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Ternary Symbolism

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Introduction

Numerical symbolism abounds in human speeches, and a belief in the symbolic power of certain numbers over human beings made a particularly strong entry into many cultures throughout history. This symbolism had its longest-lived and deep-rooted representation in early civilizations in the world. For the purposes of this article I assume that the category of symbols that should be viewed 'numerical' would be created and manipulated linguistically and cognitively by speakers of different languages. In addition to their primary function to count, numbers provide myths, ideas, images, and symbols around which human cognition and nomenclature may focus, cluster, and coalesce at some point in history. The examples that follow illustrate the role played by a set of three stars or lights in different cultures.

The ancient Chinese had acquired the knowledge of how to use the configuration of constellations to locate seasons. In a potsherd excavated in the Dahe village site dated back to the late period of the Yangshao culture, there is a constellation chart, which shows a set of three stars that resemble the handle of the Big Dipper (Liu 1995:195).[1] This suggests that the early people during the Neolithic period were aware of the changing direction of the Big Dipper's handle (consisting of three stars) being indicative of seasons and even months. An ancient Chinese text recorded this human experience in the following terms: When the Big Dipper's handle turns to point to east, there comes the

[1] The Yangshao culture is a Neolithic culture characterized by a fine painted pottery; named after Yangshao in Henan Province, China, where remains were first found in 1921.

spring season under the sky, to south – the summer, to west – the fall, and to north – the winter.

In the pantheon of the Hezhe people, a Tungusic ethnic group in northeastern China, the most important are the tri-star gods called *ušika* (*usi-* ~ *uši-* of which is the Tungusic root meaning 'star'), a set of three graven wooden idols with one bigger and two smaller in size (*Hezhe zu*…1958:135). The local people worship the idols by sacrificing pigs and chickens in order to ward off evil spirits and protect themselves from diseases. Apparently, here the role of rather dramatic tri-star icons is paramount, for they are often part of the indigenous belief system elsewhere in the region.

In Kirghiz cosmic mythology there is a widespread tale about a set of three goats-stars in the sky. The three goats successfully escaped from a hunter's chase, ascended to the sky by drawing on their magic power, and settled there as three stars. The hunter did not give up his attempt to kill the three goats and pursued them to the sky on horseback by the permission of heavenly god. However, the hunter could not catch the three goats there and eventually became a constellation (Lan and Wang 1993:370).

The initiation ceremony of the Yao people in southern China proceeds with the cult of three bright lamps. By having gone through this procedure the young people officially become adults, began to participate in social activities, and will be allowed to have their names listed in the ancestral spirit tablet after their death (Lan and Wang 1993:636). All these cross-linguistic and cross-cultural applications of number three in daily life and belief systems may have yielded particular knowledge and discourse of number three and habituated people to wider numerical perception and lexicalization.

In his dictionary Ifrah (2000:440-510) offers an insightful collection of numerical word-symbols utilized in ancient Indian culture and discussed in considerable detail the ways of conceiving the word-symbols. There is a rich cultural background for Indian numerical symbols, which is a wonderful source of information on and reference to numerical symbolism to be found elsewhere in the world. Indeed, the art of numbers which played a leading role in Indian culture may have been a source of inspiration in numerical symbolization in Central Eurasia.

Ifrah made clear the criteria he uses to identify numerical symbolization in Indian culture. For instance, the lotus flower was used to represent various numbers in Indian mathematics, the values of which depended on the color, the number of petals and whether the flower was open, just flowering or still in bud (Ifrah 2000:441).

The criteria against which I judge if there is any numerical symbolization are of phonetic and cognitive nature. I work along the phonetic lines to delineate numerical symbolism in various Central Eurasian languages and try to establish etymological connections between the words derived out of semantic shifts. In studying ternary symbolism I particularly look for semantic associations and cognitive resonances on different levels of human experience, from a set of objects or phenomena, to images, and to lexicalization.

I have found it beneficial to begin investigation of the cognitive significance embedded in the process of lexicon proliferation by looking at what the related languages or the same language diversified in one and exactly the same semantic slot, on the assumption that the diversity that is resulted from historical development is a matter worth intensive studying. For instance, the lexeme for 'stone' may be considered to be in the list of basic vocabulary. Well, the three groups of Altaic languages have acquired three different words for 'stone': Uigur *taš*, Mongolian *čilağun*, and Manchu *wehe*. There can be two ways to approach this ostensive diversity in the phonetic forms between Uigur *taš* and Mongolian *čilağun*, leaving aside Manchu *wehe* as it has nothing in common with the former two. The first way is through phonetic reconstruction of an early form. For example, within the framework of his comparative study Poppe (1960:77) reconstructs the earlier form **tïlagūn* for Mongolian *čilağun* and $*t^{i}al \leftarrow *tal^{2} \leftarrow *tāl^{2}$ for Chuvash *č□ul* 'stone'. Pritsak (1976:482) argues that there is the reconstructable Proto-Altaic (and Hunno-Bolgarian form **tiāl* 'stone'. Poppe's and Pritsak's way of reconstructing the scenario of phonetic development for the Altaic word for 'stone' prompts us to weigh the possible cognation of Mongolian *čilağun* and Turkic *taš*. However, in this case I am skeptical of this solution, because the resultant proto-form **tāl* or **tiāl* is quite dubious. In my view, this type of reconstructionist approach is especially useful in hypothetical display of how the concerned items had developed

phonetically stage by stage. But this runs the risk of conflating two or more separate items which may have formed independently of each other. Moreover, the reconstructionist approaches usually end up with the reconstructed forms per se, without contemplating further if human preconception and cognition had a role to play in lexicon development.

The second way is to think about the cognitive aspect of formation of the word for 'stone' and check if there is any possibility to semantically trace it back to an early source of meaning. We have no way to know if there was a given moment when a certain name, to say, for 'stone', began to exist and there is consequently no way for us to know how far the reconstructed forms could go. But we do know that since a word emerged, its phonetic setting would be relatively stable for a period of time. The method I use in this paper is quite another one. What I want to do is to draw on the well-attested Indian numerical symbolism as a point of departure and discern the once-existed cognitive correlation upon which certain words depended and eventually emerged in language contact situations. To reach this end, we can reasonably start by searching for the restricted similarities, the resemblance in words across languages on the phonetic and semantic grounds that will help us in constructing a semantic field of possibilities and in locating the underlying reasons for the similarities. As it happens, we can begin with number three in Central Eurasian languages.

1. THE IMPLICATION OF THE COUNTING PATTERN OF 'ONE – TWO – MANY'. The existing cross-linguistic studies have already shown that there is a widespread counting pattern 'one – two – three' in many cultures. In this pattern the number three is not merely three in an arithmetic sense but often denoted much more than three – many and multitude. This much enlarged references are mainly due to the difficulty people faced in procuring higher digits of numerals in their language at early times. In the case of Indo-European, Lehmann (1991:133) points out that 'the early proto-language included a poorly developed system, with words for only the first few digits'. Lehmann (1993:159) continues to relate that 'Yet the sources for many of the lower numerals have not yet been determined, and may remain obscure; some may have been borrowed from languages for which we lack evidence on the lexical

items for the numerals'. Lévy-Bruhl (1979:181) tells us that in a great many languages in Australia and South America, the only names for numbers are one and two, and occasionally three; beyond these, the natives say 'many, a crowd, a multitude'. Under such circumstances the number three as a high-level enumerator was cognitively reminiscent of 'many, great multitude'. In this connection, the following statement of Menninger (1969:16-17) is illuminating:

> With Three a new element appears in the concept of numbers. I –You: the I is still in a state of juxtaposition toward the You, but what lies beyond them, the It, is the Third, the Many, the Universe. This statement, in which psychological, linguistic, and numerical elements come together, may perhaps roughly paraphrase early man's thinking about numbers. 'One – two – many': a curious counting pattern, but it is exactly mirrored in the grammatical number forms of the noun, singular – dual – plural, as in the Greek *phílos*, *phílō*, *phíloi*, where the third number form is thus plural.

It is a much-mentioned fact that the numeral for 'three' with the Egyptian stands for the plural; hence when they denote the multiplicity of an object, they repeat the word that stands for it three times. This principle is very representative. With this comparable are many languages such as Chinese. There was a period of time in Chinese history when ancient speakers had tended to treat and use the number three in the sense of 'many, multitude'. In creating the theory of Daoism the ancient Chinese thinker Laozi (alternatively Lao-tzu, who lived during the Spring and Autumn period, 770-476 BCE) explained his key concept Dao 'the Way' in the following terms: 'The Dao produces one, one produces two, two produces three, and three produces ten thousand things'. In this philosophical formulation, the number three is a very important stage in counting after one and two; it simply contrasts with the number 'ten thousand' and further gives birth to all the myriad things.

Having acquired a cognition of the number three in the sense of 'many, pluralism', since the inception of their writing the Chinese have created a good number of words represented by three same characters in

a triangular form, i.e. one character on the top and the other two on the bottom. In this way, the Chinese have attempted to graphically (not phonetically) signify their understanding of pluralism and manifoldness in the graphemes of related meaning. Some of these words are given in Table 1.

Table 1: The conception of multitude with three characters in one unit in Chinese.

Characters & spelling	Glosses	Characters & spelling	Glosses
人 *ren*	person	众 *zhong*	many, crowd
木 *mu*	wood	森 *sen*	forest
石 *shi*	stone	磊 *lei*	many stones, hugeness
毛 *mao*	hair	毳 *cui*	fine hair on birds or animals; down
日 *ri*	sun	晶 *jing*	effulgence, radiance
火 *huo*	fire	焱 *yan*	flame
車 *che*	vehicle	轟 *hong*	bang (produced by many vehicles in motion)
水 *shui*	water	淼 *miao*	(of an expanse of water) vast
金 *jin*	gold	鑫 *xin*	prosperous, making a good profit
口 *kou*	mouth	品 *pin*	star (in tortoise-shell inscriptions); many, grade, class

In a relative sense, the words in the left column seem to denote singularity and ordinariness, while those in the right mean pluralism and greatness. This cognitive tendency lies deeper across cultures; the older lexical tiers for 'three' had accumulated a momentum that carried them over to new levels of semantic expansion, one of the manifestations of which was an increase in range of meanings for 'people, tribe' and the like.

2. CORRELATION BETWEEN THE NUMBER THREE AND THE WORDS FOR 'PEOPLE'. From the cognitive standpoint, the numerals for 'three' and collective perception of 'a group (of people, etc.), people,

tribe' had been potential companions. It is intrinsic in the nature of such numerals as 'three', 'five' and others that they quantitatively represent a set of individuals which is readily to be conceived as a body of people, small or large. Thus, comes the Indian numerical symbolism in which the number three corresponds to 'the worlds, the universe, the phenomenal worlds, the three worlds' (Ifrah 2000:502).

In a recent study (Wang 2004) I have put forward the cognitive correlation between the number three and third-person pronouns and demonstrative pronouns in Altaic, Sino-Tibetan, and Indo-European. That is, the number 'three' found in one language may well correspond to a third-person pronoun in the other language. Now I shall render pieces of cross-linguistic evidence to extend this correlation to the words for 'people, tribe', some of which may have in turn derived from the words for 'three'. In this connection, we certainly have a well-known etymology whereby the Latin word *tribus* 'tribe' (said to have been one of the three original groups in Rome) was developed from the Latin root *tri-* 'three'. In Sino-Tibetan, although the Chinese word *renjia* literally means 'people (and) family', it denotes 'a person or persons other than the speaker or hearer; with the person or persons referred to in a near context', being roughly equivalent to a third person pronoun. Similarly, the third person singular pronouns in Naxi, a Sino-Tibetan language spoken in southwestern China, differing in vowel quality come to denote two related meanings: *th∝* 'he, she, it; that' and *tha* 'his/her family'. The latter in effect extends the singular meaning of the former to a collective reference to his/her family (He and Jiang 1985:70).

In Mongolic, the Monguor language has two third singular pronouns *te* and *rgen*, both meaning 'he, she, it' (Junast 1981:25). It is, however, important to note that the latter pronoun *rgen* can also connote 'other people', and its plural form *rge(n) ŋgula* and *rgensge* came to denote 'other people, they'. The meaning of the pronoun *rgen* here is quite similar to that of Chinese *renjia* discussed above. On the basis of

these findings, I shall propose to consider the following semantic correlations in Table 2.[2]

Table 2: Semantic correlations between the number three, third person pronouns, and the words for 'people, tribe, etc.'.

Three, third-person pronouns	People, tribe, assembly (of people), etc.
Latin *is* 'he, she, it; that', Yakut *üs* 'three'	Manchu *isan* (**is-an*) 'gathering, assembly', *isakū* 'meeting, congregation', *isa-* 'to come together, assemble', Dagur *isan* 'assembly', Ulcha *isasa* '(three-strand) rope, cord'
Kazakh *ol* 'he, she, it; that', Uigur *ular* 'they, those', Tajik *on* 'that, that person'	WMo *ulus* 'people, tribe, country', Dagur *olur* ~ *olor* 'people' ToA *olar*, ToB *aulāre* 'companion', ToB *onolme (*onol-me*) 'living being'
Monguor *rgen* (← **irgen*), EYu *ergen* 'he, she, it'	WMo *irgen*, Manchu *irgen* 'people, the common people'
WMo *ğurban* (**ğu-r-ban*), Monguor *Gurān*, Kangjia *gur□* 'three', Hezhe *ti gurun* 'they'	Manchu *gurun* 'people, tribe, country', Dagur *gurun* 'country'[3]
Old English *hit* 'it', *hē* 'he', *hīe*, *hī* 'they'	Jurchen *ite'e* (← **hite-*) 'people, the common people'
Tajik (Sariqul) *haroi*	MMo *haran* 'person, people', WMo *arad*

[2] The following abbreviations are used below: EYu: Eastern Yugur, MMo: Middle Mongolian, ToA: Tokharian A, ToB: Tokharian B, WMo: Written Mongolian, WYu: Western Yugur.

[3] By giving this new explanation I am reconsidering the validity of the earlier etymology I had (Wang 1998:489).

~ *aroi* 'three'[4]	'ordinary man, commoner'

Regarding the third person singular pronouns, the Turkic languages may be divided into two groups for the purpose of this article. One group has the form *u*, as is in Uigur, Uzbek, and Salar. The other group has the form *ol*, such as in Kazakh, Tatar, Tuva, and Western Yugur. However, both groups may converge in most of the oblique cases by having either *un-* or *on-* respectively, with the nasal *n* corresponding to the liquid *l* in the nominative *ol* of the latter group. In their plural form, both groups again show either *ular* or *olar*, such as Uigur *ular* and Kazakh *olar*.

Classical Mongolian has several plural suffixes, one of which is the suffix *-s* occurring on stems ending in vowels. For this reason I analyze Mongolian *ulus* consisting of the earlier form **ulu-* and the plural suffix *-s* in the same manner as Manchu *terese ~ terse ~ tese* 'those, they' composed of *tere* 'that; he, she, it' and the plural suffix *-se*. In discussing the Indo-European demonstrative stem, Greenberg (2000:88-89) mentions about the preclassical Latin form *olus* and the reconstructed Proto-Indo-European **eno ~ *ono* 'that', involving here an *l/n* stem with a counterpart in Turkic. What is innovative in his discussion is that Greenberg extends the distribution of the Indo-European form to Turkic languages. According to Greenberg (2000:90), "There is usually an irregular vowel alternation seen, for example, in Khakas *ol* 'he/she,' *a-n-*⟩ 'him/her,' but the oblique vowel is often analogically changed to *o* (e.g. Kazakh *ol*/*on*⟩) and the whole pattern extended to other demonstratives, as in Kazakh *bu-l*/*bu-n*⟩'this,' *so-l*/*so-n*⟩'that'."

In Tungusic, the Hezhe third person plural pronoun *ti gurun* is composed of the third person singular pronoun and demonstrative *ti* and the word *gurun* 'people' (An 1986:37). In Mongolic, Monguor *rgen* and EYu *ergen* is directly cognate to WMo *irgen* 'people'. In both instances

[4] These two forms differing in the presence or absence of the initial fricative *h-* belong to two regional varieties spoken in Xinjiang, China (Gao 1985:2). Note that the Sariqul *haroi ~ aroi* sharply contrasts with its dialectal counterparts: Wahon *t∝rui* and Tajik *se*.

the third person pronouns, Monguor *rgen* and Hezhe *ti gurun*, converge in the meaning of 'people' in one way or another.

Judging from the phonetic and semantic closeness between the two columns in Table 2, there may have been two supplementary channels through which the words for 'people, tribe' developed. The first was to go through third person pronouns. The passage of centuries during which speakers of a language from generation to generation used third person pronouns to refer to a person in a singular form and people in a plural form inevitably strengthened the latter sense and led up to the emergence of separate full-fledged words for 'people' such as Mongolian *ulus* 'people' and Manchu *isan* 'gathering, assembly'. Parallels from languages in different parts of the continent can be adduced to support this assertion.

The second was to go through the numerals for 'three'. At issue was not just number three had the numerical value of three, but, more important in many languages, it meant 'many, multitude'. As people used the numeral frequently, 'three' was becoming more extensive in value and implication. And what they meant by 'three' was what they meant by 'many' and even 'many people, people'. This quite multiplied reference of number three resulted from commonsense cognition of the speakers of different languages at a certain point of time in history. If its numerical signification has faded out or become transformed, this should not obscure our analysis of an earlier phase, because from early times numerals, when they shifted deeply into the other semantic functions such as Manchu *gurun* 'people, tribe' and Latin *tribus* 'tribe', were likely to break away from their main meaning as numerals. The importance of this cognitive correlation had not before been adequately realized because of the lack of cross-linguistic perusal.

It is not unusual for words to be modified or extended phonetically and reinterpreted semantically in more than one form, so that e.g. the words *gūsin* 'thirty' and *gūnan* 'three-year-old cow' can coexist alongside *gurun* 'people, tribe' in Manchu. Lexical items could not have diffused so easily in the localities if people had not reinterpreted them to fit local semantic allocation. Moreover, local semantic allocation may have turned out to be something quite different to the point that it cannot be recognized without a systematic examination due to a long-

term process of semantic shifts. We can assume that lexical items were being circulated from one language to another and then given whatever relevant meanings the receiving language required to make them feel like a localized word and assign the meaning which this language required its words to designate. While it is certain that much information was lost in the constant flow of lexical items from one language to another, evidence for the deposition can be found at the level of root morphemes within a language and beyond, as shown in the Manchu root *gū-* ~ *gu-r-*. Given the phonetic resemblance guided by cross-linguistic cognitive process, however deeply they shifted, the numerals may have left their semantic vestiges in the resultant words. This comparative strategy is employed to account for the cognitive correlation in the two columns in Table 2.

3. THE CORRELATION BETWEEN THE NUMBER THREE AND THE WORDS FOR 'LIGHT, STAR'. The semantic extension of the number three was ever dynamic as the result of intensifying spread among different languages at different rates. The new meaning of 'a set of three stars' and further 'star, light' may be derived from the number three. However, what kind of evidence can we bring forward that will lend a support for this claim? By continuing what we have discussed before, we shall look at the additional facts about the perceived advantage of the number three in referring to stars and lights in China, India, Egypt, and in some other early civilizations. Then, we shall seek to understand how this nomenclature was realized cross-linguistically.

In ancient Indian myths the Hindu Triad is traced to the sun. One of his names is Treyitenu (three-bodied) which signifies his triple capacity for 'producing forms by his genial heat, preserving them by his light or destroying them by the concentrated force of his igneous matter' (Thomas 1980:80). In Indian numerical symbolism the number three is, among other things, equivalent to the god of fire, fire, ablaze, the jewels, the eye, the three eyes, the eyes of Shiva, the god Shiva, and the one with three heads (Ifrah 2000:502).

In ancient Egypt, for purposes of lighting, the Egyptians used candles and lamps, both of which were included in the equipment of Tutankhamun's tomb. It is interesting to note that a triple lamp is found in Tutankhamun's Burial Chamber, which is carved from a single piece

of alabaster (calcite) (Gilbert 1976:122). I guess that the ancient Egyptians got their inspiration from the set of three stars such as the three bright stars in the belt of the Orion.

In dealing with the Chinese number for 'three' (Mandarin *san* and Cantonese *sām*) it is crucial to note how the ancient Chinese had perceived the interrelationship between the number three and heavenly lights. The available linguistic evidence suggests that the Chinese had habitually approached the sun, moon, and stars in terms of triad folk category, which was well attested in such formulaic expressions: *sanguang* 'the three luminaries', *sanming* 'the three brights', *sanyao* 'the three lights', *sanchen* 'the three celestial bodies', *sanxiang* 'the three phenomena', *sanjing* 'the three spirits', and *sanling* 'the three fairies'. In ancient Chinese mythology there was a three-legged raven living in the sun and a three-legged fabled toad in the moon. In addition, the Chinese phrases *sangong* 'three elders', *sanshi* 'three preceptors', *sanneng* 'three able (ones)', *santai* 'three platforms', *sanjie* 'three stairs', *sanchi* 'three pools', *sanquan* 'three springs', and *sanzhu* 'three posts' designated a star or stars in the sky. It is clear that the concept of three stars had evoked both numerical thoughts and illuminating images, being capable of producing many formulaic expressions. The ancient Chinese scholars were keen to bring the sky (heavenliness), the earth (earthliness), and the humanity into the category of trinity (Huang and Chang 1995:108). Even long after the Chinese numeral for 'three' became an abstract number, Xu Shen (about AD 58 – about AD 147), the prominent Chinese philologist and lexicographer of the Han dynasty, defined the number in terms of a set of three entities: the heaven, earth, and human. In addition, Xu Shen ascribed the number three to the heavenly way (*tiandao*) and symbolized the sky (*tian*).

In all the Chinese cases we have considered so far, the brightness of tri-stars has naturally attracted greatest attention of people since remote antiquity as they shine during the night in the sky, and then people looked for and manipulated signs of three stars and three lights. The ancient Chinese *Book of Odes* contains a song celebrating wedding ceremony. The song uses three stars as a theme to admire and banter the bridegroom on wedding night. The composers of the song were aware of the successive appearance of the constellations with three bright stars

indicating a time flow during the night. Thus, the three stars in the three sections of the song have different locations: the three stars shine bright in the sky, the three stars cast oblique rays, and the three stars light up the court. Even in modern society people are habitually involved in a figurative and imaginative thinking about stars. For instance, the word *galaxy* comes from a Greek word for 'milk'. The ancient Greeks used this word to describe the only galaxy they knew, the Milky Way. They thought of it as 'milky' because they saw a broad streak of speckled white arched across the night sky – almost like a stream of spilled milk. In writing, the word *galaxy* is used to suggest 'many' and 'important, celebrated'. *Philadelphia Story* features Cary Grant, Katherine Hepburn, and James Steward, three of the brightest stars in the Hollywood galaxy.

In ancient Chinese mythology there were two mythical personages, heroic founders who form a primordial couple. They are Fuxi and Nüwa, husband and wife, but also brother and sister, a couple who are both hierogamous and incestuous. They are interlaced at the lower snake-shaped part of the body. Many pictures depicting this couple were excavated in Xinjiang, China. On the chest of the couple there is a set of three stars forming a triangle connected by a solid line at each point. Also, a mummified Caucasian woman exhumed in Xinjiang bears the face paint of a red triangle on her cheek, possibly symbolizing a set of three stars.

The fixed Chinese expression *sanxing* 'the three stars' as a prestigious notion recurrently occurs in many place names throughout China. One of the most splendid Bronze Age cultures is named *sanxingdui* 'the tri-star mound' located in Sichuan Province of southwestern China, which I believe to be of great importance to the tri-star image. Even today, the Chinese people use the formulaic expression *sanxing gaozhao* 'the three stars shine high above, be blessed by the three stars' to celebrate festivals and events. Graphically, the early Chinese character for 'star' was composed of, as a primitive component part, the three separate circles representing the stars. Furthermore, in Chinese the senses of the word *shen* 'the three stars in the middle of Orion, a constellation' and of the word *san* 'three' were denoted by the same ancient character (參). The upper part of the character was

represented by three triangular symbols for the sun and stars, and its lower part represented the rays emitted. This is even much clearer in the ways in which the other Chinese word for 'star' was composed during the Shang period, dating from the thirteenth century BCE, according to which a set of three symbols 品 (the last item in Table 1) stands for the notion of 'star'. It has been observed that the text containing this character represents the oldest record of a nova.

A collective approach to the set of three bright stars had accumulated an intensely impressive effect on the way of human thinking. People in early civilizations and many cultures come to regard the number three as a fundamental and powerful number. Schimmel (1993:60) writes: 'In the history of religions this role of the 3 has led to the formation and invention of numerous trinitarian groupings and tricephalic deities. As early as the third millennium B.C.E. one finds the Sumerian deities Anu, Enlil, and Ea, corresponding to heaven, air, and earth, while ancient Babylon worshipped the astral trinity of Sin (moon), Shamash (sun), and Ishtar (Venus), with 4 planetary deities added to this highest trinity to attain the sacred 7'. In Manchu shamanism, a performing shaman approaches to the set of three thrones and prays *ilan soorin don—Øi* meaning 'listen, three thrones (gods)'. In the Carrier tongue, as Lévy-Bruhl (1979:194, further references therein) argues, one of the Dènè dialects of Western Canada, the word *tha* means three things; *thae* 'three persons', *that* 'three times', *thatoen* 'in three places', *thauh* 'in three ways', *thailtoh* 'three things together', *thahultoh* 'the three times considered as a whole'.

In short, the number three alone or as a quantifying element is instrumental for people to symbolize the stars including the sun and the moon. Presumably, the people over the world may be capable of translating the number three into light in general sense, for the tide which was set in motion by the early human civilizations in creating numerical symbolism swept on through the world. For this reason I shall conceptually associate the number three with a set of three stars or simply stars which shed their rays in all directions during the night, as is suggested by the semantic correlations in Table 3.

Table 3: Semantic correlation between the numerals for ‘three’ and the words for ‘star, light, jade, stone’.

Three	Star, moon, light, jade, stone; three-ply
WMo *ğurban*, Dagur *guarb*, EYu *Gurwan*, Monguor *Gurān* three’	Dagur *gorbid* ‘the dipper consisting of three bright stars’, *gorbilan* ‘a spiritual idol’, *gorbilan* ‘three-ply’, *gorbi-* ‘to twist into a three-strand rope’, *guarbol* ‘trinity’ WMo *ğurban maral* ‘Orion’s belt’ MMo *ğurban noğai* ‘the three stars’ (literally ‘the three dogs’) ToB *kärweñe* ‘stone’ Kitan *guwen* (**gurwen*) ‘jade’, Jurchen *guwen* ‘jade’, Manchu *gu* ‘jadeite, precious stone’, Dagur *gu* ‘glass’
Yakut *üs*, Kazakh *üš*, Uigur *üč* ‘three’	Dagur *isan* ‘light, radiance’ Manchu *usiha* (*usi-ha*), Sibe *uśχa* ‘star’
Manchu *ilan* ‘three’	Dagur *ilan* ‘light’, *ilant-* ‘to light’ Even *ilān* ‘moon, month’
ToB *tarya (täryā-)*, Tajik (Wahon) *t∝rui* ‘three’	WYu *tər* ‘the Milky Way’ Korean *tar ~ tal* ‘moon, month’ Uigur *taš*, Kazakh *tas* ‘stone’

The comparison of the words in two columns of Table 3 shows that they are not too different from each other on the phonetic grounds. While the precise course of their semantic shifts might be somewhat different in each language, the preferable pattern was to begin with the analogy of the number ‘three’ with a collective set of three stars as indicated by Dagur *gorbid* and WMo *ğurban maral* ‘Orion’s belt’ (literally ‘the three deer’). Then would come a more generalized

meaning ‘star, moon, light, jade, stone’ and then a gradual fading out of the meaning of ‘a set of three stars’.

The comparison may be still a preliminary to revealing the deep-rooted cognation between the words for ‘light’ and those for numbers.[5] And sometimes the full meaning of this cognation escapes our attention unless it is investigated thoroughly. On the other hand, we need to consider the alternative possibility for forming the semantic correlation between ‘three’ and ‘light’ as what we have discussed in Section 2 about the plural implication of the number three in many languages. When we speak of light, we tend to perceive it through bright rays and beams and then form the concept of light. We also call up abstract associations in our mind, associations linked to a set of shining markings. That is, early people were equating a set of abstract markings with both numbers and the words for ‘light’. The graphic representation of the Chinese character 三 (*san*) ‘three’ unmistakably indicates a set of three markings. Many other early writing systems converged in adopting the similar three stroke notations ||| for number three such as Aramaic, Cretan, Egyptian, Elamite, Etruscan, Greek, Indian, Hittite, Lycian, Lydian, Phoenician, and Roman (Ifrah 2000:7-9). Given the linguistic fact that number three once implied pluralism and multitude as suggested by the counting pattern ‘one – two – many’, the iconographic representation of number three may have been perceived and further visualized into more markings such as |||||| in favor of triggering the image of shining light. In graphic representation people across many cultures symbolize light in the forms of ||||||, ↓, ⅄, ✶, ✳ which directly become the image of light. Thus, all these images helped to derive the general sense of ‘light’ out of the number three. In the case of the Dagur doublets *isan* ‘light’ in Table 3 and *isan* ‘assembly’ in Table 2, they were a product of dual symbolization and lexicalization. The former goes with Turkic *üs* ~ *üš* ‘three’, and the latter with Manchu *isan* ‘assembly’. Thus an emphasis on light and pluralism has come to include astronomical as well as quantitative factors. The idea of ‘three’, in its wide sense, is then

[5] I have discussed this issue with more supporting examples in my previous paper (Wang 2000).

especially important in societies in which counting did not go beyond three.

The human beings were enabled by stones to adjust themselves to natural environments and to engage in productive activities. The wide use of stones is recognizable from a very early period and there is no way to discount their importance in human life. For reasons of the essential role played by stones in the human development, the people over the world have acquired a variety of stone worship or stone cult. Lévy-Bruhl (1979:40) maintains that 'rocks, the form or position of which strike the primitive's imagination, readily arousing a sacred character in virtue of their supposed mystic power'. When stone worship reached its apex, the meaning of the word for 'stone' could have converged in its equivalents such as 'three' or 'star' in a sacred sense. In this way a correlation was gradually impressed in the human brain and finally created as linguistic stratum channeling through the two axes. In Chinese cosmology, Heaven was represented by the ancients in the tangible form of a perforated disk of jade symbolizing stars. This symbolism embodied the qualities of solar effulgence and was closely connected with the powers of Heaven by means of its magical properties. The Chinese *Book of Rites* believed to be written during the Western Han Dynasty (206 BCE – AD 24) states: 'The Superior Man competes in virtue with Jade'.

Jade was chiefly mined at Khotan, Xinjiang which was historically called part of the Western Regions in Chinese literature, until the eleventh century. In the ancient Western Regions and China, jade was greatly honored and widely used both for its shining and pure nature and for its talismanic and ornamental functions. The Chinese were so fond of those half-translucid minerals, milky or colored, as jade and others. A mummified infant exhumed in Xinjiang is found with blue stones covering the eyes. We can assume that in the view of early people jade and stone, especially those that are bright in natural substance may be symbolically compared to celestial light. In this sense, the names for 'jade, stone' may converge linguistically with those for 'three'. If we reconstruct the sense of 'decorative and valuable stone' for the Turkic word *taš* 'stone' and the Tokharian word *kärweñe* 'stone' in their early existence, the Indian numerical symbolization of the number three as

jewels turns out to be applicable to the Altaic and Tokharian words in Table 3. We have some evidence to support this semantic reconstruction. The Mongolian word *čilağun* 'stone, rock' was clearly glossed 'jade' in the Section of Jewelry of a Middle Mongolian glossary transcribed in Chinese characters (Jia and Zhu 1990:9). Given these considerations, Kitan *guwen* (← **gurwen*) and Jurchen *guwen* (← **gurwen*) 'jade' and ToB *kärweñe* 'stone' go along with WMo *ğurban* 'three', and Uigur *taš* and Kazakh *tas* 'stone' is connected to ToB *tarya (täryā-)* 'three'. Presumably, the semantic shift took place from 'jade' to 'stone' in the Turkic word *taš*, which gradually relegated to denote 'stone' in a general sense through semantic widening.

The correlation can be meaningful in more than one way. In ancient time three stones in a triangular arrangement were functioned to support a cooking pot. Inspired by this triad stability, people succeeded in inventing tripod utensils for cooking. This practice may have prompted people to associate the three supporting stones with the number three.[6] In this regard, the cult of three white stones in the Bai people in southwestern China is representative. In the Bai belief system, the three white stones represent god, and they became three supporting legs for cooking pots. The location of the three white stones is sacred and inviolable, and tripod is viewed as a holy relic. This tradition continued down to today: the Bai people widely use three stone-legged pots and triangular frames which are prohibited from crossing and stepping due to their sacred nature (Lan and Wang 1993:11).

Regarding Korean *tar* ~ *tal* 'moon', Ramstedt (1949:251) refers it to Tungusic **tul* as in Solon *tula-* 'to be clear, be bright, light up'. In including Korean *tar* 'moon' in the etymology ultimately tracing back to Tokharian *tarya* 'three', I shall offer the following explanations. First, we should consider Korean *tarä* ~ *tarai* 'numerous, in great numbers' as preserving and reflecting the early widespread reference of number three to 'many, multitude' expressed in the counting pattern of 'one – two –

[6] For instance, the Tuva numeral *üš* 'three' could be instrumental to form the Tuva expressions *üž adər* 'three-branched fork' and *ožuq* 'tripod stove', which contain the root *üž* and *ož-* are phonetically and semantically related to the numeral *üš*. The Tuva data are taken from Wu (1999).

many'. The semantic compatibility and phonetic similarity between Korean *tarä ~ tarai* and Tokharian *tarya* 'three' is self-evident. Second, in ancient mythology the moon was imagined having a three-legged fabled toad in it. This triad toad icon for the moon might have triggered the Korean name *tar* for 'moon' by drawing on Tokharian *tarya* and Tajik *t∝rui* 'three'. Third, jade sometimes served as an alternative name for the moon in Chinese literature. If this image worked in Korean, we can posit that Turkic *ta-š* 'stone' could have been an input. Fourth, we may be further tempted to relate Korean *tar* to Korean *tarimi* 'flatiron'. A flatiron is called *yundou* in Chinese meaning 'ironing dipper' contained in two morphemes (characters), which is usually shaped like a triangle figure. It is therefore possible that Korean *tarimi* was named in the same way as that of Chinese by comparing a flatiron to a dipper, most probably, of three stars in the Korean case. Finally, the Korean connection is coupled with the Even *ilān* and Dagur *ilan*, showing a recurrent trend of correlation between the number three and the moon and light. In Tungusic, judging from what Tsintsius (1975:306) listed in her comparative dictionary, the Even language with its dialects alone has the word *ilān* in distinction with the common Tungusic word *biya* (Manchu) 'moon, month'. Likewise, Dagur *ilan* appears to be isolated in Mongolic because I am uncertain if it is distributed in any other Mongolic languages.

The number three has gained some more symbolic extensions in lexicon. Gamkrelidze and Ivanov (1995:748) point out: 'The number three had sacral meaning in the views of the ancient Indo-Europeans, and often determines the number of basic significant ritual and mythic unit. There are three main gods in the pantheon: the Roman Jupiter, Mars, and Quirinus who constituted the Capitoline triad, which has correspondences in Umbrian as well' (further references therein). In discussing the Hittite numeral *teri-* 'three' scholars have included Hittite *teriyalla-* (*tariyalla-*) 'a drink, beverage' (Eichner 1992:69, Gamkrelidze and Ivanov 1995:743). Following this scholarly understanding I shall etymologize WMo *taraǧ* 'clabbered milk, sour milk' and Manchu *tara ~ tarak* 'clabbered milk, curd' with Tokharian *tarya (täryā-)* 'three'.

CONCLUSION

The central issue for this research is the cognitive patterns for generating ternary symbolism in Central Eurasian languages. The importance of cognitive process is that it sophisticates and proliferates lexicon by making polysemy possible and by increasing the maximal yield per proto-morpheme at a comparatively high rate of derivation. It was strong enough to operate over the whole field of Eurasian languages, from west to east, from south to north, giving time for a synchronous progress across the geographically adjacent languages and also an independent development within a language or a group. From a linguistic point of view, the unique aspect of these cognitive patterns is characterized by phonological similarities and semantic relatedness, and not merely by the category of being the numerical words-symbols defined by Ifrah (2000:440-510), which involve rarely *etymological* correlations between the numerals and their corresponding symbols.[7] Without the cognitive leverage that people were exercising there would be no such semantic correlations and numerical symbolism would not long endure. It was for such cognitive reasons that the numerals could render a great service in human communication from time immemorial.

The patterns of numerical symbolization exist in human cognition and experience. Accordingly, there must be some linguistic uniformity in perception and naming across languages. It is the case that we count three and see exactly the same set of three stars in the belt of the Orion, thus conceiving their set pattern and brightness. Gradually, this conception is lexicalized in certain languages. Early people's efforts to learn to count and visualize their experience in stargazing and popular discourse over the number three and the stars gained momentum in history, a period of lexicon proliferation when trade and exchange reached its zenith along the Silk Road. During this period the speakers of the Indo-European languages, especially the Tokharians, were able to exert ever-greater influence on the participating groups of people with

[7] Ifrah (2000:440) did mention that in Sanskrit the word 'number' itself is **samkhya* or **samkhyeya*. He argues that 'One should note that this term not only applies to the concept of number but also to the actual numerical symbol'.

different linguistic and ethnic backgrounds. As Narain (1990:152) points out, 'Undoubtedly Tokharian elements, linguistic as well as ethnic, were present in Inner Asia all through the first millennium A.D.'. It was the great age of linguistic and cultural exchange in Central and Inner Asia where the various Altaic nomadic peoples inhabited.

The attitudes to celestial and artificial light form an extremely important part of the Altaic praxis that derived from their understanding of the nature of the world – the human dependence on celestial light. In Altaic cultures light is also viewed to be a penetrating force making women pregnant. The basic underlying conception was that the light per se represents a divine power. One must be careful over how the ancients perceived light in their everyday life. For the practical purpose of time-indication and direction-locating, they interpreted the exchange of day and night in terms of the sunshine on the one hand and the starry light (including the moonlight) on the other, respectively. In this context, a set of stars – the brightest three stars (and seven stars) – had played a symbolic role in human life. Their image had served as a powerful figure in translating trinity into light. Not only were there popular resonances with their brightness, but one also found very specifically similar brightness of lamp, jade, and stone

After all, there was a historical period of time when, with all their attention to trinary numeration, language speakers had actively and exhaustively utilized those commonly used numerals to a maximum and extended them in all possible directions. The two parallel semantic connections concerning 'star, light' and 'people, tribe, companion, assembly' have appeared in the course of vocabulary diffusion: people linked the number three with a set of three stars, and the number three, along with third person pronouns, came to be intermixed with a group of three or more persons and subsequently reinterpreted as 'people'. The quantitative representation of the notion 'people' not only semantically synchronic with the number three but in some way collectively attendant on it. I see this source of numeracy powerful and oppressive. How could any speakers escape from such a force of habit? One sentence by the ancient Chinese philosopher Laozi says it all: 'three produces ten thousand things'.

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