SYNTACTIC AMBIGUITY IN LEGAL, POLITICAL, MEDIA, AND ACADEMIC REGISTERS OF THAI: PATTERNS AND AVOIDANCE[1]

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บทคัดย่อ

บทความนี้ศึกษาความกำกวมทางวากยสัมพันธ์ของ ภาษาไทยจากข้อความต่อเนื่องใน 4 ทำเนียบภาษา ได้แก่ ภาษากฎหมาย ภาษาการเมือง ภาษาสื่อ และ ภาษาวิชาการ รวมความยาวประมาณ 80 หน้า โดย มุ่งศึกษาว่าความกำกวมทางวากยสัมพันธ์เกิดจาก โครงสร้างรูปแบบใดและเกิดในทำเนียบภาษาใด มากที่สุด พร้อมทั้งนำเสนอวิธีการเลี่ยงความกำกวม ดังกล่าว

ผลการวิจัยพบว่า โครงสร้างกำกวมมี 4 รูปแบบ คือ (1) โครงสร้างส่วนขยาย (2) โครงสร้างประโยครวม (3) โครงสร้างส่วนขยาย+ประโยครวม และ (4) การ

อ้างตาม นอกจากนี้ การวิเคราะห์เชิงปริมาณยัง แสดงให้เห็นว่าความกำกวมเกิดจากโครงสร้างส่วน ขยายมากที่สุด โดยก่อให้เกิดความกำกวมเกินกึ่ง หนึ่งของจำนวนโครงสร้างกำกวมทั้งหมด รองลงมาคือโครงสร้างส่วนขยาย+ประโยครวม โครงสร้างประโยครวม และการอ้างตาม ตามลำดับ เมื่อเปรียบเทียบระหว่างทำเนียบภาษาพบว่า ภาษา สื่อกำกวมมากที่สุด รองลงมาคือภาษากฎหมาย ภาษาการเมือง และภาษาวิชาการ ตามลำดับ

ทั้งนี้ ความกำกวมแต่ละรูปแบบมีวิธีการเลี่ยง แตกต่างกัน ได้แก่ ความกำกวมจากโครงสร้างส่วน ขยายสามารถเลี่ยงได้โดยเปลี่ยนตำแหน่งการจัดวาง ส่วนขยายหรือใช้หน่วยสร้างอนุพากย์นาม ความ กำกวมจากโครงสร้างประโยครวมสามารถเลี่ยงได้ โดยระบุประธานของกริยาวลีทุกส่วนที่นำมาเชื่อม กันให้ชัดแจ้ง และใช้สันธานคั่นคำหรือวลีใน รายการที่เขียนต่อๆกันไปให้คงที่เป็นระบบ อีกทั้ง บางกรณีอาจเสริมด้วยรูปภาษาเฉพาะกิจเพื่อ คลี่คลายความกำกวม สำหรับโครงสร้างส่วน ขยาย+ประโยครวมที่กำกวม สามารถใช้วิธีสลับ ตำแหน่งของส่วนหลักที่นำมาเชื่อมกันหรือใช้การ ระบุส่วนขยายของส่วนหลักแต่ละส่วนให้ชัดแจ้ง และหากรูปอ้างตามมีแนวโน้มที่จะกำกวม ผู้เขียน ควรเลือกใช้คำหรือวลีเดิมซ้ำอีกครั้งแทนการใช้รูป อ้างตาม

ABSTRACT

This study is an investigation of syntactic ambiguity in Thai. Based on approximately 80 pages of Thai texts from four registers, namely legal register,

political register, media register, and academic register, the study aims to analyze syntactic patterns that induce ambiguity, and to find out which patterns create the most ambiguities and in which registers. Also, devices to avoid such ambiguities are proposed.

The analysis reveals that there are four types of syntactic patterns involving ambiguities: (1) modification construction, (2) coordination construction, (3) modification+coordination construction, and (4) anaphora. The results of the quantitative analysis show that modification construction accounts for more than half of all ambiguities in the study, followed by the modification+coordination construction, coordination construction, and anaphora construction, respectively. Compared across registers, it is found that the media register carries the most ambiguities, followed by the legal register, political register, and academic register, respectively.

To avoid ambiguity, revisions of text are proposed. Ambiguous attachment sites of modifiers can be prevented by constituent reordering and nominal clauses. For the coordination construction, the subject of each of the verbal conjoins should be overt, and coordinators should be consistent for a series of items. In some cases, selected disambiguating materials would also be useful. Either a conjoin-switching technique or the provision of modifiers to both or all conjoined heads would clarify ambiguous modification+coordination constructions. When anaphoric ambiguity is potential, preferred is the repeated use of a word or phrase.

Introduction

Language is a symbolic system by means of which humans communicate with each other. To achieve this communicative purpose, it is argued that language should be ultimately clear and precise. However, this is rarely the case since ambiguity does not only exist but is also pervasive in human language. The question of why language is so ambiguous allows for many plausible answers. Zipf (1949), in his *Principle of Least Effort*, reasons that ambiguity is a result of a compromise between the least effort on the part of the speaker and on the part of the listener. Cohen (2006) claims that language is a naturally-evolving system with a high degree of complexity, so it is inevitably highly ambiguous. This ambiguous nature of human language was not noticeable until it was brought into view a few decades ago thanks to the advent of the computer and the emergence of computational linguistics discipline. Martin et al (1987 cited in Wasow et al 2005, 266) reported the surprising number of 455 possible parses assigned by their system to the simple sentence *List sales of the products produced in 1973 with the products produced in 1972*. This number is astonishingly large. Although Grice stated in one of his maxims under the category of manner that seek participants in communicative act to "avoid ambiguity", Wasow in a series of articles (2002, 2005, and forthcoming) and Arnold et al (2004) argue that people do not actually attempt to avoid ambiguity as much as expected, and that, as a result, ambiguity persists in language.

In resolving language ambiguity, Cohen (2006) asserts that humans are unlike machines because they can rely mostly on their power of inference with the help of

context and extra-linguistic knowledge. Nevertheless, this disambiguating mechanism is far from perfect. Ambiguity still occurs and often leads to in efficient communication, causing misunderstandings, and even disputes, between writer and reader or among readers. That the reader is not certain whether his/her interpretation of a statement corresponds to that intended by the writer can pose significant problems. The case is even worse when the reader's interpreted meaning turns out to be different from what the writer intends. The consequences can be catastrophic when uncertainties or misunderstandings occur in the interpretation of an expression in any discourse bearing on the lives of all citizens in a society. Legal, political, media, and academic registers exemplify such influential discourse.

Types of Ambiguity

First, there is a distinction to make between two concepts: ambiguity and vagueness. An expression is considered vague when it has a single meaning, but the scope of the meaning is not clear. On the other hand, an expression is ambiguous if it has more than one distinct meaning. Wasow (forthcoming)'s explanation should give a clearer picture of the distinction here:

> If expressions are thought of as picking out regions in some semantic space, then ambiguous expressions pick out more than one region, whereas vague expressions pick out regions with fuzzy boundaries

Ambiguity itself can be of either major type; lexical or syntactic ambiguity. A lexical item is characterized as ambiguous when it has more than one denotation. This type of ambiguity is usually a result of homonymy and polysemy. Though this type of ambiguity is very common, it is beyond the scope of the present study.

Ambiguity falls into the syntactic or structural type when an expression has multiple parses, with each a distinct meaning. Though less remarkable than lexical ambiguity, this type of ambiguity exists in a wide variety of language registers. Kapklon (2000, 25 and 29) stated that syntactic ambiguity has different grounds in Structural Grammar than in Transformational Grammar. In view of structuralism, syntactic ambiguity results from word ordering and the relationships between word groups. Transformational linguists view it differently: as resulting from transformational processes which turn different underlying structures into the same surface structure. This type of ambiguity is the central focus of the present study.

An interest in language ambiguity is not restricted to linguists. It is also shared by many scholars from other disciplines. For example, scholars of psychology, such as Hogaboam & Perfetti (1975), Prather & Swinney (1988), Spivey & Tanenhaus (1998), and Mason & Just (2007) and computer science and NLP scholars, such as Hirst (1987), Roth (1998), and Supnithi et al (2014), all address the problems of ambiguity processing and ambiguity resolution. Scholars of law such as Conway (2002), Schane (2002) are likewise concerned with ambiguity avoidance in the drafting of legal texts. Although the vast majority of scholars share roughly the same view that ambiguity is a hindrance to efficient language comprehension, still many others see its constructive role in producing humour, especially in certain genres or

registers like newspaper headlines and jokes. Examples of those scholars are Roura (1995), Bucaria (2004, 2006), Jaroenkiatboworn (2005), Lim (2006), Majeed Abdulla & Mehdi (2012), Osunnuga (2013), and Chavanalikikorn (2013).

Interestingly, Conway (2002) clearly demonstrates, with ample examples of legal cases, how syntactic ambiguities in articles of law, even in the U.S. Constitution, bring about interpretation difficulties in lawsuits. Likewise, the Thai Constitution was recently the subject of much debate over the interpretation of paragraph 2, of section 68, which provides:

> *In the case where a person or a political party has committed the act under paragraph one, the person knowing of such act shall have the right to request the Prosecutor General to investigate its fact **and** submit a motion to the Constitutional Court for ordering the cessation of such act without, however, prejudice to the institution of a criminal action against such person.*

The use of the coordinator and has been claimed to be the source of ambiguity. There has been, as a consequence, no consensus on who shall have the right to submit a motion to the Constitutional Court: the person knowing of such act, or the Prosecutor General, or both. This syntactic ambiguity has been made explicit by a linguistic tool in Burakorn (2013).

In Thai, few studies have focused on ambiguity. Most commonly, the topic is discussed only under a chapter or section of a Thai grammar book, language usage textbook, or linguistics textbook. To my knowledge, the most comprehensive

would be the study entitled "Ambiguity in Current Thai" by Kapklon (2000) which extensively investigates ambiguity in Thai for its own sake. Other Thai researchers have dealt with ambiguous expressions for different purposes; for Jaroenkiatboworn (2005), Lim (2006), and Chavanalikikorn (2013), it serves as a tool in creating humour; Thaworn (2012) uses it as a tool for evaluating language learners' competency; Supnithi et al (2014) study the topic for developing a robust NLP system.

Therefore, it is of interest to study ambiguity in Thai, considering it linguistic phenomenon that creates potential difficulty in comprehending text, especially in significant genres or registers, where misunderstanding or misinterpretation of any expression is highly undesirable. Also, because "Prevention is better than cure," I believe ambiguity should be minimized on the part of the producer rather than of the processor, and will, therefore, suggest methods to prevent ambiguity.

To state clearly, the present study aims to investigate syntactic patterns that induce ambiguity in four registers of the Thai language, namely the legal, political, media, and academic registers, and to identity which patterns and in which registers the most ambiguities occur. Also, this study will propose methods to avoid those ambiguities.

The data for the study were taken from a variety of documents in the four registers mentioned above. The size of text drawn from each register was comparable at around 10,000 words. The details of the sources of data for each register are shown in Table 1 below.

Table 1: Source of data of the four registers in the study

Language Register	Source of data
Legal register	codes of laws, court judgments
Political register	government policy statements, public speeches, Prime Minister's weekly TV talk shows (transcribed)
Media register	news articles, radio news recordings (transcribed), commercials and magazine advertisements
Academic register	academic articles in the fields of medicine, science, and social science

The data were investigated with a focus on ambiguous syntactic patterns. Taken as syntactically ambiguous in this study was any word or construction which could be syntactically related to more than one other word/construction, and hence allow different tree structures. That word/construction was highlighted and counted as an instance of syntactic ambiguity. The type of syntactic relationship was identified for each of the instances. Noted was the possibility of more than one instance of ambiguity in a single sentence. Occurrences of each ambiguous pattern were counted and their relative frequencies were compared across registers to determine which syntactic patterns create the most ambiguities and in which registers. Based on these findings, modifications to syntactic patterns are proposed.

Patterns of syntactic ambiguity

The analysis reveals that there are four major syntactic patterns or constructions responsible for syntactic ambiguity in the data: modification, coordination, modification+coordination, and anaphora.

Modification

Modification refers to the syntactic relation between two grammatical units one of which is the head and the other is the dependent. While the head is obligatory, the dependent functioning as a modifier of the head (thus called modification) is optional. This kind of syntactic relation forms an endocentric construction. A head may carry multiple modifiers, but not vice versa. So, in this structure, syntactic ambiguity arises when a modifier can attach to more than one head, as shown in example (1).

(1) *ผมมีสิทธิ์ที่จะพูดมากที่สุด* (political register)

   phŏm mii sìt thîi cà
   I   have right COMP will
   *phûut **mâak thîi-sùt***
   speak much most

which has two possible readings:
(a) I have the right to speak **the most**
(b) I have **the highest** right to speak

In example (1), the verb phrase
mâak thîi-sùt 'the most' may modify the

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adjacent verb *phûut* 'to speak', as in reading (1a), or the noun *sìt* 'right' farther ahead, as in reading (1b). This is because a verb/verb phrase in Thai can function as a modifier of a noun as well as of another verb. The Thai language allows certain grammatical categories such as noun, verb, and preposition to be dependent on a head of more than one category, with no morphological inflection required.

(2) *นาย อาลี อัล-ไนมี รัฐมนตรีน้ำมัน*

    *ซาอุดีอาระเบีย **ผู้ผลิตน้ำมันรายใหญ่ที่สุดของ***

    โลก (media register)

    naay aa-lii al nay-mii   rát-thà-mon-trii
    Mr. Ali Al-Naimi   minister
    náam-man saa-ù-dì-aa-rá-bia
    oil   Saudi Arabia
    phûu phà-lìt náam-man
    person produce oil
    raay yày
    item big
    thîi-sùt khɔ̌ɔŋ lôok
    most   of   world

which has two possible readings:
(a) Mr. Ali Al-Naimi, who is the Petroleum Minister of Saudi Arabia **which is the world's biggest oil producer**
(b) Mr. Ali Al-Naimi, who is the Petroleum Minister of Saudi Arabia **and the world's biggest oil producer**

Example (2) demonstrates the syntactic ambiguity raised by the possibility of attaching the noun phrase *phûu phà-lìt náam-man raay yày thîi-sùt khɔ̌ɔŋ lôok* 'the world's biggest oil producer' either to the adjacent noun phrase *saa-ù-dì-aa-rá-bia* 'Saudi Arabia' which is the name of a country, as shown

in reading (2a), or to another noun phrase *naay aa-lii al nay-mii* 'Mr. Ali Al-Naimi' which is the name of a person, as shown in reading (2b).

Additionally, it is found that prepositional phrases are also rich sources of syntactic ambiguity in Thai, which supports the claim made by Wasow et al (2005, 270) about this construction in the English language.

(3) *กระแสในระยะแรกนี้เป็นการเรียกร้อง "สิทธิ"*

    *ต่างๆ**ของสตรี*** (academic register)

    krà-sɛ̌ɛ nay rá-yá rɛ̂ɛk níi pen
    trend in period first this be
    kaan-rîak-rɔ́ɔŋ sìt-thí tàaŋ-tàaŋ
    NOM-call   rights various
    khɔ̌ɔŋ sà-trii
    of   woman

which has two possible readings:
(a) The trend in the first period was the call for **women's** rights
(b) The trend in the first period was the **women's** calling for (something)'s rights

As example (3) shows, the prepositional phrase *khɔ̌ɔŋ sà-trii* 'of woman' may modify only the adjacent noun phrase *sìt-thí tàaŋ-tàaŋ* 'rights' as in reading (3a) or the nominalized form *kaan-rîak-rɔ́ɔŋ* 'calling', thus signifying the doer of the action, as in reading (3b). Note that it is very probable to find this type of ambiguity in the attachment of prepositional phrases to nominalized phrases.

Coordination

Coordination refers to the construction which binds two or more syntactic elements of the same level together. The connector is called a coordinator, and the elements bound are called conjuncts or conjoins. The use of a coordinator may be the cause of syntactic ambiguity as shown in example (4).

(4) *ผู้ฟ้องคดีได้แต่งตั้งคณะกรรมการสอบสวน*

    ข้อเท็จจริงและรายงานผลการพิจารณาทาง

    ละเมิด... (legal register)

  phûu-fɔ́ɔŋ-khá-dii dâay   tɛ̀ŋ-tâŋ
   plaintiff   PAST   establish
  khá-ná kam-má-kaan sɔ̀ɔp-sǔan
   group commission inquire
  khɔ̂ɔ-thét-ciŋ **lɛ́** *raay-ŋaan phǒn*
   truth   and report   outcome
  kaan-phí-caa-rá-naa thaaŋ lá-mɔ̂ət
   NOM-deliberate   way breach

which has two possible readings:
(a) The plaintiff has established a commission to inquire of the truth **and report** the outcomes of the deliberation…
(b) The plaintiff has established a commission to inquire of the truth **and reported** the outcomes of the deliberation…

This ambiguity is similar to that found in the interpretation of the Thai Constitution formerly mentioned where the coordinator *lɛ́* 'and' is used to link two verb phrases. It is not clear, as this example shows, whether the verb phrase *raay-ŋaan* 'to report' after the coordinator is the action of *khá-ná kam-má-kaan* 'a commission' as shown in reading (4a) (the coordinator conjoins 'to inquire' and 'to report') or the

action of *phûu-fɔ́ɔŋ-khá-dii* 'the plaintiff' as shown in reading (4b) (the coordinator conjoins 'has established' and 'has reported').

However, in some cases, ambiguities are not attributable to the use of a coordinator, but the presence of a coordinator does not help clarify the statement in terms of referents, as can be shown in example (5).

(5) *นายกิตติรัตน์ ณ ระนอง [รองนายกฯ และ*

    รมว.คลัง] (media register)

  naay kìt-tì-rát ná rá-nɔɔŋ
  Mr. Kittiratt Na Ranong
  [rɔɔŋ   naa-yók **lɛ́** *rɔɔmɔɔwɔɔ khlaŋ]*
  [deputy PM   and minister finance]
  'Mr. Kittiratt Na-Ranong, deputy PM and Finance Minister'

In example (5), considering only the construction with an overt coordinator, it is ambiguous whether 'Deputy PM' and 'Finance Minister' have the same referent. Simply speaking, the deputy prime minister and the finance minister can refer to two different people, or to one person holding two positions. Even when the context 'Mr. Kittiratt Na-Ranong' is taken into account, not every reader can access the true interpretation of the expression but perhaps only those who have good knowledge of Thai politics at that particular time

In authentic materials, statements are usually more confusing because of the inconsistent use of coordinators. Let's consider example (6) which involves mentioning individuals in a series.

(6) นางลาการ์ด และ นายออกุสติน คาร์สเท่นส์ _?_

ผู้ว่าการธนาคารกลางของเม็กซิโก กับ

นายสแตนลีย์ ฟิชเชอร์_?_ผู้ว่าการธนาคารกลาง

ของอิสราเอล และ อดีตรองผู้อำนวยการ

ไอเอ็มเอฟ (media register)

*naaŋ laa-kàat **lɛ́** naay ɔɔ-kús-tin*
Ms. Lagarde and Mr. Agustín
káas-hên __?__ phûu-wâa-kaan
Carstens governor
thá-naa-khaan klaaŋ khɔ̌ɔŋ
Bank central of
*mék-sí-koo **kàp** naay sà-tɛɛn-lî*
Mexico with/and Mr. Stanley
fích-chə̂ə_?_ phûu-wâa-kaan
Fischer governor
thá-naa-khaan klaaŋ khɔ̌ɔŋ
bank central of
ìt-sà-laa-el
Israel

which has at least two possible readings:
(a) Lagarde, **and** Agustín Carstens,
Governor of the Bank of Mexico**, and**
Stanley Fischer, Governor of the Bank
of Israel **and** former First Deputy
Managing Director of the IMF
(3 people mentioned)
(b) Lagarde, **and** Agustín Carstens,
Governor of the Bank of Mexico, **and**
Stanley Fischer, Governor of the Bank
of Israel, **and** the former First Deputy
Managing Director of the IMF
(4 people mentioned)

In reading (6a), three people are
mentioned by name: Largarde is
mentioned with nothing attached, Agustin
Carstens with his position in apposition,
and Stanley Fischer with his two positions
in apposition. In reading (6b), four people
are mentioned; the first three are
mentioned by name with and without their

positions attached, while the last is a
distinct person mentioned only by his
position. It is worth noting that the
coordinators are used inconsistently; while
the first *lɛ́* 'and' clearly connects person 1
to person 2, the word *kàp* 'with/and' is
used instead to serve the same function
between person 2 and person 3, and the
second *lɛ́* 'and' is confusingly used to form
a link either between person 3 and person
4 or between two positions of person 3,
which represents the construction in the
lower order.

Modification+Coordination

This pattern represents the interplay
between two different constructions,
modification and coordination, when they
coexist. In this pattern, ambiguity results
from neither the modification nor
coordination construction alone. Rather, it
is only when both constructions occur
together that ambiguity emerges. A simple
English example, taken from Wasow
(forthcoming), clearly shows ambiguity of
this type; *Teachers **and** students **of the**
speaker received priority seating.* In this
example sentence, the modification
construction (*students of the speaker*)
alone cannot produce ambiguity, and
neither can the coordination construction
(*teachers and students*) only. However,
when both constructions are put together,
the sentence becomes ambiguous as to
whether the prepositional phrase *of the*
speaker modifies only *students* or the
whole construction *teachers and students*.
The following examples (7) and (8)
exhibit this ambiguous syntactic pattern.

(8) *ข้อหาทุจริตและละเมิดสิทธิมนุษยชน*

อย่างร้ายแรง (legal register)

*kɔ̌ɔ-hǎa   thú-cà-rìt **lɛ́** lá-mɔ̂ɘt*
allegation dishonest and violate
sìt-thí má-nút-sà-yá-chon
right   humanity
yàaŋ ráay-rɛɛŋ
seriously

which has two possible readings:
(a) allegations of dishonesty **and serious** human rights violation
(b) allegations of **serious** dishonesty **and serious** human rights violation

(8) คดีนี้ผู้ฟ้องคดีฟ้องและชี้แจงข้อเท็จจริงเพิ่มเติม

ตามคำสั่งศาลว่า... (legal register)

khá-dii níi phûu-fɔ́ɔŋ-khá-dii
case   this plaintiff
*fɔ́ɔŋ **lɛ́** chíi-cɛɛŋ khɔ̂ɔ-thét-ciŋ*
file and clarify   fact
*phɔ̂ɘm-tɘɘm   **taam***
supplementary according to
***kham-sàŋ sǎan** wâa*
decree   court COMP…

which has two possible readings:
(a) the plaintiff has filed the plaint **and** clarified supplementary facts **according to court decree**…
(b) **According to court decree,** the plaintiff has filed the plaint **and** clarified supplementary facts…

In each instance, the coordination of verbs/verb phrases is followed by a modifier, the adverb *yàaŋ ráay-rɛɛŋ* 'seriously' in (7) and the prepositional phrase *taam kham-sàŋ sǎan* 'according to court decree' in (8). The modifier may only be dependent on the last conjoin, in which case it becomes a part of that conjoin in the coordinate construction, as shown in readings (7a) and (8a). Otherwise, it is dependent on the whole

coordinate construction, yielding readings (7b) and (8b).

Anaphora

Anaphora may be defined as the relation between at least two elements which are coreferential. One element is called the anaphor, and the other the antecedent. The (co)reference of an anaphor can only be retrieved through the interpretation of its antecedent. The antecedent usually comes earlier in the context (sentence level or discourse level) than its anaphor. Anaphors may be represented by different anaphoric expressions. Ambiguity arises when it is not evident to which element an anaphoric expression refers back, so the referent of the anaphoric expression in question is indeterminable.

The analysis shows that the three types of anaphoric expressions in Thai involving ambiguity of this type are referring expressions, pronouns, and ellipsis or zero anaphors

The first type of anaphoric expression, referring expressions, involves using a different lexical item or a different phrase to refer to another lexical item or phrase previously mentioned which has the same meaning. For example, the phrase *the U.S. President* may be used to refer to *Barack Obama* to avoid repetitive mentions of his name. In example (9) below, the word *an* 'matter', the subject of the last sentence, holds an anaphoric relation to an issue concerning wages previously mentioned, but it is not clear whether *khâa-tɔ̀ɔp-thɛɛn khâa-câaŋ* 'wages (in general)',*kaan-kam-nòt prà-kàat khâa-câaŋ* 'the announcement of wage rates', or *khâa-câaŋ khân-tàm* 'the minimum wage' is held in that relation.

(9) ขณะเดียวกันในเรื่อง*ค่าตอบแทนค่าจ้าง*... ผู้ใช้

แรงงานที่มีฝีมือแรงงานในประเภทต่าง ๆ นั้นก็

จะมี*การกำหนดประกาศค่าจ้างเป็นครั้งแรกครับ*

... ส่วน*ค่าจ้างขั้นต่ำ*นั้นอย่างที่ได้เรียนไปแล้วว่า

ก็อยู่ในช่วงที่จะมีการปรับให้สอดคล้องกับเรื่อง

ของค่าครองชีพอีกครั้งหนึ่ง ก็คาดว่าจะ

ดำเนินการได้ อาจจะประมาณใน *1 เดือน*

ข้างหน้า **อันนี้**ก็เป็นสิ่งที่ได้มีการทำอย่าง

ต่อเนื่อง (political register)

khà-nà diaw-kan nay ruîaŋ
  time   same   in   issue
khâa-tɔ̀ɔp-thɛɛn khâa-câaŋ
  remunerations   wage
 kɔ̂ɔ cà mii
  AV wil have
kaan-kam-nòt   prà-kàat
  NOM-determine   announcement
khâa-câaŋ pen khráŋ rêɛk khráp
  wage   be time   first PART.
sùan   khâa-câaŋ khân-tàm nán ...
  whereas wage   minimum TOP.
 ... ***an   níi kɔ̂ɔ pen sìŋ   thîi***
  matter   this AV be thing COMP
 dâay mii kaan-tham
  PAST   have NOM-do
yàaŋ-tɔ̀ɔ-nuîaŋ
  continuously

of which the last sentence has three
possible readings:
(a) **The matter of wages** is what we have
    been pursuing continuously.
(b) **The matter of a wage rates
    announcement** is what we have been
    pursuing continuously.
(c) **The matter of the minimum wage** is
    what we have been pursuing
    continuously.

Similarly, pronouns can often be a source
of anaphoric ambiguity. Upon
encountering a pronoun, the reader can be
quite certain that it must refer to
something. However, when the reader
cannot clearly identify what it refers to,
the expression is considered ambiguous.
Examples (10) and (11) demonstrate
ambiguity resulting from the use of the
pronouns *naaŋ* 'she' and *thân* 'he/you'
respectively.

(10) *บุษบา2 หรืออุณากรรณตัดสินใจที่จะไปจาก*

บุษบา1 เพราะว่านางปฏิเสธที่จะยอมรับการ

ดำเนินตามค่านิยมแบบสังคมในอดีต

  (academic register)
bùt-sà-baa2 ruǐu ù-naa-kan
  Bussaba2   or   Unakan
tàt-sǐn-cay thîi   cà pay càak
  decide   COMP will go from
bùt-sà-baa1
  Bussaba1
*phrɔ́-wâa **naaŋ** pà-tì-sèet thîi*
  because   she   refuse   COMP
cà yɔɔm-ráp
  will accept
kaan-dam-nəən-chii-wít
  NOM-live a life
taam   khâa-ní-yom bèɛp
  follow value   as
sǎŋ-khom nay à-dìit
  society   in   past

which has two possible readings:
(a) Bussaba2 or Unakan decided to leave
    Bussaba1 because **Bussaba1** refused to
    observe the traditional social values.
(b) Bussaba2 or Unakan decided to leave
    Bussaba1 because **Bussaba2 or
    Unakan** refused to observe the
    traditional social values.

(11) *พี่น้องครับผมเชื่อโดยไม่ได้ถาม*

*นายกรัฐมนตรีว่าที่**ท่าน**ต้องกล้ำกลืนความ*

เจ็บปวดความร้าวราน... (political

register)

phîi-nɔ́ɔŋ khráp phǒm chûa
fellows   PAR I   believe
dooy mây dâay thǎam
by   not PAST ask
naa-yók-rát-thà-mon-trii wâa
prime minister   COMP
*thîi   **thân**   tɔ̂ŋ*
COMP   he/you(honor.) have to
klâm-kluuun
tolerate
khwaam-cèp-pùat
NOM-hurt
khwaam-ráaw-raan
NOM-grieve

which has two possible readings:
(a) My fellow Thais, I believe without
    having to ask the PM that the fact that
    he (the PM) has to tolerate this
    suffering
(b) My fellow Thais, I believe without
    having to ask the PM that the fact that
    you (fellow Thais) have to tolerate this
    suffering

Example 10 describes the conflict between
Bussaba1, a female character in a stage
play based on Thai literature, and
Bussaba2, another female character
depicting the inner rebellious soul of the
same individual, who disguises herself as a
man under the name Unakan. In example
10, the main clause contains two entities
of the same gender, Bussaba2 or Unakan
at the subject position, and Bussaba1 as a
prepositional complement. However, there
is only one anaphoric pronoun *naaŋ* 'she'
in the subordinate clause that follows. The
female pronominal form *naaŋ* 'she' here is

the subject of the subordinate clause and
ambiguous, at least when the sentence is
taken in isolation, as it can well be
associated with either of the two entities in
the immediately preceding clause. In
example (11), the use of the homonym
thân 'he/you' accounts for the ambiguity
because there are at least two different
thân 'he/you' in Thai; one is an addressee
honorific (2nd person) and the other is a
referent honorific (3rd person). Reading
(11a) shows the pronoun is considered to
be a referent honorific, thus referring to
the prime minister, whereas reading (11b)
shows that the pronoun being interpreted
as an addressee honorific makes reference
to the audience addressed at the beginning
of the expression.

There are also cases where the expressions
are ambiguous because of ellipsis. Ellipsis
is a linguistic process in which words are
omitted if they are recoverable from the
context. Elliptical sentences contain gaps
where the words are omitted. These gaps
are sometimes regarded as being filled by
zero pronouns or zero anaphors to make
the sentences grammatical. Because no
explicit clue is left for tracing back to the
antecedent, it is likely that the referents of
the zero anaphors are not achieved. This
can be shown in example (12).

(12) *ระหว่างเดินก็มีกลุ่มเสื้อแดงยกชูป้าย วันนั้น*

*เกือบได้เรื่องเพราะแม่ค้าโกรธ __?**ก็จะไป***

***ตบ__?**ครับ*

rá-wàaŋ dəən kɔ̂ɔ mii   klùm
during   walk AV have group
sûa dɛɛŋ yók   chuu   pâay
shirt red carry raise sign
wan nán kùap dâay-rûaŋ
day that almost go into trouble

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phrɔ́   mɛ̂ɛ-kháa   kròot
because female vendor   angry
¨ʔ kɔ̂ɔ cà   pay tòp ¨ʔ khráp
 _ʔ AV will go   slap _ʔ PART.

which has two possible readings:
(a) Red-shirts were carrying signs. It
    almost ended up in a brawl because a
    vendor got upset. Then, **the red-shirts**
    were going to slap **the vendor**.
(b) Red-shirts were carrying signs. It
    almost ended up in a brawl because a
    vendor got upset. Then, **the vendor**
    was going to slap **the red-shirts**.

It is evident that the sentence *kɔ̂ɔ cà pay tòp*
'going to slap' leaves gaps at the positions
of its subject (the agent) and object (the
patient) after ellipsis. Additionally, the
noun phrase *sûa dɛɛŋ* 'red-shirts' and the
noun *mɛ̂ɛ-kháa* 'female vendor' from the
preceding sentences are both possible
candidates to fill in both gaps. Ambiguity
arises as to who was going to slap whom.

Frequencies of syntactic ambiguity

Table 2 and Figure 1 demonstrate the
frequencies of occurrences of syntactic
patterns inducing ambiguity in all four
registers of the study. The numbers shown
in the table indicate the frequency of each
particular ambiguous pattern in relation to
one thousand words in the data.

As can be seen in Table 2 and Figure 1, the
construction most accountable for syntactic
ambiguities in every register is modification.
This construction on the whole gives rise to an
average of 7.15 modifier-attachment
ambiguities (out of 1,000 word-long text), thus
accounting for more than half of all ambiguous

expressions found. On the other hand,
ambiguities from coordination and anaphoric
ambiguities occur less often, respectively, at
1.78 and 1.28 on average. It is also interesting
to note that ambiguities resulting from
modification+coordination yield a surprisingly
high frequency at an average of 3.63, though
much lower than that of modification alone.

Considering each of the constructions
separately, it appears that ambiguous
modifying expressions occur most often in
media register (10.1) and political register
(8.1). On the other hand, it is most likely to find
instances of modification+coordination
ambiguity in legal register (5.7) and media
register (4.4). The highest frequency of
ambiguity from the coordination
construction is in media and academic
registers (2.1). Lastly, most anaphoric
ambiguities can be found in media register
(2.3) as well as in political register (2.1).

Regarding the question of which register
carries the most syntactically ambiguous
expressions, the media register contains the
highest frequency of ambiguities overall,
followed by the legal register, political register,
and academic register, respectively. It should
be noted that while the frequencies of the first
three do not vary greatly—within a
comparable range of 14.2-18.9, the frequency
of the last is significantly lower at only 6.1.
Therefore, it is quite apparent that the Thai
academic register is rarely ambiguous.

Although the modification construction
contributes most frequently to ambiguity in
every register, this does not really surprise us
since modification is a very common approach
for supplying additional information to
statements, and thus used very often in all of
the registers.

Table 2: Frequencies of ambiguous syntactic patterns in media, legal, political, andacademic registers
(shown in relation to 1,000 word-long data)

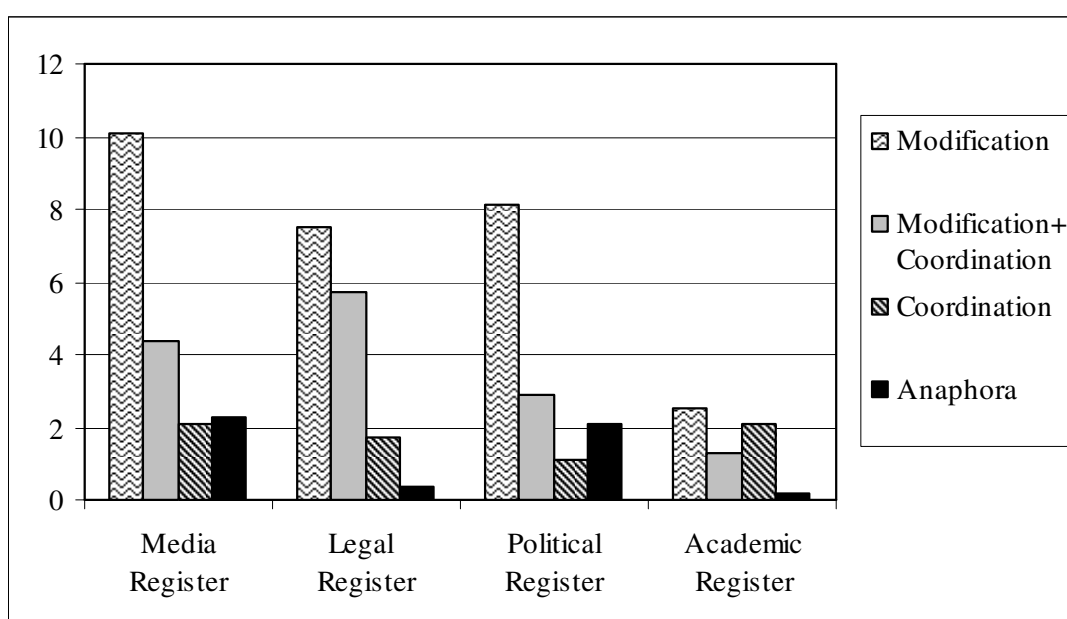| Syntactic Pattern	Media Register	Legal Register	Political Register	Academic Register	Total
modification	10.1	7.5	8.1	2.5	7.15
modification+ coordination	4.4	5.7	2.9	1.3	3.63
coordination	2.1	1.7	1.1	2.1	1.78
anaphora	2.3	0.4	2.1	0.2	1.28
Total	18.9	15.3	14.2	6.1	13.84

Figure 1: Frequencies of ambiguous syntactic patterns in media,
legal, political, and academic registers

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However, some other constructions seem to be favored only in certain registers. This might explain the different reasons for ambiguity in different registers.

Media register is the most ambiguous, as can be observed from the higher frequencies of almost all the ambiguous patterns in this register than in the other registers. It is possible that, limited by the space of publication or air time, the statements of the media must be heavily loaded with excessive amounts of information. Thus, the media has to employ certain grammatical devices such as zero pronouns, reduced relative clauses, the omission of complementizers, etc. for the sake of brevity, which may in turn create ambiguity. In addition, modifying phrases are added in such a disorganized manner, one after another, that the reader cannot locate their attachment sites correctly.

Unexpectedly, the legal register is fairly high in ambiguity despite its obligation to be totally clear. This is due largely to the fact that ambiguous modification+coordination constructions occur very frequently in law texts. In an attempt to create the quality of explicitness, all associated parties, matters, etc. are specified in statements of law and court judgments by using coordination constructions, with each or all of the conjoined entities modified by some descriptive expressions. For explicitness's sake, the ambiguity of anaphoric expressions is scarce in this register.

In contrast, the political register seems to be inadvertently ambiguous because of the ambiguous use of anaphora. To create cohesive links between utterances or sentences in their discourse, politicians often use anaphoric expressions when discussing a particular subject. Short anaphoric forms, such as pronouns and zeroes, are usually favoured in a spoken discourse, for ease of use or perhaps for the effect of creating a friendly informal atmosphere. These anaphors can give rise to inadvertent ambiguity where the context cannot clearly suggest the referents. This is in part due to the inclusion of public speeches and TV talk shows in the data.

The academic register is far less ambiguous than the others, as can be observed from the relatively lower frequencies of almost all the ambiguous patterns in this register, compared to those in the other registers. The reason might lie in the fact that academic writers, in writing articles of this genre, need to take careful step when making a claim or arguing for a certain point. As a result, their writing is usually crafted with neatly-ordered expressions, as well as carefully-selected words, to clearly express only the intended meanings of the statements. Also, academic papers go through some editing process which then allows further revision.

Methods to avoid ambiguity

This section is an attempt to suggest methods to reduce syntactic ambiguities during production of text in order to facilitate the interpretation task on the other end. Based on the findings in the previous sections, it can be observed that ambiguities stem from various syntactic patterns. Hence, the text is amended differently for each type of syntactic ambiguity. Since ambiguity implies more than one plausible interpretation of a single expression, the real intent of the writer/speaker must be obtained in order to determine the correct or intended interpretation of the expression. The proposed revisions are as follows.

Revisions to the modification construction

The construction of modification accounts for most ambiguities in all of the registers studied. Dealing with this construction properly will thus greatly reduce the number, if not also the degree, of ambiguities in the text. Most ambiguities of this type can be avoided by a rearrangement of constituents in the sentence. It is assumed that modifiers should be placed as close to their heads as possible. Based on this assumption, the problematic verb phrase *mâak thîi-sùt* 'the most' in example (1) should be treated as modifying its adjacent verb *phûut* 'to speak', allowing the reading 'I have the right to speak the most' only. Instead, if the other reading 'I have the highest right to speak' is intended, the modifying verb phrase should be placed right after the noun *sìt* 'right', as shown in example (13) below.

(13) *ผมมีสิทธิ์มากที่สุดที่จะพูด*

　phǒm mii sìt ***mâak thîi-sùt***
　I　have right much most
　thîi cà phûut
　COMP will speak
　'I have **the highest** right to speak.'

In the case that ambiguities arise as a result of the modification construction between head nominalized phrases and modifying prepositional phrases as in example (3), it should be treated on the same assumption that the modifier is attached to the nearest item possible. As a result, example (3) should only yield the reading 'The trend in the first period was the call for women's rights' where the prepositional phrase 'of woman' is attached to the noun phrase 'rights'.

However, for (3) to be interpreted as 'The trend in the first period was the women's calling for (something)'s rights.' the statement should be rephrased with the use of a nominal clause or noun complement instead of a prepositional phrase. In Thai, a nominal clause can be constructed by putting the head noun *kaan* or *rûâŋ* 'story', for instance, together with the complementizer *thîi* or *wâa* in front of a finite clause. Example (14) below demonstrates the rephrased unequivocal version of (3).

(14) *กระแสในระยะแรกนี้เป็น**การที่สตรีเรียกร้อง***

　"สิทธิ" ต่างๆ (academic register)
　krà-sěɛ nay rá-yá rêɛk níi pen
　trend in period first this be
　kaan thîi sà-trii *rîak-rɔ́ɔŋ sìt-thí*
　NOM COMP woman call rights
　tàaŋ-tàaŋ
　various
　'The trend in the first period was the **women's** calling for (something)'s rights'

Revisions to the coordination construction

For the coordination construction, as in example (4), to be free of ambiguities, the intended subject of the verb right after the coordinator must be clearly stated. In written documents, it may be accompanied by a space before the coordinator to split two clauses. This is shown in examples (15) and (16).

(15) *ผู้ฟ้องคดีได้แต่งตั้งคณะกรรมการสอบสวน*
ข้อเท็จจริง และคณะกรรมการรายงานผลการ
พิจารณาทางละเมิด... (legal register)
phûu-fɔ́ɔŋ-khá-dii dâay   tὲŋ-tâŋ
plaintiff   PAST establish
khá-ná kam-má-kaan sɔ̀ɔp-sŭuan
group   commission   inquire
khɔ̂ɔ-thét-ciŋ lé
truth   and
khá-ná kam-má-kaan
group   commission
raay-ŋaan phǒn
report   outcome
kaan-phí-caa-rá-naa thaaŋ lá-mɔ̂ɔt
NOM-deliberate   way breach
 'The plaintiff has established a
commission to inquire of the truth **and
report** the outcomes of the
deliberation...'

(16) *ผู้ฟ้องคดีได้แต่งตั้งคณะกรรมการสอบสวน*
ข้อเท็จจริง และผู้ฟ้องคดีรายงานผลการ
พิจารณาทางละเมิด... (legal register)
phûu-fɔ́ɔŋ-khá-dii dâay   tὲŋ-tâŋ
plaintiff   PAST establish
khá-ná kam-má-kaan sɔ̀ɔp-sŭuan
group   commission   inquire
khɔ̂ɔ-thét-ciŋ lé   phûu-fɔ́ɔŋ-khá-dii
truth   and plaintiff
raay-ŋaan phǒn
report   outcome
kaan-phí-caa-rá-naa thaaŋ lá-mɔ̂ɔt
NOM-deliberate   way breach

 'The plaintiff has established a
commission to inquire of the truth **and
the plaintiff has reported** the
outcomes of the deliberation...'

Differently, the ambiguity in example (6) can be attenuated, if not eliminated, by the consistent use of coordinators as well as the provision of some disambiguating materials. I suggest example (17) as a disambiguated version of (6).

(17) *นางลาการ์ด และ นายออกุสติน คาร์สเท่นส์*
ซึ่งเป็นผู้ว่าการธนาคารกลางของเม็กซิโก และ
นายสแตนลีย์ ฟิชเชอร์ ซึ่งเป็นทั้งผู้ว่าการ
ธนาคารกลางของอิสราเอล และอดีตรอง
ผู้อำนวยการ ไอเอ็มเอฟ (media register)
naaŋ laa-kàat lé   naay ɔɔ-kús-tin
Ms. Lagarde and Mr. Agustín
káas-thên suîŋ pen phûu-wâa-kaan
Carstens REL be governor
thá-naa-khaan klaaŋ khɔ̌ɔŋ
bank   central of
mék-sí-koo lé   naay sà-tɛɛn-lîi
Mexico   and Mr. Stanley
fích-chɔ̀ɔ suîŋ pen tháŋ
Fischer   REL be also
phûu-wâa-kaan
governor
thá-naa-khaan klaaŋ   khɔ̌ɔŋ
bank   central of
ìt-sà-laa-el lé   à-dìit rɔɔŋ
Israel   and past deputy
phûu-am-nuay-kaan ay-em-éf
managing director   IMF
 'Lagarde, **and** Agustín Carstens, who
is the Governor of the Bank of
Mexico, **and** Stanley Fischer, who is

both the Governor of the Bank of Israel **and** the former First Deputy Managing Director of the IMF' (3 people mentioned)

In (17), the sequence of words sɯ̂ŋ pen 'who/which is' and the word tháŋ 'both' are used as disambiguating materials. sɯ̂ŋ pen here introduces a relative clause which should be used in place of the apposition construction. This is because the apposition construction can easily be confused with the coordinating construction with no overt coordinator. The word tháŋ 'both' when followed by a coordinating construction normally suggests that the linguistic element immediately after it is the first conjoin of the coordination that follows. It rules out the possibility that any preceding linguistic element is mistakenly considered as the conjoin of that coordination. When used in (17), it helps indicate that 'Governor of Central Bank of Israel' and 'former Deputy Managing Director of IMF' are positions held by Mr. Fischer. These two disambiguating materials can also be used to clarify the construction in example (5), as can be seen in example (18) below.

(18) *นายกิตติรัตน์ ณ ระนอง* ***ซึ่งเป็นทั้ง***

   รองนายกฯ ***และ*** *รมว.คลัง* (media register)
   naay kìt-tì-rát ná rá-nɔɔŋ
   Mr. Kittiratt Na Ranong
   sɯ̂y pen tháy *rɔɔŋ naa-yók* ***lé***
   REL be both deputy PM and
   rɔɔmɔɔwɔɔ khlaŋ
   minister finance
   'Kittiratt Na Ranong, who is both the deputy PM and the finance minister'

Revisions to the modification+coordination

Based on the analysis, the occurrences of ambiguities from this pattern are relatively frequent in the legal and media registers, which usually involve enumeration of items and the provision of extra information for the sake of explicitness. The modifier in this construction can be interpreted as modifying only one conjoin adjoining it or modifying the whole coordinate. In the former case, the unequivocal statement can be obtained by switching conjoins in the construction, as shown in example (19) derived from (7).

(19) *ข้อหาละเมิดสิทธิมนุษยชนอย่างร้ายแรงและ*

   ทุจริต (legal register)
   kɔ̂ɔ-hǎa lá-mə̂ət sìt-thí
   allegation violate right
   má-nút-sà-yá-chon
   humanity
   yàaŋ ráay-rɛɛŋ lé *thú-cà-rìt*
   seriously and dishonesty
   'allegations of dishonesty and **serious** human rights violation'

In the latter case, the unequivocal statement can be obtained by supplying both conjoins with the modifier, as can be seen in example (20).

(20) *ข้อหาทุจริตอย่างร้ายแรง และละเมิดสิทธิ*

   มนุษยชนอย่างร้ายแรง (legal register)
   kɔ̂ɔ-hǎa thú-cà-rìt
   allegation dishonest
   yàaŋ ráay-rɛɛŋ lé
   seriously and

lá-mɔ̂ət sìt-thíi má-nút-sà-yá-chon
violate   right   humanity
yàaŋ ráay-rɛɛŋ
seriously
'allegations of **serious** dishonesty
and serious human rights violation'

Revisions to the anaphora construction

As its definition suggests, anaphora holds a relation between anaphors whose references are not clear in themselves and their antecedents whose references are obvious. In cases where the use of anaphora might give rise to ambiguity, the writer should consider repeating the words intended. With the original words provided, the expressions should be clear by themselves because there is no need to search for the references elsewhere. Examples (21) and (22) present disambiguated versions of (10) and (12) in respective order.

(21) บุษบา2 หรืออุณากรรณตัดสินใจที่จะไปจาก

บุษบา เพราะว่า**บุษบา**ปฏิเสธที่จะยอมรับ

การดำเนินตามค่านิยมแบบสังคมในอดีต

(academic register)
bùt-sà-baạ rǔɯ ùʔ-naa-kan
Bussaba2   or   Unakan
tàt-sǐn-cay thîi   cà   pay càak
decide   COMP will go   from
bùt-sà-baạ
Bussaba1
*phrɔ́-wâa **bùt-sà-baạ***
because   Bussaba1
pà-tì-sèet thîi   cà   yɔɔm-ráp
refuse   COMP will accept
kaan-dam-nəən-chii-wít taam
NOM-live a life   follow

khâa-ní-yom bɛ̀ɛp sǎŋ-khom
value   as   society
nay à-dìit
in past
'Bussaba2 or Unakan decided to leave Bussaba1 because **Bussaba1** refused to observe the traditional social values.'

(22) ระหว่างเดินก็มีกลุ่มเสื้อแดงยกชูป้าย วันนั้น

เกือบได้เรื่องเพราะแม่ค้าโกรธ **เสื้อแดง**ก็จะ

ไปตบ**แม่ค้า**ครับ

rá-wàaŋ dəən kɔ̂ɔ mii   klùm
during   walk AV have group
sûia dɛɛŋ yók   chuu pâay
shirt   red   carry raise sign
wan nán kùap dâay-rûiaŋ
day that almost go into trouble
phrɔ́   mɛ̂ɛ-kháa   kròot
because female vendor angry
***sûia dɛɛŋ** kɔ̂ɔ cà   pay tòp*
shirt   red   AV will go slap
***mɛ̂ɛ-kháa**   khráp*
female vendor PART.
'Red-shirts were carrying signs. It almost ended up in a brawl because a vendor got upset. Then, **the red-shirts** were going to slap **the vendor**.'

However, wordiness may be a consequence of some of the proposed techniques, i.e. using a nominal clause, adding disambiguating materials, supplying subjects or modifiers to both conjoins of the coordination, and repeating words. Many writing experts advise writers to avoid wordy sentences and repetitive wording which would make the text tedious to read. This advice sounds reasonable to the extent that it does not permit ambiguity. Criticism of a text for being wordy and tedious, in my

opinion, is a cheap price to pay for the clarity. This idea is supported by Conway (2002, 2-3) in his opinion about lengthy legal drafts: "Drafters with a comprehension of basic logic, and the ability to recognize (and avoid) unintended syntactic ambiguity, can construct lengthy sentences which are nevertheless clear and precise."

The types of syntactic ambiguity found in this study may be recognized, perhaps only under careful interpretation, by any native speaker of Thai who is adept at making use of his/her linguistic competence, and the avoidance strategies proposed here should not be beyond the abilities of linguistically competent language users. Nonetheless, the present study helps to make evident how ambiguity is structurally realized in the actual Thai language, at least to non-native speakers if not also to lay Thai people. It might be asked why there are still numerous instances of syntactic ambiguity even in these socially significant registers, if they can be that easily recognized and avoided. This might suggest that there are some attributes brought about by ambiguity required by these registers. However, I shall leave this issue for further research.

Conclusion

This study investigates syntactic ambiguities in four registers of Thai: legal, political, media, and academic. The analysis shows that the four syntactic patterns involving ambiguities are the modification construction, coordination construction, modification+coordination construction, and anaphora construction. In relation to the occurrences of ambiguities from each construction, it was found that modification is the construction most accountable for ambiguities in this study since it constitutes more than half of all ambiguities in all registers. Following are

the modification+coordination construction, coordination construction alone, and anaphora construction, in respective order. Regarding the distribution of ambiguities across registers, it was found that the media register accommodates the most ambiguities, closely followed by the legal register and political register. That the academic register is far behind in this respect signifies that this register is rarely ambiguous.

To avoid ambiguities, a number of text revisions are proposed. The problem of attachment of modifiers can be handled by a rearrangement of constituents in the sentence, based on the assumption that modifiers are placed closest to their heads. The use of nominal clauses can be of much help in the case of prepositional phrases modifying nominalized phrases. For the coordination construction, overt subjects should be supplied to both verbal conjoins of the coordinate structure if misinterpretation is potential. For the coordination involving a series of items, the consistent use of coordinators together with the application of well-selected disambiguating materials should play a substantial role in preventing ambiguity. The presence of a modifier in the coordination construction can also give rise to ambiguity. The techniques of switching conjoins or supplying both conjoins with the modifier can clarify the attachment site of the modifier. Lastly, in the case of anaphora, indeterminable references of anaphoric expressions, be they referring expressions, pronouns, or zero anaphors, should be avoided by the repetition of their antecedents.

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