Proccedings of the 2nd Seoul International Conference on Discourse and Cognitive Linguistics:
Discourse and Cognitive Perspectives on Human Language (2003), 131-145.

On Thai Copulas, *khUU1* and *pen1*: A Cognitive Approach

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1. Introduction

Recent linguistic research has seen robust interest in the incorporation of cognitive science insight into linguistic analyses.[1] To name a few, such studies include Langacker's (1990, 2000) cognitive grammar, Talmy's (2000) cognitive semantics, Lakoff and Johnson's (1980) work on metaphor, and Jackendoff's (1989, 2002) processing models. Of interest from the perspective of this paper are two linguistic analyses, namely, Shinzato (1996) and Yaguchi (2001), which build on Jackendoff's processing models. Shinzato (1996) shows that a cognitive psychological dichotomy of perception vs. cognition, or 'fast/sensation-like vs. slow/thought-like' processing (Jackendoff 1989) is useful in explaining cross-linguistic structural dichotomies such as two types of complementizers and copulas, and *bare* and *there* existentials. Yaguchi (2001) applies Kohno's psycholinguistic dichotomy of 'holistic vs. analytic processing', which she sees to parallel that of Jackendoff's, to explain the difference between sentences without/with the complementizer *that* in English.

This study follows these two studies in spirit. Specifically, this study investigates the difference between the two Thai copulas, *khUU1* and *pen1*. Traditionally, these two copulas have been distinguished in terms of such a dichotomy as 'identificational vs. characterizational' sentences (see Kuno and Wongkhomthong 1981; Mikami 1985). In this paper, we hope to illustrate that the underlying principle to account for the difference between these two copulas is the cognitive psychological dichotomy of 'fast/sensation-like vs. slow/thought-like' processing, or 'holistic vs. analytic' processing. We will show that the traditional dichotomy can be subsumed by this new principle, and Komolwanig and Sawada's (1993)

[1] We are grateful to Tasanee Methapisit and Pinarat Akharawathanakul for assistance as language consultants in Thai data. Thanks are also due to Morio Kohno for sending us his articles on short notice.

analysis, which remedies the anomaly arising from the traditional account, can also be found to be compatible with this new principle. In addition, we will compare these copulative sentences to copulaless sentences, and analyze them using Langacker's (1990) stage model, specifically the concept of viewing arrangements.

2. Sensation vs. thought-like processing

In cognitive psychology, Torrey (1976: 274) recognizes two types of knowledge: intuition and reflection. The concept 'intuition' is defined by three properties: (a) it is immediate and does not necessitate any preliminary cogitation; (b) the source of intuition in the mind is unconscious; and (c) it is typically concerned with concrete things and events. The opposing concept 'reflection' is described by features opposite from 'intuition': (a) it involves inferences, reasoning, or cogitation; (b) it involves self-awareness; and (c) it involves abstractness.

Torrey's distinction seems to find a parallel in Fodor's (1983) influential modularity thesis. Fodor distinguishes two types of information processing: 'input systems' and 'central cognition'. 'Input systems' consist of fast, mandatory, domain-specific, and informationally encapsulated modules, and thus the processing at this level is fast. In contrast, he views 'central cognition' to consist of non-modular processes, and thus the processing is comparatively slow. 'Input systems' perceive visual and linguistic information and present it to the central system, which examines the information, and arrives at the 'best hypothesis' after searching through various resources including memory.

Though he does not agree with Fodor in details, and disputes the traditional distinction between perception and cognition, to which Fodor strictly adheres, Jackendoff (1989) also basically endorses two types of information processing: 'fast/sensation-like' processing and 'slow/thought-like' processing[2]. The former is the counterpart of Fodor's 'input systems', and is carried out by highly specialized translation and integrative 'fast modules' in short-term memory. On the other hand, the latter processing, as

[2] Talmy (2000) sees perception and conception as not having a rigid division, but rather situated in a continuum from concrete, palpable 'ception' to abstract, obscure 'ception'. Though drawing a division between perception and conception may be controversial, we believe that Talmy also subscribes to the view that there is some difference in the nature of perception and conception, which we would like to highlight in this paper. For further studies which bear some relevance to the distinction, see Neisser (1987), who says 'seeing is one thing, thinking another'. In linguistics, see Bolinger (1974), which discusses a sharp division between 'percept' and 'concept' and its reflection in linguistic representations.

seen in problem-solving and hypothesis confirmation, utilizes 'slow modules', which are adapted to creation and integration in long-term memory.

The 'fast vs. slow' processing is reminiscent of the distinction between 'holistic vs. analytic' processing as discussed in Kohno (1993: 17-18)[3]. In his experiment of rhythm (fast vs. slow) perception, the 'holistic' processing is associated with fast rhythm in which the subjects perceive an entity 'at once' 'in a Gestalt manner' and 'in a flash'. Also associated with 'holistic' processing is George Miller's famous 'magical number 7 ± 2', a small enough chunk, which can be perceived at once by a human being. In contrast, the subjects utilize 'analytic', 'one by one, on-going' and 'prediction-testing' modes of processing when dealing with slow rhythm. In the psychological literature, we find the 'holistic' processing aligned with such characterizations as 'affective: pleasure-pain oriented', 'encoding of reality in concrete images, metaphors, and narratives', 'more rapid processing: oriented toward immediate action', and 'self-evidently valid: experiencing is believing'. In contrast, 'analytic' processing is grouped together with the following: 'logical: reason oriented (what is sensible)', 'encoding of reality in abstract symbols, words, and numbers', 'slower processing: oriented toward delayed action', and 'justification required via logic and evidence' (Slovic et al. 2002).

3. Previous studies of *khUU1* vs. *pen1*

In their seminal work on the difference between *khUU1* and *pen1*, Kuno and Wongkhomthong (1981) characterizes the two Thai copulas in terms of the semantic dichotomy of 'identificational' vs. 'characterizational' sentences. For instance, in characterizational sentence (1)b, the complement NP_2, *khruu1*, 'teacher' presents one of the characteristics that the subject NP_1 possesses, while in identificational sentence (1)a, the complement NP_2, *cOOn1* 'John', is not one of the characteristics of the subject NP_1, but rather *cOOn1* 'John' is the entity with which the subject NP_1 is identified.

(1) a. khOn1 thii3 chan4 rak4 **khUU1** cOOn1
person R.PRON PRON love John
'The person that I love is John.'

b. cOOn1 **pen1** khruu1
John teacher
'John is a teacher.'

[3] This distinction parallels two types of mental scanning proposed by Langacker (2000: 3): summary vs. sequential scanning.

In the syntactic structure of NP_1-copula-NP_2, the subject NP_1 and the complement NP_2 can be switched if a sentence is an identificational sentence as below (cf. (1)a):

(2) cOOn1 **khUU1** khon1 thii3 chan4 rak4
John person R.PRON PRON love
'John is the person that I love.'

Mikami (1985) extends Kuno and Wongkhomthong's dichotomy to explain two types of copulative sentences in other neighboring languages such as Lao and Cambodian.

Komolwanig and Sawada (1993) disputes the account that the 'identification vs. characterization' dichotomy is the essential and decisive factor for selection of one copula over the other. They argue that the nature of the information content and the speaker's involvement in shaping linguistic representation is the most relevant factor. This is because *pen1* is used whether or not the sentence is 'identificational' or 'characterizational', as long as a modal or an epistemic adverb is used. Thus, (3)a with *khUU1* becomes unacceptable if the modal *?aat2 ca?2* 'may' is inserted as in 3(b).

(3) a. phuu3 cat2 kaan1 **khUU1** khun1 yaa1maa1da?2
manager Mr. Yamada
'The manager is Mr. Yamada.'
b. * phuu3 cat2 kaan1 ?aat2 ca?2 **khUU1** khun1 yaa1maa1da?2
manager may Mr. Yamada
'The manager may be Mr. Yamada.'

They assign the feature <High Modality> to *pen1* and <Low Modality> to *khUU1*[4].

We basically agree with Komolwanig and Sawada's account, as well as Kuno and Wongkhomthong's treatment, and further believe that both analyses can be subsumed by a cognitive psychological concept of 'fast/sensation-like' processing vs. 'slow/thought-like' processing.

4. *khUU1* vs. *pen1* as representation of sensation vs. thought-like processing

[4] We agree with their assignment of these two labels to *khUU1* and *pen1*. However, we do not concur with their labeling *khUU1* and *pen1* as [-speaker's commitment] and [+speaker's commitment] respectively (ibid: 105). We believe that the modals mitigate the speaker's commitment, thus the opposite to their claim is true.

Applying the cognitive psychological dichotomy introduced in the previous section, the difference between *khUU1* and *pen1* can be explained as follows: If 'fast/sensation-like' processing is taken, then *khUU1* is used, while *pen1* is chosen if 'slow/thought-like' processing is employed. There are many pieces of evidence to support this characterization. First, there is a clear difference between *khUU1* and *pen1* as to the co-occurrence with epistemic modals or modal adverbials. Epistemic modals indicating the speaker's assessment of the probability or likelihood of an event necessitate some *inferential* process. Therefore, it is unarguable that modals necessarily involve some deliberation on the part of the speaker. For this reason, modals are indicative of 'slow/thought-like' processing. This is in contrast with sentences without such epistemic modals since they are the ones whose truth value the speaker is certain of, and thus the speaker is free from any further assessment of the situation. Komolwanig and Sawada (1993) notes that if a modal appears in a sentence, *khUU1* is impossible to use, but *pen1* is invariably used. In a constructed example below, *khUU1* is unacceptable as in (4)a, and *pen1* has to be used since the sentence contains an epistemic modal of *khong1* 'probably'.

(4) a. * khon1 nan4 khong1 **khUU1** khun1 yaa1maa1da?2
person that probably Mr. Yamada
'That person is probably Mr. Yamada.'

b. khon1 nan4 khong1 **pen1** khun1 yaa1maa1da?2
person that probably Mr. Yamada
'That person is probably Mr. Yamada.'

Example (5) is extracted from a synopsis of a drama that appeared in *The Daily News*. B's sudden appearance took A off-guard since A had long thought that B was dead. In response, B said to A that A should be the one to die. B's utterance is an identificational sentence, and thus *khUU1*is expected. However, because of the existence of the modal, *naa3 ca?2* 'should', *pen1* is used here.

(5) A: nia3fang1 caw3 yang1 may3 taay1 rUU5 nia3
Niafang PRON yet NEG die INT PAR
'Niafang, you have not yet died? (I thought you died)'

B: khon1 thii3 khuan1 taay1 naa3 ca?2 **pen1** caw3
person R.PRONought to die should PRON
'The person who ought to die should be you.' (*The Daily News*, March 1, 2003)

Example (6) taken from a synopsis of another drama is equally as futuristic as example (5), but has no modal in it. Here, the speaker is comparing her *life* to a *football game*, which she first feared to end soon, but is now certain to continue because she got a *suu1pAA3 sap4* (< loanword from English 'super substitute', see example 7 below) to save her from a loss. Since there is no modal due to the speaker's view that the proposition is certain and unchallengeable, *khUU1* instead of *pen1* is used.

(6) tEE2 chan4 man3 cay1 waa3 kaan1 khaw3 maa1
but PRON be certain COM NOM enter come
khOOng5 naay1 **khUU1** kaan1 tOO2 wee1laa1 hay3 chan4
of PRON NOM lengthen time BEN PRON
'But I am certain that your coming in (to the game) will buy me extension time.' (*The Daily News*, March 1, 2003)

In contrast to example (6), when the speaker feels doubt instead of certainty, *khUU1* is not the choice. Thus, in example (7), a reply to (6), *khUU1* is not used because of the existence of the question marker, *rUU5* or *rAA5*, which expresses the speaker's doubt towards the proposition in question. In this case, only *pen1* is possible.

(7) phom5 **pen1** suu1pAA3 sap4 ngan4 rAA5 khrap4
PRON super substitute like that INT PAR
'(So you think) I am a *super-sub*? (I'm not sure)' (*The Daily News*, March 1, 2003)

Second, closely related to the situations modified by epistemic modals are hypothetical situations in the sense that they are not available and accessible in reality. For this reason, they require some effort on the side of the speaker to create and visualize non-existing situations in his mind. As expected, it is *pen1*, not *khUU1*, which can be embodied in hypotheticals. This was pointed out in Komolwanig and Sawada (1993: 102), as shown in their example (8)a. Compare (8)a with an indicative sentence (8)b, in which *khUU1* is readily used.

(8) a. thaa3 khaw4 **pen1** kha1mooy1 ca?2 tham1 yaang2ray1
if PRON thief IRR do how
'If he is a thief, how do (you) deal (with him)?'
b. khaw4 **khUU1** kha1mooy1
PRON thief
'He is a thief.'

Example (9) from *The Daily News* attests to this point. In this context dealing with drug trafficking, the writer is sending off a warning that a genuine good intention might backfire sometimes.

(9) mEE4 kaan1 thuang4 ting1 ca?2 **pen1** ceet2ta2naa1 dii1 tEE2…
even if NOM warning against IRR intention good but
'Even if the warning is out of good intent, it might…'(*The Daily News*, March 1, 2003)

Third, often noted, but never yet connected to these previous co-occurrence restrictions is the fact that *khUU1* does not combine with a negative (cf. Warotamasikkhadit 1963, Smyth 2002). Observe the contrast in Phatcharabamrung's (1986: 5) example (10) below and an example from a Japanese comic book translated into Thai as in (11), in which, the protagonist, *Nobita* is trying to get on the good side of his mother.

(10) a. khaw4 may3 **pen1** khruu1
PRON NEG teacher
'He is not a teacher.'
b. * khaw4 may3 **khUU1** khruu1
PRON NEG teacher
'He is not a teacher.'

(11) tham1may1 mEE3 thUng5 may3 **pen1** daa1raa1 la3 khrap4
why mother then NEG star PAR PAR
'Mother, why aren't you a (movie) star (when you are so beautiful)?'

Referring to this, one may explain the incompatibility as the result of the further grammaticalization of *khUU1* as a particle at the loss of its verbal function. The particles cannot be negated by definition. However, we believe that this is not a matter of such morphology, but rather as a result of semantic/pragmatic incompatibility. When one says 'X is Y', its equation is straightforward and often fixed in the speaker's mind. In contrast, when one says 'X is *not* Y', one has to engage himself in a lengthy evaluative process, and support the negative evaluation after going through some reasoning process. Taylor's (1976) experiment supports this point. In his experiment, the subjects were asked to make 'same-different' judgments about successively presented pairs of letters. His finding is that 'same' responses were faster than 'different' responses. Furthermore, to our interest, he concludes that for the recognition of the matching letters, 'holistic' processing is employed, while it is 'analytic' processing that is employed for

mismatching letters (cf. Kohno 1993). A similar result was also obtained from Rosch's (1975, quoted in Best 1986) experiment, in which subjects were asked to classify objects into categories. Her experiment showed that the subjects classified a central member (prototype) item much faster than a peripheral member item. The former is analogous to the 'X is Y' situation, while the latter is more congruous with the 'X is not Y' situation. To recapitulate, the former (i.e., 'X is Y') takes on 'fast/sensation-like' processing, or 'holistic' processing, while the latter (i.e., 'X is not Y') utilizes 'slow/thought-like' processing, or 'analytic' processing.

Fourth, if both *khUU1* and *pen1* are used, they exhibit some difference in meaning: *khUU1* for simple identification/definition; *pen1* for characterization/categorization (cf. Kuno and Wongkhomthong 1981; Mikami 1985). For instance, in the minimal pair in (12), the question with *khUU1* asks for the identification of Mr. Yamada, while the question with *pen1* asks for the personal character of Mr. Yamada.

(12) a. khun1 yaa1maa1da?2 **khUU1** khray1
Mr. Yamada who
'Who is Mr. Yamada?'

b. khun1 yaa1maa1da?2 **pen1** khray1
Mr. Yamada who
'Who is Mr. Yamada (i.e., what kind of person is Mr. Yamada)?'

A similar account is also given in Nawawan, P (1985: 19-20) as shown in the example below.

(13) a. A: ling1kua1foon1 **khUU1** ?aray1 na?4
Linguaphone what PAR
'What is Linguaphone?'
B: chan4 may3 ruu4
PRON NEG know
'I do not know.'

b. A: ling1kua1foon1 **pen1** ?aray1 na?4
Linguaphone what PAR.
'What's happened with Linguaphone?'/ 'How is Linguaphone?'
B: chay4 may3 day3 lEEw4 rUU5
use NEG can PER INT
'Has (it) become unusable?'

Here also, we believe that the dichotomy of 'identification' vs. 'characterization' can be subsumed under the proposed dichotomy of

'fast/sensation-like' vs. 'slow/thought-like' processing. In the case of the former, X *khUU1* Y, the formula X=Y has already been internalized in the speaker's mind, and he can vouch for its truth, without going through a matching process (i.e., what matches X, so to speak). Example (14) expresses one monk's personal and emphatic opinion that he, too, is a citizen, and should be allowed to show his concerns even on a political issue (in this case the opposition to the construction of a thermal power plant) despite the prevailing expectation that monks should distance themselves from such mundane matters.

(14) khOO5 bOOk2 waa3 phra?4 kO3 **khUU1** phra1chaa1chon1
beg tell COM monk also the people
'Please let me say that monks are also citizens.' (*The Daily News*, March 1, 2003)

In the case of X *pen1* Y, the task of characterizing, or categorizing X is still left to the speaker at the time of speech, and he goes through a deliberation process to come up with the best suited Y. Example (15) expresses the conclusion the writer reached after some time of deliberation.

(15) song5khraam1 yaa1 seep2 tit2 thii3 rat4tha1baan1
war addictive drug R.PRON government
phOO tOO thOO thak2sin5 chi1na1wat4 pra1kaat2 tOO2suu5
Pol. Col. Thaksin Shinawatra declare fight
khan3 tEEk2 hak2 nan4 **pen1** sing2 thii3 yaak3 liik2liang3
step decisive TOP thing R.PRONdifficult avoid
'The war on drugs which the government of Pol. Col. Thaksin Shinawatra declared to fight decisively was an act difficult to avoid.' (*The Daily News*, March 1, 2003)

Fifth, another piece of evidence which endorses *khUU1*'s association with 'fast/sensation-like' processing is the fact that in the NP_1(referential)-copula-NP_2 structure, the more 'referential' NP_1 is, the more acceptable *khUU1* is as a copula. In Kuno and Wongkhomthong's (1981: 80) examples below, the acceptability decreases from top to bottom.

(16) a. cOOn1 **khUU1** khon1 thii3 chan4 rak4 thii3 sut2
John person R.PRONPRON love most
'John is the person that I love most.'
b.? ?Ep4pAn3 **khUU1** phon5la4may4 thii3 chan4 chOOp3

apple fruit R.PRONPRON like
thii3 sut2
most
'The apple is the fruit that I like best.'

c.?? then1nit4 **khUU1** kii1laa1 thii3 chan4 chOOp3 thii3 sut2
tennis sport R.PRONPRON like most
'Tennis is the sport that I like best.'

d.* kaan1 rian1 **khUU1** sing2 thii3 sam5khan1
NOM study thing R.PRONimportant
thii3 sut2 sam5rap2 nak4 rian1
most for student
'To study is the most important thing for students.'

They (ibid: 80) state that when NP_1 refers to a concrete specific object with a 'face', and not when it refers to a faceless species, or to an abstract concept, *khUU1* is more acceptable[5]. In cognitive terms, this can be reinterpreted as such that the processing time is faster when it deals with a concrete object with a 'face' than when it concerns otherwise. In other words, *khUU1* is associated with a 'fast/sensation-like' processing, as we argued all along.

5. On copulaless sentences and Langacker's stage model

The previous section was devoted to the two copulative sentences. This section, in turn, deals with copulaless sentences in which NP_1 and NP_2 occur side by side as in the sense of 'X is Y', but with no copula.

(17) baan3 nii4 baan3 chan4
house this house PRON
'This house (*is*) my house.'

(18) nii3 khun1 bun1rUan1 chay3 may4 kha?4 nii3
this Ms. Bunruan is that it? PAR PAR
'This (*is*) Ms. Bunruan, right?'

There seem to be several conditions which induce such copulaless sentences. First, as pointed out by Kuno and Wongkhomthong (1981: 69), copulaless sentences are used when NP_1 is at the scene and can be pointed to. Thus,

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[5] This is reminiscent of Lao *khUU1*, which is genetically related to Thai *khUU1*, and has a meaning of 'be similar' (cf. Kerr 1972). This may be seen as being consistent with 'sensation-like' processing which utilizes visual input (appearance, or affordances in cognitive psychology) as a primary source.

according to them, (19)b, in which NP_1, *khaa1thAA3* 'Carter' is not present, is not acceptable, while the copulative sentence (19)a is plausible:

(19) a. khaa1thAA3 **khUU1/pen1** pra1thaa1naa1thi4bOO1dii1
Carter president
khOOng5 sa2ha2rat4 ?a1mee1ri1kaa1
of U.S.
'Carter is the President of the United States of America.'

b. * khaa1thAA3 pra1thaa1naa1thi4bOO1dii1 khOOng5
Carter president of
sa2ha2rat4 ?a1mee1ri1kaa1
U.S.
'Carter (*is*) the President of the United States of America.'

In addition, a copulaless sentence is natural if there is an introductory phrase to bring an entity to the consciousness of the speaker and the hearer, and that the entity is referred to as *man1* 'it'[6].

(20) nang5sUU5 thii3 khaay5 dii1 na3 man1 ?an1nay5
book R.PRON sell good TOP PRON which one
'That best seller book, which one (*is*) it?'

In cognitive terms, we argue that copulative and copulaless sentences parallel Langacker's (1990) distinction between 'off-stage' vs. 'on-stage' viewer. We claim that the copulative sentences tie in with the 'off-stage' viewer, while the copulaless sentences are associated with the 'on-stage' viewer role. Being an 'off-stage' viewer (see Figure 1 (a)), the speaker feels distant to the object, while assuming the 'on-stage' viewer role (see Figure 1 (b)), the speaker is at the scene closely connected to the object. The fact that the entity has to be pointed to as in example (19), or brought to the consciousness of the speech act participants to be accessible as in (20), or the entity is often accompanied by the deictic (such as *nii3* 'this' and *nan3* 'that') as in (17) and (18), all supports the closeness and the unification of the speaker and the object[7].

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[6] This example was produced by Tasanee Methapisit (p.c.).

[7] Kuno and Wongkhomthong (1981: 95) notes that there are copulative sentences as the result of , *khUU1* or *pen1*deletion. We do believe, however, that copulaless sentences are not necessarily generated as the result of deletion, but rather they assume their own status as non-copula sentences.

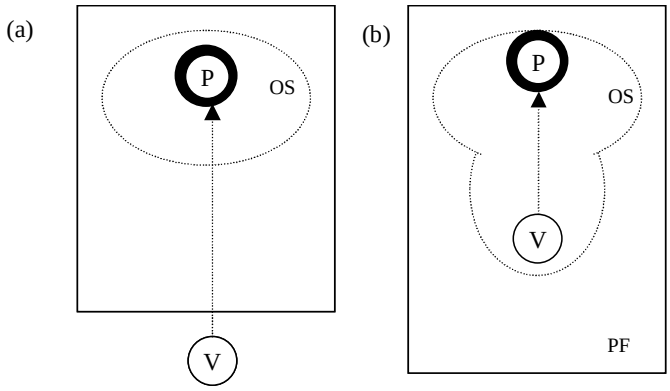

Figure 1. Langacker (1990 : 7)

We believe that this physical (e.g. examples 17, 18 and 19) and psychological (e.g. example 20) proximity between the speaker and the referred object is what is represented iconically as syntactic closeness. This recalls Haiman's (1983) iconic motivation: the linguistic distance between the two expressions (X and Y) represents the conceptual distance between the ideas they represent. Observe Haiman's (1983: 782) illustration in (21), where A represents an intervening morpheme, and #, + and Z represent a word boundary, a morpheme boundary, and a fused morph respectively.

(21) a. X # A # Y
b. X # Y
c. X + Y
d. Z

Here, the linguistic distance between the items, X and Y are greatest at the top and least at the bottom, which translates into the decreasing conceptual distance from the top to the bottom (see also Givón 1995). We assert that Thai copulative and copulaless sentences correspond to (21)a and (21)b respectively, and that they show the contrast in syntactic distance as well as physical/psychological (conceptual) distance.

6. Conclusion

In this paper, we discussed the difference between copulative and copulaless sentences on the one hand, and on the other hand the difference between the two copulative sentences, *khUU1* and *pen1*. As for the former, we arugued that they parallel Langacker's distinction between 'off-stage' vs. 'on-stage' viewer. We claimed that copulative sentences tie in with the off-stage viewer, while copulaless sentences are associated with the on-stage viewer role. As for the latter, that is, the difference between *khUU1* and *pen1*, we asserted that the difference represents the difference in the mode of information processing. The *khUU1* copula is associated with 'fast/sensation-like' information processing, while the *pen1* copula is consistent with 'slow/thought-like' information processing, thereby implicating the increasing degree of the speaker's information processing time.

In a wider perspective, this study was an attempt to account for the two Thai copulative sentences and copulaless sentences with more comprehensive and broader principles rooted in cognitive psychology. In this attempt, many seemingly unrelated semantic/pragmatic concepts (identificational vs. charaterizational; high modality vs. low modality), and structural dichotomies (copulative vs. copulaless; *khUU1* vs. *pen1*) can be found to be connected.

Abbreviations

BEN(efactive); COM(plimentizer); INT(errogative particle); IRR(ealis); NEG(ative); NOM(inalizer); PAR(=final particle); PER(fect); PRON(oun); R.PRON(=relative pronoun); TOP(ic)

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