French Semi-Vowels and Its Teaching for Chinese-Speaking Learners

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Abstract: The three French semi-vowels [j], [w], and [ɥ] present challenges and noteworthy problems to Chinese-speaking learners of French. Despite the fact that few domestic studies are related with French semi-vowels and their inclusion in French textbooks, the uniqueness of semi-vowels has always revealed itself in the learning process of French pronunciation. This paper, focusing on semi-vowels in French, intends to elaborate the phonetic features of these semi-vowels; following that, an exploration of the reasons for the exception of words to the phonetic rules of semi-vowels is conducted from the perspective of etymology. Since these semi-vowels have vowel-like sounds but act like consonants, the performance of semi-vowels in some phonetic rules, such as syllabication, word stress, and the aspiration of voiceless stops, is analyzed. This study has implications for the teaching of semi-vowels in French.

Keywords: French semi-vowels; French phonetics; French teaching; Phonetic acquisition

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1. Phonetic features of semi-vowels
The three semi-vowels in French, also known as semi-consonants, are [j], [w], and [ɥ]. Semi-vowels come from the lack of hiatus when closed vowels [i], [u], or [y] encounter other vowels, such as créer [kree]; instead, a diphthong is formed with it, such as the word diable [djabl], huit [ɥit], and douane [dwan]. This linguistic phenomenon is defined as syneresis [1], and in this phonetic process, semi-vowels are produced.

With regard to phonetic characteristics, semi-vowels, which slightly obstruct air flow through the vocal tract, are different from consonants in articulation, but they are even closer to their corresponding closed vowels. They are produced by comparatively open configuration of the vocal tract, with vibration of the vocal cords, and the place of articulation is also the same as that of corresponding vowels. In this sense, these phonemes are phonetically like vowels [2], and these sounds are produced by articulating a closed vowel: [i], [u], or [y]; however, the realization is extremely brief, which immediately moves to another vowel of greater prominence.

2. Phonetic rules of semi-vowels and exceptions
Similar to the phonetic rules of vowels and consonants, semi-vowels are mainly pronounced by graphemes or letter combinations. Under the usual circumstances that a closed vowel [i], [u], or [y] is directly followed by another vowel, the syneresis is common, where semi-vowels [j], [w], and [ɥ] are pronounced, such as the French words mouiller, nuage, and tramway. However, each semi-vowel has its own phonetic rules, and some exceptions to the rules still exist.
2.1. Formation and articulation of \([j]\)

The semi-vowel \([j]\) has the highest frequency of occurrence and is the simplest to form. The sound \([j]\) belongs to the voiced palatal fricative semi-vowel, the articulation of which mainly revolves around the letters \(i\) and \(y\) in the phonetic rules of modern French.

2.1.1. The letter “\(i\)” followed by a vowel

Broadly speaking, when the letter \(i\) is followed by a vowel, the letter \(i\) is pronounced as the semi-vowel \([j]\). There are common French letter combinations such as \(-ia, -ie, -ian, -ien, -ieu, -io, -ion, -iu\), and others. However, there are also some exceptions: first, when the letter \(i\) belongs to the prefix of a word, it is not combined with the following vowel, such as \(anti-alcoolisme\); secondly, if the letter \(i\) is preceded by a consonant cluster, such as \(bl, br, cl,\) and \(cr\), and simultaneously followed by a vowel, such as the words \(oub-li-er, pri-ère,\) and \(fab-li-au\), the letter \(i\) does not form a simple diphthong with the following vowel, in which a vowel \([i]\) is added when it is pronounced. At this time, the letter \(i\) contains two phonemes \([ij]\); hence, \(oublier\) is pronounced as \([oublije]\).

2.1.2. The case of \(-ill\) and \(ville\)

According to the phonetic rules described in French textbooks, under normal circumstances, the letter combination \(-ill\) is pronounced as the sound of semi-vowel \([j]\) or \([ij]\), such as the French words \(fille, grenouille, gentille, abeille, bataille,\) and so on. However, there are several common French words that do not conform to this phonetic rule.

<table>
<thead>
<tr>
<th>Word exceptions</th>
<th>Pronunciation</th>
<th>Derivative word</th>
<th>Pronunciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ville</td>
<td>[vil]</td>
<td>village</td>
<td>[vilaz]</td>
</tr>
<tr>
<td>mille</td>
<td>[mil]</td>
<td>millier</td>
<td>[milje]</td>
</tr>
<tr>
<td>tranquille</td>
<td>[trükil]</td>
<td>tranquillité</td>
<td>[trükilite]</td>
</tr>
</tbody>
</table>

Table 1. Exceptions to the phonetic rule of \(-ill\)

From Table 1, it can be seen that in the three common words \(mille, ville,\) and \(tranquille\), the letter combination \(-ill\) is pronounced as \([il]\), and the articulation of the derivatives also follows the pronunciation of their root words. The pronunciation of \([l]\) in the combination \(-ll\) continues to be formed, thus becoming an exception to the combination \(-ill\).

These exceptions confuse beginners in their learning of pronunciation rules and make it difficult for them to master the pronunciation of a word correctly. From the perspective of etymology, there are historical reasons contained in the evolution of a particular word, indicating that the study of etymology may engender the understanding of the origin of words and the evolution in form and pronunciation.

Taking the word \(ville\) in French as an example, through etymological analysis, the word \(ville\) comes from the Latin word \(villa\), which was later simplified to \(vila\) in the course of being borrowed into French, with the ending \(-a\) changed to \(-e\) in \(vile\); then, in order to maintain the consistency of its etymological form and to be distinguished from the adjective \(vile\) in French, it has finally kept the double \(-ll\) and is pronounced as \([vil]\).

This situation is similar to the word \(mille\), which is derived from the Latin word \(milia\), with the singular form \(mil\). When borrowed from Latin, it becomes \(mille\) after several evolutions (\(milie – mile – mille\)) based on the plural form, but in accordance with the pronunciation of the singular word form \(mil\) in Latin.
2.1.3. The letter “y” between two vowels
In modern French, the letter y is generally pronounced with a vowel [i], but when y is placed between two vowels, it corresponds to two phonemes, [i] and [j], which are separately contained in two different syllables. The vowel [i] and its preceding vowel form a syllable, while the semi-vowel [j], which acts as a consonant, forms a new syllable with the following vowel. For example, the word payer is broken down into pai- yer [peje], while royal is broken down into roi-yal [rwajal]. However, there are some exceptions as shown in Table 2.

Table 2. Exceptions to the phonetic rule of the letter “y” between two vowels

<table>
<thead>
<tr>
<th>Word exceptions</th>
<th>Pronunciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>fayot</td>
<td>[fajo]</td>
</tr>
<tr>
<td>boyard</td>
<td>[bɔjar]</td>
</tr>
<tr>
<td>gobaye</td>
<td>[kɔbaj]</td>
</tr>
</tbody>
</table>

In Table 2, the letter y is not broken down into two phonemes; instead, it is pronounced as [j]. From the perspective of etymology, such words are loanwords introduced into French. Fayot is derived from the Latin word phaseolus; boyard is borrowed from the Russian word boiarin, and gobaye from the Portuguese word gobaya. These words all maintain the similarity of the pronunciation with the source language when borrowed, so they do not follow the phonetic rules.

2.2. Formation and articulation of [w]
The semi-vowel [w] is defined as “voiced labio-velar fricative (semi-vowel),” and its phonetic rules are relatively simple, which usually come from the letter combination -ou followed by other vowels, such as -oua, -ouai, -ouan, -oué, -ouè, -ouen, -oueu, -oui, -ouin, and -ouon. However, there are also some exceptions to the rule.

2.2.1. The letter w: The pronunciation of wagon and tramway
According to the phonetic rules, the letter w usually presents the sound [v], such as wagon [vagɔ̃] and warrant [varã], but in a few cases, the semi-vowel [w] is pronounced such as that in whiskey [wiski], tramway [tramwε], and web [web]. The words in the aforementioned examples are all loanwords, but the letter w is pronounced differently.

According to the rules of borrowing words from other languages, loanwords may be adapted to phonology, orthography, and morphology of the target language; thus, the pronunciation of loanwords may be modified, replacing some phonemes with what is similar to them in French phonology. Generally speaking, the longer the loanword is borrowed, the higher the degree of integration with French phonology. Some borrowed words are adopted with a long history, such as wagon [vagɔ̃] and warrant [varã]; after entering French, [w] evolved into the sound of [v], which conforms to the general phonetic rules in French. However, in some English loanwords containing the letter w, such as whiskey [wiski], such words have a relatively short history of being borrowed to French, so that retaining the word form as well as the phoneme in the donor language, the letter w does not follow the general rules in pronouncing [v] but the semi-vowel [w].

2.2.2. Rule of letters combination -oi and oignon
In modern French, the letter combination -oi also contains the phoneme [w], and pronounced as [wa], such as the words loisir [lwazir] and fois [fwa]. However, the word oignon [ɔɲɔ̃] does not conform to this
phonetic rule.

From the perspective of historical phonetics, in Old French, the letter combination -ign was pronounced as [ɲ], so -oign was pronounced as [ɲ]. The words besoigne and vroigne, for instance, were pronounced as [ɲ] in Old French. With the spelling reform, the letter i was removed, simplified to -gn with the [ɲ] sound. Hence, the aforementioned words evolved into besogne and ivrogne, while the pronunciation remained as [ɲ]. Conversely, other words that retain the letter i in their spelling, such as soigner, éloigner, and témoignage, have gradually evolved into the pronunciation of [wa]. The word oignon has become an exception as it has not evolved in both, morphology and phonology. In the reforms of French orthography in 1990, which was known as *rectifications orthographiques* in French, oignon was proposed to be rewritten as ignon, but since the word is one of the most common words in French, the acceptance of the public varies. Until now, the word form oignon is often used, with its pronunciation maintaining as [ɲɲ].

3. Performance of semi-vowels in some other phonetic rules
Except for the phonetic rules of semi-vowels, French textbooks do not clearly explain the performance of semi-vowels in some other phonetic rules, such as syllabication, word stress, or the aspiration of voiceless stops, causing some obstacles to the French teaching.

3.1. Semi-vowels and rules of syllabication
In teaching French pronunciation, syllabication is also a learning focus for learners, which affects the correct spelling of words. The number of syllables in a word, according to its definition in French, depends on the number of vowels in a word. For example, the word *fatal* contains two vowels [a]; hence, it has two syllables, with the single consonant [t] forming the latter syllable, as [fa-tal]. In the case of a sequence of two consonants, which are not defined as consonant clusters, the two consonants belong to different syllables. For example, the letter l and t in the word *culture* belong to the two syllables [kyl-tyr], respectively. For the word *obstiner*, when three consonants are connected, the syllabication should be [obs-tine].

In general, the syllabication of vowels and consonants in French is relatively regular and unambiguous, but it is different for semi-vowels. Due to the naming of semi-vowels, learners may classify them as vowels based on experience, which affects the correct separation of syllables in a word.

While semi-vowels are generally vocalic in terms of phonetics, they are treated in the consonant class mainly because their function is that of consonants rather than vowels [5,6]. In other words, they have a vowel-like sound, but act like consonants. Semi-vowels are generally non-syllabic in French, which tend to require the accompaniment of a vowel to form a syllable [6]. Taking the word *travail* as an example, it contains two syllables [tra-vaj], with the semi-vowel appearing at the end of the word, which does not constitute a syllable alone; whereas, the verb *travailler* contains three syllables [tra-va-je], in which the semi-vowel [j] is followed by the vowel [e], forming a syllable with it.

3.2. Semi-vowels and rules of word stress
The placement of word stress in French is relatively fixed, generally falling on the last syllable of a word [7]. For terms like *travail* and *soleil*, where the word stress is placed on the semi-vowel [j], this tendency among French learners to place stress on semi-vowels at the end of words might result in pronunciation errors, such as [tra-va-i]. Therefore, in teaching semi-vowels, the consonantal characteristics of semi-vowels should be clarified so that learners are not subjected to the placement of stress.

3.3. Semi-vowels and rules of the aspiration of voiceless stops
According to French phonetic rules, voiceless consonants are not aspirated when vowels are encountered [8], such as the word *tes*; on the other hand, they remain aspirated when consonants are encountered, such
as the word cle. However, when unvoiced consonants are combined with semi-vowels, there is no clear definition.

Since semi-vowels are non-syllabic in French, in such cases, semi-vowels should be considered as consonants, and the unvoiced consonants connected to them should be aspirated. For example, in the word Matière, the letter t is easily classified as an unaspirated consonant by learners since it is followed by the letter i. However, it should be clarified that according to phonetic rules, the letter i is pronounced as [j]; hence, the letter t should be aspirated as it does not meet the conditions for an unvoiced consonant followed by a vowel.

4. Exploration of the teaching of semi-vowels
The phonetic rules of semi-vowels have not been explained in many French textbooks, but in phonetic teaching, the learning of semi-vowels has caused much confusion among learners. Hence, several points should be taken into consideration in the teaching of semi-vowels.

4.1. Teaching by contrasting French with Chinese
In French teaching, teachers will generally remind learners that semi-vowels have the characteristics of both, vowels and consonants, which should be distinguished from their corresponding vowels [i], [y], and [u]. However, in terms of teaching practice, it is difficult for students to fully appreciate the difference between semi-vowels and their corresponding vowels.

Since the characteristics of semi-vowels in French are similar to those of compound finals in Chinese [9], the teaching method of comparing with Chinese learners’ mother tongue can be adopted. Through this contrast teaching method, students can better understand and master the semi-vowels in French.

4.2. Teaching based on error analysis
Error analysis focuses on the errors made by learners and grasping the learning process of learners through their learning results, which will assist teachers in identifying where the problem lies [10]. By examining pronunciation errors made by students and using phonetic principles, it enables teachers to identify problems in the teaching of semivowels in French. For example, learners are susceptible to confusion in pronouncing the semi-vowel [w] and consonant [v], leading to a phenomenon where voiture is pronounced as [watyr] and oui as [vwi]; or in the letter combination -ui, where the [i] sound is to be omitted, while only u is pronounced, as in the words huit and puisque.

In addition, the incorrect application of syllabication rules and word stress rules in the context of semi-vowels is also one of the common problems faced by French learners. Therefore, in the process of teaching, teachers are supposed to be able to identify the errors of learners, while emphasizing and correcting them in a targeted manner.

4.3. Teaching the exceptions to the phonetic rules from the perspective of etymology
In the teaching of phonetic rules of semi-vowels, especially the exceptions of words, teachers generally emphasize on memorization and the correct pronunciation of words. However, according to research on the origin of such words, it has been found that the pronunciation of words has its phonetic continuity and is closely related to the etymological source. Therefore, when explaining exceptions to phonetic rules, teachers should teach learners the origin of certain words and the evolution process of form and pronunciation from the perspective of etymology, so as to make it easier for learners to understand, enhance their interest in learning, and deepen the impression.
5. Conclusion
Semi-vowels in French exist as phonemes, which are independent of vowels and consonants, possessing their own phonetic uniqueness. Therefore, the exploration of the phonetic features of semi-vowels is of value for research in French phonetics. The phonetic rules of semi-vowels share the same regularities as other French phonemes, but there are some exceptions to these rules that can be understood by tracing their etymological roots. By understanding the origin of these words and how their pronunciation and form have changed over time, it is possible to better understand the rules and exceptions. Furthermore, semi-vowels have vowel-like sounds but function like consonants; they cannot be classified as either vowels or consonants. Therefore, it is essential to explore the specific performance of vowels in some phonetic rules, such as syllabication, word stress, and the aspiration of voiceless stops, in the course of French learning. Generally speaking, exploring the phonetic and phonological features of French semi-vowels can promote the learning of pronunciation and provide theoretical support for phonetic teaching.

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References

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