

## **Semantic Shift and Variation in Formosan Languages\***

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This brief study examines a number of types of semantic shift and variation in the Formosan languages. Factors behind semantic shift, such as function, shape, and geography, are discussed and exemplified, revealing much semantic variation in Formosan languages. Cognate sets are analyzed to consider their original semantics.

Key words: factors, Formosan languages, semantic shift, variation

### **1. Introduction**

Variations in Formosan languages are found at all levels of language, including lexicon, phonology, morpho-syntax, and semantics. Phonological and lexical variations among different Formosan dialects have been reported for Rukai (Li 1977; Zeitoun 1993), Paiwan (Ho 1978), Puyuma (Ting 1978), Tsou (Li 1979), Thao (Li 1983), Bunun (Li 1988), and Atayal (Li 1998). There are a few studies concerned with morpho-syntactic variations, for example Huang's (1995) comparison of the syntactic structures of two Atayal dialects and Teng's (2011) paper on noun phrase conjunction in three Puyuma dialects.

Variations can also be found due to age (Li 1982a), sex (Li 1982b), or social class (Rau 2000) within the same speech community. Work of this type has been done more carefully for the Atayalic group; such investigation for other Formosan languages is a desideratum.

So far there has been no study of semantic variation in Formosan. This paper will examine such shifts and variations in Formosan and attempt to work out some generalizations.

### **2. Types of semantic shift**

According to Bloomfield (1933:426–427), semantic shift may be of the following nine types: (1) narrowing, (2) widening, (3) metaphor, (4) metonymy (where meanings are near each other in space or time), (5) synecdoche (where meanings are related as whole and part), (6) hyperbole, (7) litotes, (8) degeneration, and (9) elevation. These types are generalized from his study of Indo-European languages. They may not be sufficient to account for all sorts of semantic shifts

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encountered in Austronesian languages. Blust (2009:322ff.) illustrates six types of semantic change in Austronesian languages: (1) interchange of prototype and category, (2) change of physical environment, (3) reduced importance of the referent, (4) semantic fragmentation, (5) semantic chaining, and (6) avoidance; and Blust (2010) discusses five patterns of semantic change in Austronesian.

Instead of adopting either Bloomfield's classification of semantic shift or Blust's, I shall discuss some possible factors in semantic shift, such as function, shape, and geography, as an alternative way of analyzing it, illustrating them with examples from Formosan languages, while referring passim to instances of semantic shift taken from Bloomfield and Blust.

## 2.1 Function as a factor

Function is a factor in semantic shift that Bloomfield did not consider. For example, there are semantic shifts in both PAN cognates \*Rumaq 'house' and \*taRuqan 'hut', as attested in Formosan languages:<sup>1</sup>

Tso *rmoo*, Bun *lumaq*, Puy *ruma'*, Paz *xuma*, Ami *lumaq* 'house'; Pai *umaq* 'house, grave, lair of beasts'; Sar *ruma'-a* 'lair or den of beasts' < PAN \*Rumaq (Tsuchida 1976:232)<sup>2</sup>  
Tso *trova*, Kan *taru'ane*, Sar *taruan-a*, RukBd *taovan-ane*, Bun *taluyan*, Puy *taru'an*, Tha *talhuqan*, Paz *taxuan*, Ami *taluyan* 'hut or shelter for hunting in mountains'; Sai *taLoe'aen* 'house' < \*taRuqan (Tsuchida 1976:169)

Saaroa reflex of the first term has undergone a semantic shift from 'house' to 'lair', while the Saisiyat reflex of the second term has undergone a semantic shift from 'hut' to 'house', as is commonly found in many languages of the world. The terms 'house', 'hut', 'den', 'lair', and 'grave' all have the same function of providing shelter. Burials from the archaeological sites of Nankuanli and Nankuanli East on the southwestern plain of Taiwan, dating back to around 5000 years BP, show that the inhabitants at that time buried their dead within the settlement, but not inside the house (Tsang, personal communication). The semantic shift from 'house' to 'grave' must have taken place in Paiwan, where the dead were buried in a house, so that house and grave had the same function for the Paiwan natives.

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<sup>1</sup> Abbreviations of language and dialect names used in this paper are: Ami, Amis; AmiTa, Tavalung dialect of Amis; AmiSa, Sakizaya dialect of Amis; Ata, Atayal; AtaMx, Mayrinax dialect of Atayal; AtaSq, Squliq dialect of Atayal; Bab, Babuza; Bas, Basay; Bun, Bunun; BunTkb, Takbanuaz dialect of Bunun; Fav, Favorlang; Hoa, Hoanya; Kan, Kanakanavu; Kav, Kavalan; Pai, Paiwan; PaiBt, Butanglu dialect of Paiwan; PaiKu, Kulalau dialect of Paiwan; Pap, Papora; Paz, Pazih; Puy, Puyuma; PuyPn, Pinam dialect of Puyuma; Ruk, Rukai; RukBd, Budai dialect of Rukai; RukLa, Labuan dialect of Rukai; RukMg, Maga dialect of Rukai; RukMn, Mantauran dialect of Rukai; RukTa, Tanan dialect of Rukai; RukTn, Tona dialect of Rukai; Sai, Saisiyat; SaiTa, Ta'ay dialect of Saisiyat; Sar, Saaroa; Sed, Seediq; Sir, Siraya; Tao, Taokas; Tha, Thao; Tso, Tsou.

<sup>2</sup> Most of the cognate sets in this paper are taken from Tsuchida (1976). I have updated them by adding a few new cognate forms that Tsuchida missed or left out in the early 1970s, and by correcting a few errors, as based on my own field notes, or consulting dictionaries compiled by Egerod (1980, 1999), Ferrell (1982), Fey (1986), Li & Tsuchida (2001, 2006), Nihira (1988), Ogawa (2006), Tsuchida et al. (1991), and Zeng (2008).

Interesting semantic shifts and variations are found across Formosan languages. For example, the variant derivations of PAN \*qayam mostly mean ‘bird’, such as *zom#*<sup>3</sup> in Tso, *alhame* in Sar, *aza-azame* in RukBd, *qazam* in BunTkb, *qaya-qayam* in PaiBt, *’ayam* in PuyPn, *ayam* in Paz, *qayam* in Amis,<sup>4</sup> *alam* in Kav, and *aiam* in Sir, *adam* ‘bird of omen’ in Fav, but both *’aeyam* in Sai and *’alame* in Kan mean ‘meat’ (Tsuchida 1976:168). In this case, a semantic shift may have taken place in the two Formosan languages. If the original meaning is ‘bird’, then the shift to ‘meat’ is from whole to part, and the Favorlang form *adam* referring to a ‘bird of omen’ is just a semantic narrowing.

Similarly, derivations of PAN \*biRaq mostly mean ‘leaf in general’, including RukTa, RukLa *bia*, PuyPn *bira*’, Tha *filhaq*, SaiTa *biLae*’, Kav *biRi*, and Bab *bia* ‘leaf’; Pai *viaq* ‘leaf used in rites (the leaf could be of various plants)’; Ami *filaq* ‘leaf used to wrap up betel nut for chewing’; but their corresponding forms in three Rukai dialects refer to ‘Alocasia’, namely RukMg *bia*, RukTn *bi’a*, RukMn *vi’a*. The semantic shift to a special type of plant has taken place in these three Rukai dialects in the same geographical area of Maolin, but not in other dialects of Rukai elsewhere or in any other Formosan language.<sup>5</sup> Alocasia leaves were used to wrap up meat or fish. The semantic shift had to do with the traditional way of living. The original meaning of the item might refer to the most important type of leaf that had a special function in the traditional society.

A similar example can be seen in the semantic shift from ‘a certain type of bamboo’ to its functional usage as a ‘spear’, as shown below:

PAN \*buluq > Kan *vulu’u*, RukTa *boLo*, Puy *buLu*’, Sai *boLoe*’, Paz *buru*, Ami *fuluq* ‘type of slender bamboo’; Pai *vuluq* ‘spear’ (Tsuchida 1976:172)

It is easy to understand the shift from ‘bow’ to ‘arrow’ or ‘gun’, as they are all used to shoot, as in the example below. These are all related in function.

PAN \*busuR > AtaMx *buh<in>ug*, Tso *fsuru*, Kan and Sar *vuuru*, RukTn *boso’o*, Tha *futulh*, Sai *boehoeL*, Ami *bucul* ‘bow’, Bun *bucul* ‘bow, gun’, Paz *buzux* ‘arrow’ (Tsuchida 1976:128)

Another cognate semantically related to this is the verb ‘to shoot (with a bow or gun)’:

<sup>3</sup> I generally adopt Romanized writing systems for Formosan languages except for the high back unrounded vowel *#* in Tsou and the high and mid-central vowels in the Maga dialect of Rukai. In addition, the symbol *q* is used to stand for the pharyngealized stop in Amis, and for the glottal stop in Philippine languages.

<sup>4</sup> The form *qayam* also means ‘chicken’ in some dialects of Amis, such as Fataqan; also see Javanese *ayam* ‘chicken’. Reflexes of the same cognate refer to ‘dog’ in a few Philippine languages, such as *qayim* in Bilaan (Reid 1971:70).

<sup>5</sup> The meaning of the reconstructed form is usually assumed to be ‘Alocasia sp., the giant taro’ (Blust, ACD, Wolff 2010:768). However, since all or most Austronesian major subgroups are found in Taiwan (Blust 1999; Ross 2009), Formosan evidence carries more weight than extra-Formosan, even though Malayo-Polynesian languages have a much wider geographical distribution. It is much more likely that the original meaning is ‘leaf’ rather than ‘Alocasia’. Incidentally, Paz *biarax* ‘Alocasia’, cited in Wolff (2010:768), is not a cognate form.

PAN \*panaq > Kan *mu-a-pana'e*, Sar *u-a-pana*, RukBd *w-a-pana*, Pai *panaq*, Puy *p<en>ana'*, Paz *pa-pana*, Kav *p<m>ani*, Ami *mi-panaq* 'shoot with a bow'; Tso *pono*, Bun *panaq*, Tha *panaq*, Sai *panae'* 'shoot with a bow or gun'

Of course, Formosan natives shot with bow and arrow originally, as shown in the usage of the verb in a majority of languages. When they acquired guns just a few hundred years ago, they applied the same term to both bow and gun, as is shown in the usage of the verb in four of the languages.

## 2.2 Shape as a factor

Reflexes of PAN \*batuh usually refer to 'stone' in many modern languages, such as *fatu* in Tso, *vatu* in Kan, *vatu'u* in Sar, *batu* in Bun, Paz, Tao, Bab, Pap, and Hoa. However, the Thao form *fatu* means both 'stone' and 'testicles' due to their similar shape.<sup>6</sup> But *batu* means 'testicles' while *batu-nux* with a suffix means 'stone' in the Mayrinax dialect of Atayal. The latter is a male form of speech in the Atayalic group; see *btu-nux* 'stone' in all Seediq dialects (Li 1982b).

There are two cognate forms for the word 'head' in Formosan languages: PAN \*quluh > *a-oLo* in RukBd, *quLu* in Pai, *uRu* in Kav, *ucu* in Bas, and *uru* in Hoa 'head'; PAN \*bunguh > *fnguu* in Tso, *na-vungu* in Kan, *vungu'u* in Sar, *bungu* in Bun, and *vongo* in Sir 'head'. The Amis form *funguh* means 'head, skull, forehead' (Zeng 2008:142). Blust (1999) and Wolff (2010:970) reconstruct the former as the term for 'head', while Blust reconstructs the latter as the term for 'skull', and Wolff (2010:787) as 'head, skull'. There must be a difference between the two terms, so 'skull' seems more appropriate for the latter. The cognate forms for 'brain' are PAN \*punuq > *pnuu* in Tso, *punu'u* in Sar, *punuq* in Bun, Pai and Ami, and *punu'* in Puy 'brain'. However, the corresponding cognate forms *punuq* in Thao and *punu* in Paz refer to 'head', while the forms in Rukai dialects, such as *punu* in RukBd, mean 'forehead' (Tsuchida 1976:172). There is a semantic shift in these three languages. The relationship between 'brain' and 'head' is that of part and whole, SYNECDOCHE in Bloomfield's term. Brain and forehead are near each other in space, METONYMY in Bloomfield's term. The same cognate *pu:no'* in Tagalog means 'head, leader', which is a metaphorical usage of the original meaning of the term, the physical head. Dempwolff (1934–1938:120) reconstructs it as \*pahun<sup>7</sup> 'trunk of tree, basis, origin'. His definition should be modified to include human 'head, brain', on the evidence of most Formosan languages. The core meaning is thus the 'base' of an animal or plant.

## 2.3 Geography as a factor

A semantic shift can be drastic. A case in point is PAN \*lahud > PuyPn *LauD* 'east', Paz *rahut* 'west', PaiBt *Lauz* 'south'; and similarly, PAN \*Daya > Paz *daya* 'east', PuyPn *Daya*, Kav *zaya*

<sup>6</sup> Cf. the French word *tête* 'head', which is historically derived from Latin *testa* 'pot' due to their similar shape. Similarly, the English word 'vagina' is derived from the Latin word *vāgīna* 'sheath' due to similar shape or function (Heine 1997:132).

<sup>7</sup> There is a metathesis of \*n and \*q > \*h in Malayo-Polynesian languages.

‘west’. The semantic reconstruction for the former is ‘lowland’, while that for the latter is ‘inland’. It is clear that the geographical location of each of the Formosan languages determines their semantic shifts. The Central Mountains run from north to south in Taiwan. Pazih is spoken to the west, Puyuma and Kavalan to the east, and Paiwan to the south of the Central Mountains, after the dispersal of the Formosan ethnic groups. See Blust’s (2009:323) terminology, ‘change of physical environment’. Most Formosan languages in the different subgroups still retain the original meanings:

Ata *maka-raya*, Sed *daya*, *a-m-a-a-cala*, Ruk *Daza*, Bun *daza*, Pai *i-zaya*, Tha *i-tana-saya*, Sai *raya* ‘upland, uphill’; Paz *daya* ‘east’; PuyPn *Daya*, Kav *zaya* ‘west’ < \**Daya* (Tsuchida 1976:240),  
Ata *mak-ahu*’, Kan *’ama-laucu*, Ruk *LaoDo*, Tha *i-tana-raus*, Sai *Laehoer* ‘lowland, downhill’; Tso *mua-rovcu* ‘blow downhill’; Sar *tala-la-laucu* ‘look down’; PuyPn *LauD* ‘east’; Paz *rahut* ‘west’; PaiBt *Lauz* ‘south’ < \**lahud* (Tsuchida 1976:181)

## 2.4 Great semantic variation

Many examples of great semantic variation can be found in the Formosan cognates. For example,

Ruk *Damar* ‘moon’, Pai *zama-n* ‘torch’, Ami *lamal* (< A *l-/r-*),<sup>8</sup> Sir *lamag*, Kav *Ramaz* (< M \**D/\*R*), Bas *namaD* (< M \**D/\*R* and < A *n/m*) ‘fire, light’ < \**DamaR* (Tsuchida 1976:154)

The general meaning for the cognate above is ‘source of light’, which is probably the original meaning. Notice that all four languages in the ‘East-Formosan’ subgroup (Blust 1999) share the same meaning ‘fire, light’.

Tso *hicu*, Sar *’ilhicu* (< A *i/a*), BunTkb *qanitu* ‘god, ghost, evil spirit’; RukMg *alicu* ‘octopus tree, which is considered sacred’ < \**qaNiCu* (Tsuchida 1976:166)

It is hard to imagine that a type of tree would be related to an evil spirit. One must know, like Tsuchida, that the octopus tree is considered sacred in the Maga dialect of Rukai.

Kan *tucu’u*, Sar *tusu-a*, RukBd *wa-toDo*, Bun *tuduq-an*, Pai *t<em>uzuq*, Tha *tusuq-in*, Sai *t<om>oroq*’, Ami *mi-tuluq* ‘to leak from the roof’; Pai *tuzuq*, Thao *tusuq*, Ami *tuluq* ‘drop of water’ < PAN \**tuDuq* (Tsuchida 1976:154)

Tso *mou-su-suhcu*, Sar *kira-a-ua-ulhusu* ‘move forward step by step’, Bun *mu-sunu* ‘next’ < \**suNuD* (Tsuchida 1976:155)

Kan *cuvu’u*, Sar *cuvu’u*, Pai *cuvuq* ‘bamboo shoot’; RukMg *s-cubu*, RukMn *’a-cuvu* ‘treetop’; Pai *c<em>uvuq* ‘to sprout’ < PAN \**Cubuq* (Tsuchida 1976:167)

<sup>8</sup> Following Tsuchida’s (1976) convention, < A indicates assimilation and < M metathesis.

What is the original meaning of the item above? The meanings in modern languages have to do with a ‘sprout’ or ‘new growth’. Tsuchida (1976:314) glossed it as ‘grow’ and Wolff (2010:788) as ‘grow, shoot’.

PAN \*bajaq > Kan *taa-vala’e*, Ami *ma-vanaq*, Tha *ma-fazaq*, Paz *ma-baza*, Sir *mou-vana* ‘know, be able, understand’; RukBd *baga* ‘language, word’; Pai *ki-badaq* ‘inquire, request’; Sai *bazae* ‘listen’ (Tsuchida 1976:224)

The nouns ‘language, word’ are closely related to the verbs ‘to know, be able, inquire’. However, it does not seem to be so obvious that it should be related to the verb ‘to listen’, but not to the verb ‘to talk’. Both Dempwolff (1934–1938:18) and Wolff (2010:746) give the original meaning ‘inform’ for this cognate.

PAN \*pajey > Ata *pagay*, Sed *payay*, Tso *pai*, Bun *paz*, Ruk *pagay*, Pai *paday*, Tha *pazay*, Kav *panay*, Pap *pada* ‘rice plant, unhusked rice’; Ami *panay* ‘rice plant’; Sai *pazay* ‘rice plant, cooked rice’; Paz *pazay*, Kan *pai* ‘glutinous rice’

Sai *pazay* refers to ‘rice plant’ and ‘cooked rice’ rather than ‘unhusked rice’, the meaning in most other Formosan languages. In addition to the inherited sense, the reflex of \*pajey in Saisiyat has come to mean ‘cooked rice’, which is a striking semantic innovation. Moreover, both Paz *pazay* and Kan *pai* refer to a special type of rice, namely ‘glutinous rice’. This is a case of semantic narrowing.

Kan *ma-’aini*, Sar *ma-ailhi* ‘salt’, PuyKl *’asil*, AmiSa *qacil* ‘salty’; cf. Tongan *m-ahi* ‘sour’ < PAN \*qasiN (Tsuchida 1976:128)

The words ‘salty’ and ‘sour’, referring to different tastes, are derived from the word ‘salt’ in the example above.

Sed *dara*, Kan *cara’e*, Sar *cara’e*, PuyKl *zarah*, Fav *tagga* ‘blood’; Sar *m-uru-cara’e*, Pai *djaq*, Ami *lalaq* ‘menstrual flow’ < \*daRaq  
AtaSq *ramu*’, Pai *djamuq*, Sai *ramo*’, Paz *damu* ‘blood’; Kav *zamu* ‘menstruation’; Bun *damuq*, Tha *samuq* ‘dew’; < \*damuq (Wolff 2010:814)

There are four terms for four different types of blood in some Formosan languages: (1) the blood circulating in the body, (2) the blood coming out of the body when wounded, (3) menstrual blood, and (4) the blood from a nose bleed. The Formosan languages that have these distinctions and retain the cognate forms of \*daRaq all point to the sense of ‘the blood coming out of the body’ or ‘menstrual blood or flow’, so the original meaning is probably ‘the blood coming out of the body’ (Tsuchida, personal communication).

It seems hard to explain how ‘dew’ is related to ‘blood’ to establish the cognate above. Blust (2009:326–327) gives several examples of lexical innovations meaning ‘blood’ derived from words meaning ‘sap’ or ‘juice’ in Malayo-Polynesian languages. He suggests that each of these innovations are ‘avoidance of term’ because ‘blood is a sign of danger’. If that is the case, then the original meaning of the Formosan cognate \*damuq could be ‘dew’, with the meanings of ‘blood’ and ‘menstruation’ being innovations.

The form *papak* means ‘ear’ in most Atayal dialects, but it refers to ‘leg’ in the Palngawan dialect of Atayal. It is not clear whether the identical form is related or accidental. If related, it will be a problem to account for the semantic shift, although both terms refer to body parts.

## 2.5 Noun and verb with the same semantic field

A noun and a verb may share the same or similar semantic field in related forms. For example, AtaMx *wagi*, RukBu *vai*, RukMg *a-vee*, Bun *vali*, Sir *wagi* ‘sun’; Puy *wari* ‘day’; Ami *wali* ‘east’; Tso *m-vore*, Kan *pa-ari*, Sar *pa-ari*, RukMg *o-p-vee*, RukMn *to-pa-’ai* (< M), PaiKu *v<n>ayvay*, AmiTa *pa-wali* ‘to dry in the sun’ < \*waRih (Tsuchida 1976:144). The Puyuma and Amis cognate forms show a natural semantic shift from ‘sun’ to ‘day’ (for each sunrise and sunset) or ‘east’ (where the sun rises). Note that some verb forms take the prefix *pa-* or *p-* ‘causative’ in some of the languages, as cited above.

Similarly, Tso *me-ah’o* ‘to give birth’, *ng-ho’#* ‘pregnant’, Sai *’al-’alak* ‘young’, RukBd *valake*, Pai *alak*, Puy *alak*, Tha *az-azak* ‘child’ < \*waNak (Tsuchida 1976:146). All the meanings have to do with a ‘baby’.

Still another example is the fact that the noun ‘tongue’ is related to the verb ‘to lick’: Sar *s<um>a-silae*, RukTa *diLa*, Pai *dj<em>ilaq*, PuyKl *L<em>izah* (< M), Tha *s<m>iraq*, Sai *riLae* ‘to lick’; Hoa *la-rila*, Sir *da-dila*, Tag *di:la* ‘tongue’ < \*Dilaq (Tsuchida 1976:154).

The same cognate forms may refer to ‘farm’ or ‘to work on a farm’: AtaMx *quma-qumah*, Kan *’uuma*, Sar *umu-uma*, RukBd *oma-oma*, Bun *quma*, Pai *quma*, Puy *’uma*, Sai *’oem-’oemaeh*, ‘farm, dry field’; Paz *umamah* ‘wet field’; AtaSq *qumah*, Tso *mo-mo* ‘to work, to till, to cultivate the field’ < PAN \*qumah (Tsuchida 1976:133).

Still another example is PFN \*ʔaSik > Bun *’asik*, Ami *sa-’asik* ‘broom’; Bun *ma-’asik*, Kan *m-aru-asiki*, Ami *mi-’asik* ‘to sweep’ (Tsuchida 1976:183).

What part of speech is the original meaning in each of the cognates above? Nouns are usually the base forms, while their corresponding verbs are derived with an affix.

## 2.6 Variations across different languages or dialects

Semantic variations among different languages may be greater than what we would expect, especially in the case of verbs. For example, Sar *um-ali-a-valee*, RukBd *tu-a-bale*, Paz *pa-baret* ‘to answer’; Pai *v<n>alet* ‘to oppose someone, to talk or strike back’, *ki-valet* ‘to take revenge’ (Ferrell 1982:335), Bun *mim-baas* (< A *-a/u*), Sai *Su-baLeh* ‘to revenge’; Sar *m-utu-a-valee* ‘to echo’ < \*bales (Tsuchida 1976:129). The core meaning is ‘to do something in return’.

A semantic variation may have to do with body parts that are closely related, for example Tsou *t’ornga* ‘chest’: Kan *takeranga* ‘ribs’.

Semantic variations are also found between different dialects in the same language, such as in Rukai: RukBd *ta-korapange*, RukMg *t-korpangi*, RukTn *ta-koapange* ‘frog’; RukTa *ta-ko-rarapange*, RukMn *korapange* ‘toad’. One may say that frog and toad are of the same species, and similar in shape, but each of these Rukai dialects has different terms for frog and toad. Semantic change must have taken place in these dialects.

### 3. The original meaning

It is not always easy to determine the original meaning of a proto-form. For instance, reflexes of the cognate set of \*waNiS in some Formosan languages refer to ‘tooth’, ‘tusk’, or ‘wild pig’: Tso *hisi*, Kan *anisi*, Sar *alhi*, RukBd *valise*, Pai *alj*, Puy *wali*, AmiSa *wazis* ‘tooth’; Bun *vanis*, Sai *waliS*, Paz *walis* ‘tusk’; Bun *vanis*, Tha *wazish*, Sai *waliS-an* ‘wild pig’ (Tsuchida 1976:147). The Bunun form refers to both ‘tusk (of a wild pig)’ and ‘wild pig’. The original meaning of \*waNiS was probably ‘tusk of a wild pig’. It was then extended to cover the wild pig in a few languages, a case of synecdoche. In many other languages, it was extended to the general term for ‘tooth’, a semantic widening, but with the shift being in a different direction. See \*(ŋ)ipen, the PAN cognate generally reconstructed for ‘tooth’, and Blust (1996), who discusses the semantic history of PAN \*waNiS and \*waNis-an at some length.

Similarly, reflexes for the same cognate form \*qamiS have very different meanings in modern languages: AtaMx *qamis-an*, Sed *mis-an*, Kan *'amis-ane*, Sar *'amis-an*, Sai *'aemiS-an*, Paz *'amis-an* ‘winter’; Bun *qamis-an*, Puy *'ami* ‘year’; Puy *'ami*, Paz *amis-an*, Kav *imis*, AmiSa *qamis-an*, Bab *amis-an* ‘north’. How are the meanings of ‘winter’, ‘north’, and ‘year’ related, and what is the original meaning? The related cognate forms *ami(h)-an* in several Philippine languages refer to ‘north wind’ (Tsuchida 1976:160). There is north wind in the winter time, and also during the New Year period. The original meaning is probably ‘north wind’, as suggested by Tsuchida (1976:317).

If we know the cultural traditions, it will help us determine the original meaning of a cognate. For example, AtaMx *m-atas*, Sed *m-atas*, Tso *t<m>opos-u*, Bun *ma-patas*, Tha *m-atash* ‘to write’; RuBd *wa-pacase* ‘to write, to draw’; Tso *ta-tpos-a*, Kan *tapase*, Sar *taa-tapa-a* ‘pattern, design’; RukMg *ptasə*, RukMn *u-paca'e* ‘to embroider’ < \*pataS (Tsuchida 1976:151). The Formosan aborigines had no writing system, embroidery, or pattern to design at an earlier stage, but they have practiced tattooing for thousands of years. Consequently, the original meaning of the cognate must have been ‘to tattoo’.

Many Formosan languages have the same form for ‘hand’ and ‘five’; only Rukai and Bunun have a slight difference in form: Ruk *Lima* ‘five’ versus *aLima* ‘hand’, Bun *ima* ‘hand’ versus *hima* ‘five’:

\*lima > Ruk *a-Lima*, Bun *ima*, Pai *lima*, Puy *Lima*, Paz *rima*, Tha *rima*, Paz *rima*, Kav *rima*, Tao *rima*, Bab *rima*, Pap *rima*, Hoa *lima* ‘hand’

\*lima > AtaMx *ima-gal*, Sed *rima*, Tso *rimo*, Kan *lima*, Sar *ku-lima*, RukBu *Lima*, Bun *hima*, Pai *lima*, Puy *Lima*, Tha *rima*, Kav *rima*, Ami *lima*, Pap *rima*, Hoa *lima*, Sir *ri-rima* ‘five’

What is the original meaning of this cognate set? Is it ‘hand’ or ‘five’ or both ‘hand’ and ‘five’? Intuitively we may think that ‘five’ is derived from ‘hand’. Dempwolff reconstructs \*lima ‘hand, five’, while Wolff (2010:952) reconstructs \*lima ‘five’ versus \*qalima ‘hand’, on the basis of Rukai *aLima* and reflexes in a few Philippine languages, such as Cebuano *alima*, Surigao *alima* and Kalamian *kalima* ‘hand’. If Wolff is correct, then the body part ‘hand’ is derived from ‘five’ by adding a prefix \*qa-, attested in Rukai and a few Philippine languages. Note that *k* in Kalamian is a regular reflex of \*q (Ogawa 1940).

Consider the following cognate set:

\*qenay > Kan *'enai* 'earth, ground', *'ena-* *'enay* 'soil'; Kav *mra-nay* 'earth, soil'; Ruk *enay* 'sand'; Puy *'enay* 'water' (Wolff 2010:962)

Reflexes of modern Formosan languages show these four possible meanings: 'earth', 'soil', 'sand' and 'water' for this cognate. What is the original meaning? The cognate \*DaReq is generally reconstructed for the word 'earth' and \*DaNum for the word 'water'. The semantic shift to 'water', only in Puyuma, probably took place later. So the choice is between 'soil' and 'sand' for the original meaning. Two Formosan languages (Kanakanavu and Kavalan) have the meaning 'soil', while one Formosan language (Rukai) and Malayo-Polynesian languages have the meaning 'sand'. Kanakanavu, Kavalan, Rukai, and Malayo-Polynesian belong to four primary subgroups (Blust 1999), so the weight is equal on either side. Blust reconstructs it as 'sand', a meaning widespread in Malayo-Polynesian languages. However, Wolff (2010:962) prefers 'soil', saying that 'the meaning of Kanakanavu and Kavalan "soil" is probably older and the meaning "sand" comes into being later.'

#### 4. Summary and conclusion

I have examined some interesting examples of semantic shift and variation as manifested in Formosan languages. Some of them can be explained by Bloomfield's types of semantic shift, such as narrowing, widening, metaphor, metonymy (meanings related in space or time), and synecdoche (meanings related as whole and part). However, the others do not fall into any of his categories. I have offered a few other explanations, including function, shape, and geography, as factors for the semantic shift in Formosan languages. But these are only factors in, not types of, semantic shift.

To summarize, I have examined some Formosan cognates in which various factors have played a part in the semantic shift, including

Function as a factor:

- \*Rumaq 'house' > 'house, grave, lair'
- \*taRuqan 'hut' > 'hut, house'
- \*qayam 'bird' > 'bird, meat'
- \*biRaq 'leaf' > 'leaf (in general), leaf used in rites, betel leaf, *Alocasia*'
- \*buluq 'type of bamboo' > 'type of slender bamboo, spear'
- \*busuR 'bow' > 'bow, arrow, gun'
- \*panaq 'shoot' > 'shoot with a bow, shoot with a bow or gun'

Shape as a factor:

- \*batuh 'stone' > 'stone, testicles'

Geography as a factor:

- \*Daya 'inland' > 'east, west, south'
- \*lahud 'lowland' > 'east, west'

Great semantic variation:

- \*DamaR 'light' > 'moon, torch, fire, light'

- \*qaNiCu ‘soul’ > ‘god, ghost, type of plant considered holy’
- \*tuDuq ‘leak’ > ‘leak from the roof, drop of water’
- \*Cubuq ‘new growth’ > ‘bamboo shoot, treetop, to sprout’
- \*bajaq ‘know’ > ‘know, be able, understand; language, word; inquire; listen’
- \*pajey ‘rice’ > ‘rice plant, unhusked rice; rice plant, cooked rice; glutinous rice’
- \*damuq ‘dew’ > ‘dew; blood, menstruation’

In addition, I have also examined examples of nouns and verbs sharing the same semantic field:

- \*waRih ‘sun’ > ‘sun, day, east, dry in the sun’
- \*waNak ‘child’ > ‘child, young, pregnant, give birth’
- \*qumah ‘farm’ > ‘farm, work on a farm’
- \*ʔaSik ‘broom’ > ‘broom, sweep’

I have also discussed problems of deciding the original meaning of a cognate, such as:

- \*waNiS ‘tusk of a wild pig’ > ‘tooth, tusk, wild pig’
- \*qamiS ‘north wind’ > ‘winter, year, north’
- \*pataS ‘tattoo’ > ‘write, design, embroider’
- \*lima ‘five’ > ‘five, hand’

It is not always easy to determine the original meaning of a proto-form. It is even harder to suggest what semantic shift may have taken place. As a matter of fact, some semantic variations can be so great they seem to go beyond what could be imagined.

Semantic shift and variation are an interesting aspect of language that requires more careful study.

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# 台灣南島語言的語意轉移和變異

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台灣南島語言之間各層次都有很大的差異，包括詞彙、音韻、構詞、句法、語意等。過去的研究報告多為音韻和詞彙方面的差異，而較少構詞和句法方面的差異，更沒有關於語意方面的研究。本文是首次嘗試作台灣南島語言語意轉移和差異的討論。

語意演變可以分為好幾種類型，例如變寬、變窄、隱喻、轉移等等。本文的重點並不在分類，而在探討有哪些重要因素會造成語意演變。這些因素包括功能、形狀、地理等。台灣南島語言的語意變異可能非常大，有一些例子可作說明。本文也討論若干同源詞的原意是什麼；要追溯每一個同源詞的原意有時並不容易，可是本文也為每一個同源詞暫訂它的原意。

關鍵詞：台灣南島語，語意轉移，變異，因素