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N+V COMPOUND NOUNS IN THAI*

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Compound words in Thai, as noted by Haas (1966), are of various types, e.g. N+N, N+V, V+N, and V+V, etc. In this paper I will discuss whether N+V compound nouns

(a) are formed by transformational rules,
(b) are formed by lexical rules, or
(c) are lexical items.

I will argue that compounds of this type should be lexical items. In addition, I will discuss the cases in which some N+V compound nouns may have a phrasal origin (i.e. N + verbal modifier). Finally, I will show how the native speaker knows that the compound is related to its components, and how this knowledge should be captured in a linguistic theory.

1. N+V compound nouns

N+V compound nouns and phrases which look like compound nouns are exemplified below.

(1.1)	a.	khrʉ̂aŋ-bin	(machine+to fly)	'airplane'
		náam-tòk	(water+to fall)	'waterfall'
		bay-phát	(blade+to spin)	'propeller'
		banday-lɤ̂an	(stair+to move)	'escalator'
	b.	yaa-sàlòp	(medicine+to faint)	'anesthetic'
		yaa-thàay	(medicine+to have a bowel movement)	'laxative, purgative'
	c.	kày-chon	(chicken+to fight)	'fighting cock'
		plaa-kàt	(fish+to bite)	'fighting fish'
	d.	hǔu-rûut	(ear+to slide)	'zipper tab'
		máay-thɤ́aw	(wood+to lean on)	'walking stick'
	e.	nǎŋsʉ̌ʉ-phim	(book+to print)	'newspaper'
		thùa-tàt	(bean+to cut)	'peanut brittle'
		sây-krɔ̀ɔk	(intestine+to fill)	'sausage'
		naalíkaa-phók	(watch+to carry (in a pocket, etc.))	'pocket watch'
		naalíkaa-plùk	(watch+to wake)	'alarm clock'
	f.	máay-khìit	(wood+to scratch)	'matches'
	g.	bay-sèt	(sheet+to finish)	'receipt'
		bay-kɤ̀ɤt	(sheet+to be born)	'birth certificate'
(1.2)	a.	mánaaw dɔɔŋ	(lime+to pickle)	'pickled lime'
	b.	kràthiam dɔɔŋ	(garlic+to pickle)	'pickled garlic'
	c.	khâaw phàt	(rice+to fry)	'fried rice'
	d.	khâaw tôm	(rice+to boil)	'boiled, watery rice'

*This is a revised version of what appears in the UCLA Papers in Syntax, No.6, 1974. Edited by Sandra A. Thompson.

	e.	khày tôm	(egg+to boil)	'boiled egg'
	f.	kày thɔ̂ɔt	(chicken+to fry)	'fried chicken'
	g.	mŭu thɔ̂ɔt	(pork+to fry)	'fried pork'
	h.	kày yâan	(chicken+to roast)	'roast chicken'
	i.	mŭu yâan	(pork+to roast)	'roast pork'
	j.	pèt yâan	(duck+to roast)	'roast duck'
	k.	plaa nâŋ	(fish+to steam)	'steamed fish'
(1.3)	a.	tûu-yen	(cabinet+to be cold)	'refigerator'
		khâaw-baw	(rice+to be light)	'rapid maturing rice'
		khày-dɤɤŋ	(egg+to be red)	'egg yolk'
		khày-khăaw	(egg+to be white)	'egg white'
	b.	tó khăaw	(table+to be white)	'white table'
		dèk ûan	(child+to be fat)	'fat child'
(1.4)	a.	kaa-lŏŋ	?(crow+to be lost)	'a kind of plant'
		naaŋ-kwàk	?(woman+to wave one's hand (palm downward))	'a kind of plant'
		chaáŋ-rɔ́ɔŋ	?(elephant+to yell)	'a kind of fireworks'
	b.	kûŋ-yiŋ	?(shrimp+to shoot)	'stye'
		waa-nɔɔn	?(a measure of length equal to 2 meters+to sleep)	'monkey'
		{laan / laŋ}-sàat	?({omen / box}+to splash)	'a kind of fruit'

The grouping of the above items is done for expository and reference purposes. Most of them are grouped according to the meaning or the paraphrased meaning of the phrases and compounds. For example, (1.1a) indicates the capability of the noun-component, (1.1b) has a causative meaning, etc. Some of them can be interpreted in more than one way. For example, (1.1c) can be understood as having either purpose or capability (of the noun-component) reading. The status of the items in (1.2), i.e. whether they are compounds or phrases, calls for discussion. The forms in (1.3a-b) consist of a noun and a so-called descriptive verb. (1.4a) contains forms which may be regarded by some speakers as compounds, but by others as polysyllabic words. The (metaphorical) meaning of these 'compounds' can, given some extra-linguistic knowledge, e.g. a particular Thai legend, or imagination, etc., indirectly be related to the componential parts of the 'compounds'. For example, naaŋ-kwàk is a plant whose curl leaves look like the shape of a lady's hand when it is waved palm downward. (1.4b) contains forms which may not be regarded by anybody as compounds, because their (metaphorical) meaning is too far fetched from the componential parts. I have tried to illustrated variety of N+V, but I do not claim to have shown them all.

Before moving on to discuss the mechanism which accounts for the compound nouns of the form N+V, we have to show that this kind of compound exists. To do this, let's consider the difference between a compound, e.g. banday-lâan 'escalator (stair+to slide or move)' and tó lâan 'table' 'to move', which is a non-compound structure. (1.5), (1.6), and (1.7) show that banday-lâan , like

a noun, can take a demonstrative, a numeral, and a modifier, but tó lâan cannot.

(1.5)	a.	banday-lâan stair move	nán that			'that escalator'
	b.	*tó lâan table move	nán that			*'that moving table'
(1.6)	a.	banday-lâan	2	an/khrâaŋ Classifier		'2 escalators'
	b.	*tó lâan	2	tua Classifier		*'2 moving table'
(1.7)	a.	banday-lâan	sĭi color	dam black		'black escalator'
		*tó lâan	sĭi	dam		*'black moving table'

(1.5) - (1.7) indicate that banday-lâan does not function syntactically as a phrase consisting of a noun and a verb. However, they do not rule out the possibility that banday-lâan is a noun phrase, i.e. a noun plus a modifier. The following will show that this is not the case. If lâan can function as a modifier, it should be able to modify a noun in a liberal way, provided no selectional restrictions are violated and the contexts are appropriate. The fact that lâan cannot be used to modify nouns such as 'table' and 'chair', even in the following situation, indicates that it cannot function as a modifier. Suppose there is an earth tremor and some tables and chairs are moving. Upon seeing the moving tables and chairs one cannot say,

(1.8)	*duu look	tó/kâwîi table/chair	lâan move	tua Classifier	nán that	sí Particle
	*'Look at that moving table/chair.'					

In addition, after the tremor, one cannot say (1.8) to mean 'Look at that moved table/chair' either. Since lâan in banday-lâan can function neither as a verb nor a modifier, it must be a part of a compound. This means that compound nouns of the form N+V exist.

2. Transformational rules, lexical rules, or compound lexical items

Earlier linguists, for example Warotamasikkhadit (1972) and Fasold (1969), derive the compounds in question by transformational rules. In addition, some authors of Thai textbooks, e.g. Yates and Tryon (1970), imply that these compounds are derived transformationally.[1]

Warotamasikkhadit (1972), using a generalized transformation framework, derives a compound from two independent sentences. Without elaboration, he posits, for example, rules GT.26 and GT. 32 to derive sentences containing the compounds naám-khaaŋ 'dew (water + stay, or get stuck on or in something)' and taw-rîit 'an iron (stove+to iron)', as illustrated in (2.1) and (2.2). (Note: K = kh, and P = ph)

(2.1) GT.26 $X+N^1(Det^1)Y$, $N^2(Det^2)V_i$ $\Longrightarrow$ $X+N^1+V_i(Det^1)Y$

Where $N^1 = N^2$

náam	kɔ̀?	bay	yâa	
water	hold	leaf	grass	
náam	Káaŋ			
water	stay			

$\Longrightarrow$ náam+Káaŋ+kɔ̀?+bay+yâa

'dew stays on leaves of grass'

(2.2) GT.32 $X+N^1(Det^1)Y$, $N^2(Det^2)VB\{dûay, nay\}N^3(Det^3)$ $\Longrightarrow$ $X+N^1+VB(Det^1)Y$

Where $N^1 = N^3$, VB = V_i, V_{am}, V_t + Nom, V_m + Nom, pen + Nom

Kǎw	mii	taw		
he	have	stove		
raw	rîit	Pâa	dûay	taw
we	iron	cloth	with	stove

$\Longrightarrow$ Kǎw+mii+taw+rîit

'he has an iron'

The shortcomings of this analysis are:

(a) Constraint: There doesn't seem to be a non-ad hoc way to prevent his rules from deriving unacceptable strings. For example, (2.3), which has exactly the same structure as (2.2), will undergo rule GT.32, when it should not.

Kǎw	mii	maáy		
he	have	wood		
raw	tii	dèk	dûay	maáy
we	beat	child	with	wood

$\Longrightarrow$ *Kǎw+mii+maáy+tii[2]

*'he has a switch (used for whipping)'

The problem with rule GT.26 can be shown as follows: N^1 in the first string in GT.26 must be allowed to be either a subject (so that sentences like (2.1) can be derived) or an object (so that a sentence like khǎw hěn náam-khaáŋ 'he saw dew' can be derived). A problem arises when we try to derive sentences like (2.4).

(2.4)

náam	bon	bay	bua	nán	kɔ̀ɔt	càak	náam-khaáŋ
water	on	leaf	lotus	Dem	born	from	dew

thîi ruamtua kan

Rel combine together

The water on that lotus leaf came from dew which combined together.

According to GT.26, the second string doesn't allow anything before the noun and after the verb. Therefore, the underlying structure of (2.4) will have to be (2.5) (disregard irrelevant transformations which may have applied).

(2.5) naám bon bay bua nán kɔ̀ɔt càak naám thîi ruamtua kan
N_x P N N Dem V P N_y Rel V Adv
water on leaf lotus That born from water which comb. to.
naám khaáŋ
N_z V_i
water stay

First, the first string in (2.5) is semantically odd. Second, since both N_x and N_y are identical to N_z, rule GT.26 can attach V_i to either N_x or N_y. In the second case, we have (2.4). In the first, we have the semantically anomalous string (2.6):

(2.6)
naám-khaáŋ bon bay bua nán kɔ̀ɔt càak naám thîi ruamtua kan
N_x V_i N_y
dew on leaf lotus that born from water which comb. to.
The dew on that lotus leaf came from water which combined together.

(b) Criteria: There are no criteria for what can appear as an input to the rules. For example, instead of formalizing rule GT.32 to allow the second string in the rule to be raw rîit Pâa dûay taw "we iron cloth with 'stove'", we can formalize it in such a way that the second string can be raw/khăw/khon raw cháy taw rîit phâa/sîaphâa "we/he/human beings use 'stove' to iron cloth/clothing", or taw cháy sămràp rîit phâa/sîaphâa "a 'stove' is used for ironing cloth/clothing".

(c) Deletion: Deletion of meaningful items doesn't seem to be well motivated or to have independent justification. For example, all the following items in the second string of (2.2) -- the subject, the object, and the adverbial -- are subject to deletion. This kind of deletion is highly questionable.

(d) Meaning: It is not clear how the meaning of the compounds can be arrived at.

Like Warotamasikkhadit (1972), Fasold (1969) divides compounds of the type N+V into several groups. Unlike Warotamasikkhadit, however, he demonstrates how a compound itself is derived. Instead of deriving a compound from two independent sentences, he derives it from an NP containing a relative clause, according to the paraphrased meaning of the compound. For example, rʉa-bin (boat+to fly) 'seaplane, airplane' and naalíkaa-plùk (clock+to wake) 'alarm clock' are derived as in (2.7) and (2.9).

(2.7) BASE: ⟨rʉa ⟨rʉa bin ⟩$_S$ ⟩$_{NP}$
boat boat fly

(For the benefit of the reader, I illustrate the intermediate derivations (as would be derived by Fasold himself) as follows:)

T. Rel Insertion
⟨rʉa ⟨thii rʉa bin ⟩$_S$ ⟩$_{NP}$
which

T. Rel N Del
$\langle$ rɨa $\langle$ thîi ∅ bin $\rangle_S$ $\rangle_{NP}$

T. Pron Del
$\langle$ rɨa $\langle$ ∅ ∅ bin $\rangle_{VP}$ $\rangle_{NP}$

After that a general noun compound (GNC) rule, illustrated below, will turn the last structure above into a compound, i.e. rɨa-bin.

(2.8) GNC $\langle$ N $\left\{ \begin{matrix} N \\ V \end{matrix} \quad (N) \right\}$ $\rangle_{NP}$
1 2
$\longrightarrow$ 1 $\rangle$ 2

(2.9) BASE: $\langle$naalíkaa $\langle$khon cháy sǎmràp $\langle$kaan $\langle$kaan
clock person use for activity activity
pen $\langle\langle$naalíkaa plùk khon $\rangle_S$ $\rangle_{NP}$ $\rangle_S$
be clock arouse person
$\rangle_{NP}$ naalíkaa $\rangle_S$ $\rangle_{NP}$
clock

After a series of Relativization and Deletion rules, which need not be elaborated here, have applied to this string, the structure will be

$\langle$naalíkaa $\langle$plùk khon $\rangle_N$ $\rangle_{NP}$
clock arouse person

(Actually the position occupied by N should be VP. It might be a misprint in his manuscript.)
Then Fasold (1969) states (p.116):

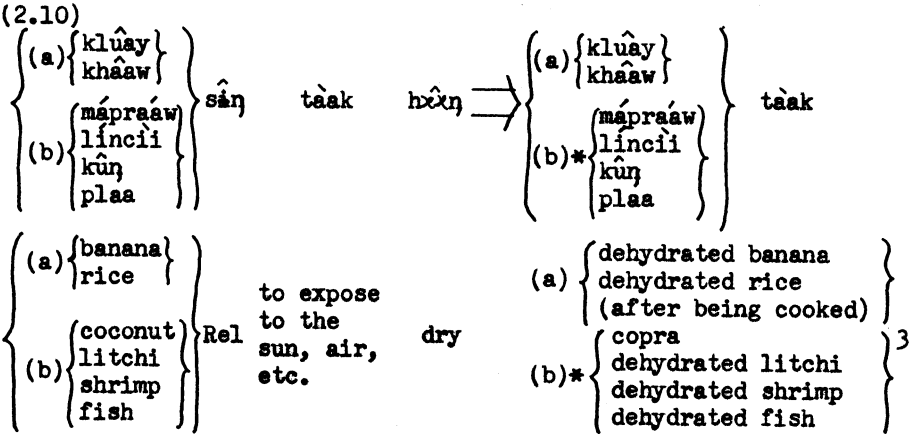
> GNC applies to this structure to form naalíkaaplùkkhon , a non-occurring compound. In order to generate naalíkaaplùk , we will have to add a rule which applies to structures generated by GNC to delete unwanted members in cases like this. The rule is of this form:
>
> Noun Compound Deletion 1. $\langle$ N V $\begin{bmatrix} +N \\ +Pro \end{bmatrix}$ $\rangle_N$
> 1 2 3
> $\longrightarrow$ 1 2 ∅
>
> This optional rule deletes the third member of a noun compound of the form Noun-Verb-Noun if the third member is a Pro-noun like khon 'person'.

The problems encountered by Fasold's model include the following:

(a) Constraint: There does not seem to be a non-ad hoc way

of blocking the transformational rules from deriving unacceptable strings. For example, a rule which derives the acceptable compounds in (2.10a) will also derive the unacceptable ones in (2.10b), because both of them have exactly the same underlying structure.

(2.10)



Another example is that the Noun Compound Deletion Rule Fasold posited will also delete an item when it is not supposed to. According to this rule, the second noun of the structure Noun-Verb-Noun will be deleted if it "is a Pro-noun like khon 'person'". Unfortunately, there are compounds of the form N-V-N in which the second noun is khon and it cannot be deleted, e.g. mánút-kin-khon (man+to eat+person) 'man-eating person', and tônmáay-kin-khon (plant+to eat+person) 'man-eating plant'.

(b) Meaning - Deletion: A transformational approach which derives a compound from a structure which is based on the paraphrased meaning of the compound to be derived will encounter a problem with compounds like:

(2.12)	a.	tŭa-camnam	(ticket+to pawn)	'receipt listing pawned items'
	b.	bay-laa	(sheet+to take leave)	'application for a leave of absence'
	c.	sànaăm-bin	(field+to fly)	'airport'

For example, the meaning of (2.12b-c) is (2.12b'-c'):

(2.12)	b'.	bay	sâŋ	khon	yáan	phâa	khɔ̌ɔ	laa	ŋan
		sheet	Rel	person	submit	for	request	take leave	work
	c'.	sànaăm	sâŋ	khrâan-bin	bin	khán	(bin)	lon	
		field	Rel	airplane	fly	up	fly	down	

If we capture the meaning of a compound in the deep structure, (2.12b-c) will have the deep structure (2.12b'-c') respectively. This means that all the underlined items in (2.12b'-c') have to be deleted. This kind of deletion should be objected because several meaningful, unrecoverable items are deleted. On the other hand, if we disregard the meaning in the deep structure and derive, for example, (2.12b) from

(2.12) b". bay sâŋ laa
sheet Rel to take leave

we have difficulty explaining how the actual meaning of the compounds is arrived at.

Yates and Tryon (1970) will not be discussed because they merely imply that the compounds are derived transformationally.

What is left to be decided is whether the compounds we are discussing are best described as single lexical items or as derived by lexical rules.[4] The decision will be based on (i) the productivity of the rule which conjoins a noun with a verb, and (ii) the predictability of the meaning of the compounds.

(i) Productivity

If the rule which combines a noun with a verb is synchronically productive, the compound should be derived by a rule, in order to capture the correct generalizations and to keep the complexity in the lexicon from increasing. On the other hand, if the rule is not productive, or is what Cram (1972) calls 'semi-productive', the compounds should be listed in the lexicon, because there is no good way to allow the rule to apply to some cases and not to the others when in both cases the structural description of the rule is met. In addition, no generalization can be made.

(2.13)	a.	naalíkaa-phók	(watch+to carry)	'pocket watch'
		mîit-phók	(knife+to carry)	'pocket knife'
		pâiŋ-phók	(gun+to carry)	'pistol'
	b.	*wítthayú-phók	(radio+to carry)	'pocket radio'
		*năŋsăì-phók	(book+to carry)	'pocket book'
	c.	wítthayú-krapăw	(radio+pocket)	'pocket radio'
(2.14)	a.	sàt-liaŋ	(animal+to raise)	'domestic animal'
	b.	*măa-liaŋ	(dog+to raise)	'domestic dog'
		*kăy-liaŋ	(chicken+to raise)	'domestic chicken'
	c.	măa-bâan	(dog+house)	'domestic dog'
		kăy-bâan	(chicken+house)	'domestic chicken'
(2.15)	a.	*măay-khîip	(wood+to grip)	'chopsticks'
	b.	tàkìap	---	'chopsticks'
(2.16)	a.	din-dùut	(earth+to pull)	'quicksand'
	b.	*lèk/rêx-dùut	(iron/ore+to pull)	'magnet'
	c.	mêx-lèk	(mother+iron)	'magnet'

These examples indicate that the compound rule can be only semi-productive. In some cases the verbal component of a compound

has 'competition'. For example, phók 'to carry in a pocket' can be combined with 'watch', 'knife', and 'gun', but not with 'radio' and 'book', as illustrated in (2.13a-b). The second element in the compound 'pocket radio' is kràpăw 'pocket', as shown in (2.13c). (As for 'pocket book', I would like to predict that năŋsɨ̌ɨ̌ chàbàp kràpăw (book Classifier pocket) '= pocket edition book' or năŋsɨ̌ɨ̌ lêm lék lék (book Class. small small) '= small book' will be used, instead of *năŋsɨ̌ɨ̌-phók.) likewise, the second element in 'domestic dog' and 'domestic chicken' is bâan 'house' when it should have been liáŋ 'to raise'. Finally, semantically, it is very appropriate to call 'chopsticks' and 'magnet' *máay-khîip (wood+to grip or take up (with forceps, chopsticks, or pliers)) and *lèk/rɤ̂ɤ̌-dùut (iron/ore+to pull) respectively. But as seen in (2.15) and (2.16), these two compounds are unacceptable. Note that what makes it even more appropriate to call 'magnet' *lèk/rɤ̂ɤ̌-dùut is the existence of the compound din-dùut 'quicksand' (shown in (2.16a)). The objection to deriving the compounds by lexical rules is, therefore, that adequate criteria for the application of the rules do not seem possible.

What seems to be in favor of a lexical rule hypothesis is that there are verbs such as dɔ̂ɔŋ 'to pickle', thɔ̂ɔt 'to fry', and tôm 'to boil', etc., examples of which are given in (1.2), which can occur with nouns liberally. Therefore, it seems that the compound rules are productive here. However, there is one question that has to be answered: Is a noun plus one of these verbs a compound or, as Marchand (1966) calls it, a syntactic group?

It is certainly very difficult to distinguish between a compound and a syntactic group. For example, European and American grammarians and linguists have long been trying to establish adequate criteria to distinguish between the two. Some of them resort to stress, others to spelling, etc.[5] If the situation is bad in English, it is worse in Thai. Stress is non-phonemic in Thai. To seek morphophonemic stress patterns for compounds is, therefore, out of the question.[6] Spelling offers no help because words are written next to one another without spacing. A syntactic group of two words and a compound consisting of two words look exactly the same. However, I find the following guidelines helpful.

(i) If the second element in the form N+V can't occur with nouns in a liberal way, e.g. if it can occur with only one or a limited number of nouns, it is likely that it is functioning as a componential part of a compound. For example, the verb lɤ̂an 'to move', which can be a componential part of a compound but not a modifier, can occur with banday 'stair', as in (1.5), but not with tó 'table' and kâwîi 'chair', as exemplified in (1.8).

(ii) If the form N+V is not understood as the sum of the two constituent elements, it must be a compound. For example, there is a conceptual difference between the compound (2.17a) and the non-compound (2.17b).

(2.17) a. phâa-lɨ̌aŋ (cloth + be yellow)
b. phâa lɨ̌aŋ (cloth + be yellow)

The former is conceptualized as something worn by a Buddhist monk, i.e. 'Buddhist robe'. The latter is understood as a piece of cloth with a certain shade of color (i.e. yellow), i.e. 'yellow cloth'. This conceptual distinction can be substantiated in many cases. For example, the predicate sǐi sôm 'to be orange' constitutes a contradiction if its subject is the non-compound (2.17b), but not if its subject is the compound (2.17a), as illustrated by (2.18a and b).

(2.18) a. phâa-lɨ̌aŋ phɨ̌ɨn níi sǐi sôm
'This yellow cloth (=Buddhist robe) has an orange color.'
b. *phâa lɨ̌aŋ phɨ̌ɨn níi sǐi sôm
*'This yellow cloth has an orange color.'

Returning to the question whether a combination of a noun plus a verb, such as dɔɔŋ 'to pickle' and thɔ̂ɔt 'to fry', etc., is a compound, my contention is that it is not. The conclusion is based on the following observations:

(i) Syntactically, the second element (i.e. the verb) behaves like a modifying noun, e.g. máay 'wood' and lèk 'steel', etc., in that it can occur with any noun provided that no selectional restrictions are violated and/or the context is appropriate. Several of these verbs (the second elements) can occur in hypothetical forms, i.e. forms which are normally regarded as semantically weird, e.g. rɔɔŋthâaw tôm 'boiled shoes' (in the expression 'During the war some soldiers had to eat boiled shoes.'). Another example: Suppose that while a cook is frying something some toothpicks happen to fall into the pan; the cook may ask his friend,

(2.19) khun yàak kin máaycîmfan thɔ̂ɔt mǎy
you want eat toothpick fry Question
'Would you like to eat some fried toothpicks?'

(ii) Conceptually, a noun plus one of these verbs is understood the same way as a noun plus a modifying noun or a so-called descriptive verb, in that the meaning of the form is the sum of the two constituent elements.

(iii) As mentioned earlier the verbs in question can occur liberally with a noun. If a noun plus one of these verbs is a compound, there must be a very large number of this kind of compound. However, the Thai Dictionary (1950) has not listed a single N+V in which the V is the verb in question. This certainly casts doubt on the assumption that this kind of N+V is a compound, because normal dictionaries usually list a large number of compounds.

(ii) Predictability

It is desirable to derive the compound by a rule if the meaning of the compound is always predictable on the basis of its components. In other words, if it is the case that upon knowing the meaning of

the noun and the verb which make up the compound, the speaker will always know the meaning of the compound, then the compound should be derived by a rule, in order to capture the fact that the speaker knows that the compound is related to its components, i.e. the noun and the verb. The following examples show that the meaning is not always predictable.

(2.20)	a.	rót-thăy	(vehicle+to plow)	'tractor (used for plowing/farming'
	b.	rót-khĕn	(vehicle+to push)	'pushcart'
(2.21)	a.	rooŋ-camnam	(building+to pawn)	'pawnshop'
	b.	tŭa-camnam	(ticket+to pawn)	'receipt listing pawned items'
	c.	khɔ̌ɔŋ-camnam	(thing+to pawn)	'pawned items'

rót-thăy (vehicle+to plow) is, as described by the verbal component, 'a vehicle which is used for, or is capable of, plowing', but (normally) rót-khĕn (vehicle+to push) is not 'a vehicle which is used for, or is capable of, pushing'. How can, for example, the semantic rule be prevented from assigning a 'purpose' or 'capability' meaning to rót-khĕn ? Likewise, the second component in the compounds in (2.21a-c) is the same, i.e. camnam , but each of these compounds has a different type of meaning.

Since the compounds may have various types of meaning, unless we can come up with some criteria as to how a semantic rule assigns the correct meaning to the compounds, a lexical rule approach is undesirable.

In short, the evidence concerning the productivity and the predictability argue against deriving the compounds in question by lexical rules.

Based on the two guidelines for distinguishing between a compound and a syntactic group, and my own intuition, the items in (1.1a-g) and (1.3a) are classified as compounds, and (1.2) and (1.3b) are non-compounds.[7] The status of (1.4a-b) have already been discussed earlier.

It should be pointed out that saying that the rule is not productive does not mean that it cannot be used to derive new forms. Since new words are sometimes formed and added to the language, it is possible that any inactive morphological rules may become generative again, at least temporarily. In other words, new compounds of the type N+V may be created on the basis of the already existing forms.

Before discussing the treatment of these compounds in a grammar of Thai, I would like to mention that there seem to be cases of expressions which are in the process of becoming compound

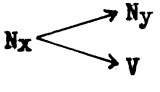
lexical items. One such form is mŭu yâaŋ 'roast pork', which is coming to be used to refer to a special kind of roast pork, i.e. the kind that has crisp skin and some layers of fat. In such a case, the phrase mŭu yâaŋ 'roast pork' and the compound mŭu-yâaŋ referring to this particular kind of roast pork are not as easily distinguished as phâa-lăaŋ 'a cloth worn by a Buddhist monk' and phâa lăaŋ 'a yellow cloth'. However, intuitively, the relationship seems to be similar in the two cases. We might predict that the compound mŭu-yâaŋ will take on more idiosyncratic properties which will distinguish it from the phrase mŭu yâaŋ . Other phrases which are candidates for compound lexical items are khâaw phàt 'fried rice' ((1.2c)), khâaw tôm 'boiled, watery rice' ((1.2d)), and kày yâaŋ 'roast chicken' ((1.2h)).

3. Lexical relation

How does a Thai speaker know that the compound of the type N+V is related to the independent noun and verb which make up the compound?

First of all the speaker has an internalized knowledge of the lexical structure. In our case, he knows the internal structure of the compound. For example, given the word khrŕaŋ-bin 'airplane', he knows that it may be broken down into two possible words, or in other words, that it consists of khrŕaŋ 'machine' and bin 'to fly'. This fact may be represented as (3.1), which is an abbreviated form of a lexical redundancy rule.[8]

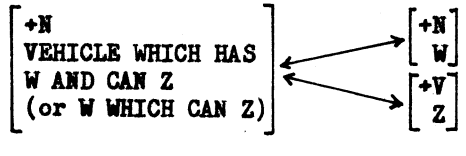
(3.1)



Second, he knows whether the meaning of the compound is related, either directly or indirectly (i.e. metaphorically), to the meaning of the two componential parts. If it is, he assumes that the compound is related to the independent words which form the compound. If not, he will not associate the compound with the independent words. The items in (1.4b) are examples of the latter case. Those in (1.4a) are on the borderline. That is, they may be regarded as compounds by some speakers, but as polysyllabic words by others, depending on extra-linguistic facts (e.g. being told, or from an imagination, etc.), and/or the particular linguistic knowledge of each individual.

Using Jackendoff's (1974) framework, I propose that the meaning relation between, for example, khrŕaŋ-bin 'airplane', khrŕaŋ 'machine, engine', and bin 'to fly' may be exemplified by (3.2). (Note: For convenience, English translations are used instead of Thai transcriptions.)

(3.2)



Concerning lexical representation, every compound of the type discussed will have a full lexical entry. For example, khrîaŋ-bin 'airplane' will have the lexical entry (3.3):

(3.3)
$$\begin{bmatrix} /khrîaŋ + bin/ \\ +N \\ \text{Syntactic information} \\ \text{Semantic information} \end{bmatrix}$$

Lexical redundancy rules, both morphological and semantic, will designate the information in the lexical entry which is predictable by the existence of the related lexical items as redundant. The predictable information designated by a lexical redundancy rule is not new information, but is the information the speaker already knows. In other words, not all the information in the lexical entry of, in this case, the compound is new information. Therefore (Jackendoff 1974, p.8):

> In knowing two related lexical items one then knows less than when one knows two unrelated items of commensurate complexity.

It is claimed that this hypothesis of the compound of the type N+V, which lists the compound as a full entry, and which incorporates Jackendoff's framework of lexical redundancy rules, captures the speaker's competence concerning the relation between the compound and its components.

4. Conclusion

I have given examples of N+V compound nouns of various semantic types and argued that they should be listed in the lexicon, instead of being derived by transformational or lexical rules. Arguments against the transformational approach arise from (a) constraint on the transformational rules, (b) the criteria for the structural description of the transformational rules, (c) the deletion of meaningful items, and (d) how to arrive at the meaning of the compounds. A lexical rule approach is rejected because the rule which one may want to posit to derive the compounds can only be semi-productive. In addition, the meaning of the compounds is not always predictable from the components. I also pointed out that N+V are of two types, compound and non-compound. Two guidelines were provided for the distinction between a compound and a syntactic group of the type N+V. Furthermore, I hypothesized that some syntactic phrases may have been, or are being, lexicalized. Finally, I discussed how a Thai speaker knows that a N+V compound noun is related to the independent noun and verb which form the compound, and how this knowledge should be captured or represented in a linguistic theory.

NOTES

1. For work of other linguists and grammarians, see, e.g. Gedney (1947), Haas (1966), Noss (1964), and those referred to by Fasold (1969).

2. Semantically, *máay-tii (wood+to beat) 'a switch used for whipping/beating' should have been a possible compound, because, at least previously, teachers and some parents in Thailand sometimes whipped their students/children with a switch. (The compound for 'a switch used for whipping/beating' is máay-riaw (wood+to be tapering).)

3. The correct forms of these compounds are:

(2.11)

mápraaw-hɤ̂ŋ	(coconut+to be dry)	'copra'
líncî-hɤ̂ŋ	(litchi+to be dry)	'dried litchi'
kûŋ-hɤ̂ŋ	(shrimp+to be dry)	'dried shrimp'
plaa-hɤ̂ŋ	(fish+to be dry)	'dried fish'

4. For an interesting presentation of lexical rules, see Thompson (1973), in which lexical rules deriving resultative verb compounds in Mandarin Chinese are discussed.

5. See Marchand (1966). For discussion concerning Thai, see Fasold (1969).

6. Although stress doesn't always work to distinguish between a compound and a syntactic group in English, it sometimes serves as a clue, e.g. blackboard vs black board . In Thai, no such clue can be found in the stress.

7. Furthur discussion concerning the status of some of these forms is to follow.

8. For discussion of lexical redundancy rules, see Jackendoff (1974).

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