

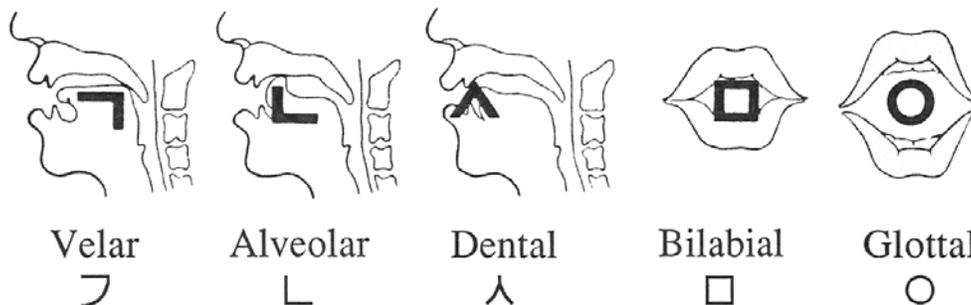
## Linguistic and Philosophical Origins of the Korean Alphabet (*Hangul*)

The Korean alphabet did not evolve as did nearly all other alphabets. It was invented in 1446, after several years of study, by a team of linguists and intellectuals commissioned by King Sejong the Great.

### Consonants

In the diagram below, the Korean consonants are arranged into five main linguistic groups (one per row), depending on where in the mouth contact is made. Notice that there is a graphic element common to all the consonants in a particular row. The first consonant in each row is the most basic and is graphically the simplest; this representative consonant for each group is the building block for the other characters in that group. Certain of these modifications are systematic, and yield similarly modified characters in several groups, such as adding a horizontal line to a simple consonant (a “stop” consonant—such as t/d or p/b—rather than a nasal consonant) to form the aspirated consonants (those made with extra air) and doubling simple consonants to form “tense” consonants (no real equivalent in English). Notice that the five representative consonants (the ones in the first column in the upper part of the diagram) are also depicted in the drawings that make up the lower part of the diagram showing the relevant part of the mouth involved. Ingeniously, each of these representative consonants is a kind of simplified schematic diagram showing the position of the mouth in forming those consonants.

Velars:	ㄱ	ㅋ	ㆁ		
Alveolars:	ㄴ	ㄷ	ㄸ	ㄹ	ㄺ
Bilabials:	ㅍ	ㅂ	ㅃ	ㅍㅍ	
Dentals:	ㄷ	ㅌ	ㄸ	ㅃ	ㅍㅍ
Glottals:	ㅇ	ㆁ			



The diagram above uses several specialized linguistic terms. Velars (variations of k and “hard g”) are formed when the back of the tongue meets the upper back of the throat. Alveolar consonants (n, d, t, “flap r,” l) are formed when the tip of the tongue meets the alveolar ridge, on the roof of the mouth toward the front. Dental consonants (to simplify: s, sh, j, ch, and similar consonants) involve friction between the tongue and the upper part of the top teeth. “Bilabial” (p, b, m) means two-lipped; the lips come together and are released. Vowels and glottal consonants (h is the only glottal consonant in modern Korean) are formed with an open throat.

The diagram that follows reproduces the upper portion of the diagram above, using simpler language for the linguistic groups as well as rough and simplified English equivalents for the Korean characters.

back of the mouth:	<b>g</b>	<b>k</b>	<b>gg</b>	
front of roof of the mouth:	<b>n</b>	<b>d</b>	<b>t</b>	<b>dd</b>
two-lipped:	<b>m</b>	<b>b</b>	<b>p</b>	<b>bb</b>
behind the teeth:	<b>s</b>	<b>j</b>	<b>ch</b>	<b>ss</b> <b>jj</b>
in the throat:	-	<b>h</b>		

The Korean consonants listed in the diagram as “g,” “gg,” “d,” “dd,” “b,” “bb,” “j,” and “jj” are not voiced in Korean (except between vowels), as “g,” “d,” “b,” and “j” would be in English. The Korean consonants listed here simply as “k,” “t,” “p,” and “ch” are more aspirated than their English counterparts, and are normally written with an apostrophe immediately afterward to indicate this. There are other qualifications that could be described, but the purpose of the diagram is simply to clarify the remarkable relationships between the Korean consonants and the underlying linguistic principles. In English (and in other languages using the Roman alphabet), “p” and “b,” which are linguistically related (the main difference being that “p” is unvoiced, whereas “b” is voiced),<sup>1</sup> are also graphically very similar. A graphical similarity can also be seen in the nasal consonants “n” and “m.” One might argue that the voiced/unvoiced pair “z”/“s” also shows graphic similarity, though not as closely as “b”/“p,” and not using the same principle for graphic transformation (changing the symbol “p” into a the symbol “b” involves a very different transformation that of changing the symbol “s” into a the symbol “z”). Identifying many more graphic similarities (much less identifying systematic transformations based on linguistic principles) of linguistically related Roman alphabetical characters is a bit of a stretch. Rather than evolving, the Korean alphabet was designed, so the linguistic elements and relationships were built into the system.

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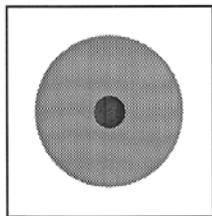
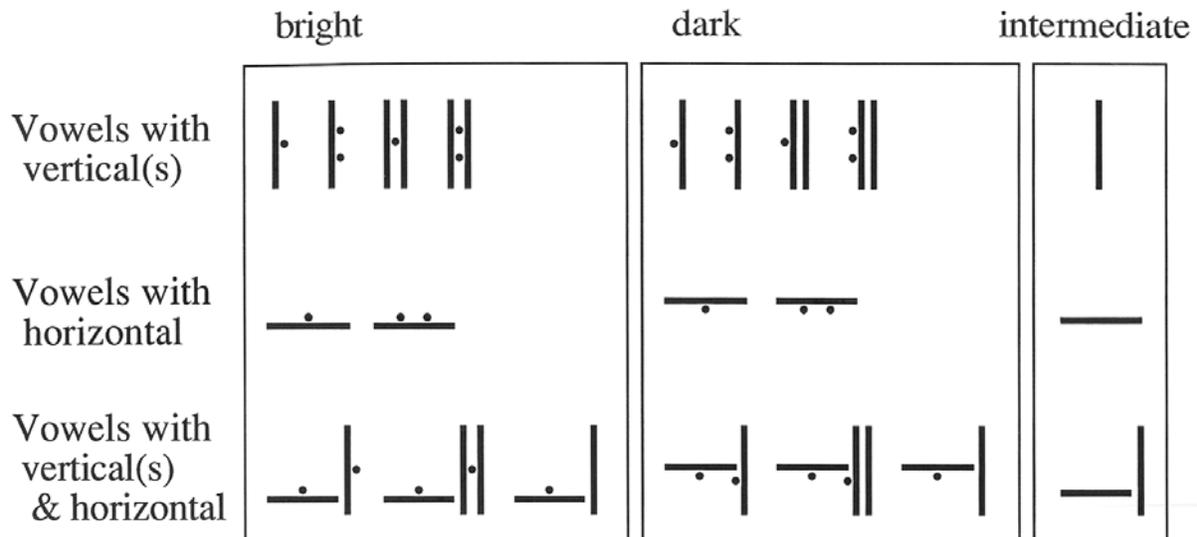
<sup>1</sup> There are variations on this theme in other languages, and the dividing line between voiced and unvoiced may be debated. The voicing of the vowel sound after a “p” in Spanish, for example, is much sooner than in English, and native speakers of English may not even be able to hear the difference between a Spanish “p” and “b,” both of which sound like “b” to them. Of course, native speakers of Spanish can distinguish them, and the reason is that the voicing begins sooner after a “b,” so “b” sounds more “voiced.”

## Vowels

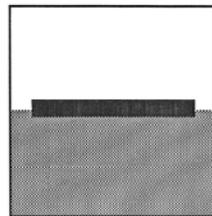
Korean vowels were also designed with a linguistic component, and graphic features of the vowel characters are related to the place in the mouth where the vowel is formed (high/low, front/back), but a detailed discussion is beyond the scope of this article.

The diagram below shows another feature that went into the design of the Korean vowel characters, certain philosophical underpinnings reflecting views of the basic nature of the universe. Like yin and yang, the vowels are either bright or dark, with a few neutrals. The original vowel characters were written with straight lines and circular dots only, as pictured below. The ten vowels considered to be the basic ones are those with only one straight line. If the dot is to the right of the straight line (to simplify, the “a” vowels) or above it (the “o” vowels), the vowel is one of the “bright” vowels. If the dot is to the left of the straight line (to simplify, the “e” vowels) or below it (the “u” vowels), the vowel is one of the “dark” vowels. If there is no dot (to simplify, the “i” vowels), the vowel is neutral (neither “bright” nor “dark”).

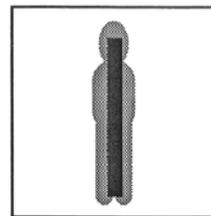
Adding a second dot to a vowel adds a “y” (“a” becomes “ya”). A horizontal vowel (simply, “o” or “u”) can be paired with a vertical vowel (simply, “a,” “e,” or “i”) to form a complex vowel (a diphthong). The horizontal vowel always comes first in the pairing, and gets shortened into some form of a “w” sound, e.g., “wa,” “we,” “wi,” etc.



Symbol of heaven:  
circular point



Symbol of earth:  
horizontal line



Symbol of man:  
vertical line

In the diagram above, the location of the vowels with two dots, or of those with combined vertical and horizontal components, should be clear to readers even if they have no knowledge of Korean. So rather than create another diagram to show equivalent sounds in English (as with the consonants above), simplifying the matter within the text seemed more appropriate. For a more detailed description of the vowel sounds, see the [Korean Alphabet](http://www.StephenWright.org/korean) page at [www.StephenWright.org/korean](http://www.StephenWright.org/korean).

Philosophical themes such as the human position in relation to heaven and earth are reflected in both the vowel and consonant characters. The circular dot is a symbol of the half-dome of the heavens, the horizontal line represents the flat earth, and the vertical line symbolizes man standing between the two (see the lower portion of the diagram above).

In the case of the consonant characters, they were originally composed of straight lines and round circles only. As was mentioned earlier, the first character in each row of the first diagram above is a kind of representative consonant for that row (and thus of that linguistic group). These five were called the “First Sounds,” and also symbolically represent the five elements. They fit together nicely into the diagram of the First Sounds below, having essentially the same symbolism as explained in the previous paragraph.



The outer circle is heaven.

The square is earth, and is composed of  $\neg$  and  $\perp$

$\wedge$  symbolizes man as his head reaches to heaven and his feet are planted on earth.

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This article was written by [Stephen Wright, Ph.D.](http://www.StephenWright.org) The diagrams above are similar to diagrams he translated from an article published in French sometime before 1987. That article, and the citation, have been lost. Full-page versions of the diagrams above were made as overheads for a single class he taught at Cornell University as a guest lecturer, and are available for download as individual pdf files at [www.stephenwright.org/korean/korean-linguistics-origins.html](http://www.stephenwright.org/korean/korean-linguistics-origins.html) (or go to [www.stephenwright.org/korean](http://www.stephenwright.org/korean) and click on “Linguistic and Philosophical Origins of the Korean Alphabet” and scroll to the end).