SYNTACTIC AMBIGUITY IN LEGAL, POLITICAL, MEDIA, AND ACADEMIC REGISTERS OF THAI: PATTERNS AND AVOIDANCE¹

Nattawut Chaicharoen²

บทคัดย่อ

บทความนี้ศึกษาความกำกวมทางวากยสัมพันธ์ของภาษาไทยจากข้อความต่อเนื่องใน 4 ทำเนียบภาษา ได้แก่ ภาษากฎหมาย ภาษาการเมือง ภาษาสื่อ และ ภาษาวิชาการ รวมความยาวประมาณ 80 หน้า โดยมุ่งศึกษาว่าความกำกวมทางวากยสัมพันธ์เกิดจากโครงสร้างรูปแบบใดและเกิดในทำเนียบภาษาใดมากที่สุด พร้อมทั้งนำเสนอวิธีการเลี่ยงความกำกวมดังกล่าว

ผลการวิจัยพบว่า โครงสร้างกำกวมมี 4 รูปแบบ คือ

- (1) โครงสร้างส่วนขยาย (2) โครงสร้างประโยครวม
- (3) โครงสร้างส่วนขยาย+ประโยครวม และ (4) การ

¹ (ความกำกวมทางวากยสัมพันธ์ในทำเนียบภาษากฎหมาย ภาษาการเมือง ภาษาสื่อ และภาษาวิชาการของไทย: รูปแบบและวิธีการเลี่ยง) This paper is part of the research project entitled "Language of Power: A Stylistic Analysis of Thai Society's Legal Language, Political Language, Media Language, and Academic Language" funded by the Thailand Research Fund (TRF). An earlier version of this paper was presented at the national conference on "Stylistic Analysis: Society Image as Reflected in Language", Oct 18-19, 2012, Khon Kaen University.

² (นักวิจัยอิสระ) Independent Researcher

อ้างตาม นอกจากนี้ การวิเคราะห์เชิงปริมาณยังแสดงให้เห็นว่าความกำกวมเกิดจากโครงสร้างส่วนขยายมากที่สุด โดยก่อให้เกิดความกำกวมเกินกึ่งหนึ่งของจำนวน โครงสร้างกำกวมทั้งหมด รองลงมาคือโครงสร้างส่วนขยาย+ประโยครวม โครงสร้างประโยครวม และการอ้างตาม ตามลำดับ เมื่อเปรียบเทียบระหว่างทำเนียบภาษาพบว่า ภาษาสื่อกำกวมมากที่สุด รองลงมาคือภาษากฎหมาย ภาษาการเมือง และภาษาวิชาการ ตามลำดับ

ทั้งนี้ ความกำกวมแต่ละรูปแบบมีวิธีการเลี่ยงแตกต่างกัน ได้แก่ ความกำกวมจากโครงสร้างส่วนขยายสามารถเลี่ยงได้โดยเปลี่ยนตำแหน่งการจัดวางส่วนขยายหรือใช้หน่วยสร้างอนุพจน์นาม ความกำกวมจากโครงสร้างประโยครวมสามารถเลี่ยงได้โดยระบุประธานของกริยาวิเศษณ์ทุกส่วนที่นำมาเชื่อมกันให้ชัดเจน และใช้สันธานคั่นคำหรือวลีในรายการที่เขียนต่อกันไปให้คงที่เป็นระบบ อีกทั้งบางกรณีอาจเสริมด้วยรูปภาษาเฉพาะกิจเพื่อคลี่คลายความกำกวม สำหรับโครงสร้างส่วนขยาย+ประโยครวมที่กำกวม สามารถใช้วิธีสลับตำแหน่งของส่วนหลักที่นำมาเชื่อมกันหรือใช้การระบุส่วนขยายของส่วนหลักแต่ละส่วนให้ชัดเจน และหากรูปอ้างตามมีแนวโน้มที่จะกำกวม ผู้เขียนควรเลือกใช้คำหรือวลีเดิมซ้ำอีกครั้งแทนการใช้รูปอ้างตาม

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 inefficient 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. Kaplon (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 Chavanalikhorn (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 Chavanalikhorn (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 identify 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) ผมมีสิทธิที่จะพูดมากที่สุด (political register)

phǒm 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

adjacent verb *phûut* ‘to speak’, as in reading (1a), or the noun *sît* ‘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
 ชาติอาหรับผู้ผลิตน้ำมันรายใหญ่ที่สุดของโลก (media register)
naay aa-lîi al nay-mîi rûut-thà-mon-trîi
 Mr. Ali Al-Naimi minister
náam-man saa-ù-dì-aa-rá-bia
 oil Saudi Arabia
phûu phà-lît náam-man
 person produce oil
raay yây
 item big
thîi-sùt khwây lóok
 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-lît náam-man raay yây thîi-sùt khwây lóok* ‘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-lîi al nay-mîi* ‘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”
 ต่างๆของสตรี (academic register)
krà-sǎe nay rá-yá rǎek nîi pen
 trend in period first this be
kaan-rîak-rǎw sît-thí tàay-tàay
 NOM-call rights various
khwây sà-trîi
 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 *khwây sà-trîi* ‘of woman’ may modify only the adjacent noun phrase *sît-thí tàay-tàay* ‘rights’ as in reading (3a) or the nominalized form *kaan-rîak-rǎw* ‘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-fǔwǎy-khá-dii dāay tēy-tāy
plaintiff PAST establish
khá-ná kam-má-kaan sǔwǎp-sǔan
group commission inquire
khǔw-thét-ciŋ lé raay-ŋaan phǎn
truth and report outcome
kaan-phí-caa-rá-naa thaay lá-mǔt
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 *lé* ‘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-fǔwǎy-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 kít-tì-rát ná rá-nwǎy
Mr. Kittiratt Na Ranong
[*rǔwǎy naa-yók lé rǔwmwǎw khlay*]
[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) นางสาวการ์ด และ นายอากุสติน คาร์สเท่นส์ _?

ผู้ว่าการธนาคารกลางของเม็กซิโก กับ

นายสแตนลีย์ ฟิชเชอร์ _?ผู้ว่าการธนาคารกลาง

ของอิสราเอล และ อดีตรองผู้อำนวยการ

ไอเอ็มเอฟ (media register)

naay laa-kàat lé naay w-w-kúis-tin

Ms. Lagarde and Mr. Agustín

káas-hên _? phûu-wâa-kaan

Carstens governor

thá-naa-khaan klaay khwǎy

Bank central of

mék-sí-koo kàp naay sà-teen-lî

Mexico with/and Mr. Stanley

fich-chô _? phûu-wâa-kaan

Fischer governor

thá-naa-khaan klaay khwǎy

bank central of

it-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: Lagarde is mentioned with nothing attached, Agustín 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 lé '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 lé '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)

kôw-hăa thú-cà-rít lé lá-môat
 allegation dishonest and violate
sít-thí má-nút-sà-yá-chon
 right humanity
yàay ráay-rēē
 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 nūi phūu-fôw-khá-dii
 case this plaintiff
fôw lé chíi-cēē khôw-thét-ciŋ
 file and clarify fact
phôom-təəm 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 *yàay ráay-rēē* ‘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-tôp-theen khâa-cây* ‘wages (in general)’, *kam-kam-nòt prà-kàat khâa-cây* ‘the announcement of wage rates’, or *khâa-cây khân-tâm* ‘the minimum wage’ is held in that relation.

- (9) ขณะเดียวกันในเรื่องค่าตอบแทนค่าจ้าง... ผู้ใช้
แรงงานที่มีฝีมือแรงงานในประเภทต่าง ๆ นั้นก็
จะมีการกำหนดประกาศค่าจ้างเป็นครั้งแรกครับ
... ส่วนค่าจ้างขั้นต่ำนั้นอย่างที่เรียนไปแล้วว่า
ก็อยู่ในช่วงที่จะมีการปรับให้สอดคล้องกับเรื่อง
ของค่าครองชีพอีกครั้งหนึ่ง ก็คาดว่าจะ
ดำเนินการได้ อาจจะประมาณใน 1 เดือน
ข้างหน้า อันนี้ก็จะเป็นสิ่งที่ได้มีการทำอย่าง
ต่อเนื่อง (political register)
- khà-nà diaw-kan nay ruán*
time same in issue
khâa-tòp-theen khâa-câay
remunerations wage
kôw cà mii
AV wil have
kaan-kam-nòt prà-kàat
NOM-determine announcement
khâa-câay pen khráp rêek khráp
wage be time first PART.
sùan khâa-câay khân-tàm nán ...
whereas wage minimum TOP.
... *an nûi kôw pen sìy thii*
matter this AV be thing COMP
dâay mii kaan-tham
PAST have NOM-do
yàay-tòw-nuán
continuously

of which the last sentence has three possible readings:

- The matter of wages** is what we have been pursuing continuously.
- The matter of a wage rates announcement** is what we have been pursuing continuously.
- 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 *naay* 'she' and *thân* 'he/you' respectively.

- (10) บุษบา2 หรืออุณาการณณ์ตัดสินใจที่จะไปจาก
บุษบา1 เพราะท่านางปฏิเสธที่จะยอมรับการ
ดำเนินตามค่านิยมแบบสังคมในอดีต
(academic register)
- bùt-sà-baa2 ruán ù-naa-kan*
Bussaba2 or Unakan
tàt-sîn-cay thii cà pay càak
decide COMP will go from
bùt-sà-baa1
Bussaba1
phró-wâa naay pà-tì-sèet thii
because she refuse COMP
cà yòom-ráp
will accept
kaan-dam-nòon-chii-wít
NOM-live a life
taam khâa-ní-yom bèep
follow value as
săy-khom nay à-diit
society in past

which has two possible readings:

- Bussaba2 or Unakan decided to leave Bussaba1 because **Bussaba1** refused to observe the traditional social values.
- Bussaba2 or Unakan decided to leave Bussaba1 because **Bussaba2 or Unakan** refused to observe the traditional social values.

- (11) พี่น้องครับผมเชื่อโดยไม่ได้ถาม
 นายกรัฐมนตรีว่าที่ท่านต้องกล้ำกลืนความ
 เจ็บปวดความร้าวราน... (political
 register)
phûi-nóng khráp phǒm chuâ
 fellows PAR I believe
dooy mây dâay thǎam
 by not PAST ask
naa-yók-rát-thà-mon-trii wâa
 prime minister COMP
thûi thǎn tǎy
 COMP he/you(honor.) have to
klâm-kluuun
 tolerate
khwaam-cèp-puât
 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 *naay* ‘she’ in the subordinate clause that follows. The female pronominal form *naay* ‘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 *thǎn* ‘he/you’ accounts for the ambiguity because there are at least two different *thǎn* ‘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
 ดบ ?ครับ
râ-wàay dǎan kǎw mii klum
 during walk AV have group
súa deey yók chuu páy
 shirt red carry raise sign
wan nán kuàp dâay-rúay
 day that almost go into trouble

phró mēe-kháa kròot
 because female vendor angry
“? kō cā pay tòp “? khráp
“? AV will go slap “? 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 *kō cā 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 *sūa dēy* ‘red-shirts’ and the noun *mēe-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, and academic 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

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 *sît* ‘right’, as shown in example (13) below.

- (13) ผมมีสิทธิมากที่สุดที่จะพูด
phǒm mii sît 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 *ruáay* ‘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) กระแสในระยะแรกนี้เป็นการที่สตรีเรียกร้อง
 “สิทธิ” ต่างๆ (academic register)
krà-sǎe nay rá-yá rêek nîi pen
 trend in period first this be
kaan thîi sà-trîi riak-róoy sît-thí
 NOM COMP woman call rights
tàay-tàay
 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-fwǎy-khá-dii dâay tɛ̌y-táy
plaintiff PAST establish
khá-ná kam-má-kaan sòwp-sǎuan
group commission inquire
khwǎ-thét-ciɣ lé
truth and
khá-ná kam-má-kaan
group commission
raay-ɣaan phǎn
report outcome
kaan-phí-caa-rá-naa thaay lá-mǎw
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-fwǎy-khá-dii dâay tɛ̌y-táy
plaintiff PAST establish
khá-ná kam-má-kaan sòwp-sǎuan
group commission inquire
khwǎ-thét-ciɣ lé phûu-fwǎy-khá-dii
truth and plaintiff
raay-ɣaan phǎn
report outcome
kaan-phí-caa-rá-naa thaay lá-mǎw
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) นางลาการ์ด์ และ นายอากุสติน คาร์สเทินส์
ซึ่งเป็นผู้ว่าการธนาคารกลางของเม็กซิโก และ
นายสแตนลีย์ ฟิชเชอร์ ซึ่งเป็นทั้งผู้ว่าการ
ธนาคารกลางของอิสราเอล และอดีตรอง
ผู้อำนวยการไอเอ็มเอฟ (media register)
naay laa-kàat lé naay w-w-kís-tin
Ms. Lagarde and Mr. Agustín
káas-thén suɣ pen phûu-wáa-kaan
Carstens REL be governor
thá-naa-khaan klaay khwǎy
bank central of
mék-sí-koo lé naay sà-teen-lîi
Mexico and Mr. Stanley
fích-chǎw suɣ pen tháy
Fischer REL be also
phûu-wáa-kaan
governor
thá-naa-khaan klaay khwǎy
bank central of
it-sà-laa-el lé à-diit rɔwɣ
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 *sūŋ pen* 'who/which is' and the word *tháj* 'both' are used as disambiguating materials. *sūŋ 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 *tháj* '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 รว.คลัง (media register)

naay kít-tì-rát ná rá-nong

Mr. Kittiratt Na Ranong

sūŋ pen tháj รว. naa-yók lé

REL be both deputy PM and

รว.มว.คลัง *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)

kǎw-hǎa lá-mǎw sít-thí

allegation violate right

má-nút-sà-yá-chon

humanity

yàaŋ ráay-reŋ lé thú-cà-rít

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)

kǎw-hǎa thú-cà-rít

allegation dishonest

yàaŋ ráay-reŋ lé

seriously and

lá-məət sít-thí má-nút-sà-yá-chon
violate right humanity
yàay 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
บุษบา1 เพราะว่าบุษบา1ปฏิเสธที่จะยอมรับ
การดำเนินตามค่านิยมแบบสังคมในอดีต
(academic register)
bùt-sà-baɣ ru̯u u̯-naa-kan
Bussaba2 or Unakan
tàt-sǐn-cay thii cà pay càak
decide COMP will go from
bùt-sà-baɣ
Bussaba1
phrɔ́-wâa bùt-sà-baɣ
because Bussaba1
pà-tì-sèet thii cà yɔəm-ráp
refuse COMP will accept
kaan-dam-nəən-chii-wít taam
NOM-live a life follow

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

- (22) ระหว่างเดินก็มีกลุ่มเสื้อแดงยกป้าย วันนั้น
เกือบได้เรื่องเพราะแม่ค้าโกรธ เสื้อแดงก็จะ
ไปตบแม่ค้าครับ
rá-wàay dɔən kɔ́w mii klùm
during walk AV have group
súuá deɛŋ yók chuú páay
shirt red carry raise sign
wan nán kuàp dáay-ru̯uáŋ
day that almost go into trouble
phrɔ́ mɛ̃ɛ-kháa kròot
because female vendor angry
súuá deɛŋ kɔ́w cà pay tòp
shirt red AV will go slap
mɛ̃ɛ-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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