords can be described in terms of general phonological processes that account for deviation from the monolingual norm. These changes are mainly attributed to the lack of uniformity between the Arabic and the English sound systems described earlier. The following are some of the more basic processes.

a. Devoicing: English g ---k especially in rural Jordanian Arabic which does not have the phoneme /g/. Examples of this are garage --> /karaj/, and bug --> /bakka/ and grapefruit --> /kraťyt/. In bedouin Arabic, educated speech, and urban Arabic /g/ is not usually devoiced. Even in the same speech community where /g/ in garage is devoiced into /k/, it is changed into /y/ in:

telegraph-------- /talliyatrāf/
gram -------- /yram/
gas -------- /yaz/

The evidence here indicates that the different changes are not phonologically conditioned. Notice that while the /g/ in gram, telegraph, and gas becomes /y/ when these words are borrowed into Arabic, it remains /g/ in gourmet, grill, gateau, propaganda, and gear. We believe that English /g/ in the first set of words became /y/ in Jordanian Arabic under the influence of Arabic orthography in which these words are written as تلفزيون, فاز, خرائط, and خرائط respectively. The words in the second set are recent borrowings used by educated speakers of Jordanian Arabic which have not been expressed in written Arabic.
As far as loanword phonology is concerned, the simplest and most common substitution takes place when a native sound sequence is used to imitate a foreign one. Full or complete substitution is characteristic of native language learners and is heard as a "foreign accent" by the native speakers. For example, as a result of substitution, most speakers of Jordanian Arabic pronounce the words telephone, film, vitamin erroneously as /talafon/, /filim/, and /vitamin/.

The complete assimilation of loanwords allows for the phonology of the recipient language to affect the pronunciation of these loans. As pointed out earlier, some characteristic features of Arabic consonants, especially those of velarization and gemination, differ from those of English consonants. As a matter of fact, "very few English consonants have a one-to-one correlation with Arabic consonants, and this is reflected in the interpretation given by Arabic speakers to some English consonants" (Butros 1963:263). For example, English /l/ becomes Arabic /l/ or /l/ and English /s/ becomes Arabic /s/ or /ʃ/.

The corpus of loanwords present in the speech of Jordanians suggests that there are three phonological processes involved in the classification of loanwords:

a. **Phonological transfer**: in this process the lexical items are borrowed in such a way that they remain very close to the original pattern of the source language. Examples of this type are such words as camera, course, radio, shuttle, truck, and coke, which are pronounced as /kámarə/, /kɔrə/, /rədʒu/, /sətɪl/, /trak/, and /kɔk/ respectively.

b. **Phonological substitution**: this process is characterized by the substitution of native features for some features of the source language, e.g. /brɔlin/ "protein", /brəlvət/ "private", and /brobaganda/ "propaganda" where /b/ is substituted for /p/ of the model (Sa'id 1964). Subsequently, the phonological integration of loanwords into Arabic brings about phonemic interference which is conducive to phonemic substitution.
+ syll

φ ----> + high /v (c) c ------- c { $ $
               x round  x round { c 

This same rule also accounts for pronouncing English; express (for an express bus, train, etc.), and explain as / ęk̪sibris/_, / ık̪sibres/_, and / ık̪siblen/_, respectively. It also accounts for pronouncing English words like double, subtle, and little as /d̪ abbix/, /s̪ abbix/, and /l̪ abbix/, respectively.

Another effect of Arabic on the pronunciation of English vowels is due to the fact that the English dipthong / əv/ does not exist in Arabic. Thus, the English word brochure /brəʃuər/ is realized in Arabic as /brɔsər/, note /nɔt/ as /nɔtə/, proposal /prəpɔrizəl/ as /brɔbɔızəl/ and boat /bɔut/ as /bɔt/. A third effect of Arabic on vowels of English loanwords is that the English dipthong /eɪ/ is usually realized as /eə/ or /e/ as in radio /rɛdju/, and steak /steək/, which are borrowed into Arabic as /r̪ɛdju/ and /stɛk/ respectively.

English loanwords in spoken Jordanian Arabic also obey Arabic processes of vowel lengthening and syncope as will be pointed out in (II) and (III) below.

II. Loanwords and The Impact of Arabic Phonology

Linguistic borrowing has been defined by Haugen (1953) as the attempt to reproduce in one language patterns that have previously been found in another. This means that in his attempt to reproduce a new item, the speaker tends to reproduce it in the context of the pattern of his native language. The reproduction may be more or less exact, as determined by the way in which importation and substitution have been blended. As Haugen (1972:75) puts it, "the distinction between importation and substitution is important because it can serve as the typological classification of loans. Together they constitute the two ways in which linguistic reproduction can take place."
Figure 1: Colloquial Arabic Vowels

The English vowel system, on the other hand, is as shown in Figure 2.

Figure 2: English Vowels

One effect of Arabic on the pronunciation of English vowels is that the lax-mid front vowel /e/ = /ɛ/ is pronounced /i/. This is because most Arabic speakers fail to hear and produce the /e/ since the difference between (i) and (ɛ) is not phonemic in Arabic. Therefore, they produce net as /nit/, tennis as /tens~tinis/ and sex as /siks~sikis/.

The epenthetic vowel /i/ in tinis and sikis is added by the following epenthesis rule which is a slightly modified version of the rule given in Abu Salim (1980:3):
sūm (imperative) 'fast'
sūm (N) 'fasting'

Also notice that /s/ and /ʃ/ occur in the same environment as in:

sūm (imp.) 'offer a price'
ṣūm (imp.) 'fast'
and:
ṣūm 'name of village'
ṣūm 'fasting'

Bearing in mind that what applies to the /s/ - /ʃ/ distinction and distribution also applies to the remaining pairs of emphatic-non-emphatic phonemes, we can see why the emphatics are dominant and more used than non-emphatics. The emphatics are used in the environment of any and all vowels. The non-emphatics are used only in the environment of high front unrounded and high back rounded vowels but not to the exclusion of the emphatics.

1.2. Vowels

The vowel system of standard Arabic consists of three vowels /a u i/, their corresponding long forms /ā ā ɪ/; and two diphthongs /aw/ and /ay/. On the other end of the spectrum, English has more vowels, glides and diphthongs than Arabic. Moreover, the vowel structure’s of the two languages are quite different (DLI: 1968: 21).

These facts give rise to difficulties because there are two different ways of patterning the sound of the two languages. Besides, the fact that most language learners pay great attention to the written form complicates the matter and leads to erroneous pronunciation.

The vowel system in the colloquial Arabic of Jordan diverges somewhat from the basic Arabic pattern stated above. It consists of three short vowels /i u a/ and five long vowels /ī ū ē ō ā/, which may be represented as in Figure 1.
Although it is quite natural to expect that Arabic will eventually acquire the two phonemes /p/ and /v/, we can only speculate why English /p/ is always merged with /b/ when borrowed into Arabic while English /v/ remains the same although Arabic has neither /p/ nor /v/. We ascribe this to the fact that Arabic does have voiceless allophones of /b/ as mentioned earlier while /t/ does not have voiced allophones. Thus English /p/ can be absorbed into Arabic as a voiceless allophone of /b/, while English /v/ cannot be absorbed as a voiced allophone of /t/ since the latter does not exist. We also believe the higher frequency of words with a /v/ sound has influenced its emergence as a phoneme in Jordanian Arabic. In the case of changing English /p/ to Arabic /b/ we have an instance of underdifferentiation. In the case of English /v/ acquiring phonemic status in Arabic, we have a case of expected differentiation filling in a gap in the system of the borrowing language.

Another area of inquiry has to do with emphasis. As we have pointed out earlier, English has emphatic allophones of all Arabic emphatics, and it is natural that they acquire phonemic status when borrowed into Arabic. This we can ascribe to the fact that in the vowel environment in which these English allophones are used Arabic does not allow any non-emphatics. What needs explanation is the fact that English non-emphatic allophones of /t/, for example, in tuna, battery, toffee, toast, and tool, also acquire emphatic phonemic status when borrowed into Arabic. One can argue that English tool became Arabic (τουτ) because there is another word in Arabic which is exactly homophonous with English (τουτ), and which has a completely different meaning, i.e., mulberry.

We believe the reason why consonantal non-emphatic allophones of English /i/ in the above words are perceived as emphatic by an Arab's auditory sound decoding mechanism is that emphasis is a very important and dominant distinctive feature of the sound system of Arabic. Observe at this point that emphasis is phonemically a distinctive feature of consonants rather than vowels for there are cases where emphatic consonants can occur in the environment of high back and mid back rounded vowels as shown in the following examples:
Arabic pronounce **ping-pong**, **pickup**, and **poker** as *bing-bong*, *pick up*, and *boker* respectively; and this is also why English **Pope** is borrowed into Arabic as *baba*.

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labiodental</th>
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</table>

*ENGLISH CONSONANT PHONEMES*

**TABLE 2**

90
I. A Differential Description of the Sound Systems of
Arabic and English.

I. 1. Arabic and English consonants:

The phonemic inventory of consonant phonemes in Jordanian Arabic is given in table 1, and the phonemic inventory of English consonants is given in the table 2.

If we examine tables 1 and 2 carefully we will notice that there are striking differences between the consonant phonemes of both languages. Arabic, for example, has five emphatic phonemes, /t d s ṭ ṣ/, which it extensively uses. English has emphatic allophones of /t s d z θ/ and /ð/ as in ton, subtle, dumb, buz, thumb, and thus, respectively. It, nevertheless, does not have any emphatic phonemes, and thus emphasis cannot be considered one of its distinctive features.

Another difference between Arabic and English is that Arabic has neither a voiceless bilabial stop nor a voiced labiodental fricative. It should be pointed out, however, that both /p/ and /v/ occur in words Arabic borrowed from English. For some Arab linguistics (Butros 1963: 47), the phonemes /p/ and /v/ have been added to the phonemic inventory of Arabic. Butros classifies them as loan phonemes. /v/ occurs in loanwords such as vitamin, video, Volvo, virus, volt, volleyball, visa, veto, villa and so on. As a matter of fact, it can be argued that /v/ acquired phonemic status in Jordanian Arabic itself, for Jordanian Arabic now have minimal pairs such as:

\[
\begin{array}{ll}
\text{fāni} & \text{“mortal”} \\
\text{vāni} & \text{“my van”}
\end{array}
\]

/p/, on the other hand, occurs in Jordanian Arabic only as a voiceless non-aspirated allophone of /b/ before voiceless stops and fricatives in Modern Standard Arabic in words such as (ḥaps) ‘jail’, (kapt) ‘repression’, (sapk) ‘casting’ and (kapš) ‘male sheep’, and before affricates in Jordanian colloquial Arabic in words like (tipši) ‘she cries’ and (dapča) ‘dancing’. This is why speakers of Jordanian
being recorded. The interviewers acted as moderators to set the tone of the conversation which was basically in Arabic.

The corpus of data which consisted of seventy 60-minute cassettes was then analyzed, described, and interpreted by the authors.

Our study differs from other studies carried out by Weinreich (1953), Butros (1963), Sa'id (1964) and others in that it goes beyond linguistic description and examines possible social and linguistic changes, i.e., the spread of the colloquials at the expense of standard Arabic, the advent of bilingualism, and the emergence of a socially prestigious dialect characterized by the frequent and deliberate use of English loanwords. It also concerns itself with the morpho-phonemic phenomena associated with transfer of lexical material across language boundaries as known from the study of loanwords after they had been established as such (cf. Bynon 1978: 217)

<table>
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<tr>
<th>Stops</th>
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JOROANIAN ARABIC CONSONANT PHONES
TABLE 1
THE PHONOLOGY AND MORPHOLOGY
OF
ENGLISH LOANWORDS IN JORDANIAN ARABIC

Introduction

This paper studies the phonology and morphology of English loanwords in Arabic and the extent to which Jordanian Arabic has affected their morpho-phonemic structure. Our aim is to identify and account for the major morpho-phonemic Jordanian Arabic processes (MPJAP) which affected the assimilated English loanwords. This is done in the context of a differential description of the two languages.

Our findings are based on a large corpus of data collected over a 12-month period. Although the examples presented in the paper are representative of all types of MPJAP, they are by no means exhaustive. The corpus was collected by the authors through individual and group interviews, recordings and observations. The subjects included Yarmouk University professors, students, laymen with a modest education, and illiterates from the cities of Amman and Irbid, whose population is estimated at 1 million and 150 thousand, respectively. The sample, including 140 in all, was distributed as follows: 20 university professors, 60 university students, 20 high-school diploma holders, 20 subjects with preparatory and elementary education, and 20 illiterates.

The data collection process stretched over a period of two semesters and one summer during which 35 senior university students who were registered in a 400-level course and who had adequate training in field-work methodology were entrusted with collecting data. Acting as interviewers, the students were asked to conduct a 30-minute recorded interview with each respondent. On some occasions group interviews were conducted in a strictly natural setting whereby respondents were made to participate in a conversation without knowing that the conversation was
shown to be the case even when the process involved is not highly productive in Arabic itself.

Finally, this research addresses the sociolinguistic implications of borrowing and the attitude of Jordanians towards loanwords. It concludes that the extensive use of loanwords has led to the emergence of a socially prestigious dialect but has no effect on written standard Arabic, or on bilingualism.
THE PHONOLOGY AND MORPHOLOGY OF ENGLISH LOANWORDS IN JORDANIAN ARABIC

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Yarmouk University

ABSTRACT

This paper investigates the effect of Jordanian Arabic phonology and morphology on loanwords borrowed from English. It begins with a detailed description of the phonemic inventories of English and Arabic and points out significant differences and areas of divergence between the two languages with special reference to gemination and emphasis, which the paper argues are distinctive features of Arabic consonants.

Using a large corpus of recorded Jordanian Arabic speech, the paper shows that colloquial Jordanian Arabic has a higher number of loanwords than the written standard variety. It also shows that phonological changes loanwords undergo during the process of borrowing are in accordance with Arabic rules of emphasis, gemination, assimilation, stress, vowel length, epanthesis, and syncope. However, Jordanian Arabic is shown to have acquired the phoneme /v/ as a direct result of English loanwords.

The paper then addresses itself to the impact of Arabic morphology on loanwords and concludes that they combine with both derivational and inflectional Arabic morphemes like all indigenous Arabic lexical items. This is

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