

***Winkin', blinkin', and nod:***  
**A study in historical-comparative semantics**  
**of Southeast Asian languages**

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*The term PANASEA (Pan-Southeast Asianism) refers to phono-semantically similar lexical items with wide geographical and linguistic distribution throughout the SEA region. Since these items must have sources, PANASEA also applies to hypothetical lexical roots which cannot be uniquely assigned to any recognized language family. Among some languages belonging to the Sinitic, Tibeto-Burman, Kadai, Austronesian, Yao, and Mon-Khmer groups, the lexemes wink (eye), wave (hand), flash (lightning) appear to constitute a word family. The PANASEA **KVSLVP** "to move up and down; to flash on and off" is proposed as a possible source of forms with these meanings.*

## **1.0 Introduction**

This paper again focusses attention on the phenomenon of *phonosemantic similarity* in the Southeast Asian linguistic area.<sup>1</sup> The term refers to the similarity in phonetic shapes and meanings of two or more lexical items belonging to different languages whose genetic affiliation the linguist may or may not know. For example, I regard as phonosemantically similar the items listed below:

<i>Language X</i> (= Tankhur Naga, Tibeto-Burman)	<i>khəjəp</i> "to wink (eye)"
<i>Language Y</i> (= Siamese/Bangkok Thai, Kadai)	<i>khəjɨp</i> "to wink (eye)"
<i>Language Z</i> (= Malay, Austronesian)	<i>khəjap</i> "to blink (eye)"

There are at least four possible explanations to account for phonosemantic similarity:

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(1) *Cognation*: The lexical items are similar in sound and meaning because they are cognates, i.e., they are reflexes of the same etymon, and the languages to which they belong are genetically related.

(2) *Borrowing*: The items may be similar because one of them has been borrowed from the other language or from some third language; borrowing results from language contact and occurs independently of the genetic affiliation of languages.

(3) *Linguistic Tendency*: The items may be similar through some universal tendency, for example, sound symbolism.

(4) *Coincidence*: The items may be similar as the result of chance.<sup>2</sup>

### 1.1 *Cognation*

Language forms from six Southeast Asian language groups are compared in this paper; these groups include Southern Sinitic (southeastern Chinese dialects), Tibeto-Burman, Yao (= Mian), Kadai, Austro-nesian, and Mon-Khmer. These six groups in turn represent three genetic families: Sinitic and Tibeto-Burman form the two main branches of Sino-Tibetan. According to Benedict (1975), Yao, Kadai and Austronesian belong to a broader genetic grouping termed Austro-Tai. Mon-Khmer is one branch of Austroasiatic. However, Sagart (1990) has assembled a large body of lexical comparisons which he claims proves the genetic relationship of Chinese with Austronesian. Xing (1991) has examined Sagart's material and agrees with his proposed Proto-Sino-Austronesian family. On the other hand, while acknowledging that there may have been "a very early contact relationship between [Austronesian] and Chinese", Matisoff (1992:159-160) has raised objections (viz., insufficiently rigorous phonological and semantic correspondences and no focus on basic vocabulary) to Sagart's methods for establishing a genetic link. In the present paper, I accept Benedict's genetic classifications of Southeast Asian languages; however, given the long history of migration of peoples and dispersal of their languages throughout the area and the contact situations which have resulted (more on this topic in the next section), the genetic pigeonholing of languages may not contribute much to the difficult task of identifying the proto-language origin of lexical roots, when these exhibit widespread distribution across diverse groups of Southeast Asian languages.

### 1.2 *Borrowing*

At almost any time in their histories, languages are in contact with other languages. This is the natural state of affairs. Contact borrowing is a pervasive, continuous, natural process that causes languages to change, whether it be to acquire a new vocabulary while adopting a new cultural area, such as sport, religion, technology; to develop or lose a tone system; to switch

<sup>2</sup> For a similar list of "four possible explanations", see Matisoff 1976:265-8.

from SOV to SVO word order. Any area of language can be affected by borrowing and the influence that languages in contact exert on one another pays no regard to their genetic affiliation. A common characteristic of linguistic areas around the world is the phenomenon of convergence: as the result of contact-borrowing, typologically distinct and distantly related languages become more like their neighbors in vocabulary, phonetics, or grammar. The Southeast Asian linguistic area is particularly noted for convergence and the concomitant problems that convergence creates for the historical linguist. Attempting to separate out native words from borrowings in order to identify the genetic affiliations of languages or to assign lexical roots to particular proto-languages presents the historical linguist with formidable difficulties in "the hothouse homogenizing atmosphere of Southeast Asia" (Matisoff 1983:63) where the migratory movements of peoples over the millennia have created myriad opportunities for convergence through contact borrowing among the area's many languages. (In this regard, it is worth noting that in Trubetzkoy's view (summarized in Renfrew 1987:108) areal convergence in Europe was sufficient to explain the similarity of European languages and thus the reconstruction of a Proto-Indo-European ancestral language was made unnecessary).

At any rate, the notion that so-called *core* or *basic vocabulary* is **not** subject to replacement through borrowing has become the cardinal principle to which Proto-Worlders, Nostraticists, and others have anchored their reconstructions of remote linguistic relationships. Guided by the claims of Dolgopolsky (1986) in their reconstruction of Nostratic, Kaiser and Shevoroshkin (1988:311) have explicitly stated this "principle" as follows:

Based on the material of more than 250 languages, Dolgopolsky's study shows that there is a hierarchy of stability of lexemes—i.e., certain lexemes are more resistant than others to replacement by other lexemes (in the same language) and to borrowing into other languages. When two languages come into contact, certain words are easily borrowed (cultural items), while others are seldom, if ever, subject to borrowing. Dolgopolsky composed a list of fifteen most stable lexemes, which we repeat here: 1. "I, me"; 2. "two, pair"; 3. "thou, thee"; 4. "who, what"; 5. "tongue"; 6. "name"; 7. "eye"; 8. "heart"; 9. "tooth"; 10. verbal NEG (negation and prohibition); 11. "finger/toenail"; 12. "louse"; 13. "tear" (n.); 14. "water"; 15. "dead".

I readily acknowledge that one can semantically distinguish between *basic vocabulary*, on the one hand, i.e., lexical items which every language will almost always possess, such as bodypart names, deictics and kinship terms, and *non-basic vocabulary*, on the other, i.e., names for cultural items, e.g. *soap*, *chocolate*, which are easily transmittable via the process of contact borrowing. Just how useful is this distinction? Consider verbs associated with body parts or natural phenomena, such as *wink* and *lightning*, which this

paper is concerned with. In my view these will also need to be classified as *core vocabulary*—they would seem to have more in common with words belonging to this category than non-core, culture words such as *soap* and *chocolate* which have both achieved global distribution (Bauer 1992a). In the final analysis, the claim that *core vocabulary* is *less likely* to be replaced by loanwords remains so much wishful thinking on the part of those linguists who gingerly clutch this convenient, heuristic compass to guide them through the convoluted pathways of the historical comparative jungle. As messy as it makes things, we must accept that any lexeme is grist for the borrowing mill—even bodypart terms.<sup>3</sup>

### 1.3 *Linguistic Tendency*

By this general phrase I mean sound symbolism. How much this contributes to my topic I cannot say here. In an earlier paper (Bauer 1988b) I proposed that the tendency of such lexemes as *mother*, *father*, *breast*, *milk*, and *suck* (which apparently constitute a word family) to show megalophonosemantic similarity across many languages of the world<sup>4</sup> ultimately derives from shared patterns of sound symbolism associated with infants sucking their mothers' breasts (curiously, Dolgopolsky (1986:29) omitted *linguistic tendency* from his own list of three explanations for phonosemantic similarity). Furthermore, given a particular lexeme from this set of five (which can probably be expanded), one can make predictions about its phonetic shape and the possible phonetic contrasts in initial consonants that the other lexical members of this set may display in various language groups.

Shared patterns of sound symbolism for another group of lexemes meaning *to close the eye*, *to wink the eye*, *to flash lightning* may partially explain both the origin of these words and the phonosemantic similarity they exhibit across diverse groups of Southeast Asian languages; that is to say, different groups of speakers may be using similar speech sounds to symbolize the rapid movement of blinking eyelids or the sudden flash of lightning in the sky. Speakers may even perceive some direct iconic relationship between the closure of the eye and the articulatory gesture of closing the mouth to produce the final bilabial stop -p which is shared by (almost) all the lexical forms cited in this paper.<sup>5</sup> To the extent that sound symbolism lies below the level of conscious

<sup>3</sup> Cf. Bauer 1988a:149, fn. 3, regarding the borrowing of terms for male and female sex organs into Japanese and Hebrew.

<sup>4</sup> Bauer 1992b:147 illustrates the phenomenon with forms for "breast" from 18 languages representing eight language families.

<sup>5</sup> During the 1991 Sino-Tibetan Conference James R. Chamberlain kindly gave me a most intriguing paper he had written, entitled "Frog mouths and mimesis: an essay on the relationship between form and meaning" (no date). In this paper he demonstrated what he believes to be the non-arbitrary link between meaning and sound for a large group of Lao words ending in -p and having to do with the meaning "closure". To me what he is proposing is a Lao phonestheme -p "to close; closure". In reading through his paper, I was struck by the similarity of forms from southern Chinese dialects to the Lao forms. It is quite possible that similar



awareness, analysis presents its own problems. Nonetheless, convergent sound symbolism resulting from language contact may contribute to the cross-linguistic phonosemantic similarity described below.

#### 1.4 *Coincidence, Chance, Accident*

Given that coincidence can be a feature of non-linguistic events, to what extent is coincidence a factor behind the similarity of two or more lexical items from different languages? It stands to reason that with an increase in the inventory of languages and forms included in a comparison there is a corresponding increase in the possibility that some of the forms will be similar in sound and meaning. In comparing Southeast Asian languages, one is very often working with short (e.g. CVC) monosyllabic words. Word-length must also be a factor influencing accidental phonosemantic similarity. In a thought-provoking article published two decades ago, Bender (1969) considered how the random occurrence of CVC correspondences among basic vocabulary from the Swadesh list could contribute to the problem of determining the genetic relationship of languages. Out of a total of 20,434 possible CVC correspondences from 21 genetically unrelated and geographically dispersed languages, he found 75 correspondences which met his carefully defined criteria of sound-meaning correspondence; this distribution yielded a value of four-tenths of one percent. He (1969:530) concluded that two CVC correspondences from two languages was not coincidental, and that "three or more cognates assure [the genetic relationship of the two languages] at the 99% level [of confidence]". None of the basic verbs considered in this paper occur in the Swadesh list. However, one might still take Bender's result as indicating that the incidence of random similarity would be very low for these words as well.

## 2. PANASEA

I have dwelled upon core vocabulary and loanwords at some length because I believe that both cognation and borrowing are largely responsible for the pattern of phonosemantic similarity which has been found among lexemes designating up and down motion in Southeast Asian languages. In comparing the same meaning or group of related meanings across Southeast Asian languages, I have found that the same or similar phonetic shapes associated with the meaning appear in many language groups and families of the area. This paper represents the fruit of my second investigation into the historical comparative semantics of a Southeast Asian word family. My first study (Bauer

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processes of sound symbolism operate across these languages. However, the lack of time has prevented me from pursuing this matter as far as I would like. One thing that does occur to me is that, while there may be a direct phonosemantic link between "to close the eye" and "to wink the eye", a link with "to flash lightning" and "to wave the hand" would seem to be indirect.

1989) compared the meanings *to fall off, come off, slip off, come loose, be slippery, slide, fade, shed (hair), take off (clothes), release, set free, escape* which are associated with the phonetic shape **LVT** across six of Southeast Asia's major language groups. In that paper I coined the term **PANASEA** (< Pan-Southeast Asianism) to describe a hypothetical lexical root which has wide distribution across Southeast Asian languages. The present paper proposes the **PANASEA KVS LVP** "to move up and down; to flash on and off" and its various related roots which appear in the six Southeast Asian language groups of Sinitic, Tibeto-Burman, Mian, Kadai, Austronesian, and Mon-Khmer.

In a large-scale comparison of this type, all four explanations (cognition, borrowing, linguistic tendency, and coincidence) together ultimately account for the phonosemantic similarity that we observe. However, untangling the Southeast Asian linguistic tapestry to identify these explanatory strands is a complex task; it is very difficult to say with any degree of certainty that forms from any two languages X and Y are similar because of cognition, borrowing, sound symbolism, or coincidence. We simply do not know enough about the genetic origins of Southeast Asian languages, the histories of contact among their speakers, and the processes of sound symbolism that interact between languages and speakers. I do not claim to have put together the complete story about the origins of large-scale phonosemantic similarity in Southeast Asian languages. The concept of **PANASEA** may seem to invoke a linguistic *deus ex machina* that embraces everything but does not answer the Big Question, What does it all mean? At the least, the **PANASEA** concept provides a convenient means to postpone resolving the problem as the research continues.

### 3.1 Lexemes *Wink, Nod, Flash, Wave* in Southern Chinese Dialects

Southern Sinitic includes the three Chinese dialect families of Kejia (Hakka), Min (Fukienese), and Yue (Cantonese). The colloquial lexical strata within these dialect groups which are suffused with "characterless" morphemes (termed *chorphans* in Bauer 1992c) provide a fertile field for investigating Southeast Asian historical comparative semantics. The idea for this paper began with an interesting observation in standard Cantonese, the principal dialect of the Yue group. The following three common expressions share the same verb  $\eta\text{ap}^8$  associated with up and down movement of such bodyparts as the eyelid, head, and hand:

Yue-Guangzhou	$\eta\text{ap}^8$ $\eta\text{aan}^4$	"wink, blink eyes" (Meyer Wempe 1947:427)
Yue-Guangzhou	$\eta\text{ap}^8$ $\text{thau}^2$	"nod the head, agree" (Huang 1970:427)
Yue-Guangzhou	$\text{thau}^2$ $\eta\text{ap}^8$ $\eta\text{ap}^8$	"with head nodding in agreement" (Bai 1981:86)

<i>Yue-Guangzhou</i>	ɲap <sup>8</sup> sau <sup>3</sup>	"wave hand; beckon with hand" (Lau 1977:613)
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Rao et al (1981:167) defines ɲap<sup>8</sup> as "to move up and down, back and forth". It also occurs in two other Cantonese expressions (but apparently assimilates to a high tone because of the tonal environment):

<i>Yue-Guangzhou</i>	ɲap <sup>8</sup> ɲap <sup>8</sup> kuŋ <sup>5</sup>	"swaying back and forth continually" (Rao et al 1981:167)
<i>Yue-Guangzhou</i>	soi <sup>1</sup> ɲap <sup>7</sup> ɲap <sup>7</sup>	"back and forth movement of fish's gills" (Bai 1981:86)
<i>Yue-Guangzhou</i>	tsøy <sup>3</sup> ɲap <sup>7</sup> ɲap <sup>7</sup>	"up and down movement of mouth while talking or chewing" (Bai 1981:89)

These somewhat disparate meanings of "to blink the eye", "to nod the head", and "to wave the hand" associated with colloquial *Yue-Guangzhou* ɲap<sup>8</sup> share the more general sense "to signal by moving something (eyelids, head, hand) up and down". The *Kejia* group of dialects also possesses this same verb which shows some phonetic variation in its shape:

<i>Kejia</i>	ɲap <sup>8</sup>	"move up and down" (Maciver 1926:517)
<i>Kejia-Shenzhen</i>	gɲap <sup>8</sup>	"wave (hand)" (Zhan, Cheung 1988:365)

I believe that the *Kejia* root underlying these two forms recurs in additional forms with the meanings "wink" and "to lightning", but these exhibit some phonetic variation between palatal and velar places of articulation in the initial consonants and belong to tone category 7 instead of tone category 8. Cf. the following list of forms:

"to wink":		
<i>Kejia</i>	ɲap <sup>7</sup> muk <sup>8</sup>	"to wink eye" (Maciver 1926:537)
<i>Kejia-Yongding</i>	ɲja <sup>7</sup>	"wink" (Huang 1983:232)
"to lightning"		
<i>Kejia</i>	fɔ <sup>3</sup> sa <sup>2</sup> ɲap <sup>7</sup>	"there is lightning" (Maciver 1926:537)
<i>Kejia-Sixian</i>	ɲap <sup>7</sup> laŋ <sup>5</sup>	"lightning" (Hashimoto 1972:69)
<i>Kejia-Dongguan</i>	fɔ <sup>3</sup> sa <sup>2</sup> gɲap <sup>7</sup>	"lightning" (Zhan, Cheung 1988:5)
<i>Kejia-Songhimitong</i>	fɔ <sup>3</sup> sa <sup>2</sup> gɲap <sup>7</sup>	"lightning strikes" (Sagart 1982:53)

Several additional patterns of phonetic convergence among Southern Sinitic colloquial forms meaning "to blink the eye", "to flash lightning", and "to wave the hand" (but not including "to nod the head") suggest to me that these words constitute a word family. Further, I believe that there is some kind of relationship between the Southern Sinitic forms and semantically-equivalent forms in some of the non-Sinitic languages of the Southeast Asian area.

### 3.2 Semantic Link between *Wink (eye)* and *Flash (lightning)*

In some Southeast Asian language groups, such as Southern Sinitic (SN), Kadai (KD), Austronesian (AN), and Mon-Khmer (MK), the two meanings "to blink, wink the eye" and "to flash lightning; for a light to twinkle or flicker" are included in the same word; however, in the case of Yao-Mian (MN), the two meanings are lexicalized as two separate words which are phonetically very similar.

TABLE 1:  
Phonosemantic Similarity of *Wink* and *Lightning*

SN <i>Kejia-Meixian</i>	sap <sup>7</sup>	"wink" (HFCH 1964:151)
	sap <sup>7</sup> thien <sup>1</sup>	"lightning" (Hashimoto 1972:69)
MN <i>Yao-Mian</i>	dziεp <sup>7</sup>	"blink" (MYFCJ 1987:47)
	dziap	"flash (lightning)" (MYFCJ 1987:93)
KD <i>Buyi-Xingyibajie</i>	dzap <sup>7</sup>	"blink" (BYDB 1959:309)
	dzap <sup>7</sup>	"lightning" (BYDB 1959:309)
AN <i>Tagalog</i>	kisáp	"blinking, winking"
		(English 1965:103, 1194)
	kisáp	"twinkle" (Panganiban 1985:36)
MK <i>Vietnamese</i>	tsəp <sup>7</sup>	"blink, wink" (Nguyen 1966:71)
	tsəp <sup>7</sup>	"lightning" (Nguyen 1966:71)

### 3.3 Word Family: *Wink, Lightning, Wave*

A shared semantic thread ties together "blink" and "lightning": the eyes reflect light, and the act of moving the eyelids up and down has the effect of turning the light on and off. The movement of the eyelids is very rapid and this gives rise to the phrase "in the wink of an eye" which is found in Chinese, Austronesian, and other languages. Further, some Southeast Asian cultures have perceived a similarity among the rapid blinking of the eyes, flashes of lightning, the twinkling of stars, and the flickering of a light; the result has been the association of these meanings with the same word or phonetically similar words. The meaning "to wave the hand" has also become part of the

semantic picture possibly through the perceived similarity between the up and down movement of the eyelids and the hand, as well as in the reflected light from the eyes and the palm of the hand being "turned on and off" through the up and down movement of the eyelids and the waving hand. As pointed out above for Sinitic, the same word can mean both "wink" and "wave". In this paper I propose that the three meanings "wink", "lightning", and "wave" comprise a Southeast Asian word family. The phono-semantic similarity of lexical items with these meanings from various Southeast Asian language groups may be interpreted as further evidence for very early contact and genetic relationships. I hypothesize that this word family is distributed across a variety of languages from the major groups of Southeast Asia, i.e., Southern Sinitic (SN), Tibeto-Burman (TB), Mian (MN), Kadai (KD), Austronesian (AN), and Mon-Khmer (MK).

#### 4.1 PANASEA: KVSLVP "move up and down; flash on and off"

Phonetically similar forms meaning "to blink, wink eye", "flash lightning, for light to flicker", and "to wave the hand; fan; flap, flutter wings; winnow" have been taken from these six language groups and analyzed following the method of multilateral comparison (Greenberg 1987:23). The paper proposes that the PANASEA **KVSLVP** "move up and down; flash on and off" is a very early root which may be the ultimate source for the modern forms. In the course of its history, KVSLVP yielded a number of variant roots which became semantically specialized with the meanings "wink", "lightning", "twinkle", "wave", "winnow", "flap", etc. in the modern languages. A variety of phonetic processes, which include loss of the prefix KV-, loss of sound segments, palatalization, voicing, affrication, nasalization, have acted upon KVSLVP to yield a number of variant roots as indicated below:

KVSVP:	loss of L
KVTSJVP:	affrication of S, palatalization of L
KVLVP:	loss of S
KVJVP:	loss of S, palatalization of L
KLVP:	loss of vowel in KV-prefix, loss of S
KJVP:	loss of vowel in KV-prefix, loss of S, palatalization of L
ŋJVP:	nasalization of velar initial
SJVP:	loss of KV-prefix, palatalization of L
TSJVP:	loss of vowel in KV-prefix, affrication of velar, palatalization of L
LJVP:	loss of KV-prefix, development of palatal glide
ɲJVP:	nasalization of initial L, development of palatal glide
JVP:	loss of KV-prefix, palatalization of L

Forms from the modern language groups are compared with each of these roots in the following analysis.

## 4.2 KVS LVP and its Variant Roots

### (1) KVS LVP

This root is only found in Austronesian and is very similar to the original PANASEA.

AN *Tagalog* *kisláp* "flash" (Panganiban 1985:36)

### (2) KVSVP

This root is found in two language groups, Tibeto-Burman and Austronesian:

TB *Boro* *gisib* "fan" (Bhat 1968:72)

AN *Tagalog* *kisáp* "blinking, winking"  
(English 1965:103, 1194)

*Kisáp* "twinkle" (Panganiban 1985:130)  
Kadazan *ki-kizop* "fan" (Blust 1986:50)

### (3) KVT SVP

This root may be represented in Tibeto-Burman and in Austronesian with the following forms:

TB *Jingpo* *kätsap<sup>1</sup>* "winnow" (Liu 1984:117)

AN *Malay* *kejap* "blink" (Abas 1983:308)

*Indonesian* *kejapan* "blink; flash, sparkle" (KBITH 1976:281)

There are no modern forms from the southern Chinese dialects to associate with this root. However, forms from northern dialects have been used as evidence for a root in Archaic Chinese which strongly resembles the root proposed here. Yang (1968:22) has reconstructed *Archaic Chinese* \*ktsiap "to wink, to blink"; his reconstructed root with its velar stop prefixed to a syllable made up of a dental affricate, palatal medial, low vowel, and bilabial stop ending looks very similar to the root proposed here. Yang listed two Chinese graphs which he associated with the meaning "to wink, blink": 𦉳 *Archaic Chinese* \*tsiap "eyelashes" (from Karlgren's *Grammata Serica Recensa* #636 d) and 𦉴 *Ancient Chinese* \*tsiap (from *Guang Yun* which indicated that it had the same meaning "eyelashes" as the other graph; Yu 1974:538). Yang cited forms from Northern Chinese dialects which he believed supported his phonetic and semantic reconstruction:

SN *Henan, Loyang* *ker-tsa* "to wink" (Yang 1968:22)

*Wenhsien* *ke-tsa* "to wink" (Yang 1968:22)

## (4) KVLVP

If we allow phonetic variation in vowel quality and between *-r-* and *-l-* in the liquid consonant of this root, then it may be possible to find the root represented in Austronesian for all three meanings:

AN	Malay	kelip	"wink" (Abas 1983:319)
	Paiwan-Sandi	kaɭipkip	"wink (eye)" (Chen, Ma 1986:124)
	Tagalog	kuráp	"winking" (English 1965:1194)
	Indonesian	kelap-kelip	"flash, sparkle, twinkle" (KBITH 1976:283)
	Malay	kirap	"to flutter" (Abas 1983:360)
	Indonesian	kirap	"(for flag) to flutter; to flap (wings)" (Echols, Shadily 1961:165)
	Indonesian	kirap	"to wave, flag (with handkerchief)" (English, et al 1961:165)

Blust (1988:118) has reconstructed Proto-Austronesian \*kilap / \*gilap "flash, sparkle".

## (5) KVJVP

This root is represented in Tibeto-Burman, Kadai, Austronesian, and Mon-Khmer.

TB	Tankhur Naga	khəjəp	"to wink; beckon, shake (hand)" (Bhat 1969:x,36; Matisoff 1972:280, 282)
KD	Siamese	khajip (taa)	"to wink (eye)" (Haas 1985:49)
	Siamese	khajup khajip	"to flick (eyelids when dust gets in eyes)" (Haas 1985:49)
	Siamese	khəjəp (pik)	"flutter, flap (wings)" (So 1986:39)
AD	Western Bukidnon Manobo	kijab	"to fan" (Blust 1986:50)
MK	Kammu	kɕjəp	"to blink" (Svantesson 1983:113)
	Kammu	khɕjʔɕp	"to waggle" (Svantesson 1983:113)

The general meaning associated with Tibeto-Burman *Tankhur Naga* khəjəp seems to be "to signal with the movement of the eyelids or the hand".

For the Kammu gloss "to waggle", I presume it has the sense of something, e.g., a dog's tail, moving back and forth. While it is easy to see the sense of movement in the blinking of the eyes and the wagging of a tail, it may be that the phonetic similarity between the two Kammu forms is merely fortuitous.

## (6) KLVP

This root with its consonant cluster with -l- allows some phonetic variation between -l- and -r- for the liquid consonant as in root (4) KVLVP. The root is based on forms appearing in languages from the Tibeto-Burman, Austronesian, and Mon-Khmer groups as demonstrated by the following list of items meaning "blink":

TB	<i>Jingpo</i>	kɿp	"wink, blink" (Yue et al 1981:841)
	<i>Tibetan-Written</i>		
		mik khrab khráb	"wink eye" (Jäschke 1985:667)
	<i>Boro</i>	məkhreb	"wink" (Bhat 1968:126)
AN	<i>Tagalog</i>	igláp	"in wink of an eye"
			(English 1965:1194)
	<i>Tagalog</i>	digláp	"flash" (Panganiban 1985:36)
MK	<i>Kammu</i>	krjáp	"blinking, moment"
			(Svantesson 1983:99)

## (7) KJVP, ŋjVP

This root is represented in Sinitic, Tibeto-Burman, Kadai, Austronesian, and Mon-Khmer. The initial consonant in the modern Sinitic forms shows variation between a voiced velar stop *g*-, a velar nasal *ŋ*-, and a nasalized velar stop *ŋg*-.

SN	<i>Yue-Guangzhou</i>	ŋap <sup>8</sup>	"blink; beckon, nod"
			(Meyer, Wempe 1947:427)
	<i>Kejia</i>	ŋap <sup>8</sup>	"move up and down"
			(Maciver 1926:517)
	<i>Kejia-Dongguan</i>	fɔ <sup>3</sup> sa <sup>2</sup> gjap <sup>7</sup>	"lightning" (= "fire snake flashes")
			(Zhan, Cheung 1988:5)
	<i>Kejia-Songhingtong</i>	fɔ <sup>3</sup> sa <sup>2</sup> ŋjap <sup>7</sup>	"lightning strikes" (= "fire snake flashes")
			(Sagart 1982:53)
	<i>Kejia-Shenzhen</i>	gjap <sup>8</sup>	"wave (hand)"
			(Zhan, Cheung 1988:365)
	<i>Yue-Enping</i>	ŋgjap <sup>8</sup>	"wave (hand)"
			(Zhan, Cheung 1988:365)
TB	<i>Tibetan-Written</i>	gjab-mo	"waving; beckon to come; act of fanning" (Jäschke 1985:507)
KD	<i>Be-Lingao</i>	ŋjap <sup>6</sup>	"blink" (Zhang et al 1985:456)
AN	<i>Karo Batak</i>	kjap	"wave with hand, beckon"
			(Blust 1986:50)
MK	<i>Wa</i>	khjap tɕɔ	"lightning" (Zhou, Yan 1984:181)



## (8) SJVP

This root is represented in Sinitic, Tibeto-Burman, Kadai, Austronesian, and Mon-Khmer. The initial consonant in Sinitic forms with the meaning "to wink the eye" and "to flash lightning" is a voiceless dental fricative, while forms with the meaning "to wave the hand" show its voiced counterpart *z*.

SN	<i>Kejia-Meixian</i>	<i>sap</i> <sup>7</sup>	"wink" (HFCH 1964:251)
	<i>Yue-Hongkong</i>	<i>saap</i> <sup>7b</sup>	"wink" (Zhan, Cheung 1988:178)
	<i>Kejia-Sixian</i>	<i>sap</i> <sup>7</sup>	"wink; close (eyes)" (Luo 1988:147)
	<i>Yue-Taishan</i>	<i>sjap</i> <sup>7b</sup>	"lightning" (Zhan, Cheung 1988:5)
	<i>Yue-Guangzhou</i>	<i>sip</i> <sup>7b</sup>	"flash, bright light" (Meyer, Wempe 1947:580)
	<i>Yue-Xinhui</i>	<i>zjap</i> <sup>7b</sup>	"wave (hand)" (Zhan, Cheung 1988:365)
	<i>Kejia-Huizhou</i>	<i>zap</i> <sup>8</sup>	"wave (hand)" (Zhan, Cheung 1988:365)

We should note that the above Sinitic forms do not have standard Chinese graphs associated with them. However, standard Chinese graphs are associated with three phonetically similar forms with a bilabial nasal stop ending: cf. 閃 (電) *Yue-Guangzhou sim*<sup>3</sup> (tin<sup>6</sup>) "flash (lightning)" (Zhan, Cheung 1988:5); 眨 *Mandarin-Beijing san*<sup>3</sup> "blink; twinkle" (Wu 1985:594), *Yue-Guangzhou sim*<sup>3</sup> (reading pronunciation). Based on my observations of forms from other Sinitic dialects and Southeast Asian language groups, I find the homophony of these two items not at all unusual. Very likely related to the above "wink" forms but with a slight difference in meaning are *Yue-Kamtin sip*<sup>7m</sup>, *Kejia-Huizhou siap*<sup>8</sup> "close (eyes)" (Zhan, Cheung 1988:363); and *Min-Chaozhou mak*<sup>8</sup> *siap*<sup>7</sup> "eyes closed" (Li 1959:215).

The Lhasa dialect of Tibetan has a form with the meaning "to blink" which can be compared with this root. Two Tibeto-Burman languages both represent the same meaning "to fan" which has been included with the basic meaning "to wave the hand". The Lushei form shows a range of meanings, "fan, winnow, flap, flutter", which justifies combining them together. The Boro and Lushei forms are probably related.

TB	<i>Tibetan-Lhasa</i>	<i>mi</i> <sup>51</sup> <i>ɕip</i> <sup>55</sup> <i>ɕiip</i> <sup>51</sup> <i>kja</i> <sup>12</sup>	"to blink eyes" (Zhang 1992:p.c.)
	<i>Lushei</i>	<i>zaap</i>	"fan, winnow, flap, flutter" (Benedict 1972:32)
	<i>Boro</i>	<i>sib</i>	"to fan" (Bhat 1968:151)
KD	<i>Be-Lingao</i>	<i>ɕjap</i> <sup>6</sup>	"blink" (Hashimoto 1980:162)
	<i>Li-Zhongsha</i>	<i>zip</i> <sup>7</sup>	"lightning" (Ouyang et al 1983:470)

AN <i>Malaweg</i>	sap	"winnow" (McFarland 1977:V.1, Map 86)
MK <i>Wa</i>	ʒip, ʒup	"wave (hand); fan" (Yan et al 1981:315)

Blust (1988:74) has reconstructed Proto-Austronesian \*Zep "wink, blink" (but cited no forms on which the reconstruction is based).

(9) TSJVP

This root is represented with the same meaning "to blink, wink" in Sinitic, Tibeto-Burman, Kadai, and Mon-Khmer, with forms showing both voiced and voiceless affricate initials. We should note further that in Kadai (represented by Buyi) and in Mon-Khmer (represented by Vietnamese), the lexical item means both "to wink" and "to flash lightning".

SN <i>Yue-Guangzhou</i>	t saap <sup>7b</sup>	"to blink, wink" (Zhan, Cheung 1988:5)
<i>Kejia-Huizhou</i>	t sap <sup>7b</sup>	"to blink, wink" (Zhan, Cheung 1988:5)
TB <i>Tibetan-Written</i>	t shab-t sháb	"blink" (Jäschke 1985:507)
<i>Tibetan-Lhasa</i>	mi <sup>51</sup> tsup <sup>51</sup>	"to close eye" (Zhang 1992:p.c.)
MN <i>Yao-Zaomin</i>	tsiap <sup>51</sup>	"to blink, wink" (Chang 1992:3)
<i>Yao-Mian</i>	dziap <sup>7</sup>	"wink" (MYFYCJ:47)
<i>Yao-Mian</i>	dziap <sup>8</sup>	"flash (lightning)" (MYFYCJ:93)
KD <i>Buyi-Xingyibajie</i>	dzap <sup>7</sup>	"wink; lightning" (BYDB 1959:309)
MK <i>Vietnamese</i>	tsep <sup>7</sup>	"wink; lightning" (Nguyen 1966:71)

In addition to *Yue-Guangzhou* t saap<sup>7b</sup>, there is a variant form t saam<sup>3</sup> (with long vowel and homorganic bilabial nasal ending) in both *Guangzhou* and *Hong Kong* dialects (cf. Aubazac 1909:82; HFCH 1964:251; Yue-Hashimoto 1972:282; Kwan 1990:124).

The history of the Sinitic root TSJVP "to wink, blink" would appear to span a considerable period of time: Yang (1968:22) cited the following very early Chinese graphs which are associated with the meanings "to wink, blink":

𦉳	GSR #636d *tsiap > tsiäp > tsie "eye-lashes" (Chuang) (Lietzu) "to wink"
𦉳	tsiäp ["eyelashes"] < **ktsiap "to wink, to blink" (from <i>Yupian</i> and <i>Guangyun</i> )

In addition to these two Chinese graphs, we should also take note of the following graph which is found in the *Guangyun* (1008 AD), its Ancient Chinese

reconstruction derived from its *fanqie* spelling (\*t s- + \*-æp), and its gloss (lit. 'the eye moves'):

眨目動側洽切

\*t sæp 'to wink'

(10) LJVP, NJVP

This root is represented in Sinitic, Tibeto-Burman, Kadai, and Mon-Khmer. In Sinitic and Mon-Khmer, forms with a palatal nasal initial are also found. In terms of its meanings, this root has an unequal semantic distribution through these language groups. The meanings 'blink' and 'lightning' are both associated with this root in Sinitic, Kadai and Mon-Khmer; but in Tibeto-Burman, as represented by Written Burmese, the meanings 'lightning' and 'wave' are associated with the root.

SN	<i>Min-Xiamen</i>	ljap <sup>7</sup>	'blink, wink' (Barclay 1970:158)
	<i>Kejia-Meixian</i>	ɲjap <sup>7</sup>	'lightning' (HFCH 1964:247)
TB	<i>Burmese-Written</i>	hljap	'lightning' (Benedict 1976:22)
	<i>Burmese-Written</i>	ljap-ljap	'wavingly as flag' (Benedict 1976:22)
KD	<i>Li-Jiamao</i>	ljap <sup>7</sup>	'blink' (Ouyang, Zheng 1983:517)
	<i>Be-Giongsan</i>	ljap <sup>7</sup>	'lightning' (Zhang et al 1985:304)
	<i>Shui</i>	ʔnjap <sup>7</sup> ʔniŋ <sup>3</sup>	'lightning bug' (Wang et al 1984:807)
MK	<i>Vietnamese</i>	ɲəp <sup>7</sup> ɲai <sup>5</sup>	'blink, wink' (Nguyen 1966:322)
	<i>Vietnamese</i>	ɲəp <sup>7</sup> ɲan <sup>5</sup>	'(stars) twinkle' (VHTD:597)
	<i>Vietnamese</i>	ləp <sup>7</sup> lue <sup>5</sup>	'flash' (VHTD:446)

In addition to Proto-Austronesian \*kilap and \*gilap 'lustre, shine', Blust (1988:78) has also reconstructed a monosyllabic root \*lap 'flash, sparkle' based on polysyllabic forms.

(11) JVP

The last root is represented in Sinitic, Tibeto-Burman, Mian, Kadai, and Mon-Khmer. In Sinitic all three meanings are found associated with this root. The Yue-Guangzhou form means both 'to wink' and 'to wave (the hand)' and seems to have the general sense of 'to signal by moving the eyes or the hand up and down'. Kadai may also include all three meanings, but the Old Siamese form requires further investigation. In Tibeto-Burman only the meaning 'to beckon, fan' is found. In Mon-Khmer the first Kammu form meaning 'to close (one's eyes)' has been included because of its similarity to the meaning 'to wink': the expression 'blinking, moment' has been analyzed as a combination of a nominalizing prefix kr- and jàp 'close (one's eyes)' (Svantesson 1983:99).

SN	<i>Yue-Guangzhou</i>	jap <sup>7</sup>	"wink" (Lau 1977:884)
	<i>Yue-Guangzhou</i>	jaap <sup>8</sup>	"wink, blink" (Meyer, Wempe 1947:803)
	<i>Kefia</i>	jap <sup>7</sup>	"flash (lightning)" (Maciver 1926:1077)
	<i>Yue-Guangzhou</i>	jaap <sup>8</sup>	"wave (hand)" (Yue-Hashimoto 1972:285)
	<i>Yue-Yangjiang</i>	jap <sup>7</sup>	"wink" (HFCH 1964:251)
TB	<i>Burmese-Written</i>	jap	"beckon with hand; to fan, a fan" (Benedict 1976:22)
	<i>Tibetan-Written</i>	jab-mo	"the act of fanning, waving" (Jäschke 1985:507)
	<i>Tibetan-Lhasa</i>	luŋ-jap	"fan" (Bell 1920:163)
	<i>Tankhur Naga</i>	jəp	"to beckon" (Bhat 1969:x)
	<i>Tankhur Naga</i>	a jəp	"beckoning (by moving hand)" (Bhat 1969:36)
MN	<i>Yao-Mian</i>	jaap <sup>7</sup>	"wave (hand)" (MYFCJ 1987:31)
KD	<i>Zhuang-Wuming</i>	jap <sup>7</sup>	"wink" (ZHCH 1984:730)
	<i>Zhuang-Wuming</i>	jaap <sup>7</sup>	"flash (lightning)" (ZHCH 1984:733)
	<i>Siamese-Old</i>	jàp (mum)	"wave (hand)" (Pranee Kullavanijaya 1989:pc)
MK	<i>Kammu</i>	jàp	"close (one's eyes)" (Svantesson 1983:99)
	<i>Kammu</i>	?jáp	"to waggle" (Svantesson 1983:113)

## 5. Summary and Conclusion

In this study lexical forms with meanings "wink, close (eye); lightning, flash, twinkle; wave, beckon, winnow, flap, flutter" have been taken from six Southeast Asian language groups and compared in terms of their phonetic and semantic convergence. Lexical forms from a language group which is made up of a set of related languages (or dialects, as they are referred to in Sinitic) have been treated as if they belonged to one language so that they can be compared across language groups. Unquestionably, some of these language groups are genetically related while others are not, but I believe their genetic affiliations are less important than their contact relationships when these have led to linguistic convergence.

As for the phonetic shapes of lexical items in the six language groups analyzed above, we can make the following general statements: there are only monosyllabic forms in Southern Sinitic, Mian, and Mon-Khmer. Both monosyllabic and polysyllabic forms occur in Tibeto-Burman, Kadai, and Austronesian. A velar-initial prefixal syllable is found in Tibeto-Burman, Kadai and Austronesian. Forms with velar initial consonant are found in Sinitic, Tibeto-Burman, Kadai, Austronesian, and Mon-Khmer. Forms with consonant

clusters occur in Tibeto-Burman, Austronesian, and Mon-Khmer; there are no forms with consonant clusters in Sinitic, Mian, or Kadai. Forms with *l*-initial occur in Sinitic, Tibeto-Burman, Kadai, and Mon-Khmer; there are no lexical forms with *l*-initial in Mian or Austronesian. Monosyllabic forms with a palatal glide as the initial consonant are found in Sinitic, Tibeto-Burman, Mian, Kadai, and Mon-Khmer (if ? is disregarded). Forms with fricative initials occur in Sinitic, Tibeto-Burman, Kadai, Austronesian, and Mon-Khmer. Forms with affricate initials occur in Sinitic, Tibeto-Burman, Mian, Kadai, and Mon-Khmer.

As for the semantics, all three meanings *wink*, *lightning*, and *wave* are lexicalized in Sinitic with three word shapes: KJVP, SJVP, JVP. The three meanings occur with two word shapes in Austronesian: KVSVP, KVLVP; and one word shape in Kadai: JVP. Five word shapes, i.e., KJVP, SJVP, TSJVP, LJVP, JVP, are found in five out of six language groups, viz., Sinitic, Tibeto-Burman, Mian, Kadai, and Mon-Khmer. LJVP occurs with the two meanings *wink* and *lightning* in Sinitic, Kadai, and Mon-Khmer and in Tibeto-Burman with the two meanings *lightning* and *wave*. Table 1 below displays the semantic and lexical distribution of 11 word shapes associated with *wink*, *lightning*, and *wave* by six language groups. We observe in Table 1 that semantic gaps exist for some word shapes because the limited lexical data on which this study is based indicate that not all meanings have been lexicalized. However, the writer predicts that with a larger, more comprehensive database, we would find that additional meanings have been lexicalized, so that a fair number of the gaps for language groups and meanings shown in Table 1 could be filled in.

TABLE 1:

**Distribution of 11 Word-shapes Associated with Meanings  
Wink, Lightning, Wave by Six Language Groups**

		SN	TB	MN	KD	AN	MK
1. KVS LVP	<i>Wink</i>						
	<i>Lightning</i>					x	
	<i>Wave</i>						
2. KVSVP	<i>Wink</i>					x	
	<i>Lightning</i>					x	
	<i>Wave</i>		x			x	
3. KVT SVP	<i>Wink</i>	(x)				x	
	<i>Lightning</i>					x	
	<i>Wave</i>		x				
4. KVLVP	<i>Wink</i>					x	
	<i>Lightning</i>					x	
	<i>Wave</i>					x	
5. KVJVP	<i>Wink</i>		x		x		x
	<i>Lightning</i>						
	<i>Wave</i>		x		x	x	x
6. KLVP	<i>Wink</i>		x			x	x
	<i>Lightning</i>					x	
	<i>Wave</i>						
7. KJVP	<i>Wink</i>	x			x		
	<i>Lightning</i>	x					x
	<i>Wave</i>	x	x			x	
8. SJVP	<i>Wink</i>	x	x		x		
	<i>Lightning</i>	x			x		
	<i>Wave</i>	x	x			x	x
9. TSJVP	<i>Wink</i>	x	x	x	x		x
	<i>Lightning</i>			x	x		x
	<i>Wave</i>						
10. LJVP	<i>Wink</i>	x		x			x
	<i>Lightning</i>	x	x	x			x
	<i>Wave</i>		x				
11. JVP	<i>Wink</i>	x			x		x
	<i>Lightning</i>	x			x		
	<i>Wave</i>	x	x	x	x		x

Figure 1 below, modelled on Matisoff's "organic semantic approach" developed for Tibeto-Burman languages (Matisoff 1978:141-229), is an attempt to represent diagrammatically the connectedness of the principal meanings *wink*, *lightning*, and *wave* and their related meanings to the basic meaning "to move up and down or back and forth; flash on and off" which has been associated with **KVSLVP**.

Figure 1.

**Semantic Interconnectedness of Word Family Wink, Nod, Lightning, Wave.**

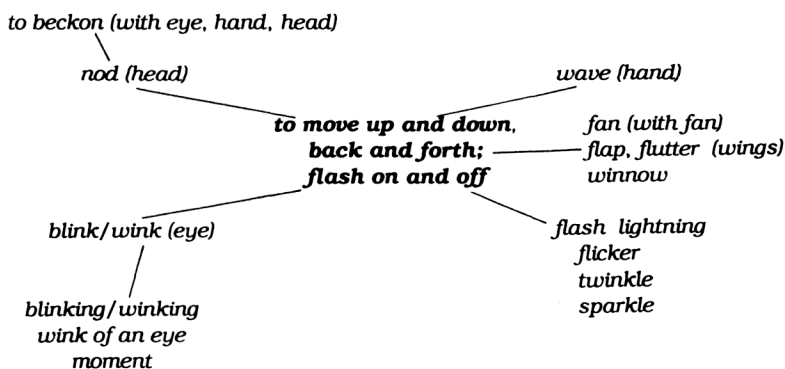


Table 2 below lists the glosses of the lexical items, the names of the languages from which they are taken, and their bibliographical sources.

TABLE 2:

**Lexical Items by Languages and Language Groups**

SN	1.	Yue-Guangzhou	ŋap <sup>8</sup>	"blink" (Meyer, Wempe 1947:427)
	2.	Kejia-Dongguan	gɟap <sup>7</sup>	"lightning" (Zhan, Cheung 1988:5)
	3.	Kejia-Shenzhen	gɟap <sup>8</sup>	"wave (hand)" (Zhan, Cheung 1988:365)
	4.	Kejia-Meixian	sap <sup>7</sup>	"wink" (HFCH 1964:251)
	5.	Yue-Taishan	sɟap <sup>7b</sup>	"lightning" (Zhan, Cheung 1988:5)
	6.	Yue-Xinhui	zɟap <sup>7b</sup>	"wave (hand)" (Zhan, Cheung 1988:365)
	7.	Yue-Guangzhou	tɕaap <sup>7b</sup>	"blink, wink" (Zhan, Cheung 1988:178)
	8.	Min-Xiamen	lɟap <sup>7</sup>	"blink, wink" (Barclay 1970:158)
	9.	Kejia-Meixian	nɟap <sup>7</sup>	"lightning" (HFCH 1964:6, 247)
	10.	Yue-Guangzhou	jaap <sup>8</sup>	"blink, wink" (Meyer, Wempe 1947:803)
	11.	Yue-Guangzhou	ɟap <sup>7</sup>	"wink" (Lau 1977:884)
	12.	Kejia	ɟap <sup>7</sup>	"flash (lightning)" (Maciver 1926:1077)
	13.	Yue-Guangzhou	jaap <sup>8</sup>	"wave (hand)" (Yue-Hashimoto 1972:285)
TB	14.	Boro	ɡisib	"fan" (Bhat 1968:72)
	15.	Jingpo	kǎ tsap <sup>1</sup>	"winnow" (Liu 1984:117)
	16.	Tankhur Naga	khəjəp	"to wink" (Bhat 1969:x)
	17.	Tankhur Naga	khəjəp	"beckon, shake (hand)" (Bhat 1969:36)
	18.	Jingpo	kɿip	"wink, blink" (Yue et al 1981:841)
	19.	Tibetan-Written	ɡjab-mo	"waving; beckon to come" (Jäschke 1985:507)
	20.	Lushei	zaap	"fan, winnow, flap, flutter" (Benedict 1972:32)
	21.	Tibetan-Written	tshab-tsháb	"blink" (Jäschke 1985:447)
	22.	Burmese-Written	hlɟap	"lightning" (Benedict 1976:22)
	23.	Burmese-Written	lɟap-lɟap	"wavingly as flag" (Benedict 1976:22)
	24.	Burmese-Written	ɟap	"beckon with hand, fan" (Benedict 1976:22)



MN	25. Yao-Mian	dziep <sup>7</sup>	"wink" (MYFCJ 1987:47)
	26. Yao-Mian	dziap <sup>8</sup>	"flash (lightning)" (MYFCJ 1987:93)
KD	27. Yao-Mian	jaap <sup>7</sup>	"wave (hand)" (MYFCJ 1987:31)
	28. Siamese	kha jìp	"to wink" (Haas 1985:49)
	29. Siamese	khə jàp	"flap (wings)" (So 1986:39)
	30. Be-Lingao	ŋjap <sup>7</sup>	"blink, wink" (Zhang et al 1985:456)
	31. Be-Lingao	ʒjap <sup>6</sup>	"blink" (Hashimoto 1980:162)
	32. Li-Zhongsha	zip <sup>7</sup>	"lightning" (Ouyang et al 1983:470)
	33. Buyi-Xingyibajie	dzap <sup>7</sup>	"blink" (BYDB 1959:309)
	34. Buyi-Xingyibajie	dzap <sup>7</sup>	"lightning" (BYDB 1959:309)
	35. Li-Jiamao	ljap <sup>7</sup>	"blink" (Ouyang, Zheng 1983:517)
	36. Be-Qiongshan	ljap <sup>7</sup>	"lightning" (Zhang et al 1985:304)
AN	37. Zhuang-Wuming	jap <sup>7</sup>	"wink" (ZHCH 1984:730)
	38. Zhuang-Wuming	jaap <sup>7</sup>	"flash (lightning)" (ZHCH 1984:733)
	39. Siamese-Old	jàp (muu)	"wave (hand)" (Pranee Kullavanijaya 1989:p.c.)
	40. Tagalog	kisláp	"flash" (Panganiban 1985:36)
	41. Tagalog	kisáp	"blinking, winking" (English 1965:103, 1194)
	42. Tagalog	kisáp	"twinkle" (Panganiban 1985:130)
	43. Kadazan	ki-kizop	"fan" (Blust 1986:50)
	44. Malay	ke jap	"blink" (Abas 1983:308)
	45. Indonesian	ke japan	"flash, sparkle; blink" (KBITH 1976:281)
	46. Malay	kelip	"wink" (Abas 1983:319)
	47. Indonesian	kelap-kelip	"flash, sparkle, twinkle" (KBITH 1976:283)
	48. Indonesian	kirap	"to wave, flag" (English et al 1961:165)
	49. W.Bukid.Manobo	ki jab	"to fan" (Blust 1986:50)
	50. Tagalog	igláp	"in wink of an eye" (English 1965:1194)
	51. Tagalog	digláp	"flash" (Panganiban 1985:36)
	52. Karo Batak	kjap	"wave with hand, beckon" (Blust 1986:50)
	53. Malaweg	sap	"winnow" (McFarland 1977:V. 1, Map 86)
MK	54. Kammu	kʰjàp	"blink" (Svantesson 1983:113)
	55. Kammu	khʰjǎp	"to waggle" (Svantesson 1983:113)

56. Kammu	kr jàp	"blinking, moment" (Svantesson 1983:99)
57. Wa	ʒip	"wave (hand), fan" (Yan et al 1981:315)
58. Wa	khjap tɕo	"lightning" (Zhou, Yan 1984:181)
59. Vietnamese	tsep <sup>7</sup>	"blink, wink" (Nguyen 1966:71)
60. Vietnamese	tsep <sup>7</sup>	"lightning" (Nguyen 1966:71)
61. Vietnamese	ɲep <sup>7</sup> ɲai <sup>7</sup>	"blink, wink" (Nguyen 1966:322)
62. Vietnamese	ɲep <sup>7</sup> ɲan <sup>5</sup>	"(stars) twinkle" (VHTD:597)
63. Vietnamese	lep <sup>7</sup> lue <sup>5</sup>	"flash" (VHTD:446)
64. Kammu	jàp	"close (one's eyes)" (Svantesson 1983:99)
65. Kammu	ʔjíp	"to waggle" (Svantesson 1983:113)

Table 3 below (pp.174-175) summarizes the lexicalization of meanings by distributing lexical forms by roots, meanings, and language groups; the table also clearly displays lexical gaps within and across language groups. The small raised number on the left side of a lexical item corresponds to its numerical sequence in Table 3 above. A small raised number on the right side of the lexical item represents its tone category

TABLE 3:  
PANASEA KVS LVP "move up and down; flash on and off"  
Modern Forms Distributed by Variant Roots, Meanings and Language Groups

Roots/ Meanings	SN Sinitic	TB Tibeto- Burman	MN Mian	KD Kadai	AN Austronesian	MK Mon-Khmer
<b>KVS LVP</b> Blink/Wink Lightning Wave/Fan					40k i s l á p	
<b>KVS VP</b> Blink/Wink Lightning Wave/Fan		14g i s i b			41k i s á p 42k i s á p 43k i z o p	
<b>KVS VP</b> Blink/Wink Lightning Wave/Fan		15k ǎ t s ǎ p <sup>1</sup>			44k e j a p 45k e j a p a n	
<b>KVL VP</b> Blink/Wink Lightning Wave/Fan					46k e l i p 47k e l a p - 48k i r a p	
<b>KVJ VP</b> Blink/Wink Lightning Wave/Fan		16k h e j ə p 17k h e j ə p		28k h a j i p 29k h e j ə p	49k i j a p	54k ǎ j ə p 55k ǎ j ǎ p

<b>KLVP</b> Blink/Wink Lightning Wave/Fan	18krip			501gláp 51d1gláp	56krjáp
<b>KJVP</b> Blink/Wink Lightning Wave/Fan	19ap <sup>8</sup> 29jap <sup>7</sup> 39jap <sup>8</sup>	309jap <sup>7</sup>		52kjav	57khjav
<b>SJVP</b> Blink/Wink Lightning Wave/Fan	4sap <sup>7</sup> 5sap <sup>7b</sup> 6zjap <sup>7m</sup>	313jap <sup>6</sup> 32zi <sup>7</sup>		53sap	58zip
<b>TSJVP</b> Blink/Wink Lightning Wave/Fan	7tsaap <sup>7</sup>	25dz1ep <sup>7</sup> 26dz1ap <sup>8</sup>			59tsep <sup>7</sup> 60tsep <sup>7</sup>
<b>LJVP</b> Blink/Wink Lightning Wave/Fan	81jap <sup>7</sup> 99jap <sup>7</sup>	21tshab			619ep <sup>7</sup> 629ep <sup>7</sup> 631ep <sup>7</sup>
<b>JVP</b> Blink/Wink Lightning Wave/Fan	101jap <sup>8</sup> . 11jap <sup>7</sup> 12jap <sup>7</sup> 13jaap <sup>8</sup>	22hljav 231jav			64(jáp)
		24jav	27jaap <sup>7</sup>		649jǽp

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<sup>6</sup> In the preceding text some sources have been cited by their abbreviated titles without the names of authors or editors, e.g., HFCH = *Hanyu Fangyan Cihui*. Not all references listed in the Bibliography have been cited in the text; this is because the Bibliography reflects a larger database and only a portion of that database has been used in the text.

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