# The Japanese Numerals 

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## I Composition of the Numerals

When the Japanese numerals modify nouns, one, two, and three are respectively pito, puta, and $m i$, as shown in the case of pito-tabi for one time, puta-tabi for two times and $m i$-tabi for three times, while when they are separated from the nouns and stand by themselves, one, two, and three take the following forms: pitotu, putatu, and mitu respectively. Thus the former might be called adjectives and the latter nouns. The two forms of numerals from one up to ten may be given in Roman spelling as follows. (The system of spelling given here is that representing the ancient pronunciation. This accounts for the spelling being somewhat different from the ordinary modern system.)

|  | I | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1o |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Adjectives | pito | puta | $m i$ | yo | itu | mu | nana | ya | kokono | towo |
| Nouns | pitotu | putatu | mitu | yotul | itutu | mutu | nanatu | yatu kokonotu | towo(tu) |  |

As a glance at the table will show, the numerals in the adjective form indicate the word-stems, while the numerals in the noun form are nothing but these stems followed by a word-ending. Among the word-stems, pito (one) and puta (two), mi (three) and $m u$ (six), and $y o$ (four) and $y a$ (eight) and all pairs of words respectively
varied through changing the vowel in the original word．As it is not very difficult to detect this，linguists both Japanese and foreign who have studied the Japanese numerals have noticed it．However，since the numerals $i$ tu（five）and towo（ten） markedly differ in pronunciation，and since it seem as if the stem of $i$ tut（five）were $i$ from the fact that in the Japanese classics 五十（fifty）is pronounced iso and 五百 （five hundred）$i p o$ ，such a conspicuous resemblance as seen between mi（three） and $m u$（six）or $y o$（four）and $y a$（eight）could not be detected between $i t u$（five） and towo（ten）．Should $i$ in $i t u$（five）be interpreted as a prefix and $t u$ the stem， and wo in towo（ten）a suffix and to the stem，the resemblance between tue stem for five and to the stem for ten might compare with that seeri between mi and mu or $y o$ and $y a$ ．

If among the Japanese numerals from one up to ten，the four two，six eight， and ten were formed through changing the respective vowels in the numerals for one，three，four，and five，it may be inferred that the method of calculation adopted was the so－called reduplication system．When our ancient forefathers adopted this method in calculating things，what tools did they use and how did they handle these tools？It is most imperative to answer these questions in considering the composi－ tion and significance of the Japanese numerals．It is quite well－known that the savage peoples at present living in different parts of the world use the fingers of their hands and the toes of their feet in calculating objects．Even among civilized people，fingers are used in counting objects in every－day life，and this harks back to an ancient custom．The fact that the numeral for five in the Malay language means a hand，and the Eskimo word tadtlimat for the same number likewise a hand，definitely shows that the fingers were and have been the sole tools of calculation．Ignore the fingers and toes，and it will be impossible to solve the fundamental meaning of the numerals in any language．A study of the Japanese numerals must be approached and pursued with a similar mental attitude．When wie Japanese count objects with the fingers now，we first open a hand and bend the fingers in，one after another，beginning with the thumb
and ending with the little finger until five is counted as the hand is closed; and for the numbers over six, the fingers are unbent one after another, beginning with the little finger and ending with the thumb until ten is counted as the hand is open again. In this method, counting may be done with only one hand. It is impossible to determine by referring to ancient literature, when this method was first employed in our country, but no doubt our ancient forefathers, in counting numbers, used their fingers in a way entirely different from ourselves. It would be extremely important to investigate their method here in interpreting the significance of the Japanese numerals.

Using a single hand in counting numbers from one up to ten is practised not only among the Japanese, but also the Westerners. It is true that not . only the Japanese but also the Westerners use a single hand in counting numbers from one up to ten; but in so doing the Japanese bend the fingers of an open hand beginning with the thumb, while the Westerners unbend the fingers of a closed hand beginning with the little finger. Now, in the case of the ancient Japanese who adopted the reduplication system in counting objects with a single hand, did they begin with an open hand or a closed hand? And did they begin counting with the thumb or the little finger? These questions must be answered first. • Should it be supposed that the ancient Japanese, like ourselves, bent the fingers of an open hand, beginning with the thumb, the thumb for one and the forefinger for two would be folded on each other and would not take opposing positions. Should it be supposed that they unbent the fingers beginning with the little finger, the little finger and the ring finger would take parallel positions, but would conflict with interpretation that both pito, the Japanese number for one, and puta for two meant puto 太 (stout). As we consider this aspect, it would seem that our forefathers began counting objects with a closed hand, with all the fingers bent; they first unbent the thumb, calling it pito (one) and then the forefinger calling it puta (two); thus the thumb and the forefinger, confronting each other, though standing apart, formed opposing positions. Their opposing relation indicated the equal
qualification of the thumb and the forefinger．However，if two were twice one in point of quantity，it was necessary to distinguish the two．Therefore，by changing the vowel in pito（one），they called two puta．They unbent the middle finger，after the forefinger，calling it $m i$ ，then the ringfinger calling it $y o$ ，and then the little finger calling it itu．No opposing relation as seen between the first two numerals appearing among these three numerals，three different names were given to them．

On unbending all the fingers，they now had to count six．But the question is： How did they arrange their fingers？Should it be supposed that they used only one hand，they now had to bend either the little finger or the thumb of the hand whose fingers had all been unbent．In either case，no opposing or mating form would have been realized．However，should it be supposed that they used both hands instead of only one hand，and unbent three fingers of either hand，there would appear two rows of three fingers．Thus，over against this one row of three fingers which they called $m i$ ，and they had the sum of the fingers in two rows which they called $m u$ ． As eight and ten could be counted in a similar way，over against yo（four），they called eight double the number，$y a$ ；and over against $i t u$（five），they called ten， double the number，towo．

As we investigate the Japanese numbers，among the numerals from one up to ten there are two which can be neither an element nor a result of reduplication． They are，of course，seven and nine，which cannot be counted by the reduplication system．So they chose special numerals for the two，calling seven nana and nine kokono．Now，in the Mannyôsb̂̂ 萬葉集，the characters 數而（in counting）are read nabete ；and even to－day nabete is sometimes used for counting．There is evidence that in ancient times，kagamete besides nabete，was probably used for counting． There is a passage in the Kojiki 古事記 which，in quoting the poem by Yamatotake－ no－mikoto 倭武命 composed at the palace of Sakawori 酒折，says＇How many nights have I slept since passing Nipibari and Tukuba？＇sang he．The old man， who was the lighter of the fire，completed the song，and sang，saying＇Oh！ having put the days in a row，there are of nights nine nights，and of days ten
days ${ }^{(1)!}{ }^{\prime}$ Kaganabete 加賀那倍五 the phrase here used is one indicating the method of counting numbers in ancient times．Thus a definite explanation of its signifi－ cance is urgent if we would solve the problem in question．Motoori Norinaga本居宣長 interprets this phrase kaganabete to be kaganabete日々並テ（counting days one after another），while Keichû Ajari 热冲阿閣梨 rejects this view，saying that since it was necessary，in counting objects，to arrange them and bend the fingers as they are counted，this 加賀 is an abbreviation of kagame（bend）．I should think that Keichừ is in the right in his interpretation．Should we take kaga to be kaga 日～ （days one after another）as Motoori suggests，this would conflict with the meaning of the poem by the old man，which says＂Yoniwa kokonoyo，biniva tôkawo＂（of nights nine nights，and of days ten days）differentiating days and nights．This kaga as Keichû interprets is probably a word meaning kaga 属（bend）which came from the custom of bending the fingers in counting objects．In Japanese，屈 is pronounced kaga－mu，while 跼 is pronounced kaga－mu or kogo－mu．Thus kaganabete in the old man＇s poem probably means 屈並（bend－arrange）－a word perhaps formed because of the ancient custom of bending and unbending the fingers in counting objects． The present－day expression，Nabete ikura？並テ 玄何（How many are counted？）is an ancient phrase handed down to the present．

Kaga－mu and kogo－mu for 屈 and 跼 do not differ in meaning，but only in spell－ ing，or in the use of vowels．Shifting vowels in Japanese words occurs quite frequently．父（father）is pronounced toto，tata，tete，titi，or tutu．This is one of the most striking instances in which vowels are shifted．So it would be no surprise＊ if kaga should be changed to kogo．Mu in kagamu and kogomu is a word ending， kaga and kogo being the stems of the words．Now，前（arrange）is also pronounced nabu or namu．Bu and mu the last syllables in nabu and namu being the endings，the stem is na．The mythology in the Kojiki has a name Iyo－no－putanasima 伊豫二名島（the two－name－island of Iyo）．This putana（two names），as Motoori interprets

[^0]it，means two arrangements or pairs－a name formed because the two pairs of provinces lying together make up Shikoku 四國（four provincess）．Unless we inter－ pret kaganabete 加賀那倍宐 in the Kojiki in the same way，we can never under－ stand the meaning of the two numerals，$n a$（seven）and kokono（nine）．These two numbers cannot be obtained，like the four numbers two，six，eight，and ten，by the method of bending the fingers for counting．Thus the former na in nana（seven） probably meatis $n a$ 並（arrange），while the latter $n a$ 無（not），meaning a number which cannot be indicated by arranging fingers in a row，an odd fractional number no obtained by counting．Likewise，koko the first part of the numeral for kokono（nine） probaly means koko 屈（bend）；and is a corruption of kogo，and no the latter part is a corruption of $n a$ 無（not），－namely，a number which cannot be indicated by bending fingers or one that cannot be counted．Both no the last part of kokono（nine）and na the latter part of nana（seven）mean na 無（not）．Here $n a$ was changed to no exactly in the same manner that kaga was changed to kogo．The proper pronunciation of 無 is $n a$. In the case of kokono（nine），however，the initial part being koko，Kokona was changed to kokono for euphony．This change is analogous to that seen in a phase yomoyama四方八方（four directions，eight directions），which is pronounced yomo yama．As the original pronunciation of 方 is $m o$ ，四方 is profounced yomo as it should be；but in the case of yama八刀，$m o$ for 有 is changed to ma for the sake of euphony because it is preceded by ya．

In our country，numbers over ten are counted according to the decimal system， calling eleven ten－one，twelve ten－two，etc．，up to twenty when it is called patati． Because of the fact that putatu（two），as already discussed，a variation of pitotu（one）， some people may likewise suppose patati（twenty）to be a corruption of putatu（two）． However，twenty being a number large enough for two to go in ten times，there could not be a relation analogous to that between pitotu（one）and putatu（two）．If so，how should we explain patati（twenty）？I am of the opinion that pa the initial syllable of patati，is a corruption of $p u$ the initial syllable of putatu（two）and means two ；ta the middle syllable a corruption of to，the initial syllable of towo．（ten）and means
ten；and $t i$ ，the last syllable，is a corruption of $t u$ ，the last syllable of pitotu，putatu etc．，and a kind of word－ending．Thus patati（twenty）should more properly be putotu（two－tens）．Patati（twenty）is a noun form，and pata，as in the case of patuka二十日（twenty days），is in its adjective form．Thus when putotu（twenty）becomes an adjective，$p u$（two）is changed to $p a$ ，and to（ten）is changed to $t u$ ；when it becomes a noun，$p u$（two）is changed to $p a$ ，to（ten）to $t a$ and $t u$ in the numbers of two figures，to $t i$ ，according to a peculiar rule of the Japanese language，in which a derivative is distinguished from its original word by changing the vowel．Moreover， in Japanese，thirty is misodi，forty yosodi，fifty isodi，sixty musodi，seventy nanasodi， eighty yasodi，and ninety kokonosodi．It is evident that the initial parts，mi，yo，etc．， represent the numerals between three and nine；so in sodi which follow them a cor－ ruption of to（ten）；and di the last parts a softened sound of $t i$ in patati（twenty）． In ancient times，$t$ sounds were often interchangeable with $s$ sounds．For instance， the mythology in the Nibon－shoki 日本書紀 gives Amenotokotati－no－mikoto 天常立尊 and Amenosokotati－no－milkoto 天底立尊 interchangeably，which is an instance where toko 常 was also pronounced soko 底．Again，ametusi 阿米都之 （heaven and earth）in the song of Sakimori 防人 in the Mamnyôsb $\hat{x}$ 萬薬集 is an ancient transcription of ametuti where tuti 地（earth）is read tusi．From these in－ stances，it may be seen that $t$ sounds were interchangeable with $s$ sounds．In the dialect of Miyakojima island 宮古島 situated in the south of the Loochoo Islands， misoka 三十日（the thirtieth day）is pronounced mitoka，which shows that so in miso is more properly to．Moreover，in Japanese，a hundred 百 is called po or momo，a thousand 千 $t i$ ，and ten thousand 萬 yorodu．These are all the numerals that were used in the days of the Kojiki and the Nibon－shoki．The Japanese language has had no numerals over ten thousand since those days even to the present．

In a primitive age when savage men count objects referring each time to their fingers，they use the five fingers，bending or unbending all the fingers of one hand． The general rule is that as the five fingers have each a proper name，so a special name is chosen for each of the five numbers represented by the fingers．When the five
numbers are taken as a unit, and the numbers over five are reduplicated, it is called the quinary system. At present this method is practised in Melanesia among the tribes called Tana, Api, Pama, Sesake, Fate, and Ekomanga. European languages and others like Hebrew have special numerals for the numbers from one up to ten and the numbers are taken to make a unit in counting larger numbers. This is called the decimal system. Some peoples, though adopting the decimal system, have special numerals only for the numbers from one up to seven and for ten, with a phrase meaning two minus ten for eight and another meaning one minus ten for nine. The numerals of the Ural-Altai tribes are typical of this class.

The Japanese custom of counting objects by referring to the fingers of one hand does not differ from the manner of counting among the peoples who adopt the quinary system or the decimal system. However, as the Japanese counted up to two from one, the thumb and the forefinger referred to formed an opposing and parallel position. So our forefathers observing this position of the two fingers, formed the numerals for one and two. Now, should we suppose these two numerals to be human beings or pito 人, one represented by the thumb was man, while two represented by the forefinger was woman and wife. Thus, in contrast with one ( $p i t o$ ) or the husband, two or the wife was called puta. In view of the fact that since man and woman, or husband and wife are equally human beings, and so both one and two equally form the origin of numbers, these two numbers are coupled and unified in the series of $p$ sounds, such as pito and puta, or $p i$ and $p u$. The principle of coining numerals which consisted in mating two numbers and reduplicating them is evident at the very origin of numbers, even in the case of the two numetals for one and two. Herein consists the characteristic of the Japanese numerals. Three, four, and five, the numbers after two, could not be coupled on the five fingers, so they were given special numerals-mi, yo, and $i t u$. If one and two were husband and wife, the rest were children born of them, as it were. As a family is composed of man and wife and children, so are the basic numerals in Japanese composed of the following four key-words-the pos (the original word of
pito and puta, mi, yo, and itu.
As we thus investigate the Japanese numerals, it seems that a landmark has been reached at the numeral five. But numbers know no limit. When an ancient Japanese counted up from five to six, how did he operate his fingers? This is a question worth consideration. The people of Melanesia who employ the quinary system, when they count up to five by referring to the fingers of one hand, hold up the other hand and repeat the same processes of counting; so the five numbers from six to ten are again one, two, three, four, and five. But as an ancient Japanese counted up numbers according to the reduplication system, he did so arranging his fingers to indcate the corresponding numbers. Since a single hand has only five fingers, in order to count six and indicate it by fingers, he had to use one of the fingers on the other hand. Supposing he used both his hands, it is very hard to tell which hand he used first. The ancient custom being to prefer left to right, it is most probable that, in counting numbers, the left hand was used first and then the right. Calling one, he most probably unbent the thumb of his left hand, and calling two, he unbent the forefinger after the thumb. Thus the two fingers would form an opposing and parallel position; and on account of the custom to call one pito, the pair was called puta. Three, four, and five could not be duplicated with the five fingers of the left hand, as has been already discussed, in counting six, three fingers on the left hand and three fingers on the right were unbent to make a couple; and on account of the custom to call the three fingers on the left hand mi, a pair of three fingers on both hands was called mu. A similar process being applied to the two numbers eight and ten, on account of the custom to call the four fingers on the left hand $y o$, a pair of four fingers on both hands was called $y a$; and on account of the custom to call the five fingers of the left hand $i t u$, a pair of five fingers on both hands was called towo. But seven and nine-the two numbers to which this same method could not be applied--were given the numerals with their respective meanings-seven as a number unarrangeable and nine as a number unbendable. Therefore, the basic numerals in Japanese were only four,--the $p$ cs or
the $p$ series found in pito and puta，the $m \infty$ or the $m$ series found in $m i$ and $m u$ ，the $y \infty$ or the $y$ series found in $y o$ and $y a$ ，and the $t \infty$ or the $t$ series found in itu and towo．Neither nana（seven）nor kokono（nine）can be a numeral in the truest sense of the term．

This theory of mine，I am convinced，may be proved by further investigation of the numerals greater than a hundred．The numbers from eleven to ninety－nine，in the most advanced numerals of the world，are formed by combining the numerals between one and ten；and it is customary to choose for convenience sake a special numeral for one hundred or a number ten times ten．For instance，this number is in Chinese pai 面，on 醖 in Korean，and bundred in English．The Japanese for hun－ dred is called either $p o$ or momo，which may be taken only as a derivative of the $p$ os or the $m \infty$ of the basic numerals．As already discussed，pito for one and puta for two may be considered word－stems if compared with pitotu and putatu．If pa the initial syllable of patati（twenty）means two，$p i$ and $p u$ ，the initial syllables of pito and puta must be the stems，and the last syllables $t o$ and $t a$ the endings．Now，this $p$ os or the stem of the $p$ series is declined $p i$ for one，$p u$ for two，and $p a$ for twenty，a new vowel was purposely adopted for the numeral for one hundred in order to distinguish it from the rest，and thus po came to stand for one hundred．The Japa－ nese for three is $m i$ ，and that for six $m u$ ；so a new vowel was purposely adopted for the numeral for one hundred in order to distinguish it from the rest．Thus mo came to stand for one hundred and the syllable came to be repeated to make momo．The numeral for one thousand in the mostadvanced numerals is specially coined as cbien千 in Chinese，mingan in Mongolian，and thousand in English．However，ti the Japa－ nese for one thousand must be considered a varied form of the $t c s$ as the stem of the $t$ series of the basic numerals．It is also customary to coin a new numeral for ten thousand in other languages，as wan 萬 in Chinese and tümen in Mongolian．How－ ever，yorodu the Japanese for ten thousand，must be taken only as a varied form of the $y \infty$ as the stem of the $y$ series of the basic numerals．In Japanese，$y o$ was already adopted for four，in order to distinguish it from the rest，a word－ending rodu was
attached to the stem yo and yorodu came to represent ten thousand．The last syllable， $d u$ ，is a softened form of $t u$ ，the ending，as in the case of $m i t u$（three）and yotu（four）． If thus the numerals for one hundred，one thousand，and ten thousand were formed by adding a vowel to the consonants $p, m, t$ ，and $y$ ，it may be properly asserted that the Japanese numerals are based on the four original sounds，the $p \infty$ ，the $m \infty$ ，the $y \infty$ ，and the $t \infty$ ．On the other hand，the absence of the numerals originating from nana or kokono among the numerals representing the larger numbers than one hun－ dred may serve to endorse my theory on these two numerals．

## II Significance of the Basic Numerals

The significance of the Japanese numerals from one up to ten，except seyen and nine，which $I$ have already dealt with rather elaborately，will be discussed here．In the 42 nd year of Meiji（1909），the present writer published in the Sbigaku－zasshi 史學雜誌 a paper entitled＂Concerning the Numerals in Japanese，Korean，and Ainu，＂ in which an interpretation of the Japanese numerals was given．According to my view then published，the numeral pito leads the numerical series and represents its source；therefore，the proper way to solve the significance of the word must lie along that line．Since the end of an object in Japanese is called pazi，and a beginning patu or pana，pito（one）may have some relation with these words．And tuta for two which markedly resemble pito in pronunciation may be considered of one common origin．However，in veiw of the fact that the elapse of time or dis－ tance in space in Japanese is called pe and the increase or multiplication of things puyu，the meaning of puta（two）must be studied in the light of such words．This was my view at that time．Now，it cannot be an adequate interpretation to－day． In Japanese，one is called pito，and man is also called pito．A question may be raised as to whether one and man have anything in common．Mr．Chamberidain， if I correctly remember，once commented that pito（man）in Japanese had the mean－ ing of pito（one），though he refrained from giving his reasons．As I am told that the north－eastern Japanese say puto for pito，I ventiure to wonder if pito（man）is not a
corruption of puto 太（great）．It may be that man boasting to be lord of creation called himself pito 人（man），namely，puto（great）．The Sbuo－wên 說文，the ancient Chinese dictionary explains the character $t a$ 大（great）：＂天（Heaven）is 大（great）；地（earth）大（great）：and 人（man）also 大（great）．So they were all in the shape of人（man）．＂（1）Should this interpretation be acceptable，大 the Chinese character for great was formed in the shape of 人（man）．Man＇s stature being between five and six feet，he cannot boast of his great size among the animals on earth．In the sphere of mentality，however，man is certainly more subtle than anything else；because of this meaning，the Chinese formed the character 大（great）in the shape of 人（man）． The Japanese pito for man comprises the meaning of puto 太（large），though it does not mean that the Chinese character 人（man）has the meaning of 大，太（great，large）． It is quite remarkable that the Chinese in creating the character 大（great）considered man lord of creation．

Since man is lord of creation，it is quite natural that man in Japanese should have been called pito，namely puto 太（large）and the Chinese should have formed the character 大（great）in the shape of 人（man）．But it does not follow that on the strength of the fact that both man and one are pronounced pito alike，man means one．Is it not more probable that the numeral for one was called pito，not immedi－ ately relative to man，but relative to the finger operated in counting the number？ As already discussed，it would seem that the ancient Japanese operated the fingers in counting numbers，and the thumb was the finger to be unbent．Because of the fact that the thumb is the greatest of all the five fingers on one hand，it may be that the number represented by the thumb was called pito， namely puto．The reason why the present Japanese call the thumb oyayubi（parent finger）or ôyubi（big finger）is that it is the largest．Therefore，as the thumb the largest of the five fingers is called pito，so is man lord of creation called pito．Of the Altaic languages，the Türk for thumb is $\hat{e} r g a ̈ k$ ，the Mongolian eregei，and the Burjat
$\qquad$ ．

[^1]erke．The reason why a man is ere in Türk and Mongolian is probably because the word is etymologically related to the above words meaning the thumb．In Kara－ gas，a dialect of Türk，a man and the thumb are both örgäk alike．Probably because of the fact that a man is the bravest and strongest of all human beings and the thumb is the largest and strongest of all the fingers，they are both örgäk．The Japanese numeral for one was called pito，because the finger used for the number was the largest，or the thumb．And man was also called pito because he is，of all creatures，the one with the highest mentality．Therefore，for the same reason， both man and one are called pito in Japanese and both man and the thumb are called örgäk in Karagas，one of the dialects of Türk．

Though it is presumed that the numeral pito in Japanese was also due to the largeness of the thumb used in indicating the number，the numeral puta for two cannot have been borrowed from the name of the forefinger．On account of the parallel position of the thumb and the forefinger，if one was pito，the other was also pito，the numeral puta for two was adopted to represent the combined number of two pito． That is，pito is singular，while puta is plural．Despite the remarkable resemblance in their pronunciation，I formerly supposed pito and puta to differ essentially in the point of stems．Now I have found out that the two differ in number．Further，opo in Japanese stands for both＂great＂and＂many＂．Pito（one）is a numeral given on account of the large size，while puta（two）is a fiumeral given on account of the large number．The stem of $o p o$ 多，大（many，large）being $p o, p i$ the stem of pito（one） and $p u$ the stem of puta（two）may be considered mere variations of the same stem． So pito（one）and puta（two）have developed from a common source．To repeat an action twice in Japanese is $p a t a$ ：$p a$ is the stem，$t a$ being the ending．To overflow is apuru；$a$ being a prefix，ru a suffix，$p u$ is the stem．To increase is $p u y u ; y u$ being the ending，$p u$ is the stem．Again，panapada（considerably）is a corruption of pata－ pata ．．．．a repetition of pata．The stem of these words came from a common source with $p i$ and $p u$ ，the stem of the numerals for one and two；and may be considered variations of the original meaning opo 多，大（many，large）．

The Japanese children of to－day learn to count up to ten before going to school，but it took our ancestors inconceivably long periods to form these numerals． Even to－day there exist some savages，ranked low in civilization who do not pos－ sess the numerals up to five．According to Oldfield，the inhabitants of New Hol－ land are reported to know no numerals over two．In the Botocudo language，one is mokenam，two urubu, ，which means many；and it is said that the language has no numeral for more than two．In the Puri language，one is omi，two curiri，and three prica which means many．And in Tasmania，one is parmery，two calabawa，and any number over two cardia．${ }^{(1)}$ Thus some savage tribes have only numerals for one and two，but notie for three，substituting for three and more the word many． There are such Chinese phrases as san bsing 三 省（three self－examinations）and san ku三㢈（three turns），which does not literally mean examining oneself or looking back three times，but many times－a relic of the custom of the days when three was considered the greatest number．And some languages in the world have three numbers for nouns and verbs－the singular，the dual，and the plural．This also may be regarded a relic of the age when three was the greatest．

Should it be accepted that the meaning of the numeral puta（two）was many as I interpret it，when our remote ancestors commenced to form numerals，any number more than one was surely called puta．As their mentality advanced and puta was applied to two definitely，a humeral for more than two became necessary and a new word $m i$ was chosen．In view of the fact that the numeral for three among some savages，as already mentioned，often means many，and civilized tribes have customs proving that three was formerly the largest number，and the numeral for two in Japanese formerly had the meaning of many，it may be supposed that this numeral $m i$ also had the same meaning．Perfection and repetition in Japanese is mata；ta being an ending，$m a$ is the stem．To increase is masu；su being an ending，ma is the stem；and more and more is masu－masu．Many is amata；a being a prefix，ta a

[^2]suffix, the stem is ma. To exceed is amaru; a being a prefix, and ru a suffix, the stem is ma. And all is mina; na being an ending, the stem is mi. Again, group is mure or mura; re and ra being endings, the stem is mu. Every is moro; ro being an ending, the stem is mo; and still more is motto; to being an ending, mo is the stem. This word when followed by a particle mo is most (mottomo). Ma, mi, mu, and mo, the stems of the above-mentioned words, together with $m i$ (three) and $m u$ (six), may be considered to have been derived from the original $m$ os meaning multitude. The Japanese for heaven is ama; a being a prefix, the stem is ma. Sea is umi; u being a prefix, $m i$ is the stem. $M a$ and $m i$ of these words are identical with the words above-mentioned: only in the former the meaning of many is apparent, while in the latter the meaning of great is apparent. Here is seen the same phenomenon that is observed in the case of the word opo which contains two meanings, great and many.

It is impossible to tell now how many years the ancient people used $m i$ for all the numbers more than two. The time came at length when $m i$ was limited to the meaning of three and another word for more than three became necessary. Thus the word $y o$ was chosen.

To grow gregarious in Japanese is yayopi 雨生; abundant is ya-tomi; more and more is $i y o-$-iyo; to prosper more and more is iya-saka; and the very last is iya-pate. I am sure that these words are etymologically related to $y o$ (four) and $y a$ (eight) and originally meant multitude. I take $y a$ and $j o$ to be the stems; when given a prefix $i$ and read iyo and iya, they mean the greatest and the most.

As the word yo grew to be a definite numeral for four, it was now necessary to select a numeral for more than that. Thus the word itu was chosen. The ancient Japanese unbent the middle finger on counting three, the ring finger on counting four, and the small finger on counting five. A hand has five fingers; so the fiumeral for five should be one indicating the ultimate end of the numbers. Extremely in Japanese is $i t o$; to reach the goal is itaru; exceedingly is itatte. These words must be synonymous with $i t u$ (five). Again, abundance in Japanese is toyo; yo being
an ending, the stem is to. To grow rich is tomu; mu being an ending, the stem is to. To suffice is taru; to add is tasu; $r u$ and $s u$ being endings, the stem is $t a$. I should surmise that the stems, $t o, t a$, and $t u$ mean abundance; when prefixed by $i$ and read $i t u$, it meant the ultimate end and became the numeral for five; and when suffixed by wo and read towo, it meant far and became the numeral for ten. In investigating the meanings of the numerals from one up to ten, we have seen that the numerals from two up to five all mean many. As for one, pito for one means great; but seeing that many and great are one in Japanese, pito (one) and puta (two) are both nothing but derivatives of one common stem. In an advanced language the first five numbers are represented each by a special word ; but seeing that pito (one) and puta (two) in Japanese are derivatives from one commoni stem, despite the fact that there are five numerals, there are only four stems. Herein lies the characteristic of the Japanese numerals. The numerals for six up to ten are formed by reduplicating the above-mentioned basic numerals. In view of the fact that the two numerals nana (seven) and kokono (nine) are not formed in the same manner, they cannot be included in the basic numerals. This theory of mine will be confirmed by a consideration of the significance of the numerals for a hundred, a thousand, and ten thousand. A hundred in Japanese is, as already mentioned, po or momo. Of the two, $p o$ is a derivative of the $p \infty$, the basic numeral of the $p$ series found in pito (one) and puta (two); and momo is a derivative of the $m \infty$, the basic numeral of the $m$ series found in $m i$ (three) and $m u$ (six). You would entertain doubts to hear that such a large number as one hundred should be synonymous with such a small numeral as one, two, or three. It should be remembered, however, that the numerals from one up to one hundred were formed not at one time, but slowly and gradually in many thousand years. In the primitive age when there was no numeral for more than two, this number two was the uttermost, the greatest number to the people then; and in the ancient times when there was no numeral for more than three, this number three was no doubt the uttermost, the greatest number to the people of those days. When the human intelligence advanced, so much so that a
hundred could be counted，but there was no numeral for more than a hundred，this number one hundred seemed no doubt the uttermost，the greatest number to the people of those days．If thus $p u$（two）or $m i$（three）respectively，was the numeral indicative of the greatest number conceivable by the people of these ages，it is no wonder but only natural that，when a hundred was considered the maximum number，the numeral for it should have been named po on account of $p u$（two），or $m o$（momo）on account of $m i$（three）．

Thus the ancient Japanese had four words many and great，namely，the $p \infty$ ， the $m \infty$ ，the $y \infty$ ，and the $t \infty$ ，the stems of the basic numerals．As they formed a numeral for such a large number as one hundred，they tried to work on the $p \infty$ ； as they had already set down for one $p i$ and for two $p u, p a$ ，they called a hundred $p o$ in order to distinguish it from the rest；and as they tried to work on the $m \infty$ at the same time，they had already called three $m i$ and six $m u$ ，they perhaps called a hundred mo or momo in order to distinguish it from the rest．This being the case， they called a hundred either po or mo（momo）for the purpose of avoiding confusion； it seems that they came definitely to differentiate the uses of the two numerals as follows ：momo only when put at the initial part of a word，such as momo－tukue 百机 （one hundred desks）and momotapi 百度（one hundred times）and po only when preceded by another number as $i p o-p i k i-i w a$ 五百引岩（five hundred－pull stone，or a stone to be pulled by five hundred men）tiizo－aki千五百秋（thousand－five－hundred autumns，or 1，500 autumns）and yapoyorodu 八百萬（eight－hundred－ten－thousand or 8，000，000）．And then later the knowledge of calculation advanced enough to ． demand the name for a thousand．This being such a large number，it was likewise necessary to select from the stems of the basic numerals．Of the four words the $p \infty$ ，the $m \infty$ ，the $y \infty$ ，and the $t \infty$ ，however，the two the $p \infty$ and the $m \infty$ ，had been employed for the numerals for one hundred；therefore，the numerals for a thousand had to be selected from the remaining two，－namely，the $y$ co and the $t \infty$ ．First，the stem $y \infty$ was adopted，however，as $y o$ had been used for $y 0$（four），and it was necessary to distinguish it from them，yoro was formed as
the new numeral for a thousand，after adding an ending ro to it．At the same time the stem $t c \infty$ was adopted；however，as five was already itu and ten $t o$ and $t a$ ，and it was necessary to distinguish it from them，$t i$ was formed for the purpose．This being the case，yoro and $t i$ were both used for a thousand for some time；however， as the time came for selecting a new numeral for ten thousand，$t$, ，one of the two numerals for a thousand，was now decided upon as the sole numeral for a thousand and yoro as the sole numeral for ten thousand．Du the final syllable of the word yorodu（ten thousand）indicates a softened pronunciation of $t u$ ，the final syllable of a common noun－form numeral．The fact that，despite the application of the four numerical stems to the numerals for a hundred，a thousand，and ten thousand，the stem for nana（seven）or kokono（nine）was not made use of，would suggest that these two numerals were too special and unique to be included in the series of the basic numerals．

## III Numerals Found in Japanese Mythology

In view of the fact that the numbers from one up to ten are all important in calculation and should have no discrimination in value，the existence of a custom among most peoples to favour some numbers and to despise others would seem a very curious phenomenon．According to the investigations of Westerners，the Aryan peoples generally favour three and nine，while the Semitic people commonly prefer seven．Among the peoples of these two races，there is an apparent tendency to favour odd numbers and taboo even numbers．So many investigations have been published on this subject that reference to them would seem unnecessary．The customs among the peoples of Eastern Asia，however，are not yet so well－known in the world．For this reason，I am going to make a general survey of the more prom－ inent，and then enter into a detailed discussion of the numerical ideas of the ancient Japanese．

The Chinese favour odd numbers as yang 陽 numbers，while they despise even numbers as yin 陰 numbers．The Cbou－i 周易 especially prefers nine and seven
among all the yang numbers，calling the former lao－yang 老陽 and the latter sbao－yang 少陽．Since it was in the Chan－kuo 战國 period that the Yin－yang陰陽 theory arose in China，this custom of dividing numbers into two classes－the yin and the yang－and preferring some numbers and rejecting others，dates from this period．However，seeing that the countries in Western Asia and Europe had discriminated numbers since the most ancient times， it would seem that the Chinese had also inherited the same custom since the most ancient times．It is not since the appearance of the Yin－yang theory in China that discrimination of numbers arose．The Yin－yang theorist only applied his principle to the practice which had existed since the most ancient times．

As to the superstition concerning numbers among the savages on the northern frontiers，there is no obtaining information，owing to the lack of literature．How－ ever，a document reveals the numerical ideas of the To－po－wei 拓跋魏，a Mongoli－ an tribe who in the Northern and Southern Dyinasties arose in the neighbourhood of the Great Wall and encroached upon the basin of the Yellow river．Wei－lu－chuan 魏虏倠 in the Nan－ch $i$－sbu 南齊莗（Chap．57）has the following passage．＂In the Ioth year（of $T a^{c} i-b o$ 太和 486 A．D．），the Emperor of the Nan－c＇hi despatched two men Hsiao Chên 䈜琛 and Fan Yün 范雲 to the Northern Court（Wei）．There Hung 宏 （the Emperor Hsiao－wên－ti 孝文帝）went to the western suburb previously chosen as the site for the T＇ien－t＇an 天壇（the Temple of Heaven）．Hung and his would－be courtiers were accompanied by more than twenty horsemen．Being clad in armour， The made one circuit of the temple and his courtiers seven circuits．This was called the ceremony of $T^{c} a-t^{c}$ an 蹋壇．（Treading the Temple）．The following day they were again clad in armour，and ascending the altar prayed to Heaven． Hung made three circuits and the courtiers seven circuits．This was called the ceremony of Jao－tien 繞天（Circling Heaven）．Ropes were knit and tied to branches and sticks over which blue silk－cloths were hung in a semi－circular flat－ roof shape．This held a hundred seats，and was called san－i $i$ 繖一；and sometimes
a hundred－seat tent．＂${ }^{\prime \prime}$（1）
The numbers mentioned in connection with religious services are as a rule auspicious numbers．The fact that Hung 宏 the Emperor of the Wei 魏 made one circuit first，and then three circuits；and the courtiers made seven circuits on both occasions would suggest that the To－po 抔跋 people preferred odd numbers． The number of the horsemen who accompanied Hung for the service of praying to Heaven is not mentioned definitely，but roughly as more than twenty；however， seeing that an auspicious number was always chosen on such occasions，the number of horses employed then may be imagined to have been，more accurately speaking， twenty－one（seven times three），though given roughly in the quotation．Moreover， the size of the tent erected near the Temple of Heaven is said to have been large enough to hold a hundred seats．Ten times ten，an even number，would not have been an auspicious one，so it was probably called one hundred and treated as an odd number．If this $S_{a n-i} i$ 變－referring to the tent should be a Chinese word like the numbers mentioned in connection with the ceremonies of $T^{c} a-t^{c}$ an 蹋壇 and $J a 0-$ $t^{\text {cien }}$ 繞天，it would mean nothing since $i-$ is a numeral and san 䌬 a covering，a sort of hat，according to the dictionaries．This must be a transliteration of a To－po 拓跋 word and the alternate Pai－tzü－chang 自子帳 a free translation of it．A hundred in Mongolian is zajum，but this $\dot{\gamma}$ has so weak a sound that the word really sounds zain．The Burjat for one hundred is pronounced zun or zun，evidently a corruption of this zajum．Then San 粠 in San－i 糤－must be a transliteration of zaun which means one hundred．Again，a tent in Mongolian is ger or gir．I should think－in．繖一 its transliteration．Kuan－sbib－cbib 官氏志 in the Wei－sbu 魏書＂says＂I－tou－ chüan 壹斗貵 was later given a family name of Ming 明．＂（2）It is evident that I－tou－chüan 营斗䀬 was a To－po 拓拔 word and 明氏 a Chinese translation．In． the Manchurian language，clear，or plain is getuken，and in the Daxur language the

[^3]same word is getukun．The T＇ang pronunciation for 壹 was yit；but as it was pro－ nounced get of git during the Wei period，probably ge，the first syllable of getuken， was translated by 壹 and tuken the latter part by 斗貵．According to dictionaries， as one of the pronunciations for 壹 is given：＂The combination of the initial sound of gen 弦 and the final sound of kei 鷄；the pronunciation is gei 兮．＂（1）So it is evident that the character 壹 was pronounced gei as well as $g e t$ ．If we further investigate the pronunciation of 壹；namely - ，it may prove to be the transliteration of ger or gei，meaning a tent in Mongolian．Should such a view be accepted，the two characters 潵－were during the Wei period pronounced san git or san get，the transliteration of zuan ger or zaim gir meaning a hundred－seat tent．Thus the - in the phrase 媺－is decided upon as a non－numerical word．However，this does not affect the fact that the people of To－po－wei 拓跋魏 favoured the odd numbers－ one，three，and seven．In Wei－lu－cbuan 䰤虜俙，there is another passage which tends to confirm the above－mentioned supposition．In connection with the des－ cription of the Tzu＇urcien－t＇an 鸸天壇（the altar for praying to Heaven），it says ： ＂To the south－west of the castle and seven $l i$ from Pai－têng－shan 白登山，an an－ cestral shrine was erected at the foot of a mountain．To the west of the castle there was an altar for praying to Heaven，on the top of which were erected forty nine wooden men，about ten feet high，in white caps，clad in refined silk skirts trailing long trains．${ }^{\prime}(2)$ Forty－nine being seven times seven，the fact that the forty－nine wooden men were erected on the altar was probably because the people valued seven as a sacred number．The courtiers＇seven circuits of the altar on the occasion of the $T^{\prime} a-t^{\prime} i e n$ 蹋天 and Jao－tien 繞天 ceremonies prove that the people of To－ po－wei 拓跋魏，of all the odd numbers，valued seven the most．

The numeral conception of the Türk 窓㵐 people，who built up a powerful state in Mongolia towards the end of the Northern and Southern Dynasty period，
（ I ）弦篓切音兮。
（2）城西南去白登山七里，於山夏，別立父祖屚，城西有祠天壇，立四十九木人，長丈纾，白幩練裙長牪被立壇上。
may be judged from the monumetr inscription of Kül Tegin 関特勤，which reads＂My father，the prince 可汗 set off with twenty seven men．As the rumour of the advance of the prince 可汧 spread，those in the town went up into the moun－ tains，and those in the mountains came down，to make up a company of seventy men．With the assistance of Heaven，my father＇s men were like wolves and the enemy like sheep，he moved his army back and forth．As he collected and en－ couraged the people，the total number of his force now became seven hundred．＂ Here are mentioned twenty－seven，seventy，and seven hundred，－all of which contain the number seven．Therefore，Thomsen，the great scholar of the Türks took seven to be the sacred number of the Türk people and asserted that these three were all false numbers，not real ones．（Inscriptions de l＇Orebon，p．1on．Note 19．）
周書（Book 90 ）reads：＂When a person dies，the body is kept in the tent．His children and grand－children and other relatives of both sexes slaughter sheep and horses，which they exhibit and hold up in front of the tent．They tide their horses round the tent，making seven circuits．They worship once in front of the tent． They strike their faces with a knife and weep loudly．Blood and tears drip together． This act is not complete until repeated seven times．＂（1）．This shows that the Türks revered seven as the sacred number．That the Türks also revered nine besides seven is proved by another passage of the same book which reads：＂When a new ruler ascends the throne，his courtiers and high officials raise him on a rug，turn round nine times in the course of the sun．At each turn all the subjects make obei－ sance to him．After doing obeisance completely，they help the ruler upon a horse， throttle his neck with a cloth so tightly that he almost expires，and then untying the cloth，they quickly ask how many years he shall reign as a prince 可汗．The ruler＇s mind is now so confused that he is unable to give an exact number．From
刀数面且哭，血演俱流，如此者七度乃止。
what he utters，however，his subjects judge the length of his reign．＂（1）The great value the Türks put on the number nine may be proved by an instance from another source when IbN FadmLĀn concerning the Khazars，a Türk tribe，says that the prince has nine judges．Kungéza，the Hungarian scholar of the Türks，commenting upon the passage asserts that among the Türk people the odd numbers three，five，seven， and nine are the auspicious numbers．${ }^{(2)}$ Should this view be accepted，the Khazars also revered odd numbers，and the number nine more than any other．

The Kitans 契丹 人 who were the descendants of the Tung－hu 東胡，the hybrid tribe between the Mongols and the Tungus and who，arising in the basin of the Siramüren 西刺木偷 river in Eastern Mongolia，occupied part of Northern China，likewise revered seven as a sacted number．Evidence in favour of this may be found in the following passages in Li－chib 禮志 in Liao－sbib 遼史（Book s3）． ＂Miscellaneous Ceremonies in Different Seasons．In the month of January，it is a national custom to pound a mixture of cooked glutinous rice and the marrow of white sheep into fist－like rice－balls．Forty－nine balls are bestowed upon each tent． On the night of mou 戊，each one throws out the balls from the inside of the inner windows．The number here observed in repeating the actions is odd．They play music，drink，and eat．The number of times observed in repeating the actions is odd．They make twelve shamans ring bells，hold arrows，and run round the tent shouting，they explode salt in the fire，burn the ground and beat rats．This is called a ceremony of Cbing－kuei 驚鬼（frightening the devils）．They come outside after staying seven days inside．This is a national custom named Na－mieh－i－êrb趥揑吚㕷。趥 is the first，and 揑咿唲 morning．＂（3）
＂May $s$ th．At noon some sage－brush leaves are picked，with which some floss

[^4]silk is mixed．This is wrapped in seven garments and presented to the Emperor． The subjects of the northern quarters and also of the southern are each granted three of the garments．But Emperor and subjects feast and make merry．The chief cook of Po－hai 渤海 presents him with sage－brush cakes．They bind their arms with cords made of five－colour thread．This is called Ho－kuan－chieb 合歡結 （the knot of coupling joyous hearts）．？（1）
＂August 8th．It is a national custom to slaughter a white dog in front of the Emperor＇s bed，to bury the corpse seven steps away from it，leaving its muzzle exposed above ground．Seven days later，namely，on the mid－autumn day，they move the bed upon it．This custom is called Nieb－chich－nai 揑褐酎．提褐 is dog and 耐 head．＂${ }^{(2)}$
＂The Ceremony of Regeneration．The Emperor enters the room and takes of his clothes．Bare－footed，he goes followed by his pages，and passes under a many－branched tree．Each time he passes it，a midwife cleanses and wipes the Emperor＇s person．The pages pass the many－branched tree seven times．＂${ }^{(3)}$

The following passage is found，under Silver tablets 銀牌 in I－wei－chib 供徫志 （Ibid，，Book 58）where the rate of the post－horse is regulated．＂The distance to be covered in the day is seven hundred $l i$ 里 for a first－class horse and five hundred li 里 for a second－class horse．＂（法晝馳七百里次五百里）Another passage may be quoted from the Liao－sbib－sbib－i 遼史拾遺（Book 24）：＂The Yen－pei－lu燕北錄 says that whenever the savage ruler and people of Kitan 制丹 hear a peal of thunder，they all click with their tongues as an incantation，and that whenever the savage ruler and people of Kitan see a tornado rising，they shut their eyes， take hold of their whips，and whack them in the air forty－seven times，shouting as an incantation ‘ $K^{\prime}$＇$n-p u-E^{\prime} 0$ 坤不克’ seven times，which means in Chinese Hun－

[^5]fêng 魂風（the wind of the soul）．＂（1）In view of these quotations，we may say that the people of Kitan 掣丹 valued odd numbers such as seven，five，or three，but valued seven more than any other．

The Mongolians of the Sung and Yüan periods valued the number nine．An instance is found in the Cbeng－chi－ssŭ－ban－sbib－lu 成吉思汗實錄（Book 12）， where Ghinggis Khan conquered Hsi－hsia 西夏 and inspected the tributes Bur－ khan 不兒军，the ruler of the country，offered him，he records＂There I received Pu－êrh－han in audience as he came with gold Buddhas，gold and silver vessels and plates numbered nine－nine，boys and girls nine－nine，stallions and camels nine－ nine，as he thus proceeded indicating nine－nine of these various tributes，I received him in audience with the gate darkened．＂Commenting on this passage，Dr．Naka says＂Nine－nine does not mean eighty－one，but nine each．That the Mongols valued the number nine is not only found in the book of Abulghazi；but also the Yüan－shib 元史 records that when Tiao－li－shih 姚里氏，the widow of Ya－lü Liu－ko 耶律留哥；Prince of Liao 遼，was presented to T＇ai－tsu 太祖， she was granted men，horses，gold vessels，nine each ；and also the account of Chin Chiu－li 金就破 in the Kao－li－sbib 高麗吏 mentions the gift of nine maids and nine steeds each to Chao Ch＇ung 趙冲 and Chin Chiu－li 金就硔，the two generals of Kao－li 高麗 from Ha－chên 哈熏，the Mongolian marshall．＂From these in－ stances，it is evident that the Mongols of Chinggis Khan＇s time valued the number nine and observed that number，for instance，in making a gift of objects．Accord－ ing to Marco Polo，the Mongols are observed to make a gift of nine times nine， －namely，eighty－one objects，but the above quotations from the Cbeng－chi－ssŭ－ ban－sbib－lu 成吉思汗實錄 does not seem to support it．Moreover，nine was not the sole number valued．A passage dated the year of the enthronement of Chung－ hsüan－wang 忠宣王（1308 A．D．）in the Kao－li－sbib 高麗史（Book 33）reads：＂On the day jen－chen $\mathbb{E}$ 辰，the King offered eighty－one white horses to the Emperor as a

[^6]betrothal present and finally married the daughter of Kan－ma－1a甘䎵刺，the Prince of Chin 童．On the day kuei－ssŭu 癸 E ，he again offered eighty－one white horses to the Empress Dowager，who entertained the King with seven hundred sheep and five hundred jars of wine．The Emperor with the Empress Dowager appeared on the balcony．All the kings，princes，princesses，officials attended the feast．On the day chia－w $\boldsymbol{\text { 甲 }}$ 个，he offered eighty－one white horses to the King of Chin．${ }^{\text {万 }}$（1）Therefore， the Mongols did have a custom，as Matco Polo remarks，to make a gift of nine times nine or eighty－one objects．It is seen in the above quotations that in Mongolia， seven and fivé as well as nine were deemed auspicious numbers．We cannot def－ initely say now what numerals were used in ancient times by the Tungus people in Manchuria to the east of Mongolia and the Koreans on the Korean peninsula． No sooner had they established states than，under the influence of Chinese culture， they found themselves adopting the Chinese arts and customs，and their numerical ideas turned quite Chinese，valuing the yang 陽（odd）numbers and despising the yin 陰 （even）numbers．However，in view of the fact that the numerals in modern Man－ churian and Korean exceedingly resemble the Ural－Altaic languages both in com－ position and vocabulary，it may be asserted that their numerical view was not unlike any other Ural－Altaic people．

The above is an outline of the numerical conception of the various nations or tribes in Europe and Asia，which may be summarized as follows ：the odd num－ bers were valued and the even numbers despised，and among the odd numbers seven and nine were valued as sacred numbers above any other．In the face of this fact，it is interesting to note that，as fully discussed previously，in Japanese， seven（called nana or a number unmatchable）and nine（called kokono or a number unbendable）were considered as the fragmentary numbers that could not be counted． When Japan opened communication with China；the numerical conception of the

[^7]Japanese had so advanced that they could count up to a thousand or ten thousand，and their preference and rejection，their appreciation and depreciation， as to the numerals，had also developed．Once in contact with the Chinese， their wonder at the excellence of the Chinese customs and institutions and their admiration for them led to a thorough－going imitation of everything Chinese．This tendency even affected the Japanese numerical conception until the odd numbers came to be valued and the even numbers to be slighted． It is hard to tell exactly from what period this Chinization dates，but the most distinct trace remarkable in Japanese history is that of the numbers men－ tioned in the tomb regulations enacted in the 2nd year of Taika 大化（ 646 A．D．） under the reign of the Emperor Kôtoku 䀟德．The passage in question is here quoted from the Nibon－sboki 日本書紀．＂The inner dimensions of tombs of persons of the rank of Princes and upwards shall be nine feet in length by five in width．．．．．．At the time of interment white cloth shall be used for the hangings（of the bier），etc．A hearse may be used．The inner dimensions of tombs of Superior Ministers shall be similar in length，breadth and height to the above．Their outer limits shall be seven fathoms square，atid they shall be three fathoms in height．The work shall be completed by 500 labourers in five days：At the time of interment white cloth shall be used for the hangings of the bier，which shall be borne on men＇s shoulders．The inner dimensions of a tomb of a Minister of a lower class shall be in every respect similar in length，breadth，and height to the above．Their outer limits shall be five fathoms square，and they shall be two and a half fathoms in height． The work shall be completed by 250 labourers in three days．At the time of interment white cloth shall be used for hangings．In other matters the same rule as before is to be followed．The inner dimensions of the tombs of per－ sons of the rank of Dainin 大仁 and Shônin 小仁 shall be nine feet in length and four feet in height and breadth．The ground shall be made level and no mound raised．The work shall be completed by ioo labourers in one
day．＂（1）According to the tomb regulations，in the case of Dainin 大仁 and Sbônin小仁 only，the height and the width of the tombs are definitely given with an even number－four feet，but in the case of all other tombs，the dimensions，the labourers employed，and the days spent are all limited to odd numbers．All this tends，to show the spirit in which odd numbers were revered and even numbers were des－ pised．Since the court itself of its own accord set an example，the custom must have spread even among the lower classes of people until such odd numbers as seven and nine came to be applied to the religious rites which had till then preserved genuine primitive usages．The modern custom of regarding seven，five，and three as auspicious numbers，that of having bride and bridegroom drink from the same cup three times three or nine times at a wedding ceremony，and that of calling the gods of good fortune Seven Lucky Gods t福神 by increasing the number to seven as to reach the auspicious number，are all based on the Chinese view of numbers． In order to enquire into the manners and customs of ancient Japan，the Kojiki古事記 and the Nibon－sboki日本書粑 are the only works that throw light upon the subject．Seeing that the date of the compilation of the Kojike is the 4th year of Wado 和銅（711 A．D．）under the reign of the Emperor Gemmyô 元明 and that of the completion of the compilation of the Nibon－sboki the 4th year of Yor̂ी 養老 （720 A．D．）under the reign of the Empress Genshô $\pi$ 正，this marks an age enthusiastically bent upon introducing Chinese culture into Japan．Consequently， these works，in discussing the affairs of the most ancient times，not infrequently introduce Chinese manners and customs for the sake of colouring the writings．In studying the Japanese numerals in the light of these books，therefore，we should consider this aspect and take the utmost precaution．

The Kojiki and the Nibon－sboke both contain a special section in the opening pages，entitled Jindaisbi 衴代吏（the history of the age of deities）marking a striking
㵽及高皆准於上，其外域㧍七尋，高三氯，役五百人，五日使記，其葬時性帪等用白布，擔阿行之，下臣之蓦，其內長濶及高皆准於上，其外域方五，对，高二尋牛，设二百五十人，三日使記，其葬㭙帷帪等用白布，亦淮於上，大仁小仁之蓦者，其外域長九尺，高閣共四尺，不封，使本，役一百人一日記。
difference from the history of the age of human beings．This section gives no mean assistance to an inquirer into the numerical conception of the ancient Japanese． The affairs of the age of human beings，because caused by the free will of individuals， are naturally objective and individualistic in nature．So the numerals contained in that section signify no definite demarcation between the auspicious and the inauspicious，or the respected and the despised．The stories in these mythologies manifest the common beliefs of the ancient people and conisequently contain no inauspicious numbers，or when such numbers appear，full explatations are given． This being the case，the ancient view as to the auspicious and the inauspicious numbers or the respected and the despised numbers may be determined by referring to the mythologies．Moreover，the ancient Japanese were polytheists who，attributing souls to all creation from heaven and eatth，sun and moon，mountains，rivers，seas， down to all birds，beasts，plants，and insects，worshipped every one of them．They were legion，therefore，but for convenience sake they were called Yapoyorodu－no－ kami 八百萬神（eight million deities）．According to the Kojiki，Amenominakanusi－ no－kami 天之御中主神，the supreme creating god，the other creating deities down to the two deities Izanagi－no－kami 伊邪那忮神 and Izanami－no－kami 伊邪那美神，and the deities who were their offsprings，amount to a vast number－ one hundred and ninety－one deities，all told．Those who were active and whose deeds are recorded in the mythologies number less than ten，all the other deities simply have their names mentioned．These deities，though representing as many generations in their hereditary relations as parent and offspring，are related as brother and sister contemporaneously，but are divided into several groups according to their various occupations．The number of their generations and the number of the deities constituting the groups must embody felicity and fortune，because they pertain to deities，not human beings．For this reason，the mythologies fur－ nish excellent materials for studying the numerical conception of the ancient Japa－ nese．

As we peruse the Kojiki，we find that in the very beginning Amenominakanusi－
no－kami 天之御中主神 is mentioned as head of the creating deities．In view of the fact this god was a single god，not matched with a goddess，it is evident that the number one was by no means tabooed by the ancient Japanese．Then comes a list of the sixteen creating deities；each two deities being taken to make a couple ； for instance，Takamimusubi－no－kami 高御産巢日神 paired with Kamimusubi－ no－kami 神產巢日神，and Izanagi－no－kami 伊邪那忮神 paired with Izanami－ no－kami 伊邪那美神．Then Minato－no－kami 水丰神 begot two male and female deities Payaakitupiko－no－kami 速秋津日子神 and Payaakitupime－no－ kami 速秋津比責神，who in turn begot eight deities，each two of whom also make a pair，for instance，Awanagi－no－kami 沫那罢神 paired with Awanami－ no－kami 沫那美神，Turanagi－no－kami 頬那藝神 with Turanami－no－kami 煩那美神，Amenomikumari－no－kami 天之水分神 with Kuninomikumari－no－kami 國之水分神，and Amenokupizamoti－no－kami 天之久比眰母智神 with Kunino－ kupizamoti－no－kami 國之久比皃母製神．Such instances occur only too fre－ quently to need citation here．Of them all，however，the instance where Ama－ terasuopomikami 天炤大御神 and Takepayasusanowo－no－mikoto 建速須佐之男命 through exchanging her gems with his sword，begot eight deity－children，and another where Opoanamuti－no－kami 大穴生逑神 and Sukunapikona－no－kami 少卒名媇 through their mutual co－operation conducted state affairs，serve to endorse the presence of this conception in more serious affairs．The current practice of clapping our hands two times in worshipping at a Shinto shrine also evinces the fusion of this conception with even a trifling ceremony．In short，a dualistic inter－ pretation of the origin of things was the ideal of the ancient Japanese．It goes without saying，therefore，that the number two was an auspicious one．

In China two is despised because it is an even number，and three respected be－ cause it is an odd number．Since two was respected in Japan，one might expect the odd number three to have been despised．On the contrary，however，three was preferred in Japan as a number，just as auspicious as two．An evidence is that when Izanagi－no－kami，after having many children，begot Amaterasuopomikami

天炤大御神，Tukiyomi－no－mikoto 月讀命 and Takepayasusanowo－no－mikoto建速須佐之男命 overjoyed declared that he had been given three invaluable children．Again，when Amaterasuopomikami，on a vow with Susanowo－no－ mikoto 須佐之男命 tried to beget children，Amaterasuopomikami gave birth to the three goddesses whom the chiefs of Munagata 曾形 came to worship．More－ over，the mythologies divide the universe into three worlds—Takamagapara 高天原， Yominokuni 夜見國，and Utusikuni 㙷國，to which were ascribed the gem，the sword，and the mirror as the Three Sacred Treasures symbolic of the Japanese Throne．All these instances show that the number three was an auspicious number to the ancient Japanese．It is obvious that four was also an auspicious number because it is two times two．The Kojiki in describing the origin of Opoyasima大八洲 says：＂Next they gave birth to the Island of Puta－ia in Iyo．This island has one body and four faces，and each face has a name＂（1）and，as the souls of these provinces，are mentioned two gods and two goddesses．Then it says＂Next they gave birth to the island of Tukusi．This island likewise has one body and four faces， and each face has a name ${ }^{\text {＂}}{ }^{(2)}$ for which are mentioned four gods as the souls of these provinces．At the very end of the section of the same book，as the four children of Amatupidaka－piko－nagisatake－ugayapukiapezu－no－mikoto 天津日高日子波限建瓶華草蔁不合命 are mentioned Ituse－no－mikoto 五濑命，Inapi－no－mikoto 稻求命， Mikenu－no－mikoto 御毛沼命 and Wakamikenu－no－mikoto 若御毛沼命．All these instances evince the auspicious significance of the number four．The reason why the odd numbers one and three，and the even numbers two and four are te－ garded as auspicious numbers is probably that these are all among the basic numbers． Five，being also a basic number，is not rejected，either，in Japanese custom．There are groups of deities of this number such as Itutomo－no－kami 五部裨，Isotake－ no－kami 五十猛神，Ipotumisumaru 五百笽御統 and Tiipotuaki 千五百秋． Izanagi－no－kami and Izanami－no－kami，who after begetting Opoyasima 大八洲，

[^8]begot the five souls，－namely those of the sea，river，mountain，tree，and grass； when Izanagi－no－kami cut the body of Kagututi 㑸過突智，the fire－god，into five hotizontal sections，there arose five mountain－gods，also when Susanowo－no－ mikoto gnashed Amaterasuopomikami＇s gem to pieces and exhaled a haze，five deities were born．All these prove the number five to have been an auspicious one．

Six，being twice three，must be an auspicious number，yet this number is not frequently employed in the mythologies．According to the Nibon－sboki，the ox and the horse were produced on the crown of the head of Ukemoti－no－kami 保食梠，millet on the top of her forehead，the silk－worm over her eye－brows，panic within her eyes，rice in her belly ；wheat，large beans and small beans in her genitals； which is an instance of six being considered a sacred number．Another instance where this number was not rejected may be found in the fact that Opokuninusi－no－ kami 大國主神 was a sixth generation descendant of Susanowo－no－kami 須佐之舁神；moreover，his name was styled in six different ways．Seven does not appear in the main texts of the mythologies．Only the Kojiki after enumerating gods，says ＂The above including Kuninotokotati－no－kami 國常立神 down to Izanami－no－ kami 伊邪那美神 are called the seven generations of deities．＂（1）This is the only instance in the mythologies where the number seven is found．But it is only the compiler＇s personal opinion to limit the age of gods to seven generations，and the statement does not convey the true tradition of the ancient times．A full discussion of this matter is deferred till later．Neither seven nor nine appears in the original texts of the mythologies，but eight $(y a \pi)$ is found quite frequently．For instances， Opoyasima－kuni 大八洲國，yapiro－no－tono 八尋之殿，sikome yatari 醏女八人， yatuka－no－pige八握镜霊，yakusa－no－ikaduti 八色雷公，yasakani 八坂瓊，yata－no－ kagami 八䏰鏡，yamata－no－oroti 八岐大蛇，yasipoori－no－sake八醧酒，yama 八間， yawo 八丘，yatani 八谷，yapara 八峦，yôka 八日，yayo 八夜，yatose八年，yatimata

[^9]八達之衡，yatume－no－kabura 八目䲾鐧，yape－no－küma 八重之隈，yaso－tamagusi八十玉戴，yaso－no－kapara 八十河原，yasomagatupi－no－kami 八十枉津神日，yaso－ yorodunokămi 八十萬神，yasokotane－八十木種，yasomorokaimi 八十諸神，yaṣo－ kumade 八十隈，yasotuduki 八十連屬，yapope 八百重，and others are found．As to the frequent occurrence of eight in the mythologies，a question was raised by the Japanese scholars of the Tokugawa period．Motoore Norinaga 本居宣長，in an－ swering this question，says that this number eight simply means many，and should not necessarily be taken as the numeral eight．If he means that the original mean－ ing of $y a$（eight）is many，I have no objection at all．If then，two，three，four，or five each means many，why should he confine it to eight alone？If it means many quantitatively，nine or ten being more than eight should be used more often．I am of the opinion that eight was the number our ancestors valued and that it corresponded to the occidental holy numbers seven and nine．Eight being such an auspicious number among the gods mentioned in the mythologies，there are many groups made up of eight deities．The first group to be cited is that of the gods of Yasima 八洲（eight islands）from Awadi－no－po－no－sawake 淡道之榡之狹別 （Awaji Island）down to Amatu－misota－toyoakitu－ne－wake 天御虘空寷秋津根別 （Opoyamato－toyoakitusima 大䴬䁷秋津島）．The second is of the eight deities born between Payaakitupiko－no－kami 速秋津日子神 and Payaakitupime－no－kami 速秋津比賣神 from Awanagi－no－kami 沫那嚳神 down to Kuninokupizamoti－no－kami 國之久比童母智神．The next is of the eight born between Opoyamatumi－no－kami大山津見神 and Kayanupime－no－kami 鹿屋野比賣神，from Amenosatuti－no－kami天之㹫土神 down to Opotomadopime－no－kami 大戶惑女神（Then the eight brought forth when Kagututi－tio－kami 报其土神（fire－god）was killed，from Ma－ sakayamatumi－no－kami 正鹿山津見神 down to Toyamatumi－no－kami 戶山津見神；the eight born of the sword Izanagi－no－kami 伊邪那岐神 used in slaying Kagututi－no－kami 迦具土神，from Iwasaku－no－kami 石析神 down to Kuramitupa－ no－kami 閣御渄昒神；the eight arising from the dead body of Izanami－no－kami伊邪那美神，from Opoikatuti 太雷 down to Pusiikatuti 伏雷；then the eight
children of Payamado－no－kami 旸山届神 from Wakayamakupi－no－kami 若山咋神 down to Kukukiwakamurotunane－no－kami 久々紀室䓍根神．The presence of this large number of groups each comprising eight deities proves the high position of a sacred number bestowed upon the number eight by the ancient Japanese．The only instance where the number ten is used occurs in the phrase Totuka－no－turugi十握 劍（ten hand－grasp sword）．It is tecorded that a group of ten deities were born when Izanagi－no－kami held a Shinto purification ceremony at Awagipara 阿波岐原 in Tukusi 筑紫；which is misnumbered eleven in the Kojizi．Consequently， the number ten must be reckoned among the auspicious．

The above is the explanation of the numerals found in the mythology of the Kojiki which is believed to be the most accurate record of ancient traditions．Now it is worthy of note that all the numerals from one up to ten，except the two num－ bers seven and nine，are employed in connection with various objects，or groups of more than two deities；and that neither seven nor nine is found at all．Some peo－ ple may overlook this aspect as mere coincidence，but that this mythology where the affairs of over two hundred deities are recorded should not once contain seven or nine，must surely mean something．I am of the opinion that these two numbers， being tabooed，were ayoided in connection with deities．It is asserted that in spite of the fact that in both continents of Asia and Europe the odd numbers were valued and the even numbers rejected，and that，of all the odd numbers，seven and nine were most higbly valued as divine numbers，the Japanese never chose between the odd and the even，and，with the exception of seven and nine，valued all the basic numerals as auspicious，and，above all，the number eight the most auspicious，and tabooed the two numbers seven and nine as being inauspicious numbers．This as－ sertion confirms my own conclusion，drawn in the preceding section，on the com－ position and significance of the numetals．

It is true that the mythology in the Nibon－sboki contains seven and nine here and there，which the Kojiki never does．My opponents would certainly seize this point and attempt a rebuttal of my assertion．For this reason，I shall strictly ex－
amine the accounts in question and give expression to my conviction as to the ade－ quacy of my view．The first account in the mythology of the Nibon－shoki to be presented is probably the following，in which is described the Shinto purification ceremony．which Izanagi－no－mikoto 伊笲諾票 held at Apakigapara 檍原 of Odo－ no－Tatibana 小戶橘，in the province of Fyû́ga 日向，Tukusi 筑紫．＂When he was about to wash away his impurities of his body，he lifted up his voice and said， ‘The upper stream is too rapid and the lower stream is too sluggish，I will wash in the middle stream．＇The God which was thereby produced was called Yaso－ magatupi－no－kami 八十枉津日神，and then to remedy these evils there were pro－ duced Deities named Kantapobi－no－kami 神直日神，and after him Oponapobi－no－ kami 大直日神．Moreover，the Deities wh ch were produced by his plunging down and washing in the bottom of the sea were called Sokotuwatatumi－no－mikoto底津少童命 and Sokotutuwo－no－mikoto 底筒男命．Moreover，when he plunged and washed in the mid－tide，there were Gods produced who were called Nakatu－ watatumi－no－mikoto 中涫少童命，and next Nakatutuwo－no－mikoto 中筒男命． Moreover，when he washed floating on the surface of the water，Gods were pro－ duced，who were called Upatuwatatumi－no－mikoto 表津少童命 and next Upatutu－ wo－no－mikoto 表筒男命．There were in all nine Gods．${ }^{2}(1)$

It is true，nine deities composed a group according to this book．The passage on this incident in the Kojiki reads：＂Thereupon saying；＇The water in the upper reach is too rapid ；the water in the lower reach is too sluggish，＇he went down and plunged in the middle reach；and，as he washed，there was first born Yasomagatubi－ no－kami 八十渦津日神 and Opomagatubi－no－kami 大禍津日神。The two deities are the Deities thät were born from the filth as he contracted when he went to that polluted，hideous land．The names of the Deities that were next born to rectify those evils were Kannapobi－no－kami 神直毘神 and Oponapobi－no－kami 大直昆神 and

[^10]Idunome－no－kami 伊豆能賣神．The names of the deities that were next born，as he bathed at the bottom，were Sokotuwatatumi－no－kami 底津綿津 見神，and next Sokotutunowo－no－mikoto 底侗之男命．The names of the Deities that were born as he bathed in the middle of the water were Nakatuwatatumi－no－kami 中津綿津見神，and next Nakatutunowo－no－mikoto 中筒之男命．The names of the Deities that were born as he bathed at the top of the water were Upatuwatatumi－no－kami上津綿津昌神，and Upatutunowo－no－mikoto上筒之男命。＂（1）The number concerned is eleven．In order to indicate more plainly the agreement and disagree－ ment of the two books on this matter，the following list of comparisons may be made：

## The Kojiki

1．Yasomagatubi－no－kami成十禍津日神

2．Opomagatubi－no－kami大禍浾日神
3．Kannapobi－no－kami神直昆神

4．Oponapobi－no－kami大直門形

5．Idunome－no－kami伊豆能賣神
6．Solsotuwatatumi－no－kami底津綿津見神

7．Sokotutunowo－no－mikoto底筒之男命

8．Nakatuwatatumi－no－kami中津綿津見神
9．Nakatutunowo－no－mikoto中筒之男命

## The Nibon－sboki

1．Yasomagatubi－no－kami八十枉津日神

2．Kannapobi－no－kami神直日神
3．Oponapobi－no－kami大直日神

4．Sokotuwatatumi－no－mikoto底津少童命

5．Sokotutuwo－no－mikoto底筒眚命
6．Nakatuwatatumi－no－mikoto中津少童命

7．Nakatutuwo－no－mikoto中筒彗命

[^11]

As the above parallel shows，Opomagatubi－no－kami 大䜾津日神 and Idunome－no－ kami 伊豆能賣神 in the Kojiki are missing in the Nibon－shoki；thus the deities mentioned in the former are eleven，while those in the latter are nine．Yaso 八十 in Yasomagatubi－no－kami 八十禍日神 of the Kojiki means many，and matches with opo 大（great）in the next deity Opomagatubi－no－kami 大禍津日神；therefore，it is evident that these two deities form a pair．Nevertheless，the Nibon－shoki includes only Yasomagatubi－no－kami and excludes Opomagatubi－no－kami his partner，which must be a careless omission on the part of the compilers．Again，Kannapobi－no－ kami 神直鼠神 and Oponapobi－no－kami 大直毘神 n the Kojiki are the names adopted for the same reason that Takamimusubi－no－kami 高御竰巢日神 and Kamimusubi－no－kami 朔產巢日神 were adopted，for the sake of dividing Musubi－ no－kami 產巣日神 into two，adding as a prefix taka 高 to one and kami 神 to the other，for the sake of dividing Napobi－no－kami 直昆神 into two，kami 神 was added as a prefix to one，and opo 大 to the other．So it follows that Kannapobi－no－kami 神直昆神 and Oponapobi－no－kami 大直昆神 are deities that should make a pair even in the light of the significance of their names．Moreover，that these two deities did make a pair may be seen from a passage in the Mikadomaturi－no－norito 御門祭视詞，which reads＂Togaayamati aruwoba kamnapobi oponapobi ni minaposimasite＂公過在乎波，神直備大直備爾見坐氐（Those who have erred and transgressed should be remedied both kan－napobi $n i$－God－righteous－miraculously－and opo－napobi ni－ Great－righteous－miraculously）；and also another passage in the Tatarikamino－utusi－ yarasu－no－norito 遵却崇神㒭詞 reads＂Kannapobi，oponapobi ni naposi tamapite＂神直日大直日爾直志給比氐（Remedying them both Kan－napobi ni－God－righteous－ miraculously－and opo－napobini－Great－righteous－miraculously．）Since kannapobi and oponapobi always make an antithesis in phraseology，it may be supposed that the two
deities together made a pair．Therefore，it was not necessary to add another deity Idunome－no－kami 伊豆能賣神 besides the two．The name of this deity is not clear，but Motoori Norinaga 本居宣長 interprets idu 伊豆 as $i t u$ 嚴（solemn）and suggests iwapikijomeru 齋清浮 or purification．（1）I am of the opinion that his is a correct interpretation．In the Tdumonokuni－no－miyatuko－kamubogai no Kotaba 出雲國造神賀詞，such phrases as Idunomitekura 伊都幣，Idunomaya 伊豆能㠱屋and Iduno－ musiro 伊豆能席 occur，the name Idunome－no－kami 伊豆能賣神 in the Kojiki should be studied in the light of these phrases．It is perhaps Itu－no－me 嚴女 （maid of purification）；nevertheless，as the phrase sounds rather too vague，there may be some omission in it．Seeing that in the Annals of the Emperor Jimmu 神武 in the Nibon－sboki，a passage reads＂The name of water was called Itumidupame 嚴罔象女 and that of food Idunoukanome 嚴䅐魂女，＂（2）it may be inferred that Idunome－ no－kami 伊豆能賣神 here mentioned，is an abbreviation of Itunuidupame 嚴罔象女 the name of goddess of water；and because of her association with water，it was probably not in the original list，but was inserted there by later generations．Should this criticism be accepted，the Idunome－no－kami in the Kojiki is an addition to be omitted from the list；and Opomagatubi－no－kami 大禍津日 神 should be inserted to supplement the list of the Nibon－shoki．Then the deities born at the time of the Shinto purification ceremony numbered neither nine as recorded in the Nibon－shoki： nor eleven as recorded in the Kojiki，but ten in all．

A similar error is committed in the Nibon－shoki in giving the number of the deities born when Izanagi－no－mikoto 伊率那諾赏 slew Kagututi－no－kami 軻遇突智神． The passage reads as follows：＂At length he drew the ten－span sword with which he was girt，and cut Kagututi 軻過突智 into three pieces，each of which became changed into a God．Moreover，the blood with dripped from the edge of the sword became the multitudinous rocks which are in the bed of the Easy－River of Heaven．This God was the fore father of Futunusi－no－kami 經津主神．More－

[^12]over，the blood which dripped from the hilt－ring of the sword spurted out and became deities，whose names were Mikapayapi－no－kami 藍速日神 and next Pipayabi－no－kami


 ped from the point of the sword spurted out and became deities，who were called Iwasaku－no－kami 磐裂神，after him Nesaku－no－kami 根裂神，and next Ipatutuwo－ no－mikoto 磐筒男命．One account says：－－Ipatutuwo－no－mikoto 警筒男命 and Ipatutume－no－mikoto 磐筒女命．＇Moreover，the blood which dripped from the head of the sword spurted out and became deities，who were called Kuraokami 闇霠，next Kurayamatumi 闍山祇，and next Kuramitupa 闇罔象．＂（1）According to the main text，the number of the deities born of the sword which slew Kagututi－no－kami was ten．Of these ten，should Putunusi－no－kami 經漮主神 and Takemikatuti－no－ kami 武甕槌神 prove two terms for the one and the same deity，as Motoorr Norinaga argues，the number would be not ten，but nine．Referring to the Kojiki， you will find the following passage：＂Then Izanagi－no－mikoto，drawing the ten－ grasp sabre that was girded on him，cut off the head of his child Kagututi－no－kami． Hereupon the names of the Deities that were born from the blood that stuck to the point of the sword and bespattered the multitudinous rock－masses were ：Ipasaku－ no－kami 石柝神，next Nesaku－no－kami 根柝神，next Iwatutunowo－no－kami 石筒之男神．The names of the Deities that were next born from the blood that stuck to the upper part of the sword and again bespattered the multitudinous rock－masses were：Mikapayabi－no－kami 梳速日神，next Pipayabi－no－kami 㷬速日神，next Takemikatutinowo－no－kami 建御雷之男神，another name for whom is Takeputu－ no－kami 建布都神，and another name is Toyoputu－no－kami 豐布都神．The names

[^13]of the Deities that were next born from the blood that collected on the hilt of the sword and leaked out between his fingers were：Kuraokami－no－kami 閣淤加美神 and next Kuramitupa－no－kami 闇御津昒神．＂（1）

This quotation ascribes eight as the number of the deities born of the three parts of the sword used in slaying Kagututi－no－kami 逝具土神．A parallel may be drawn in order to indicate more clearly the agreement and disagreement of the two．

## The Nibon－shoki

The Kojiki
Putsunusi－no－kami 經津主神

1．Mikapayabi－no－kami 梵速白神
2．Pipayabi－no－kami 煰速日神
3．Takemikaduti－no－kami 武菲楷神

4．Ipasaku－no－kami 磐裂神
5．Nesaku－no－kami 根裂㰢
6．Ipatutuwo－no－kami 磐筒男神

8．Kurayamadumi 閣 山：刓
9．Kuramidupa 閣罔像

1．Mikapayapi－no－kami 䓹速日神
2．Pipayabi－no－kami 樋逨日神
3．Takemikadutinowo－no－kami
建御雷之男伤
4．Tpasaku－no－kami 石拆神
5．Nesaku－no－kami 根拆神
6．Ipatutunowo－no－kami 石筒边男神
7．Kuraokami－no－kami 闇淤加美神

As this list shows，the reason why the Nibon－shoki has nine deities，while the Kojiki has eight is that Kurayamadumi 闇山眡 is omitted in the latter．Counting three deities as one group occurs elsewhere in the Kojiki；and here again the six deities from Mikapayabi－no－kami 甄速日神 down to Ipatutunowo－no－kami 石筒之男神 are regarded as making two trios．In view of this method，the Nibon－shoki seems to be in better form，when it gives three deities beginning with the seventh
村所成神名，石标神，次根樗神，次石筒之男神，次䁂御刀本血，亦走就湯津石晳所成神，名至速日


and the two others；and the Kojiki seems to be omitting one，when it gives only two deities．However；there is found no instance in the mythologies of nine deities being treated as a group．Moreover，seeing that nine in Japan is a tabooed num－ ber，while eight is a most auspicious number，it is evident that the Nibon－shoki is erroneous in giving nine deities，and that the Kojiki is truer to ancient traditions in giving their number as eight．

In the mythology of the Nibon－sboki，besides the nine deities mentioned above， there occurs the name Kokonotuka－no－turugi 九握劍（nine hand－grasp sword）． This phrase is found in the book where it describes how Amaterasu－opomikami 天照大御神，after exchanging the gem and the sword，tried to give birth to children． ＂Thereupon the Sun－Goddess standing opposite to Susanowo－no－mikoto 素戔鳴恤 swore an oath，saying：＇If thy heart is pure，and thou hast no purpose of re－ lentless robbery，the children born to thee will surely be males．＇When she had finished speaking，she ate first the ten－span sword which she had girded on，and produced a child which was called Okitusimapime 瀛津島姬．Moreover，she ate the nine－span sword and produced a child which was called Takitupime 湍津姬． Moreover，she ate the eight－span sword，and produced a child which was called Tagoripime 田心姬一in all，three female Deities．＂${ }^{\text {（i）}}$ The corresponding description in the Kojiki reads：＂So the names of Deities that were born from the mist of Amaterasu－opomikami＇s breath when，having first begged Susanowo－no－mikoto to hand her the ten－grasp sabre which was girded on him and broke it into three frag－ ments and with the jewels making a jingling sound having brandished and washed in the Amenomanai 天之萁名井，and having crunchingly crunched them，she blew them away，were Takiripime－no－mikoto 多紀理昆賣命，another august name for whom Okitusimapime－no－mikoto 奧津嶋比賣命；next Itikisimapime－no－mikoto 市寸嶋比賣命，another name for whom Sayoripime－no－mikoto 狹依昆賣命；next

[^14]Tagitupime－no－mikoto 多岐都比賣命：${ }^{(31)}$ and does not agree with what the Nibon－sboki says．According to the Kojiki，the three goddesses were born of Totuka－no－turugi＋學劍（ten hand－grasp sword）；but according to the Nibon－ $s b o k i$ ，they are reported to have been born respectively of Totuka－no－turubi + 握劍 （ten hand－grasp sword），Kokonotuka－no－turugi 九握劍（nine hand－grasp sword） and Yatuka－no－turugi 八握劍（eight hand－grasp sword）．In the ancient times， totuka（ten hand－grasp）was a name widely known for a－sword；eight being an auspicious number，the name Yatuka－no－turugi 八握劍（eight hand－grasp sword）also appears in the mythology of the Kojiki．It is no wonder that，eight and ten being auspicious numbers in ancient Japan，there should be objects modified by these numerical adjectives in the mythology．But how is it possible that in those days such a thing existed as a kokonotuka－no－turugi 儿握劍（nine hand－grasp sword）－a thing modified by nine？In view of the fact nine and seven，as previously referred to，were auspicious numbers in China，it is quite probable that this was introduced into these writings as Chinese cluture became tremendously influential in Japan． Such instances frequently occur．For instance，the mythology of the Nibon－shoki says in a passage where Sitaterupime 下烠嫟，wife of Amewakapiko 天稚彦，mourns over her husband＇s death，＂For eight days and eight nights；she wept and sang dirges＂ （八日八夜啼哭悲歌），which was in accordance with Japanese traditions，eight being an auspicious number in Japan．The samebook，in the Annals of the Emperor Chûai 仲哀，says that the Empress Jingô 剖功，putting herself in a frenzied state， prayed for seven days and seven nights for divine revelation；which was in accord－ ance with the Chinese tradition，seven being an auspicious number in China． Again，the same book，in the Annals of the Emperor Suinin 垂化，in giving the number of the gifts which Amanopipoko天日槍，the prince of Silla 新羅，brought to the Japanese court，says，in its main text，that the objects numbered seven，but

[^15]in one of the notes on the text，it mentions eight objects．And in the mythology of the Kojiki，the name yaotome 八稚子（eight girls）appears，while in the section on Kasipara－no－miya 白檮原宮（the Kasipara palace），the name nanaotome 七媛（seven maids）is given．In the Annals of the Emperor Keikô 景行，the Nibon－shoki says that Yamatotake－no－mikoto 日本武尊 obtained a cook named Nanatukapagi 七擙弳（seven hand－grasp leg），while the Etigo－fudoki 越後風土記 mentions a man named Yatukapagi 八掬脛（eight hand－grasp leg）who lived in the reign of the Emperor Mimaki 美旅紀．This way of numbering the one and the same thing with seven or eight is evidently due to the fact that the auspicious numbers of Japan and China were alternately used．Eight being an auspicious number of Japan，this number cannot be used in determining the data of such an affair，but seven being an auspicious number of China，an affair modified by this number may be determi－ ned as a work of the period when Chinese culture had become influential．Because nine，like seven，was an auspicious number in China，Kokonotuka－no－turugi 九握劍（nine hand－grasp sword）mentioned in the Nibon－shoki should be studied as in țe case of the number seven in the foregoing．
The mythology of the Nibon－sboki as already referred to contains nouns modified by the numeral nine，such as nine deities and the nine hand－grasp sword，and also such phrases as nanata 七照（seven ata 迟）and nanapiro 七尺（seven feet）．The phrases occur under the Advent of the Grandson of the Sun－Goddess．＂When he was about to descend，one who had been sent in advance to clear the way，returned and said：＇There is one God who dwells at the eight－cross－roads of Heaven，the length of whose nose is seven hands，the length of whose back is more than seven fathoms．Moreover，a light shines from his mouth and from his posteriors．His eyeballs are like an eight－hand mirror．＇${ }^{\prime}(1)$ It is quite natural that phrases like yatimata 八達 and yata 八财（eight ata 伈）should be used in connection with deities， eight being a number much valued in Japan．However，it would be impossible to

[^16]reconcile this with the use of such phrases as nanata t忍（seven ata 这）and nana－piro七尺（seven piro），seeing that seven was evidently tabooed in Japanese custom． Turning to the Kojiki，we find the same incident described as＂So when Pikopono－ ninigi－no－mikoto 日子番能邇 \＆藝命 was about to descend from Heaven，there was at the eight－forking road of Heaven a Deity whose refulgence reached upwards to the Plain of High Heaven and down to the Central Land of Reed－Plains．＂（1） Neither the length of the nose nor the stature of Sarutapiko 猿田彥 is given here． It follows，therefore，that the phrases nanata $t$ 認 and nanapiro．$七 尺$ are an addition rendered for the sake of colouring by a later compiler who，under the influence of Chinese culture，deemed seven an auspicious number．As the Annals of the Em－ peror Keikô 景行，in describing Kamikasipime 神夏磯㛖，giving the sacted tree as a present to the messengers of the Emperor say＂On the upper branch she hung an eight－span sword，on the middle branch she hung an eight－hand mirror，and on the lower branch an eight－shaku jewel，＂（2）it was customary to choose the number eight as the auspicious one．The Nibon－sboki says concerning Sarutapiko－no－kami 猿田彥神，at the beginning，yatimata 八楊 and，at the end，yata－no－kagami 八运鏡（the mirror of eight ata 回）；therefore，should it state the length of his nose and his stature，it would have said yata 八迟 and yapiro 八尺．That they are nanata $七$ 边 and nanapiro七ス betrays the fact that they are a later addition．
The completion of the compilation of the Nibon－sboki as mentioned previously dates from the 4th year of Yôrô（ 720 A．D．）under the reign of the Empress Genshô the earlier part of the Nara period．Chinese culture was then saturating the upper classes，especially those who were engaged in writing；and as to the use of num－ bers，the yang 陽 numbers were selected according to Chinese custom．Under such circumstances，the presence of seven and nine in the Japanese mythology was never questioned．As the compilation of the Kojiki dates from the sth year of Wado

[^17]有．

（712 A．D．）under the reign of the Emperor Gemmyô only nine years prior to the completion of the Nibon－shoki；and moreover，ÔNO Yasumaro 太安噟，the com－ piler was also one of the men in charge of the compilation of the Nibon－shoki，the two books may be considered as comtempotary works．Ôno Yasumaro＇s attempt in compiling the Kojiki to preserve the genuine traditions and customs of the ancient times may be seen in the language he adopted－a mixture of Japanese and Chinese， while the Nibon－sboki is written in pure Chinese．Thus，the numerals employed in the mythology in the Kojiki are mostly those valued as auspicious numbers in Japan． However，the presence of the three numbers－three，five，and seven－in succession， though in one passage，but in the very important opening passage，has much bear－ ing upon my numerical theory．Therefore，I shall quote the whole passage and comment upon it．＂The names of the Deities that were born in the Plain of High Heaven when the Heaven and Earth began were Amenominakanusi－no－kami 天之御中主神，next Takamimusubi－no－kami 高御產集日神，next Kamimusubi－no－ kami 神產巢日神．These three Deities were all Deities born alone，and hid their persons．The names of the Deities that were born next from a thing that sprouted up like unto a reed－shot when the earth，young and like unto floating oil，drifted about medusa－like，were Umasiasikabipikodi－no－kami 宇病志阿斯訶備比古遲神， next Amenotokotati－no－kami 天之常立神，These two Deities were likewise born alone，and hid their persons．The five Deities in the above list are separate Heavenly Deities．The names of the Deities that were born next were Kuninoto－ kotati－no－kami 國之常立神，next Toyokumonu－no－kami 豐雲野神．These two Deities were likewise born alone，and hid their persons．The names of the Deities that were born next were Upidini－no－kami 宇比地邇神，next his wife Supidini－no－kami 須比智䢛神；next Tunugupi－no－kami 角材神，next his wife Ikugupi－no－kami 活材神；next Opotonodi－no－kami 意富斗能地神，next hiss wife Opotonobe－no－kami 大斗敃辨神；next Omodari－no－kami 淤母陀琉神，next his wife Ayakasikone－no－kami 阿夜訶靑吉泥神；next Izanagi－no－kami 伊邪那岐神，next his wife Izanami－no－kami 伊邪那美神．From Kuninotokotati－no－kami
down to Izanami－no－kami in the previous list are what are termed the Seven Divine Generations．The two solitary Deities above－mentioned are each called one genera－ tion．Of the ten succeeding Deities each pair of deities is called a generation．＇（1）

In studying this passage，the point that strikes us more than anything else is that the seventeen deities，from Amenominalanusi－no－kami 天之御中生神 down to Izanami－no－kami 伊邪那美神，are arranged in three successive groups of three， five，and seven；which are all yang 陽 numbers，and auspicious numbers in China． In Japan，three and five are auspicious numbers，but in my view seven being an inauspicious number，should not be used in writing about the creating deities．Of the seventeen deities enumerated here，Amenominakanusi－no－kami天 之御中主神， existing in the centre of heaven，as his name suggests，and being a fundamental， absolute god，should most reasonably be placed above all the rest．The other dei－ ties，however，as their names suggest，are all in pairs；and there should be no dis－ crimination made among them all．For instance，take Takamimusubi－no－kami 高御產葉日神 and Kamimusubi－no－kami 神若巢日神．Seeing that musubi 產巢日 is common to both，they must be of the one and the same rank and position， only differentiated by the euphemistic prefixes taka 高 and kami 神．This is exactly the case as between Izanagi 伊邪那岐 and Izanami 伊邪那美；Iqana 伊邪那 being common to both，they are differentiated by adding suffixes $g i$ 岐 and $m i$ 美 indicative of masculine and feminine genders respectively．If the Kojikit regards Izanagi and Izanami as deities making a couple and treat them as one generation，Takamimusubi高御産巢日 and Kamimimusubi刑產巢日 must be two deities also making a couple and treated as one generation．Nevertheless，the two deities are recorded as single deities and each a generation；these two，and Amenominakanusi－no－kami

[^18]together are called the three deities．One fails to understand how this is possible． Now Umasiasikabipikodi－no－kami 宇脄志阿斯訶備比古逑神 and Amenotokotati－ no－kami 天之常立神 are mentioned as single deities，and these two and the three foregoing deities together are called the five deities of the special order．Then come Kuninotokotati－no－kami 國之常立神 and Toyokumonu－rio－kami 彗雲野神 again regarded as single deities．Then follow ten deities in five pairs，each two making a couple．These five pairs are treated as five generations ；these five and the preceding two deities which are taken as two generations are styled the seven gene－ rations of the age of deities．But it is seriously to be doubted whether such artange－ ment and classification convey the genuine context of the original．

Detailed discussion will be taken up later on，but the first thing that strikes us as sttange is as to the classification of Amenotokotati－no－kami 天之常立神 and Kuninotokotati－no－kami 國之常立神．．．According to the Kojiki，Amenotokotati－ no－kami belong to the special order of deities，and Kuninotokotati－no－kami consti－ tutes one of the seven generations of the age of deities；so the two are distinctly seperated．However，the name tokotati 常立 being common to both，it is evident from their names that they make a pair．Only because the constitutents are two， one is given prefix ame 天 and the other the prefix kumi 國 for the sake of distinguish－ ing them．It is by no means unusual for the mythology of the Kojiki to have the two prefixes ame 天 and kuni 國 for a pair of deities．For instance，Amenomiku－ mari－no－kami天之水分神 and Kuninomikuramari－no－kami 國之水分神；Ameno－ kupizamoti－no－kami天之久比省母智神 añd Kuninokupizamoti－no－kami 國之久比挙母智袖；Amenosatuti－no－kami天之狹土神 and Kuninosatuti－no－kami 國之狹土神；Amenosagiri－no－kami 天之㷋霧神 and Kuninosagiri－no－kami 國之狹霧神；and Amenokurado－no－kami 天之閣戸神 and Kuninokurado－no－kami 國之䦣 $戶$ 神．From these instances，it is evident that Amenotokotati－no－kami and Kuni－ notokotati－no－kami form a pair，and the relation between them is exactly similar to that between Takamimusubi－no－kami 高御產巢日神 and Kamimimusubi－no－kami神産巢日神 or that between Izanagi 伊邪那岐 and Izanami 伊邪那美．Should

Amenotokotati－no－kami and Kuninotokotati－no－kami make a pair，Umasiasikabipiko－ di－no－kami and Toyokumonu－no－kami also must make one．If this interpretation is accepted，the unreasonable and unnatural classification in the Kojiki of the seven－ teen deities into three successive groups of three，five，and seven，would be removed and instead，the sixteen deities，apart from Amenominakathusi－no－kami the single god，would be restored to the original arrangement－eight groups of two．It goes without saying that two and eight are the most auspicious numbers in Japanese thought．The proper order of these deities must be determined only by the inter－ pretation of the significance of their names．

Everywhere in the world，every nation which has developed to form a state，has a mythology of its own．A mythology generally offers a god or gods who created the uniyerse，and the number is strictly one or two．But our mythology gives as many as seventeen creators．This kind of story is nowhere else given in the mythologies of the world．Moreover，the actual creators of the land，the rivers， and seas，trees and grasses，and other deities，are only the two Izanagi 伊邪那吱 and Izanami 伊邪那美 tanked at the very end of the list，and the other fifteen deities are only mentioned as names with no deed recorded．The only way to study the nature of the deities must be by means of their names．Therefore，I shall try to interpret the names in the order in which they appear in the Kooiki．

The primary position the Kojiki ascribes to Amenominakanusi－no－kami 天乙御中主神 is quite adequate，and is most probably in accordance with the original tradition．The meaning of the name is，as the characters suggest，the god presiding it the centre of the heavens，so self－evident that people may suppose that this needs no explanation．The heavens，however，constantly revolve，changing their posi－ tions，and make it very difficult to decide their centre．But careful observation will show that there is a position constant and unchanging，which is the Pole－star－the seat of the Pei－cbe en 北辰 as the Chinese call it．This star，though to the north from the earth，makes a centre for the heavens，around which other stars revolve． Amenominakanusi－no－kami surely took his name from this star．So this god is the
one that corresporids to $T^{\prime} a i-c b i$ 太極 of the Cbou－i 周易 and $T^{\prime} a i-i$ 太一，Yüan－sbib－ $t^{t}$ ien－tsun 元始天尊 of Taoism．The compiler of the Kojiki is quite right in placing Takamimusubi－no－kami 高御産巢日神 and Kamimimusubi－no－kami 神產巢日神 after Amenominakanusi－no－kami．Now musubi 㙥巢日 is the stem of these names， and I believe two different interpretations are possible．One view is to take it as a name compounded of two words－a verb musu 生產（produce）and a noun $p i(b i)$ （supernatural working）；it is in accordance with this view that the Nibon－shoki translates the name into 霊（supernatural）産（produce）；and this is a view generally accepted．The other view is the one I am now proposing．In our classical works，魂（spirit）is read tama or musubi．A casual glance at the two words may suggest little resemblance between them．But seeing that tama is sometimes interchangeable with tamasipi（tamasifi），one may detect a slight resemblance between this tamasipi and musupi（musubi）．Now the initial sound $t a$ in tama being a prefix，the stem must be ma．To give á proper analogy，實（fruit）or 核仁（the stone of a fruit）in Japa－ nese is tane or sane of which the stem is ne 根（root），ta and sa being only prefixes． $T a$ in tama is precisely a prefix corresponding to $t a$ in tane and sa in sane；and $m a$ is the stem corresponding to $n e$ in tane and sane．Now eliminate the prefix $t a$ in tamasipi，and obtain a briefer form masipi，and one will observe its extreme resem－ blance with musupi（musubi）the other word for 侔（spirit）．In brief，$m a$ in tama is a stem．Though the leaves and branches，even tranks and roots of plants die，the plants may be regenerated if there is any $m i$ 䔈（fruit）left，because the fruit contains life．And $m a$ the stem of tama and $m u$ the initial sound of musubi are synonymous with $m i$ meaning 實（fruit），the only difference being in vowel－shifting．As plants have $m i$ ，so have human beings；which are called tama or tamasipi；so have lands， mountains，and tivers，which are also called tama or musupi（musubi）．In a prefix $u$ is added to $m u$ ，a varied sound of $m i$ or $m a$ ，a verb $u m u$ 産（give birth to）is obtained， and if the suffix $s u$ is added to it，a verb musu 產（produce）is obtained．In this way， should $m u$ in musubi be a noun meaning 魂（spirit），it follows that the rest forms an－ other word．Supernatural working in Japanese being called $p i ; b i$（ $p i$ ）in subi must
be a word meaning supernatural production．Now su in subi may be a prefix corresponding to su in sudama（spirit）．Should this interpretation be accepted， because musubi is a combination of mu and subi，a translation of it more proper than產靈的 the Nibon－shoki would be 魂靈．Whether this view should be accepted or not，is up to the reader．At any rate，it is obvious that Musubi－no－kami 竰巢日神 is a deification of the supernatural spirit．According to the cosmological view of the ancient Japanese，in the beginning of the universe，there was no demarcation of heaven and earth except the omnipresence of the chaotic supernatuital spirit，which they named Musubi－no－kami 㙥巢日神．Because a single deity is incapable of generation，they divided the spirit into two－one of which was called Takamimusu－ bi－no－kami 高御疾巢日神and the other Kamimimusubi－no－kami 种産巢日神。

The compiler of the Kojiki places，after the two deities of the spitit（musubi）， Umasiasikabipikodi－no－kami 字麻志阿斯訶備比古遲神，Amenotokotati－no－kami天之常立神，Kuninotokotati－no－kami，國之常立神，and Toyokumonu－no－kami豐雲野神 all as single deities；but he is in error because，as discussed in the foregoing，Amenotokotati－no－kami and Kuninotokotati－no－kami make a pair，and Umasiasikabipikodi－no－kami and Toyokumonu－no－kami make another pait．The order of arranging them may not be determined until theit names are inves－ tigated．The word tokotati 常立（permanent opposing）of ame 天（heaven）and kuni 國（earth）must be a name obtained from the permanent opposing of heaven and earth．Motoorr Norinaga＇s view，to take this tati 立 as a borrowed character for tuti 槌（hammer）found in such a phrase as Takemikatuti 武䉞槌， cannot be supported．As for the tame Umasiasikabipikodi－no－kam ${ }^{1}$ 宇族志阿斯訶備比古屝郱，umasi 宇觪志 is umasi 甘（sweet）a term for adoration；asikabi阿斯訶備 is reed－shooting；pikodi 比句逑is 彥父 or 彥舅 a euphemistic term for a man；therefore，this name was no doubt obtatined from the manner of the shoot－ ing of a young reed．And Toyokumonu－no－kami 整雲野神 must be a name taken after the manner of the thriving of young spiouts，because kumo in toyokumonu 墅雲野 is a variation of gumu found in a phrase such as megumu（shooting of young
sprouts），as Motoori Norinaga already expounds．Such a study of the signifi－ cance of the four deities will show that，the natural order being that after heaven and earth are separated，everything grows between them，the deities that follow the two deities of the spirit（musubi）must be the pair formed by Amenotokotati－no－ kami and Kuninotokotati－no－kami．According to the order recorded in the Kojiki， this pair is followed by Umasiasikabipikodi－no－kami and Toyokumonu－no－kami，but before determining their position the significance of the two following deities Upidini－nọ－kami 宇比地爽神 and Supidini－no－kami 須比地邇神 must be studied at．the same time．According to Kamo Mabuchi 賀茂眞淵，upidini 宇比地雨is an abbreviation for ukipidi（floating mud）；and supidini 須 比地邇 an abbreviation for sutupidi（sinking mud）．These two names were selected from the manner in which the lighter part of the omnipresent spirit rose to form the sun，moon，and stars， while the heavier sank into the earth．Before plants sprout and thrive，sand and earth must exist to cultivate them．Therefore，the deities that should rank after Amenotokotati－no－kamiate Upidini－no－kami and Supidini－no－kami；and Umasiasika－ bipikodi－no－kami and Toyokumonu－no－kaṇii should come after them．

A natural order of arrangement is to place Tunugupi－no－kami 角栻神 and Iku－ gupi－no－kami 活杖神 after Umasiasikabipikodi－no－kami 宇病志阿斯訶備比古逑神 and Toyokumonu－no－kami 業雲野神 who were the deified spirits of the thriv－ ing of plants．This character 材 is written 摄 in the Nibon－shoki which explains it as synonymous with 榞．This is not a borrowed character，but a wooden stake，as the character signifies．As in the phrases like Tunoda，角田，Tunopazu 角管，and Tunọika 角鹿，Tunogupi 角材 is a name meaning a stake（kupi）sticking out like a horn（tuno）．As in the phrases like Ikusima 活島，Ikuta 活田，Ikuyumi 活弓，and Ikuya 活矢，Ikugupi 活材 is a name meaning a sacred living（iku）stake（kupi）．A question may be raised as to the reason why such a thing as a wooden stake was adopted as the name of a creating god．The ancient Japanese like other people of the world worshipped trees as gods who generate climate．According to the my－ thology in the Nihon－sboki，Takamimusubi－no－kami 高御産巢日神 is recorded
to have bestowed sigi pimurogi 磯城神 籬 upon the grandson of Amaterasu－opomi－ kami天照大御神 on his advent upon the earth．Now pimurogi 神籬 means trees planted on a mound girdled with stones，which the ancient people worshipped as the embodiment of a god．Again，since Takamimusubi－no－kami 高御產巢日神 is also called Takagi－no－kami 高木神（tall－tree god），it may be inferred that trees were objects of worship as the god of reproduction．First，standing trees，living trees were worshipped as they were，but later pillars came to be substituted for them．This custom is preserved even to－day in various places．Of them all，the pillars of the Kami－yasiro shrine at Suwa 䚺訪 are the best known．There is no shrine； only gigantic pillars，fifty－five feet high，are planted at the four corners．Though they are understood to mark the premises of the sacred site，I am of the opinion that the pillars themselves were worshipped as images．Moreover，the fact that the numbers of the deities in the mythologies are given as so many pasira 枓（pillars）of deities harks back to the custom of worshipping pillars as the embodiments of gods．

That Opotonodi－no－kami 意富斗能地施 and Opotonobe－no－kami 大斗能辨神 are ranked after Tunugupi－no－kami 角杙神 and Ikugupi－no－kami 活材神 is quite reasonable，judging from their names．Both opotono 意富斗能 and opotono 大斗能 mean large shrine，and $d i$ 地 in opotonodi 意富斗能地，like $d i$ 屝 in pikodi 比古裉is an honorific for a male deity and be 辨 in opotonobe 大斗能辨，like me 賣 in pime 比賣 is an honorific for a female deity．If so，these names may be understood to mean Opo－ tono－ogami 大殿男神（large－shrine－male－deity）and Opotono－megami 大殿女神 （large－shrine－female－deity）．One may feel strange that so high a deity as a creating god should be called by a term meaning a shrine．However，the situation under which the sacred trees which were the objects of worship came to be called pimurogi 欮箷 is somewhat similar to this．Pi the initial sound of pimurogi is，like $p i$ in piko 衮（man）or pime 姬（woman），a prefix of an honorific；murogi or morogi meaning 室木（house－tree），this name may be taken to signify the trees for the god＇s house．Kamirogi and kamiromi；the titles，used in our mythologies for high－ est deities seem somewhat similar to pimorogi．The titles transliterated 神留佼 and

神留濔，神漏伎 and 神漏美，賀味魯汥 and 賀味魯楽爾 are applied to the highest deities from Takamimusubi－no－kami，Kamimimusubi－no－kami，down to Izanagi－ no－kami，Izananami－no－kami，Amaterasu－opomikami，and others，but their meanings have not yet been definitely explained．Ti＇he Daigenkai 大言海 by Dr．Otsuki 大柣搷士 ${ }^{(1)}$ ，in explaining kamirogi，says＂$R o$ is an abbreviation of iro as in iropa 母 （mother）and iroe 兄（elder brother）；a word used for endearment；$g i$ is a title for a god；$m i$ in Kamiromi is probably a title for a goddess．For instance，Izanagi－no－ mikoto（god），Izanami－no－mikoto（goddess）．＂His interpretation of gi and mi is correct，but his explanation of kamiro cannot be supported．Seeing that kamirogi is sometimes written kamurogi or kaburogi，it is probable that it was originally kamu－ murog $i$ ；because of the repetition of $m \dot{u}$ ，one $m u$ came to be eliminated and now stands as Kamurogi．And muro in kami－murogi is similar to moro in pi－moro－gi which means神籬；and means muro 室（house）；and kamu is perhaps a title corresponding to pi in pi－moro－gi．Should the two titles kamurogi and kamuromi be thus interpreted， they may be observed to resemble strikingly in their meaning the names of the two creating deities Opotonodi－no－kami 意富斗能地神 and Opotonobe－no－kami 大斗能辨神．I may add that abbreviating kamu－muro－gi to kamiurogi or kamirogi is done under the same rule as Kamimimusubi－no－kami 神皇產靈神 in the Nibon－sboki is abbreviated to Kami－musubi－no－kami 神産巢日神 in the Kojiki。

The Kojiki is quite reasonable in placing，after Opotonodi－no－kami and Opo－ tonobe－no－kami，Omodaru－no－kami 決母陀琉神 and Ayakasikone－no－kami 阿夜訶志占泥神．Now omo 淤母 in omodaru 淤母陀琉 is a transliteration of omo 面 （face）and daru 陀琉 that of taru足（contented），the name indicates the fully con－ tented countenance of this deity．Ayakasiko 阿夜訶志古 meáns extremely solemn， and $n e$ 泥 is a euphemistic term；these names indicate the solemn and graceful appearance of these deities．One may imagine that these deities had already assum－ ed a somewhat human appearance．It is only natural that，after these two deities，
（I）The Daigenkai，I，p．700．

Izanagi－no－kamí伊邪那跛神 and Izatami－ho kami 伊邪那美神 shoụld have ap－ peared and achieved a great success in founding the country．The names of the two deities are given as 伊粦諾 and 伊眸舟 in Chinese characters in the Nibon－shoki and were formerly read Izanaki and Izanami，and their interpretation was sought． The Kojiki－den 古事記㙵（Cliap．32）remarks＂The oral＂interpretation of the Nihon－ shoki explains $i \not \approx a$ 伊其 for $i$ qanai－kotoba 誘語（invitation－word）and our teacher also said that the two names mean Izanapi－kimi 伊邪那比君（inviting－tian）and Izanapi－mekimi 伊邪那比女君（inviting－woman）；indeed，these two deities invited each other for copulation to produce the land．．．．It is very reasonable．．．It is also presumed that when they wished to copulate，they invited each other saying to each other＇izana．＇伊邪汝（Come now I）this interjection finally came to be applied to them as their names．Na is probably na 汝（you）．＂According to this source，it is the oral interpretation that explains $z a$ 伊邪 in Izanagi－no－kami 伊邪那枝神 as a verb izanafu 談 $\supset ~(i n v i t e)$ ，and it is Moteor Norinaga that explains na 那 as $n a$ 汝 （you）．Now the Sboki－tûsbaku 書 紀通䆁（Book 2），though following the explanation of the oral interpretation as to the meaning of $i \approx a$ 伊邪，seems unsatisfied with the explanation of $n a$ 那 as $n a$ 汝（you）；and taking na as a particle revises lzanagi 伊 邪那岐 to Izanogi 伊邪之忮 and Izanami 伊邪那美 to Izanomi 伊邪之美 and cites the following phrases in which menoko 目〉 子（ball of eye）is chatiged to manako，tenosue 手万末（end of hand）to tanasue，and anosue 定）末（end of foot）to anasue．This is certainly an advanced interpretation，However，whether 伊邪 in伊邪那岐 in the Kojike was pronounced $i=\mathrm{q} a$ is an open question．Seeing that the Nibon－sboki writes it 伊其 and the Norito 顽詞（Shinto Prayer－Book）and the Jim－ myốcôo 神名帳 have it 伊射 and 伊佐，Dr．TsuDA，in his study of Japanese mythol－ ogy，contends that the words must be read isa．His is surely an opinion worth consideration．I say this because an adequate interpretation of this word is possible only when it is so read．Copulation of the two deities was no doubt a cause of gen－ erating the various deities of the land，but it is hardly right to say that they were named on account of this action．Their names must be those chosen because of their
merit in assiduously working and generating the various deities of the land．The Nibon－shoki justly adores the merit of the two deities，and says＂After this，the divine task of Izanagi－no－mikoto was fulfilled，and his spirit was now ready to ascend to heaven．Thereupon，a shrine was erected in Awaji island where he rests in peace forever．Another version is：Izanagi－no－mikoto now fulfilled his divine work．His force was felt far and near．Thereupon，he went up to heaven to report．But he stayed up，residing in the palace of Pi－no－wakamiya．．${ }^{\text {P }}($（ $)$

The Nibon－shoki reads 神功 Kamugoto（godly work）and 德 ikioi（force），but is this the right way of pronouncing these words？Leaving 德 alone，功，in my humble opinion，should be read isa－wo．This is not the only place in the mytholo－ gies where the character 功 should be read isa－wo．For instance，according to the Nibon－sboki，Isotake－no－mikoto 五十猛命 was so named because he had proved a god of isa－wo 有功（merit）in bringing back young plants from Korea and transplant－ ing them widely throughout Ôyasima 大八洲．No scholar would object to the character 功 being pronounced $i s a-w o$ ．Wo in isa－wo being an ending，isa is the stem．兴猛（bravery）is isa－mu；mu being an ending，the stem is isa，the same word as isa in isawo．Moreover，the Japanese for diligence is iso－si；si being an ending，the stem is iso，which is only a variation of isa in isa－wo．Thus isa 伊邪 in Isanagi 伊邪那歧 and Isanami 伊邪那美 must mean merit，diligence．And this $n a$ 那 is，as the author of the $S b o k i z$－tus $s a k u$ already interpreted，a variation of the particle $n o$ ；gi 岐 and $m i$ 美 being euphemistic titles for man and woman；so it follows that 伊邪那岐 must be a corruption of isa－no－gi and 伊邪那美 a corruption of isa－no－mi，一 namely，the god and the goddess of merit．As may be seen from the foregoing lengthy discussion，the seventeen creating deities from Amenominakanusi－no－kami天之御中主神 down through the other sixteen deities，when the meanings of their names have been interpreted and their order has been thereby determined，may be considered to represent，successively or temporally speaking，various stages of de－
功既至㞺，德亦大㞺，於是登天報命，仍留宅於日之少宮。
velopment in which the vague chaotic spirit became more and more manifest，so to form heaven and earth，sand and soil，plants，and finally eight pairs of deities in the shape of human beings．Nevertheless，these being creating deities，simultaneously or spatially speaking，may be interpreted as being a pair of deities with the attributes and abilities above－mentioned．They may be，as it were，a pair of deities with eight manifestations．In order to simplify and clarify my statement，I am going to give the diagram of the deities，which the compiler the Kojiki－den constructed on the basis of the $K_{o j i k i}$ and the genealogy which I have designed．

## 1 The Diagram of the Kojiki－den

|  | （ Amenominakanusi－no－kami | 天之御中主祖 |
| :---: | :---: | :---: |
| $\bigcirc$ | Takamimusubi－no－kami | 高御產巢日神 |
|  | （Another name Takagi | 䯩木神） |
| $\bigcirc$ | Kamimusubi－no－kami | 神產巢日神 |
|  | These three were single de | such disappea |
| $\bigcirc$ | Umasiasikabipikodi－no－kami | 字㾈志阿斯訶 |
|  | Amenotokotati－no－kami | 天之常立形 |

These two were also single deities and as such disappeared．
The above five compose the heaven deities of the special order．


| Kuninotokotati－no－kami | 國之常立神 |
| :---: | :---: |
| Toyokumonu－no－kami | 罦雲野部 |
| These two were also single deities and as such disappeare |  |
| Upidini－no－kami | 宇比地邇衶 |
| Supidini－no－kami | 須比智邇神 |
| Tunugupi－no－kami | 角材神 |
| Ikugupi－no－kami | 活材神 |
| Opotonodi－no－kami | 意富斗能地神 |
| Opotonobe－no－kami | 能辨 |


| Omodaru－no－kami | 淤母陀琉神 |
| :--- | :--- |
| Ayakasikone－no－kami | 阿夜訶志古泥神 |
| Izanagi－no－kami | 伊邪那忮神 |
| Izanami－no－kami | 伊邪那美神 |
| The above from Kunitokotati－no－kami down to Izanami－no－kami |  |
| are also called the seven generations of deities． |  |

## II The Revised Genealogy

## I Amenominakanụsi－no－kami 天之御中主神

II Male Deities
III Female Deities
r．Kamimusubi－no－kami 神產巢日唓

2．Kuninotokotati－no－kami 國之常立神

3．Upidini－no－kami 宇比地邇神
4．Umasiasikabipikodi－no－kami＂宇廊志阿斯訶備比古屝神

5．Tunugupi－no－kami 角栻神
6．Opotonodi－no－kami 意富斗能地神

7．Omodatu－no－kami 淤母陀琉神

8．Izanagi－no－kami 伊邪那忮神
The above are one deity in essence．

3．Supidini－no－kami 須比智邇神
4．Toyokumonu－no－kami 並雲珰神
s．Ikugupi－no－kami 活材神
6．Opotonobe－no－kami 大斗能辨神 7．Ayakasikone－no－kami 阿夜訶志古泥神

8．Izanami－no－kami 伊邪那美神 The above are one deity in essence．

The Kojiki，because compiled by ÔNo Yasumaro 太ノ安栕 alone and also because of his effort to preserve the ancient traditions and the ancient language， assumes，on the whole，＂an appearance of ancient traditions，though not without the above－mentioned fault in classifying and arranging the creating deities．On the
other hand，the Nibon－sboke，because compiled by several men and lacking the spirit of unity，is rather careless in adopting and arranging the creating deities， despite the abundance of materials．According to this book，the first deity to appear at the beginning of the world is Kuninotokotati－no－mikoto 國常立命，the second Kuninosatuti－no－mikoto 國㹫棫導，and the third Toyokumonu－no－mikoto豐糂渟徱；the three were all genuine male deities．The deities who appeared in succession after them were Upidini－no－mikoto 埿土羔覀 and Supidini－no－mikoto 沙土惹息，Opotonodi－no－mikoto 大戶之道血 and Opotomabe－no－mikoto 大苫邊尊， Omotaru－no－mikoto 面 足慜 and Kasikone－no－mikoto 惶根郋，and Izanagi－no－miko－ to 伊覑諾尊 and Izanami－no－mikoto 伊诚舟尊．These eight deities make four couples of gods and goddesses；each couple is considered a generation，constituting four generations in all，these and the three earlier single gods ate called the seven generations of the age of deities．The Nibon－sboki gives，by the side of the main text，quotations from nine different sources，of which the Kojiki is one．Now Amenominakanusi－no－kami，Amenotokotati－no－kami，Takamimusubi－no－kami，Ka－ mimusubi－no－kami，Umasiasikabipikodi－no－kami，Tunugupi－no－kami，and Ikugupi－ no－kam，whom the Kojike includes among the creating deities are omitted in the Nibon－sboki；instead，Kuninosatuti－no－mikoto 國埭槌尊，a deity who is not men－ tioned in the mythology of the Kojiki，is included．The Kojiki mentions seventeen creating deities，while the Nibon－sboki mentions only eleven；of the eleven，ten are among those mentioned in the Kojiki，and one is Kuninosatuti－no－mikoto a deity not mentioned in it．But this deity must be Kuninosatuti－no－kami 國之唙士神，son of Opoyama－tumi－no－kami 大山津見神 in the mythology of the Kojiki．As kumi 國 （earth）stands against ame 天（heaveñ），over against Kuninosatuti－no－kami 國 己㹫志神，there is Amenosatuti－no－kami 天之狹土神 in the Kojiki，but the Nibon－shoke con－ tains only Kuninosatuti－no－mikoto，and not Amenosatuti－no－mikoto．And another unintelligible point is that the first deity to appeat in the chaotic beginning with no demarcation of heaven and earth is Kuninotokotati－no－mikoto．The name Kunino－ tokotati 國常立，as previously discussed，matches with Amenotokotati 天常立；so
there must be Amenotokotati－no－mikoto 天常立輏 before Kuninotokotati－no－mi－ koto 國常立票．However；the Nibon－shoki mentions．Kúninotokotati－no－mikoto alone，and not Amenotokotati－no－mikoto．Both Kuninosatuti－ño－mikoto and Kuninotokotati－no－mikoto are deities who require mates，as the study of their names shows，and who are feminine deities，as their gender shows．How is it that they are put down as genuine male deities in the Nibon－sboki？As Kuninotokotati－no－ mikoto presupposes Amenotokotati－no－mikoto，and Kuninosatuti－fio－mikoto presupposes Amenosatuti－no－mikoto，so does Toyokumonu－no－mikoto 豐斟渟尊 from the reason given above presuppose Umasiasikabipikodi－no－kami．
＇Now how is it that the Nibon－shoki excludes this one from the creating deities？ How besides，when these three deities must be mating deities as their names indicate， is it that the Nibon－shoki asserts them to be single deities？In assuming this defi－ nite attitude in choosing the deities at the expense of these contradictions，the com－ pilers of the book no doubt had a consistent principle to go by．Our impressions， on careful reading of the mythology in the Nibon－shoki，is that it purposely excludes from the creating deities those relative to heaven and those based on ideals．Is it not because Amenominakanusi－no－kami and Amenotokotati－no－kami are heavenly deities that they are excluded from the list？Is it not because，while Kuninosatuti－ no－mikoto is adopted，Amenosatuti－no－mikoto is rejected that the latter is a heaven－ ly deity？Is it not because Takamimusubi－no－kami and Kamimusubi－no－kami were considered to be too lofty and ideal names to be related with the actual earth，that they are both omitted？It is probable that Umasiasikabipikodi－no－kami，Tunugupi－ no－kami and Ikugupi－no－kami，despite their more earthly names，were omitted，simply because of an inconvenience felt in arranging and combining deities on account of too much emphasis laid on the numbers three and seven．

A careful study of the text of the mythologies in the opening sections of the Kojiki and the Nibon－shoki will show that the arrangement of the deities，their names， and the explanatory phrases often refer to Chinese sources．For instance，it cannot be denied that Amenominakanusi－no－kami天之御中主神，because of his name and
also because of the fact that he is the original deity in the beginning，is a deity simi－ lat to $T^{c} a i-c b i$ 太極 in the Cbou－i 周易＇and $T^{c} a i-i$ 太 一 in Taoism．And should the eight pairs of gods and goddesses be nothing but the names of the two deities，male and female，manifested in eight directions，the two deities may be compared with the yin 陰 and yang 陽 of the $I$ 易 or the Fub－bsi 伏羲 and $N u$ ü－kua 女滑 in Taoism．Seeing that some scholars of the Tokugawa period explained this mythology with the Chi－ nese yin－yang theory，future scholars may be led to regard this section of the my－ thology an adaptation of the Chinese traditions．．However，this is only a superficial view influenced by sheer externals－one blind to Japanese thought which underlies it all．To give a rather vulgar example，it might be compared to a Japanese in Chi－ nese clothes．In spite of the Chinese clothes he wears，he is essentially Japanese． In Taoism，the god in the beginning of the universe is called T＇ai－i $太$ ，the great god of the heavenly world TSien－i 天一，and the great god of the earthly world Ti－i地一．Thus the number one is valued，hence the larger odd numbers nine and seven are considered sacred numerals．On the other hand，the Japanese mythology in which the deities of both sexes usually make couples proves that the number two was valued．Consequently，the largè even number eight，dividable by two， became an auspicious number．One is absolute；therefore，its nature is arbitrariness． Two is relative；therefore，its nature is co－operation and friendliness．The reign of Amaterasu－opomikami 天照大御神 over Takamagapara 高天原，through the co－ operation of Takamimusubi－no－kami 高皇產欞神，and the reign of Opokuninusi－no－ kami 大國主神 over Asiparanonakatukuni 薑原中國，through the co－operation of Sukunapikona－no－kami 少名彥神，are the most conspicuous in the mythology．In view of this，co－operation and friendliness between two parties may be said to be the fundamental principle of Japanese mythology．
As already discussed in full，pito（one）in Japanese is a corruption of puto 太 （great），a number valued as a great number．Therefore，the number one must be etymologically an auspiciơus number．But two in Japanese is puta，a synonym of pito，a number，etymologically，of a co－ordinate class and rank．The people gradual－
ly developed a fondness for two，a mating number，so much so that they came to feel a lonesomeness with one，and finally to have a tendency to hate it．Instances may be cited from mythology．The Kojiki，in describing the visit Izanagi－no－mikoto paid his wife Izanami－no－mikoto in Yominokuni 夜見國 says＂So having taken and broken off one of the end－teeth of the multitudinous and close－toothed comb stuck in the left bunch of his hair，he lit one light and went in and looked．${ }^{\prime(1)}$ The Ni － bon－sboki gives the same incident as follows：＂He secretly took his many－toothed comb and，breaking off its end－tooth，made of it a torch，and looked at her． Putrefying matter had gushed，and muggots swarmed．This is why people at the present day avoid using a single light at night，and also avoid throwing away a comb．＂${ }^{(2)}$ The Kojiki－den（Book 3）explains this pitotupi一ッ火（a single light）as follows：＂When it might have been simply light，the reason why it is written pitotupi（a single light）is probably because it was customary，in ancient times，to light two，three，or more lights，it was necessary to give special emphasis to the singleness of the light by this phrase．The passage in the Nibon－shoki ‘This is why people at the present day avoid using a single light at night，and also avoid throwing away a comb＇seems an addition by a later hand，but I am of the opinion that this custom existed even in ancient times．Even to－day，in the province of Iwami 石見， it is tabooed to light only one light as an offering at a shrine，and it is customaty to light two lights；and it is also tabooed to throw a comb．This is what a man from that province has told me．＂The custom in the province of Iwami to taboo a single light and the throwing of a comb may be one that arose on account of the text of the Nibon－shoki，but this reference to this custom in the Nibon－shoki may suggest its existence in ancient times．

More instances in mythology of tabooing the number one may be cited．In order to conquer the rebellious deities in Nakatukuni 中 國，Amaterasu－opomikami

[^19]sent Ameno－wakapiko 天若日子；but hearing nothing from him for eight years，she sent．a pheasant named Nanasikiji 無名萑，（nameless pheasant），which was killed by Wakapiko．This incident is recorded in the Kojiki as follows：＂So this is the origin of the modern proverb which speaks of＇the pheasant as sole messenger＂（1） The same affair is given in the Nibon－sboke．＂This pheasant came down flying；but seeing millet－fields and bean－fields，it stayed and never came back．This is the origin of the modern proverb which speaks of＇the pheasant as sole messenger．＇＇י（2） The Kojiiki－den（Book 13）says＂That pitatukapi＂顿使（express messenger）is explained in the Nibon－shoki by the note：頓丘此云時陀烏（頓丘：this is read pitawo 昆陀鳥）．This is the right usage．In the Annals of the Emperor Suinin 垂仁，there is a passage reading 不期死生，頓得争力（O that I could，above everything，have a trial of strength，regardless of life or death！）；and another in the Annals of the Em－ peror Richû 履仲 reading 自是後，頓絕以不懸飼部（After this，the sole purpose was to refrain from hanging horse－drivers．）Now this word pita 比多 is found com－ bined into such modern words as pitasura or pitamono，and meaning inclined in ex－ clusively one direction，not influenced by anything else．So it must have been a word derived from pito（one）．When the Mannyôsyin 萬㯲集 says pitatuti 直土 or pitasawo 直佐麻，genuine tuti（soil）on genuine hemp with no mixture whatever is meant．Therefore，pitatukapi 頓使 must be a single messenger not accompanied by sopitukapi 副使（assistant messenger）ov an attendant；＂Motoon Norinaga 本居宣長 was quite right in interpreting pita in pitatukapi 頓使 as a variation of pito（one）． This serves to prove that the number one was tabooed in ancient times．There is still another evidence that this number was probably rejected in mythology．The Kojiki concerning the marriage of Ninigi－no－mikoto 邇々藝能命，the grandson of Amaterasu－opomikami，with Konopana－no－sakuyapime 木花之佐久夜毘賣，the daughter of Opoyamatumi－no－kami 大山津見神 and her conception in one night， says＂＇Then he said：‘Princess Sakuyapime！What！pregnant after one night！It

[^20]cannot be my child，must be the child of an earthly deity．＇＂（1）This is given in the Nibon－sboki as follows：＂But the Grandson was slow to believe this，and said： ＇Heavenly Deity though I am，how could I．cause any one to become pregnant in the space of one night？${ }^{\prime \prime}{ }^{\prime(2)}$ Again，in the Annals of the Emperor Yûryaku 雄略，a passage reads＂Woguna Kimi 意女汽 was originally an Uneme 采女．The Em－ peror gave one night to her and she became pregnant．Ultimately she gave birth to a girl．The Emperor had suspicions and would not bring her up．＂（3）All these instances prove that the number one is often rejected．

The foregoing is the result of my enquiry into the numerals found in the Kojiki and the Nihon－shoki．According to this study，the writings which I take to be the originals of the mythologies，contained neither the number seven nor nine，nor a group of deities of either number．The mythologies being precious works describ－ ing religious affairs，it may be said that the number which do not appear in them must be a tabooed number and those which appear auspicious numbers． The numbers seven and nine found in the Nibon－shoki are coloured intro－ ductions by later generations under the influence of Chinese culture．The main body of the mythology in the Kojiki as a rule does not contain these numbers．In arranging the creating deities，however，under the unconscious influence of Chinese ideas，the number seven which should not have been introduced into the mythology has been used．And it is observed in this book that there is a group of seventeen deities－the seventeen deities as the children of Opotosi－no－kami 大年神．Among these deities， deities called Korean deities 韓神 and Chinese deities 聖神，are included．These are no doubt deities who were never included in the originals of the mythology．As we study the subject in this light，it may be asserted that the numbers included in the originals of the mythology were one，two，three，four，five，six，eight，and ten，and the num－ bers seven and nine were not used．As already indicated in the various continental

[^21]countries of Asia and Europe，as a rule，odd numbers were valued，while even num－ bers were despised．On the other hand，in our country，all the even numbers were valued；and of the odd numbers，one，three，and five were adopted among the auspicious numbers．Only the number one，because of the solitary feeling it gives， was in some cases rejected，as has been explained．In the continental countries of Asia and Europe，among the odd numbers，seven and nine were valued as the most sacred numbers，while in Japan these two nutribers were rejected as inauspicious numbers and，instead，the odd number eight was respected as the most auspicious number．Therefore，this couclusion arrived at through the study of the Kojiki and Nibon－sboki now serves incidentally to afford a new and strong support to my theory of the Japanese numerals．As these books form the oldest literature in Japan，no document prior to them is available．But Tung－i－cbuan 東夷傅 in the $W e i$－coib 魏志 includes a chapter entitled Wo－jen 倭人 which gives the number of the envoys：and the quantities of the gifts that the Queen of Wo－kuo 倭國 sent to the Wei 魏 court． For the reason that these numbers，instead of mere subjective conception concerning numbers conjectured from the ancient documents，give the actual objective numbers recorded in the history of international diplomacy，it may not be quite just to deter－ mine thereby the numerical conception of the Japanese of those days．However，as they serve in a way to suport my numerical theory，I shall reproduce them here．

According to Wo－jên－cbuan 偻人傅 in the Wei－cbib 魏志，the number of the envoys whom the Queen called Pi－me－ko 卑覜呼 then ruling over the northern half of Kyûshû sent to the Wei couit in the and year of Ching－chu 景初（238 A．D．） was two－a chief envoy and an assistant；and the inventory of the gifts she sent contained four male prisoners，six female prisoners，two ph 匹 and two cbang 丈 of figured cloth．The number of the envoys the Queen again sent in the 4th yeat of Cheng－sbib 正始 was eight，but the quantities of the various gifts sent then are not designated．In the 8th year of the same era（ 247 A．D．），the Queen To－yo 壹興 （correctly 臺興）who succeeded Pi－me－ko 早薮呼 sent twenty envoys，thirty male and female prisoners，five thousand white beads，two large blue comma－shaped
gems，and twenty $p^{\prime i}$ of new－figured fancy－brocade．Under Wo－kuo 倰 國 in Tumg－i－ cbuan 東夷侮 in the Hou－ban－sbu 後漢書，it is recorded that in the ist year of Yung－ $c b^{\prime} u$ 永初（ro7 A．D．）under the reign of the Emperor An－ti 安帝，the King of Hui－t＇u 面土（correctly 回土）of Wo 偻 sent some envoys to the Han court ；though the number of the envoys is not given，the number of the prisoners presented was one huindred and sixty，－namely，twice eighty．Communication between Wo－kuo倭國 and the two dynasties Han 漢 and Wei 魏 aimed in practice at making profits through trade between them，but in appearance it was only a formal act of tribute－ paying．When one nation communicates with another，and the rulers exchange envoys and gifts，the number of the envoys and the total units of articles given are generally those considered the most auspicious in the country which sends them： As is seen in the above references，Wo－kuo sent envoys to the Wei court three times，two envoys the first time and twenty the third time，and among the gifts the first time two $p^{c} i$ 匹 and two chang 大 of figured cloth，and among the gifts the third time there were two comma－shaped gems and twenty（two－ten）$p^{‘} i$ of new－ figured fancy－brocade．This frequency of the number two is too conspicuous to be considered accidental．It is，therefore，more teasonable to take it as an expression of the national custom of Wo－kuo 倭國 in international diplomacy．The numbers besides two mentioned are the even riumbers four，six，and eight，and the odd numbers three and five，which are all considered auspicoius numbers in Japanese thought．Moreover，it is not accidental that neither seven fior nine is found；it is probably because they were rejected as inauspicious nümbers．

## IV Words of the Same Origins as the Numerals

（a）Words pertaining to Kinship
The Japanese，in ancient times；as already referred to，had four word－stems meaning many and large，which appear in the numerals：namely，the $p e s$ or ：the $p$ series found in $p i t o$（one）and puta（two）；the $m$ m or the $m$ series found in $m i$（three）
and $m u$（six）；the $y \omega_{0}$ or the $y$ series found in $y o$（four）and $y a$（eight）；and the tos or the $t$ series found in itu（five）and towo（ten）．And we may say that these four stems also form some words meaning kinship．The present Japanese for the child of a child，or a grandchild is mago，but the W amyốshô 种各抄 gives 無萬古 and 比古 for it；㮩萬古 is a transliteraion of mumako，and 比古 a transliteration of piko．Seeing that the Wakm－no－sbiori 和訓集 give umako for mago（grandchild），mumako is prob－ ably a cotruption of umako．In Japanese an $u$ forming an initial syllable is，for euphony，often changed to $m u$ ；for instance，ube（no wonder，reasonable）is some－ times pronounced mube．And this umako is again a corruption of mako．The Japa－ nese finding it difficult to pronounce an $m$ sound forming an initial syllable of a word sometimes add the vowel $u$ before it．For instance though the correct pro－ nunciation of （horse）is ma，they call it uma；and though the correct pronuncia－ tion of 梅（plum）is me，they call it ume．If such a cuphonical change took place on umako（grandchild），it would not be wrong to suppose that the more proper form was mako．If so，the correct Japanese for grandchild must have been mako．How is it then that grandchild in Japanese was mako？A dictionaty like the Daigenkai 大言海 explains the word as originating from umafariko 蕃息子（increasing sons）；but this sounds too far－fetched to be supported．In my opinion，mako（grandchild）is ko （child）of $k o$（child），－in the sense that it is mata（again）ko；and mata－ko was con－ tracted to ma－ko；and ma in mata \＆（again），like ma in masu（益（increase）or mo in $m o t t o$ 何（more），originated from the same stem $m i$（three）and $m u$（six）．

In Japanese，grandchild is mako；it was also called piko．Piko is usually inter－ preted as a combination of $p i$（distant）ko（child），and I formerly followed this inter－ pretation for some time，but now I realize that this was a misunderstanding．This piko，like mako，is ko（child）of $k o$（child），in the sense that it is pata（again）ko（child） or puta－tabi 再度（two times）ko（child）；and patako or puta－ko was contracted to piko．$P a$ in $p a t a$ ，and $p u$ in puta originated from the same stem as $p i$ in pito（one） and $p u$ in $p u t 0$ ．As there are in Japanese two words for hundred $p o$ and $m o$ ，so there are mako and piko for grandchilds $M a$ and $p i, m o$ and po are plural terms which
arose from the meaning many．Moreover，great－grandchild in Japanese is pipiko．曾孫，－namely，a form prefixed by $p i$ a word meaning multiplication，because this is a child born again of a grandchild．This is exactly like calling hundred momo tautolog－ ically．In ancient times，therefore，a grandchild was called either piko or mako and a great－grandchild pipikd；then for the sake of avoiding confusion，it became a custom to call a grandcchild mako，or mago，and a great grandchild piko．

In Japanese a great－great－grandchild is called yasipako．The Wamyôshō 和名抄 transliterates it 夜之波古，but it is corrupted to yashago．The Daigenkai 大言海：in－ terprets it as yasibako 彌數子（ever increasing child），but this cannot be supported． In my opinion，$y a$ the initial syllable of yasipako is synonymous with $y o$（four）and $y a$ （eight），and a word meaning more and more ；yasi should be regarded a noun form
 （increase），and piko must be a cotruption of piko．Then yasipako being a corruption of yasipiko must mean more and more children in addition to piko．The adequacy of this interpretation may be proved by the fact that tutuko is another word for it． The Jikŷ人 字鏡 transcribes it 豆\＆子，while the Daigenkai interprets it as tutuko 續子（continuing child）．As ya in yasipako（great－great－grandchild）is，as already ex－ plained，a word synonymous with yo（four）and $y a$（eight），so is $t u$ in tutuko a word synonymous with $t u$ in $i t u$（five）；the repetition of tu to form tutu corresponds to the repetition of the intial syllable in momo（hundred）and pipiko（great－great－grandchild）： The co－existence of jasipako and tutuko for great－great－grandchild is similar to that of po and momo for hundred，and that of piko and mako for grandchild，which is be－ cause both words $y a$ and $t u$ contain the meaning of more and more．A general survey of the names of lineal relation beginning with，grandchild down to great－ great－grandchild shows that piko（grandchild）is a basis on which pipiko（great－grand－ child）and yasipako or yasipiko（great－great－grandchild）are formed，and that grand－ child is also called mako，and great－great－grandchild is called tutuko also；thus in the names of kinship for three generations，all the four basic words in the numerals－ the $p \infty$ ，the $m \infty$ ，the $y \infty$ ，and the to－are employed．This aspect should be


[^0]:    用通波許許能用，比邇波登袁加袁。

[^1]:    （I）天火，地大，人亦大焉，象人形（談文）

[^2]:    （i）Tylor，Primitive Culture，Vol．I，pp． $242-243$ ．

[^3]:    
    
    
    

[^4]:    絞其項，使䋓不至絕，然後楞，而急問之曰，雨能作幾年可汗；其主既神情鳘亂，不能詳定多少，臣下等隨其所言，以驗修短之數。
    （2）A Magyar Honfoglalās Külfoi，p．215．Note． 2.
    （3）歲時維儀，正月國俗以糯飯和白羊膸，爲鈔，丸之若拳，每帳睗四十九枚，戊夜各於刚窓
    鼠，肂之驚鬼，居七日万出，國俗謂之迺揑呯唲，迺正也，㮩狒唲旦也。

[^5]:    
    
    控裮矿，揘褐大世，耐首也
     t．

[^6]:    旋風時，詙合眼用鞭子，空中打四十七下，口道坤不充七掔漠語䌆風也，以䗝厭。

[^7]:    太后；太后以羊七百頍酒五百㴧宴王，帝與太后隐軒，諸王公主百官侍安，甲午，以白馬八十一匹獻音王。

[^8]:    （I）生伊豫二名島，此鳮者身一而有面四。
    （2）次生筑紫島，此嶋亦身一而有面四。

[^9]:    （I）上件自國之常立神以下，伊邪那美神以前，並稃神世士代：

[^10]:    （I）逐將藍魚身之所汚，乃興言曰，上濑是太疾，下瀨是太弱，便濯之中瀨也，因以生神號曰八
    少童命，次底筒男命，又洁濯於潮中，因以生神號日中津少童命，次中筒男命，又浮濯於潮上，因以生神號日表㴖少童命，次表筒男命，凡有九神矣。

[^11]:    
    名神直毘神，次长直鼠神，坎伊豆能賈神，次於水底滌時所成神名底津綿茟見神，次底筒之男命，於印條時所成神，名中津綿津見神，次中笥之男命，於水上條特所成神，名上津綿津見神，次上简之男命。

[^12]:    （I）The Kojiki－den 古事記傳，Chap．6，P． 346.
    

[^13]:    
    
    
    䦣网象。

[^14]:    
    凡三安神㚚。

[^15]:    （I＇）天照大御神先乞度建速須佐之男命所佩十嚳劍，打折三段而，奴那登母々由泉爾，振滌
    比賣命，次市寸岛比賣命，亦御名謂唙依鼠䍚命，次多皮都比賣命。

[^16]:    （r）已而且降之間，先驅者還白，有一神，居天八豐之囸，其鼻長七呎，背長七尺餘，且口尼明嘫，眼如入呎闇。

[^17]:    

[^18]:    （I）天地初發之時，於高天原成神，名天之御中主神，次高御產巢日媇，次神產巢日神，此三杜神者，並獨神成坐而鯰身也，次國稚如浮脂而，久攞下㔗洲多陀用略琉之時，如荤芽牙因萠騰之物而戌神，名宇施志阿斯試储比古屝神，吹天之常立神，此二杜神亦獨号成坐而隠身也，上件五杜神神，者別天神，次成神，名國常立䧎，次豐雲野神，此二杜都亦獨神成坐面隠身也，次戍神，名㫗比
    神，次妹阿夜訶志古泥神，次伊邪那岐神次妹伊邪那美神，上件自國己常立神以下伊邪那美神以前，㭑稱神世七代（上二柱獨神各云一代，坎顀于神各二神云一代也）

[^19]:    （x）故刺左之御美豆良湯津々間檞之男杜一笡取關而燭一火入見之時。
    此綠也．

[^20]:    （I）今諺日，雉之頓使本是也．
    （2）此雉降來，因見粟田豆田，則留而不返，此抴所謂雉頓使之緣也。

[^21]:    （I）爾詔，佐久夜毘賣一宿载姓，是非我子，必國神之子。
    （2）皇係末之信日，踓復天神，何能一夜之間，令人有振正。
    （3）童女涒者本是采女，天皇與一夜而娠，逐生女子，天皇疑而不蒠。

