

การวิเคราะห์หน้าที่ของศูนย์รูปในภาษาไทย¹

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บทคัดย่อ

ศูนย์รูปเป็นสิ่งที่พบได้บ่อยในภาษาไทย และนับว่าเป็นภาพลักษณ์เด่นประการหนึ่งของภาษา ในขณะเดียวกันนักศึกษาไทยที่เรียนภาษาอังกฤษก็มักจะทำผิดไวยากรณ์โดยใช้ศูนย์รูปแทนคำสรรพนามหรือนามวลีเต็มรูป การวิจัยนี้ได้ทำการศึกษาวิเคราะห์ศูนย์รูปซึ่งเป็นภาพลักษณ์ที่เป็นปัญหานี้โดยเปรียบต่างภาษาไทยกับภาษาอังกฤษ ตามแนวคิดพื้นฐานทฤษฎีการแทรกแซงของภาษา การวิเคราะห์นี้จะนำมาซึ่งความรู้เบื้องต้นที่จะเป็นประโยชน์ต่อการออกแบบบทเรียนประกอบ หรือ ซ่อมเสริม สำหรับนักศึกษาไทย การศึกษาครั้งนี้มีสมมุติฐานว่าศูนย์รูปในภาษาไทยมีหน้าที่ทางวากยสัมพันธ์ และบทบาททางอรรถศาสตร์มากกว่าศูนย์รูปในภาษาอังกฤษ จึงทำให้นักศึกษาไทยมีแนวโน้มที่จะทำผิดไวยากรณ์ภาษาอังกฤษโดยใช้ศูนย์รูปในตำแหน่งที่เคยใช้ในภาษาไทย

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Functional Analysis of Zero Anaphora in Thai¹

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Abstract

Zero anaphora is frequently found in Thai and it is recognized as one of the outstanding features of the language. Meanwhile, many Thai students who study English often commit grammatical errors in using zero anaphora instead of pronouns or full noun phrases. Based on the assumption of language interference, the contrastive analysis of this problematic feature in Thai and English is conducted for basic knowledge in designing remedial materials for these students. The hypothesis of the study is that zero anaphora performs more syntactic functions and semantic roles in Thai than in English causing the tendency that Thai students commit errors in using zero anaphora at the positions where they are accepted in Thai.

From the investigation of ten contemporary Thai songs, the hypothesis was confirmed. Thai zero anaphora can be classified into four types according to syntactic functions: SUBJ, DO, IO, and MOD and semantic roles: AGENTIVE, PATIENT, DATIVE/BENEFACTIVE and GENITIVE and it outnumbers the English counterparts.

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1. Introduction

Crystal [1] defines zero anaphora as an abstract unit postulated by an analysis, but which has no physical realization in the stream of speech. When referring to the 'given' information which the speaker assumes that the listener already knows or can recall from his background knowledge, Thai speakers tend to use zero anaphora rather than other noun referents [2]. Bright [3] comments that the widespread use of zero anaphora is one of the distinguishing characteristics of Thai language. As a result, study of this remarkable grammatical device should be useful for better understanding of our mother tongue. Moreover, it will be beneficial for the learning and teaching English for Thai students that the learners would be aware of the different characteristics of zero anaphora in the two languages and the teacher would be prepared to deal with the problems from mother tongue interference.

The study of zero anaphora in Thai

So far, zero anaphora in Thai has been studied within the Transformational Grammar approach that emphasizes the Government-Binding framework (Surintramont [4], Kobsiriphat [5] and Hoonchamlong [6]). In developing a natural language understanding (NLU) Aroonmanakun [7] assumes that the resolution of zero pronouns can be done at two levels: the sentence level and the discourse level. The resolution at the sentence level can be implemented on the basis of principles of a sentence grammar, which is in accordance with the government and binding theory. Zero pronouns that cannot be resolved by the government and binding theory are resolved on the basis of discourse principles. The referents of the zero pronouns are expected to be the most focused entity, or the (backward) center of an utterance.

In his other study Aroonmanakun [8] indicates that antecedents³ of Thai zero pronouns are not always in the immediately preceding utterance. A few are in a distant utterance. Coreferences of these zero pronouns could be explained in terms of hierarchical structure of clauses, which seems to operate at the sentence level rather than at the discourse level. They are in the same sentence or in the preceding sentence. The hierarchical structure of clauses in the sentence will help locate the antecedents.

³ a corresponding unit in the preceding context to which another unit, typically a later unit refers.

From a syntactic-semantic viewpoint, in my previous study (Intratrat [9]), I investigated the recoverability of the zero anaphora in Thai occurring in the second clause of a compound sentence or the subordinate clause of a complex sentence. I observed that the referent of zero anaphora in Thai can be recovered within three conditions. Firstly, as a syntactic condition, where it refers to a certain antecedent in the first or the main clause according to the relevant features between the verb and the probable antecedent which are termed as 'selectional restrictions'. Secondly as a semantic condition, when the selectional restrictions between the verbs and probable head nouns are not different, the semantics of the verb must be interpreted, if this still does not work, the context clue must be interpreted. The reader must rely on the context clue or his background knowledge. Sometimes the interpretation of the context clue can not help and ambiguity still remains. As for the last condition, zero anaphora does not refer to the closest noun phrase. Its head noun may or may not occur explicitly anywhere else in the immediate context. The reader has to consult his pragmatic experience to understand the message.

The study of syntactic and semantic roles of zero anaphora in other languages

International linguists have conducted the study of zero anaphora. Numerous facets of its characteristics are widely and profoundly investigated, especially the syntactic and semantic roles.

Li [10] presents an analysis of anaphora in Late Archaic Chinese, a prototype of an isolating language, from Confucian Analects. He concludes that after the introduction of a referent in discourse, the norm of the language is not to express that referent again until there is a syntactic or discourse reason for reintroducing it. Such a norm of anaphora is diametrically opposite to that of Indo-European languages. Thus, when a prototypical isolating language such as Late Archaic Chinese is analyzed, it is not necessary to explain why zero anaphora occurs because it is the norm for referential expression. Li observes that if and when a pre-established referent is expressed, the expression, whether a pronoun or a full noun phrase, must be discourse motivated. In his study, pronouns occur most at the direct object position, the second most numerous pronominal occurrences are pronouns serving as possessors and when the topic is a third person, a full noun phrase is obligatory in the introduction of a new topic in discourse.

There is strong relationship between grammatical roles and semantic cases. Givón [11] has found that as topic continuity decreases, there tends to be a progression from referents that are zero anaphora, to unstressed or bound pronouns, to stressed independent pronouns, and finally to full noun phrases.

Keenan and Comrie [12] stated that the hierarchy of grammatical roles reflects the grammaticalization of the semantic hierarchy. The topical hierarchies of case-roles are as follows:
 Semantic role: AGT>DAT / BEN> PAT> LOC> INSTR >OTHERS⁴
 Grammatical role: SUBJ> DO> IO⁵

The more topical semantic roles: agentive, dative-benefactive and patient are the ones most likely to occupy the SUBJ or direct-object grammatical roles. Predictably, SUBJ and DO are the most frequent grammatical case-roles in text.

Givon [13] gives an example of the distribution of zero anaphora/pronouns vs. full definite nouns in Ute, English, and two English-based pidgins: Spanglish and Filipinglish. He found that the majority of sentence subjects in the four languages are more zero anaphors or pronouns rather than the full NPs. As a consequence, agentive is the most popular semantic case of zero anaphora and pronouns occurring in those sentences.

Givon also assumes that the less complex a discourse is, the easier the cognitive processes required will be and the sooner the anaphoric antecedents will be recovered. In his view, the oral, everyday topic discourse is less complicated and more context dependent than the abstract academic written discourse. Between oral discourses such as conversation and narrative/procedural, a comparison shows that narratives are more continuative in text coherence.

2. Purpose of the Study

This study aims to investigate the syntactic functions and semantic roles of zero anaphora in Thai. Based on functional and cognitive approaches, the data from ten Thai contemporary songs will be analyzed for the frequency distribution and the syntactic and semantic characteristics. The contrastive analysis between Thai and English zero anaphora is also conducted for the benefit of teaching English to Thai students.

3. Hypothesis

This study set a hypothesis that Thai zero anaphora performed more syntactic functions and semantic roles than their English counterparts, causing the tendency that Thai students commit errors in using zero anaphora at the positions where they are accepted in Thai.

⁴ AGT = Agent; DAT / BEN = Dative/Benefactive; PAT = Patient; LOC = Locative; INSTR = Instrument

⁵ SUB = Subject; DO = Direct Object; IO = Indirect Object

4. Data

In choosing data, the researcher considered the general use of zero anaphora which refer to the given information that was mutually comprehensible between the producer and the receiver of the message. In a written text or conversation, numerous extra-linguistics clues from the previous context or contemporary situation can be provided whereas these clues are not usually available in songs due to limited length of text and time. The comprehension of zero anaphora in songs mostly requires the cultural background knowledge of the students and thus reflects the typical characteristics of native Thai speakers.

Therefore the data used in the study came from ten Thai contemporary song lyrics. They were samples from five groups of contemporary songs: His Majesty the King Rama 9's songs, Soontharaporn songs, Loog Krung songs, Loog Thung songs and Teenager's Pop songs which were randomly chosen from the website www.music4Thai.com [14]. The list of the lyrics is shown in the Appendix.

The lyrics are studied and analyzed for zero anaphora. The 'given information' that is omitted or substituted by null element where there should be a noun or a pronoun is treated as a zero anaphor. This is further analyzed for its syntactic functions and semantic roles. Then they are compared with the functions and roles of English zero anaphora.

5. Findings

From the study, the distribution of zero anaphora can be analyzed as follows:

5.1 When a zero anaphor occurs as a SUBJ (subject) of the sentence, its semantic role is AGENTIVE. For example:

1) Thai version: ทิวา งาม ยาม อยู่ เคียงคง⁶
 day beautiful when Ø be together forever
 'Days are beautiful when we are together forever'.

2) Thai version: อยากรจะ เป็น จะ มุ่งไป⁷
 Ø want to be Ø will aim to go
 'Someone wants to be, someone will aim to go'.

⁶ From Song No. 2 "อาทิตย์ อับแสง" (The Setting Sun)

⁷ From Song No. 4 "ตะกายดาว" (Strive for the Stars)

- 3) Thai version: ขอโทษ ที่ เกือบจะ ตีตราจอง⁸
Excuse that Ø almost stamp reserved Ø
'Excuse me for almost stamping him reserved'.

In example 1) zero anaphor occurs as the SUBJ who “are together” which is omitted. The listener may also guess this zero anaphora refers to the singer and his lover. In example 2) zero anaphora firstly occurs as the SUBJ of “want to be” and then the SUBJ of “will aim”. It can be interpreted as “someone” though it is not clear whether it refers to “someone” in general or whether it is specifically referring to either the singer or the listeners because there is no explicit referent in the whole lyric to assure any specific interpretation. In example 3) zero anaphora occurs as the SUBJ of the verb “stamp” and can be interpreted as the singer herself. The last zero anaphora in example 3) is the DO of the verb “stamp” which will be discussed later.

The SUBJ zero anaphora in these examples, though occurs without explicit referent, refers to the same person. Moreover, in example 4) the zero anaphora that occurred refer to different persons.

- 4) Thai version: มอง อะไร พอ มองไป ทำไม ยิ้มมา⁹
Ø look what when Ø look Ø (particle) why Ø smile
'What are you looking at? When I look at you why do you smile back?'

The first zero anaphora is the SUBJ of “look” which refers to the second person, possibly a man who is approaching the singer. The second zero anaphora is the SUBJ of “look” but it refers to the first person, that is the singer herself. The third zero anaphora is the DO of “look”. The fourth zero anaphora is the SUBJ of “smile” which, in return, refers to the second person again.

From these examples, it is obviously seen that Thai zero anaphora exist without any explicit antecedent in immediate context. It may refer to the antecedent at a far distance later. Moreover, in some lyrics such as Song No. 1 (The Ultimate Dream) and Song No.4 (Strive for the Stars), the antecedents are omitted throughout the whole lyrics.

It is noticeable that the SUBJs of verbs in Thai are mostly AGENTIVE. In less frequent occurrences when they are PATIENT in the passive structures, the verbs are indicated with “ถูก”, or “โดน”. There are also zero anaphora at this position but it is not found in the data used in this study.

⁸ From Song No. 8 “หนูไม่รู้” (I don't know)

⁹ From Song No. 3 “มองอะไร” (What do you look?)

In English, zero anaphora exist as DO only in some special condition. For example, in an established expression such as “Does he drink \emptyset ?” means “Does he drink alcohol?” However, the use of zero anaphora as DO is not always acceptable because the English transitive verbs require an object.

5.3 When a zero anaphor occurs as an IO of the sentence, its semantic role is DATIVE / BENEFACTIVE. For example:

7) Thai version: เป็น สิ่ง เสนอ ให้ มา¹²
 \emptyset be thing \emptyset offer give \emptyset particle
 ‘It is something I’ve already offered to you’.

8) Thai version: ความรัก ที่ พี่ มอบ ไว้ ให้ นี้¹³
 love that I offer (particle) give \emptyset this
 ‘The love that I’ve already given to you’...

In example 7) zero anaphora occur as SUBJ, and IO. The first one is the SUBJ of “be” which may be interpreted as “it” and whose antecedent is already mentioned in the preceding lyric. The next is the SUBJ of “offer” which may refer to the first person or the singer. The last one is the IO of “give” whose antecedent is “you” and is also already mentioned in the preceding lyric. In example 8) a zero anaphor occurs as the IO of the verb “give”. Its antecedent, the second person who is the singer’s lover, is explicit in context.

In English, the IO is not generally omitted. Sometimes when there is no noun phrase after a preposition, it is not zero anaphora but the process of left-movement when the word is moved to the left. For example: “He sings to **her**. **She** is the person he sings to.” but it is not acceptable to omit ‘her’ in a sentence such as “He gives the roses to \emptyset ”. This shows that the English zero anaphor does not occur as IO and does not perform DATIVE/BENEFACTIVE role.

5.4 When zero anaphora act as a MOD (noun modifier) which performs a GENITIVE role (GEN). For example:

9) Thai version: เพื่อ ใจ เอาไว้ก่อน เธอ ยัง ไม่ สาย¹⁴
 spare heart \emptyset (particle) before you still not late
 ‘Spare your heart before it’s too late’.

¹² From Song No. 5 “ดอกไม้ให้คุณ” (Flowers for you)

¹³ From Song No. 7 “สิ่งนาง” (Remind you)

¹⁴ From Song No. 10 “ขอเป็นตัวเลือก” (May I be alternative)

10) Thai version: ตั้ง โคม ทอง ส่องเรืองรุ่ง ใน ทัย¹⁵
 like lantern golden shine brightly in heart Ø
 ‘Like a golden lantern shining brightly in my heart’

11) Thai version: จะ รักชาติ จนชีวิต เป็น ผุยผง
 Ø will love nation Ø till life Ø be dust
 จะ ยอมตาย หมายถึง เกียรติ ดำรง¹⁶
 Ø will be willing to die Ø intend to honor Ø preserve

‘I will love my nation till my life turns to dust, I am willing to die, and I intend to preserve my honor’.

In these examples, zero anaphors are modifiers with GENETIVE role. According to Thai word order, a modifier will follow its head noun, therefore the GENETIVE zero anaphora occurs after the noun phrase that it modifies. In example 9) zero anaphora modifies ‘heart’. This can be interpreted that the heart belongs to the second person that is the singer’s girlfriend to whom he is singing. In example 10) zero anaphora modifies ‘heart’ and the owner of ‘heart’ might be interpreted as the singer himself and/or a general person that is mentioned later in the context at a point in time after this occurrence.

In example 11) there are several zero anaphors that belong to two groups: SUBJ and MOD. The first group is the subjects of the verbs “love” and “be willing to die”. The second group is the modifiers of the head nouns “nation”, “life” and “honor”. All the zero anaphors in this example refer to the first person, which is implicit in the whole lyric of this song.

As for English zero anaphora, they either do not exist as a MOD or perform a GENETIVE role. In stead of using zero anaphora, English writers turn to cataphora when the omission of agent or patient is desirable, usually in passive voice. In any case, the antecedent must be in immediate context. For example:

(active voice) Her mother warned her.

(passive voice) Being warned by her mother, **she** didn’t tell him.

¹⁵ From Song No. 6 “แสงดาวแห่งศรัทธา” (Starlight of Faith)

¹⁶ From Song No. 1 “ความฝันอันสูงสุด” (The Ultimate Dream)

The patient of “being warned” can be omitted through the process of passive voice but it must be explicit in the immediate context as cataphora. If the pronoun “she” is omitted this sentence is not acceptable.

From the data collected, there are interesting statistics concerning the frequency of distribution as shown in Tables 1 and 2 below:

Table 1 Frequency distribution of zero anaphora compared with pronouns and full NP

Zero		Pronoun		Full NP		Total	
N	%	N	%	N	%	N	%
251	57.05	63	14.32	126	28.63	440	100%

From the analysis, zero anaphora occur most frequently in context when compared with pronouns and full noun phrases. They constitute 57.05 per cent of the total. This result confirms the findings of other linguists such as Maneeroj [2] that was previously mentioned.

Table 2 Frequency distribution of zero anaphora classified by semantic roles compared with pronouns and full NP

Group	Semantic roles				Total	
	AGT (%)	PAT (%)	DAT/BEN (%)	GEN (%)	N	%
Zero	190 (75.69%)	32 (12.74%)	2 (0.79%)	27 (10.75%)	251	100
Pronoun	38 (60.31%)	16 (25.39%)	4 (6.34%)	5 (7.93%)	63	100
Full NP	59 (46.82%)	64 (50.79%)	2 (1.58%)	1 (0.79%)	126	100
All	287 (65.22%)	112 (25.45%)	8 (1.81%)	33 (7.5%)	440	100

From the analysis of the data, it is remarkable that zero anaphora in Thai can perform several semantic roles as well as pronouns or full NP. The majority of zero anaphora occurs as the subject of the sentence and performs an AGENTIVE role. This is in the same trend as in other languages studied by Givon [14] and Li [10], but the difference is that the antecedent of the zero anaphora in Thai may not be explicit in the immediate context. Sometimes, this is implicit throughout the lyrics.

Apart from the study by Li [10], it is also noticeable that zero anaphora in Thai can occur as a new topic where there should be a pronoun or a full noun phrase in Late Archaic Chinese. The details are shown in Table 3 below:

Table 3 Frequency distribution of zero anaphora when introducing a new topic classified by their semantic roles

Semantic roles								Total	
AGT		PAT		DAT/BEN		GEN			
N	%	N	%	N	%	N	%	N	%
109	72.18	22	14.57	-	0	20	13.25	151	100

From the data in this research, most of the zero anaphors occur without an explicit antecedent. Of all the 251 zero anaphora found in the data of this study, there are only 29 antecedents (11.55%) occurring in the context of the lyrics of the same song. This exemplifies the third characteristic of recoverability that is implicitly referent, as mentioned in my previous study, Intratat [9]. In order to understand the message, the listener has to consult his background knowledge and pragmatic experience.

6. Conclusion

From the study of ten contemporary Thai songs, four types of zero anaphora were discovered. The hypothesis that Thai zero anaphora performs more syntactic functions and semantic roles than their English counterparts was confirmed. The distribution of Thai and English zero anaphora can be compared as shown in Table 4 below.

Table 4 The distribution of Thai and English zero anaphora

<i>Characteristics of Thai zero anaphora</i>		<i>Characteristics of English zero anaphora</i>	
- continuous occurrence with more than one function and role - explicit/implicit antecedent		- single occurrence with one function and role - explicit antecedent in immediate context	
<i>Syntactic function</i>	<i>Semantic role</i>	<i>Syntactic function</i>	<i>Semantic role</i>
SUBJ ✓	AGT ✓	SUBJ ✓	AGT ✓
DO ✓	PAT ✓	DO -in established expressions only	PAT ✓
IO ✓	DAT/BEN ✓	IO ✗	DAT/BEN ✗
MOD ✓	GEN ✓	MOD ✗	GEN ✗

7. Discussion

It is also noticeable that other languages in Southeast Asia such as Malay also accepts the roles of zero anaphora as both AGENT and PATIENT as in examples 12 and 13, which are Malay versions compared with Thai.

- 12) Standard Malay : Ibu melarang bahawa jangan memberitahunya
 mama advise Ø that Ø should not tell Ø
 Thai: แม่ เตือน ว่า ไม่ ควร บอก
 mama advise Ø that Ø not should tell Ø
 ‘Mama advises not to tell anyone’.

- 13) Kelantan dialect : Ibu larang bagi tahu
 mama forbade Ø let Ø know
 Thai: แม่ ห้าม เผยให้ เขา รู้
 mama forbade Ø let him know
 ‘Mama forbade me to let him know’.

In both examples, zero anaphora occurs as SUBJ and DO in the patterns that are not acceptable in English but are grammatically correct in Malay and Thai.

For linguists, it is remarkable that these characteristics of Thai zero anaphora are typically different from those of Chinese though they belong to the same family.

8. Suggestions for Further Study

For further studies, it would be interesting to investigate more about referents of zero anaphora and its roles in comparative analysis between Southeast Asian languages and other languages, either from the same or different families.

For Thai teachers, this study may provide an answer to the question why Thai students tend to omit the AGT or PAT of the verb when they write English sentences. On the basis of language interference, we can interpret that the different characteristics between Thai and English zero anaphora, namely the single occurrence and the requirement of the antecedent in immediate context may cause some difficulties to Thai students who study English. The designing of supplementary or remedial materials should therefore focus on these differences. Moreover, the established expressions in

English, which signal irregularities of the use of English zero anaphora, should also be studied as well.

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10. References

1. Crystal, D., 1985, *A Dictionary of Linguistics and Phonetics*, 2nd Edition, Oxford: Basil Blackwell.
2. Maneeroje, P., 1985, “การใช้รูปแทนคำนาม เพื่อบอกความต่อเนื่องในข้อเขียนภาษาไทย” (The Use of Noun-Substitutes as Cohesive Devices in Thai Written Discourses), Unpublished M.A. Thesis, Chulalongkorn University.
3. Bright, W. (ed. in chief), 1992, *International Encyclopedia of Linguistics*, Vol. 4, Oxford: Oxford University Press, p. 150.
4. Surintramont, A., 1979, “Some Deletion Phenomena in Thai”, Unpublished Doctoral Dissertation, University of Illinois at Urbana-Champaign.
5. Kobsiriphat, W., 1988, “Empty Categories in Thai”, Unpublished Doctoral Dissertation, University of Washington, Seattle.
6. Hoonchamlong, Y., 1991, “Some Issues in Thai Anaphora : A Government and Binding Approach”, Unpublished Doctoral Dissertation, University of Wisconsin-Madison.
7. Aroonmanakun, W., 1997, “Referent Resolution for Zero Pronouns in Thai”, in Abramson, Arthur (Ed.) *Southeast Asian Linguistic Studies in Honour of Vichin Panupong*, Chulalongkorn University Press, Bangkok, pp. 11-24.
8. Aroonmanakun, W., 2000, “Zero Pronoun Resolution in Thai: A Centering Approach”, in Burnham, Denis, et.al., *Interdisciplinary Approaches to Language Processing: The International Conference on Human and Machine Processing of Language and Speech*, NECTEC, Bangkok, pp. 127-147.

9. Intratat, C., 1994, “การตีความศูนย์รูปในประโยคความรวมและความซ้อนในภาษาไทย” [The Recoverability of Zero Anaphora in Conjoined and Complex Sentences in Thai], Unpublished Research Report, Chulalongkorn University.
10. Li, C., 1997, “On Zero Anaphora”, in Bybee, J., Haiman, J. and Thomson, S. (eds.), *Essays on Language Function and Language Type : Dedicated to T. Givon*. Amsterdam: John Benjamins Publishing Company, pp. 275-300.
11. Givon, T., 1983, “Topic Continuity in Spoken English”, in T. Givon (ed.), *Topic Continuity in Discourse: A Quantitative Cross-Language Study*, TSL 3, Amsterdam: John Benjamins Publishing Company.
12. Keenan, E.L. and Comrie B., 1972, “Noun Phrase Accessibility and Universal Grammar”, *The 47th Annual Meeting of the Linguistics Society of America*, Atlanta, GA (ms).
13. Givon, T., 1995, *Functionalism and Grammar*, John Benjamins Publishing Company, Amsterdam.
14. “Lyrics”. Music4Thai. On-line. Internet. Available: <http://www.music4Thai.com>.

Appendix

The list of lyrics

No.	Name of Songs	Band/ Composer/ Singer
1.	“ความฝันอันสูงสุด” (The Ultimate Dream)	พระบาทสมเด็จพระเจ้าอยู่หัวรัชกาลที่ 9 (H.M. King Rama 9)
2.	“อาทิตย์ อับแสง” (The Setting Sun)	พระบาทสมเด็จพระเจ้าอยู่หัวรัชกาลที่ 9 (H.M. King Rama 9)
3.	“มองอะไร” (What do you look at?)	วง สุนทรภรณ์ (Soonthraporn Band)
4.	“ตะกายดาว” (Strive for the Stars)	คริสติน่า อากิลาร์ (Christina Agilar)
5.	“ดอกไม้ให้คุณ” (Flowers for you)	دنوپل แก้วกาญจน์ (Danupol Kaewkarn)
6.	“แสงดาวแห่งศรัทธา” (Starlight of Faith)	หงา คาราวาน (Nga Caravan)
7.	“สิ่งนาง” (Remind you)	มนต์สิทธิ์ คำสร้อย (Monsith Kamsoy)
8.	“หนูไม่รู้” (I don't know)	พุ่มพวง ดวงจันทร์ (Poompuang Duangchan)
9.	“โอ๊ะ โอ๊ะ โอ๊ะ” (Oh, oh, oh)	วง China Dolls (China Dolls Band)
10.	“ขอเป็นตัวเลือก” (May I be alternative)	วง กะลา (Kala Band)