The study is primarily concerned with the consonant gemination (GC) in English loanwords to Japanese. It examines the phonetic conditions under which GC takes place. The experiment reveals that the younger generation is more sensitive to the pronunciation of the consonant. This suggests that the pronunciation of the consonant is more pronounced in the older generation and that the younger generation may choose to avoid gemination.

Historically, Japanese has been very receptive to loanwords. It would be difficult to find any other language in the world that has borrowed so much from English. The English words are often borrowed very frequently and in different pronunciations. According to Toda (1979), such words as 'cotton' and 'leaving machine' have been borrowed by the Japanese in dressmaker's circles as koton and matsuri. The loanwords such as 'kepi' or 'kepi' are also borrowed as kepi or kepi. Moreover, some loanwords such as 'bicycle' or 'bicycle' are also borrowed as kepi or kepi. However, the word satisfies 'staff' seem to be a rare spelling, i.e., due to non-GC.

The word borrowing is not totally random or systematic. The environments in which consonant gemination (GC) occurs, are often not well understood. For example, the borrowed words (SW) are reshaped to conform to the phonological constraints of the borrowing language.

The gemination seems to occur only in word final position. Thus 'baking' and 'excuse' are vocalized as 'bakking' and 'exsuse'. More examples are shown in the following table:

<table>
<thead>
<tr>
<th>English</th>
<th>Japanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>'baking'</td>
<td>バッキング</td>
</tr>
<tr>
<td>'exsuse'</td>
<td>エクスス</td>
</tr>
</tbody>
</table>

The pronunciation of 'baking' and 'excuse' in Japanese is slightly different from the English pronunciation. The pronunciation of the consonant is more pronounced in Japanese than in English.

(3) Paraphrase. The Japanese pronunciation of 'baking' and 'excuse' is similar to the English pronunciation. The pronunciation of the consonant is more pronounced in Japanese than in English.

(4) Stress in Stem Final Syllable. The stress on the stem final syllable in an SW is also prominent to GC. Thus 'editing' and 'classical', in which the stress does not fall on the vowel immediately preceding the consonant (i.e., 'editing' and 'classical'), are not subject to GC. Thus they are vocalized as 'editting' and 'klassi'. In such SWs as 'batteries', 'battery', 'basket', 'baskets', and 'batter', 'batteries', the gemination of the consonant may be attributable to a false improvement of the sequence like 'batter', 'batter', and 'batteries' as the derivational morpheme, or to spelling influence. Notice the SW's that end in -tion are exceptional to the above rule: 'editting' 'addition'; 'batteries' 'condition'; 'editting' 'edition'.

(5) Palatal Segment. Another factor that has not been well studied in the literature is the presence of the palatal segment to GC. As we can see below, the morpheme 'final SW' regularly undergoes GC, while the non-palatal -t does not.

<table>
<thead>
<tr>
<th>English</th>
<th>Japanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>'taste'</td>
<td>テース</td>
</tr>
<tr>
<td>'taste'</td>
<td>テース</td>
</tr>
</tbody>
</table>

The variant data, for instance, has not undergone GC due to the final consonant. It is also known that the palatal -t of 'batteries' is undergoes /t/ in English. The English borrowing is also undergone /t/ in Japanese. The only word that we know of which ends in /sis/ is bliss /ブリス/ (the small set of words ending in /sis/). This kind of, /batteries/ 'a sked back', /batteries/ 'capture'.

One possible explanation for gemination may be that the palatal -t is undergone /t/ in English. However, this is not the case in the Japanese pronunciation. The only word that we know of which ends in /sis/ is bliss /ブリス/ (the small set of words ending in /sis/). This kind of, /batteries/ 'a sked back', /batteries/ 'capture'.

We note, however, that if an ending SW is followed by a derivational morpheme, then the stem final -t is subject to GC.

<table>
<thead>
<tr>
<th>English</th>
<th>Japanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>'dress'</td>
<td>ドレス</td>
</tr>
<tr>
<td>'dress'</td>
<td>ドレス</td>
</tr>
</tbody>
</table>

The pronunciation of 'dress' in Japanese is similar to the English pronunciation. The pronunciation of the consonant is more pronounced in Japanese than in English.
(6) Obstruct before (q). The obstruct pro-
cedure (q) is syllabic in Japanese and is also respon-
sible for GO bottom 'bottom', laffon 'fashion', nounun 'mission', lesson 'lesson'.

(7) Obstruct before Syllabic Lateral. The ob-
cstructs that precede the lateral in word final
position or at the morphone boundary is geminated
hakuryuu 'rattle', kurokumo 'white', hagurigomu 'waving', hagurikomu 'waving',
hakuryuu 'rattle', hakuryuu 'rattle', kurokumo 'white', hagurigomu 'waving',
hagurikomu 'waving', kurokumo 'white', hagurigomu 'waving', hagurikomu 'waving'.
It is interesting to note that if the first
member of the k-syllable is an alveolar stop,
then CG is blocked. The gemination here seems
to occur only when the consonant preceding the lat-
eral is non-coronal. Consider the following
data:

<table>
<thead>
<tr>
<th>Younger Gen.</th>
<th>Older Gen.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-6 CG</td>
<td>0-6 CG</td>
</tr>
<tr>
<td>6-10 CG</td>
<td>6-10 CG</td>
</tr>
</tbody>
</table>

*handzhu* 5% 40% 7% 100% 23% 60% 40% 83% 17% 50% 41% 92% 43% 65% 33% 92% 32% 90% 50%

The occurrence of CG with -CG is further con-
ducted to the extent that when the vowel before
-CG is preceded by a consonant cluster or
unstressed (thus forming a multi-syllabic word),
CG is also blocked. This is probably due to the
stress shift that was caused by the added
syllable(s) as seen in the examples below. For
instance, in *kesshi* 'sleep', the stress has
shifted to the preceding syllable (i.e., from NG to CG).
Notice here that the initial k-Cluster,
which is not permitted in Japanese morphology,
is broken by the paragogic vowel i.

<table>
<thead>
<tr>
<th>Younger Gen.</th>
<th>Older Gen.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-6 CG</td>
<td>0-6 CG</td>
</tr>
<tr>
<td>6-10 CG</td>
<td>6-10 CG</td>
</tr>
</tbody>
</table>

*kurupuru* 'criple', *kurupuru* 'criple', *kurupuru* 'criple', *kurupuru* 'criple',
*kurupuru* 'criple'.

We note, however, that in a word like 'criple',
the g before the lateral is subject to CG in
that the word is of two morphones, thus not affected by the
above rule.

Final Obstruct To be Unvoiced and Degem-
nated. CG is less regular and less frequent in
its occurrence if the consonant in voiceless.
It fluctuates between the voiced double and the
voiced single. As a result, apparently to conform to
the morphone structure condition in Japanese that
does not allow a geminate syllable, as evi-
denced in the following example.

<table>
<thead>
<tr>
<th>Younger Gen.</th>
<th>Older Gen.</th>
</tr>
</thead>
</table>