

**COHERENCE IN NARRATIVE DISCOURSE OF
SCHIZOPHRENIC SPEAKERS**

The seal of Mahidol University is a large, faint circular emblem in the background. It features a central five-tiered umbrella (parasol) with a flame-like base, surrounded by Thai script. The outer ring of the seal contains the text 'มหาวิทยาลัยมหิดล' (Mahidol University) and the inner ring contains 'จุฬาลงกรณ์มหาวิทยาลัย' (Chulalongkornrajavidyalaya University).

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Thesis
entitled
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SCHIZOPHRENIC SPEAKERS**

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ABSTRACT

It has long been observed that schizophrenic speakers display peculiar language performance. Accordingly, patients with schizophrenia are difficult to diagnose as to whether they exhibit positive formal thought disorder (FTD). Although several diagnostic assessments of thought disorder have been proposed, the assessments depend largely on individual psychiatrists during a psychiatric interview. Therefore, despite these significances, the researcher applies three linguistic frameworks to this present research: Halliday and Hasan's cohesion (1976; 1984), Grice's cooperative principle (1975), and theme development, which includes participant reference and storyline following Longacre (1983; 1989).

The primary aim is to measure the overall coherence from the narratives of schizophrenic speakers after they have viewed a wordless picture book. The researcher further categorizes the participants into groups according to their characteristics of coherence in narrative discourse in order to find out whether one of these groups shows signs of positive formal thought disorder. The analysis depicts that schizophrenic narratives that are less cohesive, less cooperative and less progressive can be grouped into Group One, "narratives with less coherence". In contrast, other narratives with the opposite results can be grouped into Group Two, "narratives with more coherence". Accordingly, the interviews with the psychiatrists suggest that schizophrenic speakers in Group One show signs of positive formal thought disorder.

KEY WORDS: COHERENCE/ NARRATIVE DISCOURSE/ SCHIZOPHRENIC SPEAKERS

249 pages

การเกาะเกี่ยวความในเรื่องราวของผู้ป่วยโรคจิตเภท

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บทคัดย่อ

นับตั้งแต่ได้มีการศึกษาเรื่องการเชื่อมโยงความในภาษาระดับข้อความของผู้ป่วยโรคจิตเภท งานวิจัยทางภาษาศาสตร์ในผู้ป่วยโรคจิตเภทได้แพร่หลาย จากการศึกษาเหล่านี้นักวิชาการหลายท่านมีความเห็นว่า ผู้ป่วยโรคจิตเภทมีการใช้ภาษาที่มีลักษณะเฉพาะ นอกจากนี้เป็นการยากที่จะวินิจฉัยว่าผู้ป่วยโรคจิตเภทมีความผิดปกติในความคิดด้านบวก (Positive formal thought disorder) หรือไม่ ถึงแม้ว่ามีแบบประเมินความผิดปกติในความคิดหลายแบบที่นำมาประเมินผู้ป่วยโรคจิต การวินิจฉัยค่อนข้างที่จะขึ้นอยู่กับการประเมินของจิตแพทย์ รายบุคคลระหว่างการสัมภาษณ์ผู้ป่วย ด้วยเหตุผลข้างต้น ผู้วิจัยได้ประยุกต์ใช้กรอบแนวคิดทางภาษาศาสตร์ 3 กรอบในงานวิจัยนี้ ได้แก่ การเชื่อมโยงความ (ฮาลิเคย์ & ฮาซาน, 1976; ฮาซาน, 1984) หลักการความร่วมมือ (ไกรซ์, 1975) และ การพัฒนาหัวข้อ ซึ่งประกอบด้วย การอ้างถึงตัวละคร (ลองเอเคอร์, 1983) และ การดำเนินเรื่อง (ลองเอเคอร์, 1989)

งานวิจัยนี้มุ่งศึกษาการเกาะเกี่ยวความในเรื่องราวของผู้ป่วยโรคจิตเภทจากหนังสือภาพ เพื่อที่จะจัดกลุ่มผู้ป่วยตามลักษณะของการเกาะเกี่ยวความ และเพื่อที่จะหาว่าผู้ป่วยมีลักษณะของความผิดปกติในความคิดด้านบวกหรือไม่ จากการวิเคราะห์ ผู้วิจัยพบว่าเรื่องเล่าที่มีลักษณะของการเชื่อมโยงความ การให้ความร่วมมือในเรื่องเล่า และมีการดำเนินเรื่องน้อย รวมทั้งมีการอ้างถึงตัวละครที่ปรากฏในหนังสือภาพค่อนข้างน้อย สามารถจัดอยู่ในกลุ่มที่หนึ่ง คือ กลุ่มผู้ป่วยที่มีลักษณะการเกาะเกี่ยวความในเรื่องเล่าน้อย ส่วนเรื่องเล่าที่มีลักษณะตรงกันข้ามกับกลุ่มที่หนึ่ง สามารถจัดไว้ในกลุ่มที่สอง คือ กลุ่มผู้ป่วยที่มีลักษณะการเกาะเกี่ยวความในเรื่องเล่ามาก จากการสัมภาษณ์จิตแพทย์ผู้เข้าร่วมในงานวิจัย ผู้วิจัยพบว่าผู้ป่วยโรคจิตเภทที่มีลักษณะการเกาะเกี่ยวความในเรื่องเล่าน้อย มีลักษณะของความผิดปกติในความคิดด้านบวก

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LIST OF ABBREVIATIONS

Adjective	ADJ.
Adverb	ADV.
Aspect marker	ASP.
Aspirated	(asp.)
Auxiliary	AUX.
Classifier	CLASS. (CL in Chanawangsa, 1986)
Conjunction	CON. (CONJ. in Chanawangsa, 1986)
Comparative	COMP.
Demonstrative	DEM.
Demonstrative noun phrase	DEM. NP
Emphasis	EMP.
Interjection	INJ.
Kinship term	KIN.
Negation	NEG.
Noun	N
Noun phrase	NP
Numeral	NUM.
Object ellipsis	Obj. ellipsis
Occupation term	OCC.
Particle	PAR. (PCL in Chanawangsa, 1986)
Personal pronoun	PER.
Personal name	NAM.
Pre-modifier	PRE.
Preposition	PREP.
Progressive	PROG.
Pronoun	PRON.
Possessive noun phrase	POSS. NP

LIST OF ABBREVIATIONS (cont.)

Post-modifier	POST.
Wh. question marker	Wh. question (QU in Chanawangsa, 1986)
Question tag marker	Q.Tag
Subject ellipsis	Subj. ellipsis
Title term	TIT.
Unaspirated	(unasp.)
Zero anaphora	ø

Codes for cohesion analysis

Reference	R
Pronominals/ Personal Reference	R1
Personal pronouns	R1.1
Pronominally used nouns	R1.2
Zero pronouns	R1.3
Possessive pronouns	R1.4
Demonstrative Reference	R2
Participant demonstrative reference	R2.1
Circumstance demonstrative reference	R2.2
Comparative Reference	R3
General comparison	R3.1
Particular comparison	R3.2
Substitution	S
Nominal Substitution	S1
Verbal Substitution	S2
Clausal Substitution	S3
Ellipsis	E
Nominal Ellipsis	E1
Verbal Ellipsis	E2
Clausal Ellipsis	E3

LIST OF ABBREVIATIONS (cont.)

Conjunction	C
Additive	C1
Adversative	C2
Clausal	C3
Temporal	C4
Lexical cohesion	L
Same Item	L1
Synonym or near synonym	L2
Superordinate	L3
'General' item	L4
Collocation	L5
Peripheral tokens	PT
Relevance tokens	RT
Central tokens	CT
Total tokens	TT

Codes for cooperative principle

Maxim observation	Obs.
Infringing maxim	IN
Infringing maxim of quantity	IN.QN
Infringing maxim of quantity - subtype: <i>"make your contribution as informative as is required for the current purposes of the exchange"</i>	IN.QN1
Infringing maxim of quantity - subtype: <i>"do not make your contribution more informative than is required"</i>	IN.QN.2
Infringing maxim of quality	IN.QL
Infringing maxim of relation	IN.R
Infringing maxim of manner	IN.M
Infringing maxim of manner - subtype: <i>"avoid obscurity"</i>	IN.M1
Infringing maxim of manner - subtype: <i>"avoid ambiguity"</i>	IN.M2

LIST OF ABBREVIATIONS (cont.)

Infringing maxim of manner - subtype: “ <i>be brief</i> ”	IN.M3
Infringing maxim of manner - subtype: “ <i>be orderly</i> ”	IN.M4

Codes for participant reference

Main, secondary, and tertiary participants	P(1,...,n)
Props	PP(1...,n)
Group	Group (1,...,n)
Exophoric participant	exo
Unidentified/ ambiguous participants	?
Introducing participant	Introduce P/ PP/ Group (1,...,n)
Reintroducing participant	Reintroduce P/ PP/ Group (1,...,n)
Maintaining participant	Maintaining P/ PP/ Group (1,...,n)

CHAPTER I

INTRODUCTION

1.1 Background and Rationale

“Schizophrenia is a complex psychiatric disorder that is frequently manifest in language and related cognitive function” (Cohen, 2011, p. 3). Traditionally, schizophrenia has been termed “thought disorder”. It has been acknowledged that the patients’ communicative failures and disorganized speech reflex the disturbance of “thought disorder” (Rochester & Martin, 1979). To this, it is suspicious whether thought reflexes language or language reflexes thought? Several researches have been conducted and some researchers doubt that “thought disorder” cannot be directly accessed from disorganized speech. It is our own believe that we, as researchers, assume that thought disorder relies on speech that is disorganized. Yet, this question is still left unanswered. Accordingly, this present research does not claim that “thought disorder” depends on the disturbance of speech, however since “thought disorder is schizophrenia’s most prominent symptom” (Cohen, 2011, p. 4), the study of schizophrenic’ narrative discourse might shed some light on the nature of schizophrenic’ disturbance of thought.

Another point has also been raised whether why schizophrenic speech is difficult to comprehend. This question has been examined by many researchers for decades. For example, Rochester and Martin state that individual diagnosed schizophrenia exhibits incoherent speech (Meilijson, Kasher, & Elizur, 2004, p. 695). Pavy also points out that schizophrenic patients fail to perform coherent speech (Meilijson et al., 2004, p. 695). Moreover, the studies of schizophrenic language are widely widespread especially in the western countries. Currently, since the researcher found no study on schizophrenic language in Thailand i.e. on coherence in narrative discourse of schizophrenic speakers, therefore this might be the best opportunity to explore such area. Furthermore, in other to study coherence, narrative discourse is the most suitable genre regarding these following reasons. Firstly, narrative is within itself

highly cohesive or “highly structured context” (Rochester & Martin, 1979, p. 129). As Halliday (1977) states that narrative is “self-contextualizing”, which means the speakers usually provide much information in order for the listeners to understand (Rochester & Martin, 1979, p. 79). Secondly, comparing to other genre such as interview, the topic of the narrative is fastened, which means the speaker tends to stay on the topic of that narrative and rarely shifts from one topic to other topics. Lastly, as far as the assessment of disorganized speech, or specifically, thought disorder is concerned, the assessment is also determined by “different linguistic variation in narrative styles across cultures” (American Psychiatric Association, 2013, p. 103). Due to these significances, this research primarily inquires: what are the characteristics of narrative discourse of schizophrenic speakers?

The motivation for this research stems largely from the psychiatric patients’ language performance when observing Lampang Hospital on October 15th to November 5th, 2012. From the patients’ basic language observation, schizophrenic language on discourse and pragmatic skills is crucially remarkable among other linguistic areas. Various studies found that schizophrenic patients lack the ability in producing discourse with appropriate logical relation. As for pragmatics, schizophrenic patients lack communicating skills such as ability in presenting ideas with logical and relevant manner. Communicating with schizophrenic speakers is a difficult task for both clinicians and schizophrenic families. It is even more confusing not to be able to understand why schizophrenic speaker is unable to produce coherent discourse. For these reasons, this research attempts to deepen the understanding of schizophrenic language using cohesion (Halliday & Hasan, 1976 and Hasan, 1984), cooperative principle (Grice, 1975) and theme development¹, which focuses on participant reference (Longacre, 1983) and storyline (Longacre, 1989).

Accordingly, schizophrenia is difficult to diagnose whether the patients show signs of formal thought disorder (FTD)². Several diagnostic assessments of thought disorder have been proposed and among others Andreasen’s *Scale for Assessment of positive symptoms (SAPS)* (See Appendix A) is widely used assessment in the western countries. However, the scale depends largely on individual psychiatrist’s inference during a psychiatric interview. Moreover, the assessment that is used to diagnose psychotic disorders and related symptoms in Thailand is the DSM-V³.

However, none of the diagnosis assessment for formal thought disorder has been applied in Thailand. Due to the importance of language dysfunction of schizophrenic speakers and the vagueness of language assessment of formal thought disorder, the researcher attempts to apply linguistic frameworks as one of the additional approaches other than the medical assessment to access language of schizophrenic speakers as illustrated in table 1.1 below.

Table 1.1 Linguistic frameworks and types of positive formal thought disorder defined by Andreasen (2000)

Types of positive formal thought disorder (Andreasen, 2000) (See Appendix A)	Frameworks		
	Cohesion	Cooperative principle	Theme development
1.Derailment	/		/
2.Tangentiality		/	
3.Incoherence	/		/
4.Illogicality		/	
5.Circumstantiality		/	/
6.Pressure of speech		/	
7.Distractible speech		/	/
8.Clanging ⁴			

According to table 1.1 above, the reason why cohesion involves in this research is because in order to measure coherence, local coherence i.e. structural links between two or more linguistic elements must be firstly investigated - in what way schizophrenic speakers use cohesive ties to link between clauses to make a coherent discourse. To this extent, cohesion deals with **how narrative discourse is organized or tied up**. Moreover, regarding Andreasen's (2000) *Scale for Assessment of positive symptoms (SAPS)*, the researcher sees that cohesion can be used to access types of positive formal thought disorder (see Appendix A) such as derailment/ loosening of association and incoherence.

Furthermore, while cohesion can investigate discourse structure i.e. surface structure, it cannot individually determine characteristics of coherence in schizophrenic speakers. Therefore, pragmatic approach: Grice's cooperative principle is also applied in this present research, which deals with **how schizophrenic speaker is communicated**. The research in this area of pragmatics could provide further explanation on schizophrenic cognitive impairment. For example, schizophrenic speaker has difficulty in identifying what is considered to be relevant in discourse i.e. the patient tends to shift topic from one topic to another in an irrelevant manner, therefore patient infringes maxim of relevance in Grice's sense. Hence, it is aimed to study how cooperative schizophrenic speaker is. Additionally, similar to cohesion, the researcher attempts to find out whether cooperative principle could yield significant insight to access types of positive formal thought disorders such as tangentiality, circumstantiality, illogicality, distractible speech, and pressure of speech.

Finally, the third framework concerns the concept of theme development. The researcher realizes the difficulty in **how narrative discourse is developed**. In analyzing theme development, two points are discussed here: (1) participant reference, which concerns topical theme; and (2) storyline that concerns theme line of development as proposed by Longacre (1983; 1989). Additionally, theme development also indicates **how narrative discourse is planned**. For instance, people normally plan their story before telling: how one would like the story to proceed; who participates in this story and the like. These questions are ordinarily raised and organized before telling a story. To this extent, the researcher sees that in planning a well-organized story, main components of narrative discourse should be maintained such as main characters and the storyline components, which move the narrative discourse forward. Other components can be added when the story proceeds. Therefore, if a story is not well-planned before telling, it might be fragmented. This can be seen when the participant in the narrative is shifted from one to the other regularly; or components of the storyline are rare etc. The researcher further aims that theme development could access types of positive formal thought disorders such as circumstantiality, derailment/ loosening of association, incoherence and distractible speech.

Hence, these three linguistic frameworks are applied to study: (1) coherence in narrative discourse of schizophrenic speakers, in which *how narrative discourse is tied up, how it is communicated, and how it is developed*, and (2) types of positive formal thought disorder, in which how each framework meets which types of positive formal thought disorder and in what way.

1.2 Research question

What are the characteristics of narrative discourse of schizophrenic speakers?

1.3 Objectives of the study

1.3.1 To analyze narrative discourse using cohesion, cooperative principle, and theme development

1.3.2 To explain how cohesion, cooperative principle, and theme development lead to coherence in narrative discourse as a whole

1.3.3 To discuss whether cohesion, cooperative principle, and theme development can use to categorize groups of schizophrenic speakers, as well as whether these frameworks can explain types of positive formal thought disorder as illustrated in table 1.1 above

1.4 Hypothesis

This research hypothesizes that groups of schizophrenic speakers can be categorized in accordance with characteristics of cohesion, cooperative principle, and theme development, which is also related to positive formal thought disorder.

1.5 Expected Benefits

The research will benefit the field of linguistics and medicine in applying linguistic frameworks to help the psychiatrist determines symptoms concerning

language dysfunction in schizophrenia, especially in evaluating types of positive formal thought disorder. Additionally, this research will help understanding the characteristics of coherence in narrative discourse of schizophrenic speakers, which might benefit the categorization in accordance with thought disorder of schizophrenia. Hence, the expected benefits advance on both linguistics and medicine as follows:

1.5.1 Linguistic frameworks applied in this present research can be one of the approaches for determining language dysfunction of schizophrenia, as well as can help identifying various types of positive formal thought disorders in schizophrenia, because language assessment from Andreasen's (2000) *Scale for Assessment of positive symptoms (SAPS)* primarily depends on individual psychiatrist's clinical inferences retrieved from the patient's interview.

1.5.2 While diagnosis mainly retrieves from the patient's interview, physical examination, and mental state examination, none of language assessment of schizophrenia that is defined by linguistics has been found, especially in Thai. The analysis using linguistic frameworks in this research can help the psychiatrist in determining groups of schizophrenia according to positive formal thought disorder.

1.5.3 This research aims not only to be in favor of researchers in linguistics, but also language pathologist, psychiatrist, neurologist, other clinician as well as non-professionals such as caregivers and families whom might be advantage from the knowledge of discourse analysis and pragmatics as this research provides a better understanding about characteristics of coherence in narrative discourse of schizophrenic speakers or individual who tends to develop schizophrenia i.e. family members or close relatives, as evidence suggests that relatives of schizophrenia⁵ are likely to be diagnosed schizophrenia more than normal population (Manote Lotrakul & Pramote Sukhanich, 2012, p. 131)

1.5.4 In this research, a wordless picture book has been applied as a measurement for accumulating narrative discourse. Therefore, it is aimed to be an additional measurement other than clinical interview or normal conversation.

1.5.5 The research can yield new insight in applying linguistic frameworks to psychiatric study, where no study concerning coherence in narrative discourse of schizophrenic speakers in Thailand has been found.

1.6 Definition of terms

Coherence

The term “coherence” has been defined by many researchers in different aspects. In this present research, this term is applied in two senses, in general and in specify. In general, coherence is termed as “the situation in which all the parts of something fit together well” (Oxford Advanced Learner's Dictionary), which is related to this research regarding the primary concentration of the research. The other sense deals with coherence as a linguistic device for analysis, and this linguistic device can be achieved through cohesion, cooperative principle, and theme development. In other words, this research argues that these linguistic frameworks lead to coherence in narrative discourse.

Narrative discourse

Broadly speaking, narrative discourse is defined as having these two concepts – contingent temporal succession and agent orientation. The former concerns with continuous of events that consist of motion and action verbs as well as verb of speech in common, while the latter deals with participants of any kinds who perform the actions (Longacre, 1983).

1.7 Scope of the study

1.7.1 This research focuses on coherence in narrative discourse of schizophrenic speakers using discourse and pragmatic frameworks. Other frameworks than cohesion, cooperative principle and theme development will not be accounted for in this present research.

1.7.2 This research excludes all clinical factors of the participants such as medical record, medical treatment, family history etc. Only linguistic aspects will be investigated.

1.7.3 This research focuses on analyzing narrative discourse of schizophrenic speakers, which is in Northern Thai dialect.

1.7.4 In collecting data for analysis, a wordless picture book “*A boy, a dog, a frog, and a friend*” will be used as a measurement in the research, therefore other measurement i.e. books will not be accounted for in this research.

1.7.5 This research uses audio tape recorder for collecting data, therefore video recorder or other electronic devices will not be used.

1.7.6 This research focuses on verbal language of the participants. Hence non-verbal language will not be accounted for.

1.7.7 Data collection will be collected at the outpatient department of psychiatry at Lampang Hospital.

1.8 Ethic consideration

This research is a descriptive study with no experiment to the participants. However in order to collect any data from participants, the participants’ as well as caregivers’ permissions are necessary. According to this step, the participants and their caregivers are informed by ‘Participant Information Sheet’, which contains matters such as the purpose of the research, benefits and risks in participating in the research. If the participants are willing to participate in the research, then the caregivers sign the ‘Informed Consent Form’ in lieu of the participant before beginning the data collection. Therefore, the information of individual participant will be kept confidentially. Only the summary will be shown on behalf of academic purposes. Notice that the information in the tape recording will be destroyed after the research has been completed.

This research highly concerns the privacy of individual participants. If the participant feels uncomfortable or frustrated, he/ she can withdraw from the research anytime.

1.9 Linguistics Information

Standard Thai belongs to Tai family. The so-called Tai dialect was further classified by Li (1960), which results in three groups – Southwestern, Central, and Northern groups. The Southwestern group is where Thai or Siamese dialect is placed,

which consists of four main dialects – Northern, Southern, Northeastern, and Central dialect (Thammawong, 1989, p. 9). Since this present research concerns with Northern Thai dialect, there are some phonological features that have to be taken into account.

Northern Thai Dialect

The Northern Thai dialect, which can be called Kham Mueang (Smalley, 1994); Lanna Thai language or Lanna Language (Pankhuenkhat, 1982); or Thai Yuan is spoken in the Northern areas of Thailand – Chiang Rai, Chiang Mai, Phayao, Phrae, Nan, Mae Hong Son, Lampang, Lamphun, Sukhothai, Tak, Uttaradit, Saraburi, and Nakhon Ratchasima, which only speaks in some areas of the last two provinces (Bunmee, 2007, p. 15).

Northern Thai Phonology

In this research, a phonemic transcription is based on the work of Pankhuenkhat (1982) for consonant and vowel phonemes; and the work of Bunmee (2007) for tones.

1) Consonants

There are 17 consonants and 2 semivowels as illustrated in the table 1.2 below:

Table 1.2 Consonant phonemes (Pankhuenkhat, 1982, p. 3)

Manners of Articulations		Points of Articulations					
		Labial	Labio-dental	Alveolar	Palatal	Velar	Glottal
Stops	vl. (unasp.)	p		t	c	k	ʔ
	vl. (asp.)	p ^h		t ^h		k ^h	
	vd. (unasp.)	b		d			
Fricatives	vl.		f	s			h
Nasals	vd.	m		n		ŋ	
Lateral	vd.			l			
Semi-vowels	vd.	w			y		

According to Pankhuenkhat (1982), Northern Thai dialect has 11 consonant clusters, which are kw-, k^hw-, tw-, t^hw-, cw-, ²w-, nw-, ŋw-, sw-, lw-, and yw- (1982, p. 5).

2) Vowels

There are 18 vowels phonemes and 3 diphthongs in Northern Thai dialect as shown in the table 1.3 below:

Table 1.3 Vowel phonemes (Pankhuenkhat, 1982, p. 4)

Tongue height	Tongue position					
	Front		Central		Back	
	Short	Long	Short	Long	Short	Long
High	i	i:	ɨ	ɨ:	u	u:
Mid	e	e:	ə	ə:	o	o:
Low	ɛ	ɛ:	a	a:	ɔ	ɔ:
Diphthongs	iə		iə		uə	

3) Tones

There are 6 tones in Northern Thai dialects, however there are tonal variations that are different regions by regions. Since there is no tone system for Northern Thai dialect as a whole, this research uses tones of Khammueang Lampang as representative⁶.

According to Bunmee (2007), who studied tones of Khammueang Lampang, there are 6 tones in Khammueang Lampang, which is illustrated in the following table:

Table 1.4 Tones (Bunmee, 2007, p. 44, 49)

Number of Tones	Description	Tones	Symbols
Tone 1	Low-rising	24/25	¹
Tone 2	Mid sustained rising	335/334	²
	Low-rising-falling	231	
Tone 3	Low-falling	21	³
Tone 4	High sustained falling with glottalization	441 ² / 551 ²	⁴
Tone 5	Mid level (with glottalization)	33 ²	⁵
	Mid sustained falling	332	
	Mid (level)-rising	33/34	
Tone 6	Mid-rising-falling with glottalization	341 ² / 354 ²	⁶

1.10 Outlines of the study

This present research consists of seven chapters. The following is a summary of each chapter.

Chapter two is a literature review. It presents contents such as theoretical frameworks, reviews of related works and previous studies that involve the studies of schizophrenic language by frameworks applied in this research. Chapter three – methodology, this chapter consists of research designs and methodological issues such as participants, measurements, administration and data collection procedures, and a short description of how data will be analyzed. The following three chapters present data analysis and some significant findings according to three frameworks: cohesion, cooperative principle, and theme development, respectively. Finally, some discussions of the findings and information from the psychiatrists are also provided in details in the following chapter, chapter seven, which also includes conclusion and suggestion for future studies.

Explanation on Chapter I

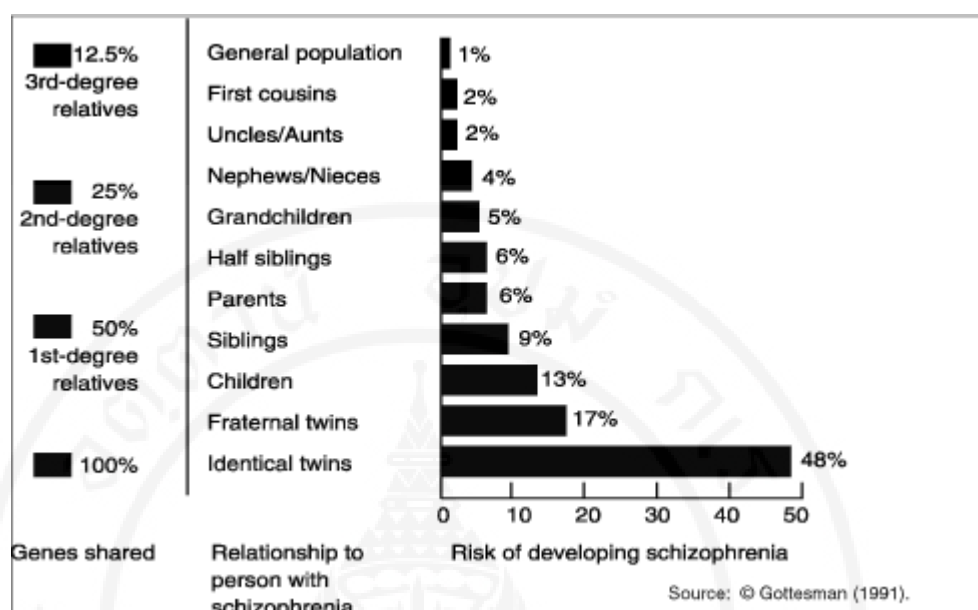
1. The term “theme development” is defined by the researcher and is used in this research as the third framework.

2. Andreasen (2000) uses this term to refer to patients who exhibit disturbances in speech and thought. However, the diagnosis criteria of DSM-IV TR and DSM-V use the term “disorganized speech” to refer to the same phenomenon. In this present research, one of the main concentrations lies on studying types of positive formal thought disorder proposed by Andreasen (2000), therefore the term “positive formal thought disorder” will be used. Moreover, since Andreasen also studies both positive and negative symptoms presented in psychotic patients including schizophrenia, only the positive symptoms are focused in this research, because those symptoms are mainly related with language dysfunctions, whereas those of negative symptoms mostly concern with behavior. Andresen (2000) explains that “positive formal thought disorder is fluent speech that tends to communicate poorly for a variety of reasons. The subject tends to skip from topic to topic without warning, to be distracted by events in the nearby environment, to join words together because they are semantically or phonologically alike even though they make no sense, or to ignore the question asked and ask another. This type of speech may be rapid, and it frequently seems quite disjointed” (Andreasen, 2000, p. 16). *(Notice that technical terms for types of positive formal thought disorder are medical terms.)*

3. DSM-V derives from “Diagnostic and Statistical Manual of Mental Disorders (5th edition)” the latest diagnosed criteria for the psychiatric disorders including schizophrenia, which is defined by the American Psychiatric Association

4. “Clanging” might not be measured from the frameworks used in this research. However, if there is data that seems to associate with this type of positive formal thought disorder presented during the analysis, it will be marked.

5. Relatives of schizophrenia



“After a person has been diagnosed with schizophrenia in a family, the chance for a sibling to also be diagnosed with schizophrenia is 7 to 9 percent. If a parent has schizophrenia, the chance for a child to have the disorder is 10 to 15 percent. Risks increase with multiple affected family members.”

Hawkes, E. (n.d.). *Schizophrenia Facts and Statistics*. Retrieved from <http://www.schizophrenia.com/szfacts.htm> (2013, July 2nd).

6. In this present research, the researcher uses tones of Khammueang Lampang as representative for the reason that it is conducted in Lampang province i.e. Lampang Hospital, which the researcher assumes that most of participant in the research speak Khammueang Lampang. However, if there are other dialects of Northern Thai presented, it will be marked.

CHAPTER II

LITERATURE REVIEW

In the literature review section, there are two parts. The first part provides the overview of theoretical frameworks used in this present research. In addition, some relevant studies are also provided. The other part explores previous studies that incorporate coherence to schizophrenia. The main concentration will be on the concept of cohesion, cooperative principle, and theme development.

2.1 Theoretical Frameworks

To begin with, coherence has been studied and defined by many researchers in different aspects. In linguistics, several definitions and explanations on coherence deal with discourse study, text linguistics, and pragmatics. Following are some definitions concerning those linguistic concepts.

Hasan (1984) states in *Coherence and Cohesive Harmony*: “From the very start, my use of the term coherence has been fairly close to its every day meaning. I used the word to refer to the property of “unity” of “hanging together.” By this definition, any object is coherent to the extent that its parts hang together.” (Hasan, 1984, p. 181). Hasan further asserts: “When I say that coherence in a text is the property of hanging together, I mean that the patterns of language manifest – or realize – the existence of semantic bonds.” (Hasan, 1984, p. 183).

Cook (1989) also defines coherence as “the quality of being meaningful and unified [...] is known as *coherence*. It is a quality which is clearly necessary for communication [...], but which cannot be explained by concentrating on the internal grammar of sentences.” (Cook, 1989, p. 5).

In terms of text linguistics, de Beaugrande and Dressler (1981) state in their book – *Introduction to Text Linguistics* that coherence is one of other seven linguistic components or standards of textuality. They state: “COHERENCE concerns

the ways in which the components of the TEXTUAL WORLD, i.e. the configuration of CONCEPTS and RELATIONS which underline the surface text, are *mutually accessible and relevant*.” (de Beaugrande & Dressler, 1981, p. 4). De Beaugrande and Dressler (1981) further explain the concept of coherence by citing Hörmann (1976) that “a CONTINUITY OF SENSES” makes a text meaningful. If the hearer or reader cannot find text continuity, that text can be defined as “senseless” or “non-sencical” text. As regards, de Beaugrande and Dressler (1981) conclude the definition of coherence: “We could define this continuity of senses as the foundation of COHERENCE, being the mutual access and relevance within a configuration of CONCEPTS and RELATIONS.” (de Beaugrande & Dressler, 1981, p. 84).

As far as coherence in pragmatic aspects is concerned, Widdowson (1978) explains that “coherence, [...], is defined as the relationship between illocutionary acts” (Hoey, 1991, p. 11). Another definition retrieves from Brown and Yule (1983) that “the assumption of coherence will only produce one particular interpretation in which the elements of the passage are seen to be connected, with or without overt linguistic connections between those elements.” (Brown & Yule, 1983, p. 232).

As stated in the previous chapter, coherence is applied in two senses in this present research. On the one hand, coherence is termed as “the situation in which all the parts of something fit together well” (Oxford Advanced Learner's Dictionary) as a general sense. On the other hand, this term has to do with a linguistic device for analysis, which can be achieved through cohesion, cooperative principle, and theme development. The following overviews illustrate these frameworks.

2.1.1 Cohesion

Halliday and Hasan's (1976, p. 23) *Cohesion in English* states that coherence is “the concepts of connectivity and register that define a text”. They assert the concept of cohesion that: “cohesion occurs where the interpretation on some element in the discourse is dependent on that of another. The one presupposes the other, in the sense that it cannot be effectively decoded except by recourse to it.” (Halliday & Hasan, 1976, p. 4).

Halliday and Hasan further demonstrate that what establishes continuity in a text - a significant factor in the “intelligibility” of discourse, is cohesion.

Additionally, cohesion refers to different linguistic means such as grammatical unit, words and sound which tie clauses together and thus composes a larger linguistic unit of paragraphs (Bussman, Gregory, & Kerstin, 1998, p. 199).

Linguistically, text refers to unified passages, both written and spoken of any length. A text is a semantic unit, not a formal or a grammatical unit as do a clause or a sentence. It is not merely a string of sentences put together but actually “it is realized by, or encoded in, sentence.” (Halliday & Hasan, 1976, p. 1-2). Texture is the quality of being a text. Assuming that a text in English is composed of a string of sentences, there will be identifiable linguistic features that unify a passage and contribute to that passage’s texture.

Concentrating on the language itself, one of many tools in analyzing coherence is ‘cohesive ties’, which according to Halliday and Hasan (1976) include reference, substitution, ellipsis, conjunction and lexical cohesion. And in order for cohesive ties to be established, a linguistic item in one clause must refer to the information in the prior clause(s) or the following clause(s), creating structural and/or semantic relationship in a text. These cohesive ties are:

- 1) Reference

Reference is defined as the signal that the information can be retrieved and “the information to be retrieved is the referential meaning, the identity of the particular thing or class of things that is being referred to.” (Halliday & Hasan, 1976, p. 31). Reference is one of five cohesive ties that functions as an item that refers back to the previous antecedent. Halliday and Hasan further add that “[...] instead of being interpreted semantically in their own right, they make reference to something else for interpretation.” (Halliday & Hasan, 1976, p. 22).

In particular, reference is a cohesive tie that depicts the semantic relationship between each tie, which can be divided into three sub-types: personal reference, demonstrative reference, and comparative reference.

- a. Personal reference: the use of pronouns that refer to noun phrases in a category of person (Halliday & Hasan, 1976, p. 37) e.g. I, we, you, they, he, she, it, me, mine, yours, us, ours, our, him, his, her, hers, them, their, theirs etc.

b. Demonstrative reference: the reference that defines a scale of proximity of each tie, which includes personal, temporal and spatial references e.g. this-that, these-those, now-then, here-there, near-far etc.

c. Comparative reference: there are two types of comparative reference – general and particular. The former demonstrates the “likeness” (includes similarity and difference) between two things e.g. same, similar, different, other etc. The latter concerns with the comparison of degree in quantity and quality between things such as more, better, slower, so many, equally etc.

2) Substitution

Substitution shows a lexicogrammatical relationship between a substituted object and an object from a preceding utterance. There are three sub-types of substitution: nominal substitution, verbal substitution, and clausal substitution.

a. Nominal substitution is usually marked by the indefinite article “one/ones” in English, which functions as “head of nominal group”. Other nominal substitution are marked by the word “same”.

b. Verbal substitution is marked by “do” usually functions as substituted word for the head of the verb group.

c. Clausal substitution is the type of substitution that does not substitute a single element like the other two sub-types of substitution above, rather it substitutes a clause. The words used in this type are “so” and “not”.

3) Ellipsis

Ellipsis is a cohesive tie that exhibits lexicogrammatical relationship between each tie like substitution. Halliday and Hasan (1976) state that an ellipsis is regarded as a zero substitution. There are three sub-types of ellipsis: nominal ellipsis, verbal ellipsis, and clausal ellipsis (Halliday & Hasan, 1976, p. 143). Halliday and Hasan further explain the clausal ellipsis that there are two structures of a sentence, which are modal element and propositional element. Therefore, the clausal ellipsis is an ellipsis of either one or the other element of a sentence.

4) Conjunction

Conjunction functions as a cohesive tie that connects two clauses together and exhibits a semantic relationship. Conjunction is not cohesive ties by nature, rather it forms semantic relationship and refers back to the other element in the preceding

clause. There are four types of conjunction: additive, adversative, causal, and temporal. Halliday and Hasan further divide these types of conjunction into external and internal, and categorize those elements into three other areas by means of their functions. These areas are elaboration – describing in specify; extension – adding more information; and enhancement - qualifying by means of circumstance such as temporal, conditional etc. Examples of these types of conjunction are as follows:

- a. Additive: and, and also, nor, and...nor, or, or else, besides, in other words, similarly, by contrast etc.
- b. Adversative: yet, though, but, however, as a matter of fact, at the same time, instead, in any case, anyhow etc.
- c. Causal: so, because of this, as a result, for this purpose, in that case, under the circumstances, otherwise etc.
- d. Temporal: then, next, at the same time, previously, first...then, meanwhile, at this moment, finally, to sum up etc.

See Halliday and Hasan (1976, p. 242-243) for further conjunctive elements.

5) Lexical cohesion

Lexical cohesion is a cohesive tie that connects utterances via the relationship of lexical words, which can be divided into two categories: lexical collocation and lexical reiteration. The former is the use of words that shows a semantic relationship such as collocation. The latter is the use of words that usually displays the same form and meaning, or contains similar sense of semantic relationship. This also includes same word (repetition), synonym or near-synonym, and superordinate. Halliday and Hasan (1976) add that:

There is cohesion between any pair of lexical items that stand to each other in some recognizable lexicosemantic (word-meaning) relation. That would include not only synonyms and near synonyms [...] it also includes pairs of words drawn from the same ordered series [...] any pair of lexical items which are in the same way associated with each other in the language.

(Halliday & Hasan, 1976, p. 92-94)

Therefore, lexical cohesion can be divided into two types as follows:

- 1) Reiteration comprises of other four sub-types: same word (repetition), synonyms (or near synonym), superordinate, and general word
- 2) Collocation (Halliday & Hasan, 1976, p. 288)

The fact that cohesion leads to coherence can definitely be proved by cohesive ties. However, there are several texts that comprise of less cohesive ties, but they are considered as having coherence. On the other hand, texts that provide more cohesive ties might not exhibit coherence. Therefore, the use of cohesion from Halliday and Hasan (1976) alone might not lead to how coherence functions. The concept of coherence drawn from Hasan's (1984) *Coherence and Cohesive Harmony* is, for this reason, necessary.

As previously mentioned, Hasan defines the term "coherence" as the component of "unity" of "hanging together" (Hasan, 1984, p. 181). In other words, parts of any object, which are hanged together, are considered to be coherent. What is more important in making sense of what is coherent also deals with the notion of nonstructural relation. Hasan (1984) mentions that in creating coherence, nonstructural relations are necessary, because "structure is a uniformly integrative device [...]" (Hasan, 1984, p. 183). This means that no matter particular sentence makes sense or not, in order to be coherent, structures must hang together. However, Hasan (1984) further adds that although the clauses are structurally correct and each clause is within itself coherent, but lack of semantic bonds, therefore, this is not considered to be coherent as a whole. Hence, Hasan concludes the examination of coherence as follows:

- i. *that normal speakers are sensitive to variation in coherence;*
- ii. *that textual coherence is a relative, not an absolute property, so that it is possible to rank a group of texts on a cline (Halliday, 1961) from most coherent to least coherent; and as the membership of the group of texts changes, so might the position of individual texts on the cline;*
- iii. *that coherence is an essential property of texts; [...];*

- iv. *that wherever a textual fragment exceeds one simple sentence the variation in coherence does not correlate with structural facts. Such structure is only a necessary but insufficient condition;*
- v. *that therefore, an examination of coherence necessarily involves an examination of nonstructural relations of the type that we refer to as cohesion.*

(Hasan, 1984, p. 184)

Hasan urges that cohesion primarily relies on ties. A member in the category mentioned in the following clause is not independently occurred (Hasan, 1984, p. 185). Halliday and Hasan (1976) also mention that in order to arrive at successfully interpretation of cohesion, the reader/ hearer need to have co-interpretation, which is the relationship between one linguistic item and the other previous source that co-determines the chain i.e. cohesive tie (Hasan, 1984, p. 187). Hasan further includes that although lexical cohesion shows “semantic bond of co-referentiality under specific conditions” (Hasan, 1984, p. 186), lexical cohesion devices themselves do not require co-interpretation, rather their chains are realized as “parts of a semantic field” (Hasan, 1984, p. 187). Therefore, Hasan’s (1984) research aims to examine the cohesive patterns and degree of coherence under the hypotheses:

- i. the larger the number of cohesive ties in a language piece, the greater the coherence;*
- ii. the greater the continuity of ties relating to each other, the greater the coherence.*

(Hasan, 1984, p. 187-188)

However, Hasan states that her first hypothesis is not valid. She adds “it cannot be perpetuated that coherence varies when the number of cohesive ties or their component in the chains vary” (Hasan, 1984, p. 190). On the other hand, the second hypothesis is considered to be supportive by the work of Applebee (1978) that “chain connection patterns in texts are an expression of the development of the content of the text.” (Hasan, 1984, p. 199). Additionally, Halliday and Hasan (1976) emphasize that in order for a text to be semantically unified, “the lexicogrammatical categories of

cohesion occurring in a text should be so aligned as to reflect readily the fact of this semantic unity.” (Hasan, 1984, p. 200). From Hasan’s perspective, chain can be divided into two distinctions: identity chain (ICS) and similarity chain (SCS) (Hasan, 1984, p. 205). The former concerns the association of each member that semantically bond by co-referentiality – or text bound. The latter is the opposite, which is either co-classification or co-extension (Hasan, 1984, p. 206). While co-classification, in this sense, is realized by substitution, ellipsis, or lexical repetition, co-extension can be realized solely by lexical cohesion – repetition, synonymy, antonymy, hyponymy and meronymy (Hasan, 1984, p. 202). Hasan further indicates that textual coherence resides cohesion as illustrated:

Coherence is not a picture of reality; it is a representation – just like other semantic phenomena in language. The coherence arises from the imposition of a grid upon sensory precepts; the categories of cohesion are the lexicogrammatical indication of the details of such grid.

(Hasan, 1984, p. 210)

Finally, Hasan concludes the analysis in terms of cohesive harmony that it consists of, firstly, the formation of ICS and SCS; and secondly, the degree of chain interaction, which is directly correlated with “the degree of coherence in a text”. Hence, “the greater the cohesive harmony in a text, the greater the text’s coherence” (Hasan, 1984, p. 216). Hasan (1984) also urges that the so-called “chain interaction” is important in creating a “unified whole”. This “chain interaction” can be defined as “central token (CT)”, which concerns two or more tokens that interact with each other, while any tokens that tie discourse together is considered to be “relevance token (RT)”. Another important type of token is “peripheral token (PT)”, which is the token that does not provide connection with other token in the discourse. As for “total token (TT)”, it is calculated by a sum of RT and PT in each discourse. Hence, Hasan concludes that (1) what measures ‘cohesive harmony’ in discourse is the central tokens as percentage of total tokens, and (2) what measures ‘coherence’ is the central tokens per peripheral tokens, which is “the higher the ratio of CT to PT, the more coherent the text would be” (Hasan, 1984, p. 217).

In terms of cohesion in Thai, it has been widely studied by various researchers such as Chanawangsa's (1986) *Cohesion in Thai*; Chuwicha's (1986) *Cohesion in Thai*; Mongpin's (1989) *Cohesion in Thai Conversation*; Poonsuk's (1990) *Cohesion in Northern Thai, Chiang Mai Province*; Tasanee's (1991) *Cohesion in Isan Inscriptions during 1893-2466 BC*; Nitsuda's (1991) *Cohesion in Criminal Reports of Thai Rach Newspaper: A Discourse Study*; Vongvipanond's (1992a) *Macro-and Micro-Cohesive Devices in Thai Expository Discourse*; Piyanat's (1992) *The Use of Cohesive Devices in Spoken and Written Language of 7-9-year-old children*; and Junlaprom's (2001) *Cohesion in Thai Paragraphs* etc.

However, the work of Chanawangsa (1986) and Chuwicha (1986), which primarily concentrate on cohesion in Thai language, are closely related to this present research. Hence, these two studies on cohesion in Thai are reviewed as follows:

Chanawangsa (1986) studies *Cohesion in Thai*, which includes both spoken and written texts. Chanawangsa defines all five types of cohesive ties following Halliday and Hasan (1976), but excludes repetition as the sixth type. However these cohesive ties differ in sub-types. Notice that the following phonetic transcription is based on the work of Chanawangsa (1986).

As for reference, there are three sub-types of reference in Thai as in English, but the difference lies on personal reference. Chanawangsa states that there is "pronominally used nouns" in Thai i.e. a change of noun to pronoun occurs in Thai reference. Hence, she divides "pronominally used nouns" into five categories: kinship terms, personal names, friendship terms, occupation terms, and title terms. Kinship terms refer to the reference that use to define family members, relatives, or other people that shows intimate relationship between the speaker/ writer and the addressee, which functions as personal pronouns e.g. *mêe* 'mother', *phôo* 'father' etc. Personal names refer to a person's first name, initial name, or nickname e.g. *jin* 'jin' (addressee's nickname) etc. Friendship terms refer to terms that show intimate relationship among friends e.g. *phyan* 'friend' etc. Occupation terms refer to the name of occupation e.g. *khruu* 'teacher', *môo* 'doctor' etc. Title terms refer to reference that defines a particular status of a person e.g. *hŭa-naa* 'head of student' etc. Other than pronominally used nouns that Thai differs from Halliday and Hasan's (1976)

categorization of reference in English, Chanawangsa (1986) also found that there is “zero pronouns” occurs in Thai cohesion as reference as well.

Chanawangsa (1986) classifies comparative reference into two sub-types, which are general and particular. General comparative reference deals with how something is like or unlike the other thing, whereas particular comparative reference has to do with the quality and quantity of particular element to the other. Chanawangsa (1986) summarizes comparative references in Thai that it can be subdivided into three types for general comparison: identity, similarity, and difference types. Firstly, identity comprises of elements such as *mǎn-kan*, and *chên-kan* ‘same’, *diaw-kan* ‘identical’. Secondly, similarity consists of several elements such as *khláaj-kan* ‘similar’, *chên-nii* ‘such (+ NP)’, *bèeb-nii* ‘like this’ and the like. And thirdly, difference type consists of elements such as *ỳyn* ‘other’, and *khon-lá* ‘difference’ etc. As for particular comparison, elements such as *kwàa* ‘than’, *ìig* ‘more’, *thâw* ‘as...as’, *thâw-thâw-kan* ‘equally’ are accounted for.

Other than reference, Chanawangsa (1986) further states that there are a few substitutions in Thai cohesion. Only clausal substitution has been found in her work. As for ellipsis, Chanawangsa (1986, p. 113) found that ellipsis plays a major role in spoken text. In Thai, there are three types of ellipsis – nominal, verbal, and clausal ellipsis. However, Chanawangsa (1986) urges that there are some differences between Thai and English ellipsis. The differences can be summarized below:

1) Unlike in English, identical verb in the second part of a coordinate construction in Thai cannot be left out e.g. John bought a green hat and Mary a red one. ‘[Ø = bought]’ can be extracted from the second utterance.

2) Noun phrase can be eliminated in Thai. In contrast, it is not usual to cut off noun phrase in English.

3) Adverb can be cut off in English. Unlike in Thai, adverb cannot be omitted, otherwise the utterance will be ungrammatical e.g. the elephant is large. The hippopotamus is too. “[Ø = large] can be cut from the second utterance in English.”

In terms of conjunction, Chanawangsa (1986) found that there are sixteen sub-types of conjunction in Thai, which is classified according to her data. These types of conjunction are for example, enumerative relation such as *prakaan rêeg* ‘first’,

prakaan thîi-sǎŋ ‘second’; reformulatory relation: *khyy* ‘namely’; inferential relation: *thâa-jaan-nán* ‘if so’; continuative relation: *sŷŋ* ‘which, that’ etc. It has been suggested that conjunction plays a significant role in linking elements in a text together. Among all conjunctions, Chanawangsa (1986) urges that *sŷŋ* and *kô* establish various semantic relations within a text, which depends on previous clause that these conjunctions are attached to (Chanawangsa, 1986, p. 213).

As for lexical cohesion, Chanawangsa (1986) divides lexical cohesion assimilated to Halliday and Hasan’s (1976) – synonyms, hyponyms, meronymy, antonymy, and collocation. However, the difference primarily lies on repetition, which she excludes from lexical cohesion, because she believes that repetition does not occur only in word level, rather it also occurs in phrase and clause level. To this, she divides repetition into three sub-types: repetition of words and phrases; repetition of structures (parallel structure), and paraphrase - one linguistic item paraphrases the meaning of the other linguistic item. The work of Chanawangsa (1986) concludes that reference is the highest cohesive tie occurred in Thai, whereas substitution is the lowest category. Moreover, although cohesive ties found in Thai are similar to English, the use of these ties is different.

Another work on cohesion deals with *Cohesion in Thai* (Chuwicha, 1986) that describes and analyzes cohesion in standard spoken Thai narrative. The author classifies cohesion into three types, which are participant cohesion, theme cohesion, and structural cohesion. Only the structural cohesion is mentioned here, because it relates to the study of cohesion in this present research.

Chuwicha (1986) focuses on “how the texts in discourse are linked together”. To this point, Chuwicha found that in Thai oral narrative, there are three major slots in association with episodes in the narrative, which are pre-nucleus, nucleus and post-nucleus. The first one is optional (which includes title and introduction). In contrary, the second and third slots are obligatory in Thai narrative. The second slot – the nucleus, comprises of one or more episodes. Each episode consists of setting; inciting moment; developing tension; optional climax; and denouement. As for the third slot, the post-nucleus, it includes summary; narrator’s purpose of telling story; moral; comment and finis.

The differences between the works of Chanawangsa (1986) and Chuwicha (1986) mainly rely on individual authors' purposes. Whereas, Chanawangsa (1986) primarily focuses on cohesive ties that link between one linguistic item and the previous item in the clause level, Chuwicha (1986) analyzes cohesion within and paragraph level. Additionally, Chuwicha (1986) mainly focuses on how cohesion functions within a narrative discourse that creates a coherent discourse, which is overlapped with the third framework used in this present research.

2.1.2 Cooperative principle

The second framework deals with cooperative principle and conversational maxims proposed by Grice (1975). Other concepts that are related to cooperative principle such as implicit meaning and conversational implicature are also provided.

Pragmatically, Grice's cooperative principle (henceforth CP) is the principle that participants who are engaged in the conversation are expected to follow or "observe". The general principle states "make your contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged" (Grice, 1975, p. 46). This principle comprises of four maxims as follows:

The maxim of Quality

try to make your contribution one that is true, specifically:

- (i) *do not say what you believe to be false*
- (ii) *do not say that for which you lack adequate evidence*

The maxim of Quantity

- (i) *make your contribution as informative as is required for the current purposes of the exchange*
- (ii) *do not make your contribution more informative than is required*

The maxim of Relevance

make your contributions relevant

*The maxim of Manner**be perspicuous, and specifically:*

- (i) *avoid obscurity*
- (ii) *avoid ambiguity*
- (iii) *be brief*
- (iv) *be orderly*

(Grice, 1975, p. 46)

Following Grice (1967), these maxims function as a measurement of effective communication that people in a conversation must achieve. According to these principles, people in a communication are expected to observe all the maxims i.e. being cooperative in order to arrive at a successful communication.

1) Breaking Maxims

Further on, in case that the above maxims are not observed, the results can be divided into two main ways: firstly, breaking the maxims in order to create implicit meaning (implicature); and secondly, breaking the maxims without creating any implicature. Typically, there are four main types of breaking maxims: (1) opting out - breaking a maxim by intention; (2) maxim clash – observing one maxim but cannot avoid breaking the other; (3) violating a maxim – breaking maxim without the listener knowing the speaker's intention; and (4) flouting a maxim – breaking a maxim with intention for the listener to understand the implicit meaning. The former three types result in no implicit meaning, whereas the last type creates implicit meaning.

As far as flouting maxims is concerned, it can happen in four ways, which all these ways lead to implicit meaning. Flouting maxim of quality, the speaker intentionally says what is false and unreliable. Next, if the speaker flouts maxim of quantity, it means that he or she gives too much or too less amount of information. As for maxim of relevance, if the speaker flouts this maxim, it means that he or she says the thing that is unrelated to the topic in order to convey something. Moreover, flouting this maxim of manner is an effective way to hint the listener that the speaker does not wish to talk about that subject. Last, if the speaker flouts maxim of manner, it means that the speaker does not present his or her utterance in a clear and well-organised manner.

There are some previous studies that mainly focus on cooperative principle and conversational maxims, especially in Thai context. These works are for example Kusumarasdyati's (2004) *A Pragmatic Analysis of Verbal Offers Used by Snack Venders in Malang*; Devakul Na Ayudhaya's (2005) *Conversational maxims and their violations in comics: A case study of 'Beetle Bailey' Comic strips*; Donnerus's (2006) *A Comparative Study of how scriptwriters break maxims in Desperate Housewives and That's 70's show*; Narksuk's (2006) *Flouting maxims in Thai soap opera drama scripts*; Jaiyen's (2008) *Analysis of Character dialogue in Sam Gok literature by Chaoprayapraklang (HON): A Pragmatic approach*; and Paakinan's (2010) *Everything's a Joke, Everyone's a Punchline: Verbally Expressed Humor in the American Television Series "Gilmore Girls"*.

2) Conversational Implicature

In *Logic and Conversation* (1975), Grice's principal attempt is to separate types of meaning philosophically. Two types of meaning were proposed: natural meaning and non-natural meaning or meaning-*nn*. The former mainly focuses on literal meaning of an utterance i.e. "sentence meaning", while the latter concerns with what Grice called "speaker's meaning". Grice further explains what he means by "meaning-*nn*" that

*'A meant-*nn* something by x' is (roughly) equivalent to 'A intended the utterance of x to produce some effect in an audience by means of the recognition of this intention.'*

(Grice, 1975, p. 58)

Therefore, for an utterance to be successful in terms of "meaning-*nn*" is that the speaker's intention is recognized by the other interlocutor in a conversation. To this point, Grice's framework allows the so-called "meaning-*nn*" or speaker's meaning to be separated from "conventional meaning" or sentence meaning. This distinction further leads the concept of *implicature* to be arisen. The conventional meaning is defined as "conventional implicature", while the "meaning-*nn*" is defined as "conversational implicature", an intended meaning that arises from the communication. Brown and Yule (1983) state the meaning of implicature that "what a speaker can imply,

suggest, or mean, as distinct from what the speaker literally says” (Grice, 1975, p. 31). As for Levinson (1983), the concept of implicature has to do with “how people use language” (Grice, 1975, p. 100-101). Moreover, Grice proposes that conversational implicature is derived from breaking cooperative principle and maxims. Thomas (1995) also adds that people in a conversation use “cooperative principle to explain the mechanism by which people interpret conversational implicature” (Thomas, 1995, p. 66). In order for implicature to be emerged, participants in the conversation intentionally flout one or more of the maxims. However, in order for the conversation to be successful, the listener must acknowledge that the speaker is flouting a maxim as well as be able to interpret that intended implicature. Furthermore, Levinson urges that implicature is also generated when the speaker simply observes the maxim as well (Levinson, 1983, p. 104), and listener makes inference of what the speaker implies. Grice further includes that maxims are violated or flouted only at the level of ‘what is said’, whereas speaker is being cooperative in the level of ‘what is implicated.’

Davies (2007) studies the definition of the term “cooperative”. Since Grice (1975) does not clearly state how this term is used, several researches interpret it differently. Davies’s (2007) vital interest lies on a vague boundary between the general meaning of this term and Grice’s technical notion, which, he believes, is caused by the misinterpretation from the philosophical sense to the linguistic sense. Davies (2007) further urges that the use of this term in linguistic sense might not be restricted to Grice’s intention in philosophy, where his main concentration concerns with the concept of logic. Davies (2007) clarifies what Grice means by this concept that the conversation is operated by “logic” i.e. logic of conversation (Davies, 2007, p. 2321, 2328). He further points out what Grice does not clearly mention that the implicature that is derived from the conversation is not only a tool, which illustrates “the philosophical utility of implicature”, rather a formal logic that is concealed in its structure is also exhibited as demonstrated in the following quote:

The use of implicatures as an investigative tool in Grice (1961, 1981, 1989c) was not only to demonstrate the philosophical utility of implicatures, but also to demonstrate that structures that had evaded the grasp of formal logic could be accounted for in a systematic way.

(Davies, 2007, p. 2321)

Hence, Grice (1975) does not talk about “cooperation”, rather his focal point is about “logic”. Furthermore, Davies (2007) believes that in applying cooperative principle to other disciplines such as discourse analysis or pragmatics, the use of the term “cooperative” can be altered to “cooperation drift” (Davies, 2007, p. 2314).

Moreover, Davies (2007) indicates that in employing the term “cooperative” in pragmatics, what has to be taken into account as an underlying concept is “rationality”. This concept is also mentioned in Grice (1975), where he states “our talk exchanges do not normally consist of a succession of disconnected remarks, and would not be rational if they did. They are, characteristically, to some degree at least, cooperative efforts” (Davies, 2007, p. 2323). In fact, Grice tries to explain that rationality is primarily highlighted when analyzing implicature as he states “I would like to be able to think of the standard type of conversational practice not merely as something that all or most do IN FACT follow but as something that it is REASONABLE for us to follow, that we SHOULD NOT abandon” (Davies, 2007, p. 2324). Therefore, when a meaningless utterance is provided, it will be considered as “pointless” and “irrational”.

Davies further explains that people in the conversation are being cooperative “to some degree at least” (Davies, 2007, p. 2324), breaking this cooperative principle is regarded to rationality, or in other words, “cooperation is the realization of rationality applied at the level of discourse, and is explicitly identified as being part of the process” (Davies, 2007, p. 2324), which this concept of rationality is said to be centric to human behavior. This means, all human actions must be rationally explained. To this, Davies (2007) quotes Green (1990, p. 411) that “rationality in discourse behavior is simply a ‘linguistic reflex’” (Davies, 2007, p. 2325).

Concerning conversational implicature, there are some previous studies that mainly focus on interpreting implicature. Most of the following works are studied

in Thai context. Some of them concern the study on conversational implicature in general. These works are for example Chiranukrom's (1988) *Implicature in Thai conversation*; Broersma's (1994) *Converstional Implicature in the ESL Classroom*; Hamblin's (1999) *What is said and What is implicated: The enriched pragmatic view*; Parasuk's (2007) *Humor in Lan Na Jokes: A Linguistic Study*; Wahyuningsih's (2008) *A Conversation Implicature Analysis on The Verbal Humor of The Selected Editions of The Born Loser Comic Strips*; Dechanan's (2010) *Conversational Implicature in the "Blondie and Dogwood" Comic Strips*; Sudlapa's (2010) *An analysis of Conversational Implicature in Film Dialogues*; Savetamalya's (2011) *Conversational Implicature in the column LAUGH! It's the best medicine in Reader's Digest: pragmatic study*; Sommai and Padgate's (2013) *A Conversational Implicature Analysis in J.K. Rowling's Harry Potter and the Prisoner of Azkaban*; Suphaporn's (2008) *The study of Ability to Interpret Conversational Implicatures in English of Second-Year English Majors*; and Thipwaree's (2011) *Using Jokes to promote Understanding of Implicature and Creative English Writing Ability of Undergraduate Students* (Thipwaree Ruangjaem, 2011). The last two studies are written in Thai language. Another study that should be grouped here concerns with indirectness, which is also relevant to conversational implicature. This is the work of Deeyu's (2011) *Indirectness as a Communicative Strategy of Thai Speakers* (Deeyu Srinarawat, 2011).

3) The application of cooperative principle

It should be noted here that different researchers apply Grice's concept of cooperative principle and its maxims as well as conversational implicature in different ways, because Grice did not clearly state how his principle is applied.

Normally, Grice's framework is utilized to analyze conversation, which clearly exhibits how participants in a conversation communicated with one another. However, in this present research, the researcher attempts to apply Grice's cooperative principle in narrative discourse. It is clear from the text type that narrative is monologue, which does not exhibit interaction or interpersonal relationship between interlocutors. In fact, Schiffrein (1994) has raised the application of Gricean framework in analyzing storytelling focusing on maxim of quantity and relevance as guidelines

for interpretation. This storytelling she used as a data is situated in the conversation. Schiffrin asserts in the book *Approaches to Discourse* that:

Stories are useful texts in which to analyze referring sequences. In telling a story, a speaker constructs a story world in which a limited number of entities act and interact with one another in a defined location and for a limited period of time. [...] Stories offer the opportunity to find referring sequences in which new referents are introduced and continually used in a particular framework to which they are relevant. [...] although speech act theory and Gricean pragmatics are two approaches to discourse that do not begin from the analysis of utterances, the insights that they offer for the analysis of a single utterance can be extended to multiple utterances.

(Schiffrin, 1994, p. 204, 381)

Accordingly, in order for schizophrenic speakers to “communicate effectively and efficiently” (Levinson, 1983), they are assumed to be cooperative, not with the researcher or other interlocutor, rather with the picture book that they are engaged to in their narrative discourse without any conversational implicature in the first hand. According to Davies (2007), “cooperative” in this sense means that the narrative is based on “rationality” and “logic” i.e. the information in the narratives is required to be ‘reasonable’ and ‘sensible’. So, the researcher basically investigates how cooperative schizophrenic speaker to the picture book i.e. does the narrative ‘make sense’ and ‘sound logical’?, which can be seen by observing or infringing maxims. To this point, if the maxims are not observed, infringing one or more of the maxims defined by Grice’s (1975) are marked by the researcher. Infringing maxims can also happen in four ways: infringing maxim of quantity, quality, relevance, and manner.

Previous studies that have been provided above are carried out under the topic of cooperative principle, conversation implicature, and indirectness. Of these researchers’ works, the studies of Narksuk (2006) and Savetamalya (2001) seem to be closely related to this present research. Therefore, the works of these two researchers are reviewed as follows:

Narksuk's (2006) *Flouting maxims in Thai soap opera drama scripts* describes how flouting maxims function in Thai conversation. Narksuk (2006) carries out the study by collecting the conversations from four Thai soap opera drama scripts, which she hypothesizes that flouting maxims reflect how Thai people communicate in everyday conversation. Narksuk found that the most occurring of flouting maxims is quantity, followed by quality. Flouting maxim of relation and manner are the least occurring. Furthermore, Narksuk provides the functions of those maxims violation of each script in order to exhibit how those flouting maxims operate. She summarizes that people in the conversation flout the maxims because of eight functions: confirmation, sarcasm, describing a person characteristic, uncomfortable to answer the question, request, sounding out the answer from the hearer, refusal, and avoidance of taboo matters. In terms of implicature, Narksuk found that speakers intentionally flout maxims in order to provide the hearers with implicit meanings, which leads to the discussion about the characteristics of Thai people. Narksuk affirms that "what has been said by the speaker and the hearer in the conversation does not always seem to follow the "cooperative principle" in Thai conversation" (Narksuk, 2006, p. 83). Examples of these functions are illustrated in the table 2.1 below. Further examples and explanations can be found in Narksuk (2006, p. 26-78).

Table 2.1 Examples of Narksuk's (2006) study on *Flouting maxims in Thai soap opera drama scripts*

Flouting maxims	Functions	Examples	Explanations
Flouting maxim of quality	Sarcasm	Janya: Your dad, Suthep, always kept you in a golden cage [...] (Narksuk, 2006, p. 34).	The speaker flouts maxim of quality, resulting in sarcastic expression as illustrated in the bold utterance, in order to express the opposite meaning.
Flouting maxim of quantity	Uncomfortable to answer the question	Arunratsamee: Who does save my life? The neighbor: Ar...Ar... (Narksuk, 2006, p. 29).	In this example, the neighbor doesn't provide answer to the question asked. Hence, this " Ar...Ar... " implicates that the neighbor feels uncomfortable to answer.
Flouting maxim of quantity	Confirmation	Pimchanok: Shut up. If you still keep bothering me, I will ask for help from the guards. Thanakim: Will they believe you? Pimchanok: Everyone here knows that I have never lie (Narksuk, 2006, p. 42).	Pimchanok flouts the maxims of quantity, in which she gives information more than Thanakim is required for answer. Pimchanok's answer leads to the function of confirmation to the statement.
Flouting maxim of quantity	Refusal	Aon: Pim, please not to get involved with anything of Kemjira. She will not look down on you like this again. Pimchanok: Kemjira is my sister anyway. I have never been mad at my sister (Narksuk, 2006, p. 46).	Pimchanok flouts maxim of quantity, in which she is more informative by providing the bold utterances, leads to the refusal of Aon's request.

Table 2.1 Examples of Narksuk's (2006) study on *Flouting maxims in Thai soap opera drama scripts* (cont.)

Flouting maxims	Functions	Examples	Explanations
Flouting maxim of quantity	Refusal	Aon: Pim, please not to get involved with anything of Kemjira. She will not look down on you like this again. Pimchanok: Kemjira is my sister anyway. I have never been mad at my sister (Narksuk, 2006, p. 46).	Pimchanok flouts maxim of quantity, in which she is more informative by providing the bold utterances, leads to the refusal of Aon's request.
Flouting maxim of quality	Describing a person's characteristics	Renuka: Alongkot, if you give them money easily, they will keep asking your money. The poor never knows what the word "Enough" means. Fasai: Be careful of what you just said. I do not want the money if the mad dog does not make a hell of a fuss at the market (Narksuk, 2006, p. 53).	Fasai flouts the maxim of quality, in which she uses metaphorical expression "mad dog" in order to describe Renuka's characteristic.
Flouting maxim of quality	Avoiding mentioning of taboo subjects	Fasai: Where is Alongkot? What is he doing? It is really late at night. Pongneng: It is up to the people. Fasai: What do you mean by that? Pongneng: Uh...I mean having gruel. It depends on how quick you have it. Fasai: Why doesn't he ask us?	Pongneng uses this metaphorical expression "this bowl of gruel", which is considered to be flouting maxim of quality. This leads to the avoidance of the taboo subject, which is about sex in this example.

Table 2.1 Examples of Narksuk's (2006) study on *Flouting maxims in Thai soap opera drama scripts* (cont.)

Flouting maxims	Functions	Examples	Explanations
		Pongneng: This bowl of gruel is served for two people only (Narksuk, 2006, p. 55-56).	
Flouting maxim of relation	Request	Sastra: I destroy her [Piangao] whole life. She will bear my baby. I cannot leave her. Father: Your wife [Rachawadi] does everything, because she loves you. Moreover, she will risk her life to bear your child too. [...] (Narksuk, 2006, p. 66).	The father (Sastra's father) flouts the maxim of relation, in which he talks about Rachawadi who is Sastra's wife, while Sastra talks about Piangao, his second wife. The father's answer is irrelevant in this case in order to imply that he request Sastra to stop seeing Piangao.
Flouting maxim of quantity	Sounding out the answer	Piangao: Did Miss Kiew tell you about me? David: I don't care for all the colleagues' stories. We use the family system. We can talk (Narksuk, 2006, p. 60).	David flouts the maxim of quantity, in which he gives more information to the question of Piangao. This flouting of maxim leads to finding out more answer from Piangao herself.

As for the work of Savetamalya (2001), she analyzes conversational implicature in the humor column “Laugh!” and “Life!” found in *Reader’s Digest*, a monthly magazine. Savetamalya (2011) uses cooperative principle of Grice (1975) to investigate how humor is generated from flouting the maxims. The most occurring type of flouting maxim is maxim of manner, followed by quality, relevance and quantity, respectively. The finding suggests that flouting these maxims lead to humor. Savetamalya (2011) further adds that in flouting maxims, other language functions also play a part in creating humor. These language functions are, for example spoonerisms, sound association, puns, and ambiguous words. Savetamalya (2011) suggests the finding that in order for the readers to understand the intended meaning of the humor written by columnists, the readers must understand these language functions, rather than just linguistic structure and literal meaning. Savetamalya (2011) concludes that cooperative principle and its maxims play a significant role in contributing implicature of humor. Following examples are cited from Savetamalya’s (2011) analysis:

Table 2.2 Examples of Savetamalya's (2001) study on *Conversational Implicature in the column LAUGH! It's the best medicine in Reader's Digest: pragmatic study*

Examples	Analysis of the maxims	Explanations
My nutritionist once told me, "The good news is you can have all the salad you want." I said, "Salad is not a food. Salad comes with the food. Salad is a promissory note that food will soon arrive." – John Pinette (Savetamalya, 2001, p. 34, 35).	Violate the maxim of manner	Savetamalya explains that the definition of the speaker's and the nutritionist's about "salad" is not the same. The speaker violates the maxim of manner in an unorganized way.
Three tradesmen are arguing about the world's oldest trade. "We built the pyramids, which are very ancient, so ours is the oldest trade," says the stonemason. "Nonsense," retorts the carpenter. "Noah's ark, the most notable creation of our trade, was built long before the pyramids." "Without a doubt ours is the most ancient trade," declares the electrician. "When God said 'Let there be light!', we had already laid the cables." – Benata Schatzl (Savetamalya, 2001, p. 38).	Violate maxim of relation i.e. relevance	The people are arguing about the world's oldest trade, which are replied by two tradesmen about the world's famous constructions. However, the reply of the third tradesman is irrelevant to the whole conversation, creating the violation of maxim of relevance to be generated.
Five-year-old Benike came in the bathroom with me in the morning. When I stood on the scale, he asked me, wide eyed. "How many meters are you?" "This scale measures kilos, Beni." "Oh yeah. Then how many kilometers are you?" –	Violate maxim of quality	Savetamalya explains that the bold utterance in this example violates maxim of quality, because the speaker asks the question that she lacks knowledge.

Table 2.2 Examples of Savetamalya's (2001) study on *Conversational Implicature in the column LAUGH! It's the best medicine in Reader's Digest: pragmatic study* (cont.)

Examples	Analysis of the maxims	Explanations
Csabane Timar (Savetamalya, 2001, p. 41). “Help me, doctor.” pleaded a man to the doctor desperately. “Every night I dream that I am boxing.” “And do you wake up in the morning feeling all beaten up?” inquired his doctor. “Not me, doctor,” the man replied helplessly. “Just my wife.” – Zoltan Csaszar (Savetamalya, 2001, p. 42).	Violate maxim of quantity	The answer of the man “Just my wife” lacks information to the doctor’s expectation, causing the maxim of quantity to be violated.

2.1.3 Theme development

The last framework concerned in this present research is theme development, which mainly focuses on the concept of participant reference and storyline, including non-storyline. The work of Grimes (1972) and Longacre (1983) will be firstly reviewed.

1) Participant Reference

Grimes's *The Thread of Discourse* (1972) is primarily inaugurated by the work of Gleason and colleagues, who believe that "different parts of a discourse communicate different kinds of information" (Grimes, 1972, p. 41). Longacre (1983) also supports similar idea. His typology of discourse suggests that among other genre of discourse, the most obvious genre that exhibits a different kind of information is narrative (Grimes, 1972, p. 41). In regard to the concept of participant, Grimes clearly states that: "the information that identifies the participants in an event not only links participants to events, but also works within a cohesive system to link one mention of a participant with other mentions of the same participant." (Grimes, 1972, p. 54). Hence, once a particular participant is introduced to a narrative, it usually remains at least for a while either by similar linguistic element with the previous one or different linguistic element, with a link indicates that they are the same participant. Moreover, Grimes believes that what is considered to be participant should not be restricted to being animate. For him, anything that does an action is counted as participant.

In terms of reference, Grimes firstly differentiates between reference and identification, because these two terms coin different meanings. The former is "who or what is being talked about" (Grimes, 1972, p. 56), which refers back to previous person or thing that is being talked about, whereas identification concerns with "the linguistic means that speaker uses to communicate to the hearer who or what is involved" (Grimes, 1972, p. 56). Grimes indicates that participant reference can be done in various ways such as it can be referred to as individual or group.

As for Longacre (1983), he affirms that any discourse type is made of two essential parts, which are important in analyzing discourse. Hence, any discourse consists of this information:

To begin with, the distinction, participants and props versus events (and most non-events), corresponds roughly to the domains of the noun phrase and the verb phrase respectively. One has to say 'corresponds roughly,' in that the surface grammar of any languages provides ways to nominalize verbs and to verbalize nouns. [...]: a text is an intricate interweaving of NP's (for participants and props) and VP's (for events and many non-events).

(Somsonge, 1994, p. 70)

Therefore, participants and props are expressed by noun phrase, whereas events and non-events are conveyed by verb phrase. As for participants and props, Longacre (1985) proposes four main concepts in analyzing participant reference in narrative discourse, which are (1) types of stories; (2) participant rank; (3) resources of a language for identifying participants; and (4) operations (Somsonge, 1994, p. 102-108).

In terms of types of stories according to participant reference, there are three types of participant references that can be applied to make the distinction between each types of narrative discourse: (1) 'first person narrative', which the narrator is the participant in the story who does actions; (2) 'as told to first person narrative' is the participant in the story himself tell the readers a story by using first person references; and (3) 'third person narrative', which the participant in the story is referred to by third person reference.

As for participant rank, Longacre (1985) states that the importance of a participant in a narrative depends largely on the plot of the narrative. In doing so, Longacre (1985) divides participant into two main groups: major and minor participants. The former type concerns with participant who occurs nearly at every stage of the narrative or participant who is a thematic participant. This main participant includes primary participant i.e. initiator, and secondary participant, whereas the latter (minor participant) comprises of participant and props, which rarely does any action (Somsonge, 1994, p. 104). Additionally, there are various grammatical features that can be referred to participant in narrative discourse. These features are full forms, elliptical forms, surrogate noun, pronouns, affixes, and zero anaphor (Longacre, 1985, p. 106). In terms of operations, there are several aspects that are used

to analyze the reference of participants in narrative discourse, for example, introduction, integration, reinstatement/ reintroduction, role change etc (Longacre, 1985, p. 107).

As far as Thai participant reference is concerned, there are some researchers who studied participant reference in Thai narrative and other relevant studies, for example, Levinsohn's (1978) *Participant reference in Inga narrative discourse*; Sornlump's (1983) *A participant analysis in Thai narrative discourse*; Poopatwiboon's (1983) *Participant reference in Northern Khmer*; Burusphat's (1986) *The structure of Thai narrative discourse*; Burusphat's (1991) *The structure of Thai narrative*; and Saijampa's (1992) *Participant reference in Mon narrative discourse*. However, only the works of Burusphat (1986) and Sornlump (1983) are reviewed here, because their works are closely related to this present study.

Burusphat's (1986) *The structure of Thai narrative discourse* points to the concept about participant reference, storyline and non-storyline. Burusphat (1986) uses folktales as data for analysis. She mentions that other than verb phrase i.e. storylines and non-storylines - another necessary element, which is required to be one of the main components of the plot structure of narrative discourse is noun phrase i.e. participants and props in narrative discourse. Burusphat (1986) studies participant ranks, characteristics of participants, grammatical forms that encode participants, and reference of each participant according to his rank.

Apropos of participant ranks, Burusphat (1986) uses the framework of Givón (1983) in order to analyze participant ranks that occur in folktale as she urges that "participant in a narrative discourse are ranked according to their importance to the story" (Burusphat, 1986, p. 184). Subsequently, participants can be divided into three categories: main, secondary and tertiary participants. Additionally, Burusphat states that what is counted as participant does not have to be human beings, rather animals, animate objects or even inanimate object can also be acted as participant if it is "directly involved in the plot of the story" (Burusphat, 1986, p. 184). In other words, if that object initiates any action, it is counted as participant of the current discourse.

Furthermore, Burusphat (1986) analyzes participants' characteristics i.e. how each participant is introduced, reintroduced, maintained in, or left out from the discourse. To this point, when main participant in Thai is introduced, it is usually accompanied by background information, which functions as describing that

participant. Moreover, Burusphat (1986) studies grammatical forms that encode participant references. These grammatical features in Thai narrative discourse can be divided into two types: overt marking, which includes noun phrases and pronouns; and covert marking, which includes zero anaphora. In doing so, the first mention of participants is found to be encoded by indefinite noun phrase (a noun, a classifier, and a numeral). The second mention of participant consists of definite noun phrase (a noun, a classifier, and a determiner).

In the final section of participant reference, Burusphat (1986) studies reference of participant according to his rank. In other words, what grammatical features that used to introduce each participant in the rank. The table 2.3 below summarizes this section of Burusphat's study:

Table 2.3 Participant reference according to his rank (Burusphat, 1986, p. 232)

Participants	Organization	Operations	Grammatical forms
Main participant		First introduction	Existential construction
	Continued thematic participant		Zero anaphora
		After text discontinuity	Overt forms
	Non-thematic participant		Overt forms
Secondary participant		First introduction and mostly encoded	Overt forms
	Locally thematic participant		Zero anaphor
Tertiary participant		Introduction and mostly encoded	Overt forms
	Locally thematic participant		Zero anaphor
Props		Usually encoded	Overt forms

Another study on participant analysis in Thai deals with the work of Sornlump's (1983) *A participant analysis in Thai narrative discourse*. The data was collected from both written and spoken texts. Sornlump (1983) analyzes participants according to their operations throughout the narrative. She divides participants' operation into four areas, which are introduction, reintroduction, maintenance, and

removal, together with grammatical features that refer to those participants in the narrative. In Sornlump's work, participants are divided into three categories: main, secondary, and incidental participants according to their importance in the narrative i.e. participants' roles. However, the distinction between each category of participants is not clearly made. As far as operation of participant is concerned, the participants are observed in accordance to the components of narrative discourse: title, body, and conclusion. The summary of the analysis of linguistic features that are used to operate each participant can be found in Sornlump (1983, p. 22). The table 2.4 below presents the participant analysis summarized from the work of Sornlump (1983).

Table 2.4 Participant analysis summarized from Sornlump (1983)

Operations	Linguistic features		Types of participants
	Category	Sub-category	
Introduction	Existential clause		Main participant, and sometimes secondary participant
	Phrases of ‘Be’ clause	Pronoun phrase i.e. proper name	Main participant
		Modified phrase	Main participant
	‘Named’ clauses		Secondary and incidental participants
	Phrases of transitive, locatives and bitransitive clauses	Simple noun phrase	Main, secondary, and incidental participants
		Modified phrase	Main, secondary, and incidental participants
	Groups		- Main with secondary participants - Main with incidental participants
Reintroduction	Simple noun phrase		Main, and secondary participants
	Pronoun phrase	Kinship terms	Main, and secondary participants (incidental participant - only in an object slot)
		Proper name	Main, secondary, and incidental participants
		Title	Main, secondary, and incidental participants
		Personal pronoun	Main participant (only third person pronoun)
	Modified phrase	Relative clause as modifier	Main, and secondary participants

Table 2.4 Participant analysis summarized from Sornlump (1983) (cont.)

Operations	Linguistic features		Types of participants
	Category	Sub-category	
Maintenance	Possessor phrase	Possessed phrase as modifier	Secondary participants
	Groups	Pronoun phrase i.e. kinship terms	Secondary and incidental participants - Main with secondary participant - Secondary with incidental participant
	Deletion/ string of deletion i.e. zero anaphora	[After first introduction]	Main and secondary participants
		[After reintroduction]	Main and secondary participants
Removal	Real manifestation	[After return to being actor]	Main, secondary, and incidental participants
			Main, secondary, and incidental participants
			Main, secondary, and incidental participants
	Actual removal [Final removal]	Simple noun phrase	Secondary and incidental participants
		Pronoun phrase	Main, secondary, and incidental participants
		Modified phrase	Incidental human participant
		Possessor phrase	Secondary human participant
		Deletion	Main, secondary, and incidental participants
	Actual removal [Character transformation]	Pronoun phrase	Incidental participant
		Modified phrase	Main participant
		Deletion	Main and secondary participants
	Non-actual removal	Temporary departure by active verbs	Secondary participants
		Participant change by temporal and location change	Main, secondary, and incidental participants (but linguistic features that are used to

Table 2.4 Participant analysis summarized from Sornlump (1983) (cont.)

Operations	Linguistic features		Types of participants
	Category	Sub-category	
		Topic change by pronoun phrase	refer are different)
			Main, secondary, and incidental participants

Regarding participant reference studied by Chuwicha (1986), she states that “the cohesion of participants occurs when it is made known which participant is being introduced or which one is being referred to or how that participant is brought back to the scene.” (Chuwicha, 1986, p. 10). Chuwicha further adds that for narrative, it is necessary for a participant to be introduced and maintained in a scene (Chuwicha, 1986, p. 21). However, what seems to be different in Chuwicha’s (1986) and Sornlump’s (1983) works are, firstly, the classification of participants: whereas Chuwicha (1986) divides participants into four types (main, secondary, tertiary, and props), Sornlump (1983) classifies them into three types (main, secondary, and incidental). Accordingly, Sornlump (1983) states that props are counted as participants of the discourse if they initiate any actions, therefore props should not extensively be separated from participants as Chuwicha (1986) classifies them. Secondly, while Chuwicha (1986) focuses on how participants in discourse are introduced and maintained, Sornlump (1983) extends her study to how participants are reintroduced and removed from the discourse. Lastly, there are several grammatical features that are used to refer to participants in Sornlump’s work (1983), whereas Chuwicha (1986) mainly focuses on grammatical features i.e. cohesive devices that refer to the same participants in the discourse such as reference, pronominalization, and collocation.

2) Storyline and Non-storyline

Grimes (1972) uses the word “event” for storyline. He firstly differentiates event and non-event in narrative. Grimes adds that each event in a sequence, which may or may not always be in a sequence, is clearly divided by time sequence (Grimes, 1972, p. 46), which can be expressed primarily by verb. On the subject of non-event, Grimes purposes four major components of non-event, which are setting, background, evaluation, and collateral.

The first component is setting, which is defined as “where, when, and under what circumstances actions take place” (Grimes, 1972, p. 63). Setting is identified by verb such as verb of motion, which further indicates new or previous setting from the current stage. Other than spatial setting, temporal is also counted as setting, which is referred by calendric system, culturally recognized temporal events, or memorable events (Grimes, 1972, p. 67). Moreover, this type of setting can also establish the relationship between the prior and the current temporal setting, usually by

“mentioning the amount of time that intervened between the earlier group of actions and the later group”, for example, “after three years”, “the next day” etc (Grimes, 1972, p. 68).

The second component of non-event is background. Grimes suggests that it is not part of narrative in nature. He defines background as “explanations and comments about what happens” (Grimes, 1972, p. 68). Background functions as clarification of narrative. Grimes further adds the characteristics of background that it is “supposed to shed light.” (Grimes, 1972, p. 72).

The third component - evaluation is attitude or comment of the speaker to the narrative. Evaluation can also “be found either at the beginning as an introductory statement that tells why the rest of the discourse is being told, or at the end as a moral to the story or the tag line to a fable.” (Grimes, 1972, p. 76). It can also be moved within a story or it can be cut off the story as well as it can provide the hearer to become closer to the narrative.

The last component of non-event is collateral, which consists of elements that do not happen in the narrative. Collateral functions as highlighting the main event that occurs in the narrative. Grammatical forms that indicate collateral information are negation, including adversative and hidden form of positive statement, questions, rhetorical questions, predictions, and quotations.

In regard to Longacre (1989), he uses the terms “storyline” to refer to situation or happenings that move the whole story forward. Longacre (1989) states the characteristics of storylines that it must be (1) *punctuality*, which means a discourse must have the beginning and the end; (2) *sequentiality*, in which the situations in the story connect in temporal sequence; and (3) *volition*, which participant usually has plans and attention for a particular situation to be happened, or even there is no planning or intention, participant of the storyline must be a patient or experiencer (Somsongse, 1994, p. 74).

Another point deals with “non-storyline”, which are the supportive elements in a narrative discourse. Longacre (1983) further makes distinctions between main elements i.e. storyline and supportive elements i.e. non-storyline by grammatical features in English, which are (1) tense – aspect morphology, (2) word order, and (3) affix or particle. Clauses that are expressed by past tense or completive/ perfective aspect; or VS/ OV clauses are

considered to be on-the-line i.e. storyline, whereas clause that consists of past progressive or pluperfects; or SV clause is excluded from storyline.

Longacre's (1989) *Two hypotheses regarding text generation and analysis* makes a notion for the concept of verb forms or clause structures in any discourse genre of any languages that they can be organized in the so-called rank scheme in the mainline i.e. storyline, which differs from other constructions. He further states that the crucial information that constitutes to discourse consists of firstly "textual functions of the various tense/ aspect/ mode verb forms of a language", secondly, "the apparatus of participant/ thematic reference as marked by nouns, pronouns, verb affixes, and anaphoric zero", and lastly "various discourse functions of particles" (Longacre, 1989, p. 413). Longacre affirms that mainline or storyline is crucially importance in the developing of the story. He states:

A story is not a story unless it presents sequential and punctiliar happenings. The main line of development is characteristically expressed by clauses and sentences given a particular tense/ aspect/ mode form appropriate to the language being studied plus inevitably some restrictions based on verb classification (e.g., active vs. stative and "be" verb). Thus, the line of sequential punctiliar happenings is the main structural feature of the story.

(Longacre, 1989, p. 414)

Hence, the central characteristics of being on the main line are sequential and punctiliar. Thus, other elements depend on "degrees of departure from the main line" and functions as additional elements to the main line. Longacre proposes a so-called "rank scheme" after applies it to different languages, measuring from the states of changeability i.e. "from the most dynamic to the most static elements" (Longacre, 1989, p. 416). He posits the name "Band" for each category of the rank scheme, which consists of seven bands as illustrated in the table 2.5 below.

Table 2.5 English Rank Scheme (Longacre, 1989, p. 416)

Band 1 Storyline	Past (S/Agent) Action, (S/Agent/Patient) Motion Past (S/Experience) Cognitive events (punctiliar adverbs) Past (S/Patient) Contingencies
Band 2 Background	Past Progressive (S/Agent) background activities Past (S/Experience) Cognitive states (durative adverbs)
Band 3 Flashback	Pluperfects (Events, activities, which are out of sequence) Pluperfects (Cognitive events/states that are out of sequence)
Band 4 Setting (expository)	Stative verbs/adjectival predicates/verbs with inanimate subjects (descriptive) “Be” verbs/ verbless clause (equational) “Be”/“Have” (existential, relational)
Band 5 Irrealis (other possible words)	Negatives Modals/futures
Band 6 Evaluation	Past tense (cf. setting) Gnomic present
Band 7 Cohesive band (verbs in preposed/postposed Adverbial clause)	Script determined Repetitive Back Reference

This rank scheme depends largely on verbs i.e. rank of verbs from the most representative of storyline to the least. All verbs that are located in the main clause are counted (Longacre, 1989, p. 419). In addition, Longacre (1989) mentions the concept about promotion and demotion within the rank scheme that elements of non-storyline can be promoted to become storyline in band one if that particular element is attached by storyline features such as punctiliar adverbs or contextual clues; on the other way round, element of storyline can also be demoted to non-storyline band as well if that element establishes durative state etc.

In addition, there are several studies on storyline in Thai such as Burusphat's (1986) *The structure of Thai narrative discourse*; Thammawong's (1989) *Multiple Levels of Discourse Information in Thai Short Story*; Burusphat's (1991) *The structure of Thai narrative*; Burusphat's (1992c) *The Identification of Storyline in Thai Narrative Discourse*; and Vongvipanond's (1994) *An Eventual Account of Verb Serialization in Thai*. However, the works of Burusphat (1986) and Thammawong

(1989) are provided here as intensive review, because these two works are closely related to this present research.

As far as the work of Burusphat (1986) is concerned, the focal approaches the grammatical features or characteristics that differentiate storyline from non-storyline. Burusphat (1986) adds the salient scheme, which uses to rank verb form or clause types according to their prominence in discourse. This rank scheme begins with the most and ends with the least salient features of discourse, and is named as ‘Band’. The table 2.6 the salient scheme of verb forms/clause types from Burusphat (1986) is illustrated as follows. Notice that the following phonetic transcription derives from the work of Burusphat (1986).

Table 2.6 The salient scheme of verb forms/clause types (Burusphat, 1986, p. 167)

Band 1 Storyline	Sequential marker(s) + (a series of) Vac/Vmo Cognitive experience/event proper
Band 2 Background	2.1 Background activities: Temporal adverbs, <u>mak4(ca2)/ch@:p3/pha1ja:1ja:m/wian1/khoN1/kam1laN 1/ju:2/paj1</u> 2.2 Cognitive states
Band 3 Flashback	3.1 Time phrase 3.2 <u>daj3,khv:j1,lx:w4</u>
Band 4 Setting (expository)	4.1 V: stative/possessive/existential/Equative 4.2 Temporal/Spatial elements 4.3 Directional verbs <u>paj1/ma:1</u>
Band 5 Irrealis	5.1 Time phrase 5.2 Question/Negation/Condition 5.3 <u>ca2/khoN1/a:t2/na:3/khuan1/thx:p3/kyap2</u>
Band 6 Evaluation	First personal pronouns/Question/descriptive V/moral
Band 7 Cohesion	7.1 Adverbial clause (Script determined/Repetitive back reference) 7.2 Relative clause (Repetitive back reference) 7.3 Thematicity/ Topicalization 7.4 Summary/Preview

Burusphat (1986) further asserts the concept about sequentiality, which can be used as a detector to differentiate between storyline and non-storyline information. She states: “sequentiality is a significant way in which Thai marks the difference between the storyline and non-storyline. [...] The sequentiality of foregrounded events requires that an event occur after the completion of a prior

event.” (Burusphat, 1986, p. 155). Grammatical forms that are used to detect sequentiality are, for example, verbs in storyline information i.e. a series of verb. Sometimes there are sequential markers such as *ca:k2nan4* ‘after that’ and *k@:3* ‘then’; temporal clauses, phrase, or words; adverbial clause; auxiliaries; pre- and post-serial verbs, which mark the sequence of happenings.

Other than the work of Burusphat, Thammawong’s (1989) *Multiple levels of significant discourse information in Thai short story* also studies discourse information, which includes storyline and non-storyline. Thammawong (1989) analyzes three levels of discourse information classified by their significance to discourse, which are peak, storyline, and non-storyline, respectively; and proposes the characteristics of these two concepts in levels. The distinctions between each levels of discourse information are signalized by different grammatical forms. Thammawong (1989) finally proposes a salient scheme for Thai short story, which she indicates that it is more complicated than folktale’s, ranking from the most significant information of the discourse to the least significant ones. There are three levels. The first level is peak. The second level is storyline, which includes other three levels of storyline; and the third level is non-storyline, which consists of two other levels. Thammawong’s rank scheme is different from the rank scheme of Longacre (1989) and Burusphat (1986). Thammawong defines the rank scheme as ‘level’, which consists of three major levels including peak (Thammawong, 1989, p. 118-120).

As far as Chuwicha’s *Cohesion in Thai* (1986) is concerned, Chuwicha also studies theme cohesion, which is considered to be similar to storyline. Chuwicha (1986) divides theme into two categories: purpose theme and story-line theme. The former, however, is regarded as evaluation i.e. non-storyline element in Thammawong’s work (1989), which is the author’s purpose, feelings, and other expression in conducting a story. The latter concept concerns the main points of the story, which is similar to Thammawong’s storyline information (1989). Furthermore, the differences between these two works get a handle on the study of grammatical features that encode the theme. In Chuwicha’s work (1986), only grammatical forms that encode in introducing the purpose theme are marked. In contrast, Thammawong (1989) studies any grammatical forms that encode information about the author’s evaluation towards the story. In terms of story-line theme, Chuwicha (1986) mainly

concentrates on cohesive devices that encode story-line theme, primarily on the components of plot structures. In addition, Chuwicha urges that “only the events that related to the theme are cohesive, non-related events are non-cohesive and are “off the subject”.” (Halliday & Hasan, 1976, p. 41).

2.2 Previous Studies

This section presents the works of researchers that have previously discussed language of schizophrenia or coherence in schizophrenia in specify.

The question of language impairment in schizophrenia allows us to study the course of schizophrenic episodes in minute detail, and may consequently allow us to understand what distinguishes schizophrenic patients who show no signs of incoherent speech . . . from those whose discourse is disrupted.

(Rochester & Martin, 1979, p. 189)

2.2.1 Schizophrenia and Language

Since 19th century researches on language in schizophrenia and other psychiatric disorders have been widely widespread. The work of Covington, He, Brown, Naçi, McClain, Jonathan, Fjordbak, Bess, Semple, and Brown (2005) presents several researches on language of schizophrenia in various levels – phonetics to pragmatics such as the work of Chaika (1974), Fromkin (1975), Lecours and Vanier-Clément (1976), and Pinard and Lecours (1983). As linguists’ point of view, schizophrenic patients exhibit uncommon language performance. The researches in this area also demonstrate that executive function and pragmatics seem to be primary impaired.

As cited in Cogvition et al. (2005), Fromkin (1975) studies schizophrenic language in comparison to normal speakers’ speech. Although normal speaker also exhibits errors during communication, they self-correct those errors, whereas schizophrenic speech contains “string of error” and the patients do not make self-correction. Furthermore, the article also reviews the research on schizophrenia and

aphasia¹, which was the main concentration of Lecours and Vanier-Clément (1976). They found that schizophrenia exhibits “disorganized discourse plans”. Pinard and Lecours (1983) also study schizophrenic language in comparison to aphasic language as well as normal volunteers. The informal interviews were conducted for all subjects e.g. they were asked to speak about personal interested topic or daily life topics. Cohesion analysis was included as theoretical framework, which was a primary concern in their study. The discussion indicates that whereas schizophrenic speech is sometimes difficult to comprehend, their speech is not totally incoherent. In comparison to normal volunteers, the study reveals that schizophrenic patients used fewer cohesive ties than normal volunteers. Moreover, the work of Rochester and Martin (1979) also suggests that thought disordered speech can be distinguished from non-thought disorder speech² as well as normal speakers’ utterances in the area of coherence due to the difficulty that had arisen from the listeners’ attempt in comprehending schizophrenic speech. The information was not clear as well as less conjunction or conjunctive links were found.

The work of Chaika (1974) also pinpoints the study on schizophrenic language in several linguistic levels. Chaika (1974) collects the studies in schizophrenic language impairment from many linguists’ perspectives. He found that there are six characteristics of schizophrenic speech, which can only be defined from corpus analysis. Chaika (1974) studies the speech of X, who was diagnosed schizophrenia and reports that X spoke like a normal person for weeks, however X’s speech seems deviant weeks later. This phenomenon is explained by the psychiatrist as “psychotic episode”. Chaika (1974) examines an extract of X’s speech and discusses that what seems to govern X’s discourse is phonological rules, or words caused by sound corresponding, which is usually unable to comprehend. Chaika (1974), then, defines this phenomenon of language “gibberish”, which has been found in various literatures. He asserts that unlike normal people’s error, X has no attempt to re-correct her speech. In terms of discourse, examples have been provided and suggested that schizophrenia fails to follow discourse rules in two main ways. Firstly, schizophrenia produces linguistic items outside the current context, obviously by unclear reference. Secondly, their discourse is outside of the current topic. In accordance to the analysis

of X's speech, Chaika (1974) concludes his findings of schizophrenic speech in six characteristics as follows:

(1) sporadic disruption in the ability to match semantic features with sound strings comprising actual lexical items in the language; (2) preoccupation with too many of the semantic features of a word in discourse; (3) inappropriate noting of phonological features of words in discourse; (4) production of sentences according to phonological and semantic features of previously uttered words, rather than according to a topic; (5) disruption in the ability to apply rules of syntax and discourse; (6) failure to self-monitor, e.g. not noting errors when they occur.

(Chaika, 1974, p. 19)

The findings from most studies indicate that language performance of schizophrenia is crucially different from other psychotic disorders as well as from normal speakers in the way that schizophrenic speech is rarely organized and difficult to comprehend. The following section presents schizophrenic language performance, respecting cohesion, cooperative principle, and narrative discourse.

2.2.2 Schizophrenia and Cohesion

For decades, various researches have focalized the study on cohesion in schizophrenia. It has been initiated by the work of Rochester and Martin (1979). They present their seminar work in *Crazy Talk*, which is a comparative study on language of schizophrenic speakers and normal speakers. They found that no matter schizophrenia exhibits thought or non-thought disorder, cohesion is deeply impaired, especially in reference. They report that schizophrenic speaker usually makes use of reference nonverbally e.g. by pointing. Moreover, schizophrenic speaker has difficulty in presumed information and reference that is not directly stated. While non-thought disorder schizophrenia tends to be unconfident in using indirect reference, thought disordered schizophrenia tends to used reference without presumed information or antecedents. In terms of lexical cohesion, non-thought disordered schizophrenia seems to use lack of lexical cohesion, whereas it seems to be extremely used in thought

disordered schizophrenia. However, words they used seem to refer to individual object only (Covington et al., 2005, p. 14-15). Rochester and Martin (1979) reveal that thought disordered schizophrenic discourse depends primarily on lexical cohesion rather than any other types. Technically, their discourse develops through word association - collocation, rather than topic as a whole. Moreover, Rochester and Martin (1979) suggest their results that symptoms of thought disordered speech usually exhibit when patients were asked to conduct monologue, rather than in an interview or other kind of dialogue (Martin, J.R., 1985, p. 59).

Wykes and Leff observe whether language of mania³ is easier to understand than language of schizophrenia in terms of cohesion (Wykes & Leff, 1982). The finding illustrates that there are more structural links in manic speech than schizophrenic speech. Moreover, lexical cohesion is the least occurring category among other cohesive ties. Finally, the result of this study is consistent with Andreasen's (1979a) research on types of thought disorders in psychiatric patients. Implication of this study is suggested to be utilized as part of a diagnosis tool.

2.2.3 Schizophrenia and Cooperative principle

There are only a few studies on cooperative principle in schizophrenia that have been found. For instance, Colle, Angeleri, Vallana, Sacco, Bara, and Bosco (2013) use Grice's cooperative principle to study the inability in decoding violation as one of the other five pragmatic domains (direct and indirect speech acts, irony, topic management, and turn-taking) in comprehending communicative impairment of the participants (Colle et al., 2013).

As cited in Covington et. al. (2005), De Decker and Van de Craen (1987) state that schizophrenic speech is "off-topic, rambling, and uncooperative" (2005, p. 16). Moreover, it has been suggested that the study on the use of cooperative principle in schizophrenia may help comprehending cognitive impairment of schizophrenic speakers. Another study using Grice's cooperative principle is from Frith (1992) and Abu-Akel (1999) mentioned in Cogvito et. al. (2005). They claim that schizophrenic speakers fail to be cooperative following the rules of Grice (Cogvito et. al., 2005). In addition, Ditman and Kuperberg (2010, p. 12) also examine language dysfunction on pragmatic aspects i.e. Grice's maxims of both healthy controls and schizophrenic

speakers and propose that schizophrenic speakers show “difficulty in interpreting sentences that violate these maxims”.

2.2.4 Schizophrenia and Narrative discourse

Toward the study on participant reference and storyline, the researcher has found no study on this particular topic. Most of the studies usually apply narrative as a tool to find out some neurological evidences of schizophrenic speakers. Such works are for example, Woźniak's (2006) *Narrative Discourse in Schizophrenia*. Woźniak analyzes coherence in colloquial narrative of schizophrenic patient and evaluates how complex the narrative is. Another study on narrative comes from the work of Lysaker, Lancaster, and Lysaker (2003) on *Narrative transformation as an outcome in the psychotherapy of schizophrenia*. Lysaker and colleagues (2003) study how narrative discourse of schizophrenic patients change over fourteen months, which further contributes to recovery of schizophrenia. Prévot (2012) also conducts a comparative research on the title *Narrative Story-telling of Mandarin-speaking patients with Schizophrenia* between schizophrenic speakers and normal speakers. Both schizophrenic and normal speakers were asked to narrate three stories. Prévot (2012), then, analyzes those samples of narrative by using a narrative assessment to measure coherence. This measurement includes the analysis of cohesion and narrative pattern, together with character representation in a narrative. Prévot (2012) concludes that schizophrenic patient exhibits “weaker narrative performance”.

Another study deals with cohesion analysis in narrative discourse produced by schizophrenic subjects. In *Cohesion in schizophrenic narratives, Revised*, Chaika and Lambe (1989) analyze cohesion in schizophrenic narrative using cohesive ties proposed by Halliday and Hasan (1976). The subjects of this study are participants, who receive discharge diagnoses of schizophrenia and mania as well as normal speakers, which all are told to retell a story after viewing a video. The study aims to provide additional clarification of cohesive analysis studied by Rochester and Martin (1979), which Chaika and Lambe (1989) argue that schizophrenia uses of cohesive ties are inconsistency. The finding suggests that there are differences among the use of each cohesive tie, which further indicate that schizophrenic speakers suffer a great deal in producing narrative discourse. Comparing to Rochester and Martin's

Crazy Talk, Chaika and Lambe (1989) found that the frequency in using cohesive ties in narrative discourse of schizophrenic participants as well as normal speakers are relatively in the same range. Most of all ties are anaphoric reference, whereas Rochester and Martin report that schizophrenic speakers use less cohesive ties, accompanied mostly by exophoric references. Moreover, Chaika and Lambe (1989) found that schizophrenic participants often include additional details in their narratives such as people who are not mentioned in the video. The topic usually runs by idiosyncratic association. Finally, Chaika and Lambe (1989) conclude that while schizophrenic and manic speakers retain competence in cohesive ties, they lack performance in using them.

From all previous studies given above, although studies on coherence in schizophrenia have been widely examined in various aspects and by different frameworks, studies on coherence focusing on these three frameworks: cohesion, cooperative principle and theme development have not yet been found. Specially, the pragmatic framework of Grice (1975) and theme development in two aspects have been rarely applied. As for cohesion, this framework has been applied in several previous researches. However, in order to study coherence cohesion is required. The following chapter provides some methodological issues involved in this present research.

Explanation on Chapter II

1. “Aphasia is an acquired communication disorder that impairs a person's ability to process language, but does not affect intelligence. Aphasia impairs the ability to speak and understand others, and most people with aphasia experience difficulty reading and writing.”

The National Aphasia Association. (n.d.). *Aphasia FAQ*. Retrieved August 5, 2013 from <http://www.aphasia.org/>

2. Rochester and Martin (1979) quote Freedman, Kaplan, and Sadock (1976, p.1333) that “thought process disorder is said to be manifested by irrelevance and incoherence of patient’s verbal productions. The manifestations can range from simple blocking and mild circumstantiality to total loosening of associations as in word salad.” (Rochester & Martin, 1979, p. 4) Rochester and Martin (1979) further point out that the definition of thought disorder is relatively vague. They discuss the range of speech event of these terms “loosening of association” and “circumstantiality” i.e. how severity of the speech, and conclude that “thought disorder is when talk is incoherent. And talk is incoherent when thought is disordered.” (Rochester & Martin, 1979, p. 6). In regard to the term “non-thought disorder”, it refers to characteristics that do not involve thought disorder.

3. “Mania is an abnormally elated mental state, typically characterized by feelings of euphoria, lack of inhibitions, racing thoughts, diminished need for sleep, talkativeness, risk taking, and irritability. In extreme cases, mania can induce hallucinations and other psychotic symptoms.”

The free dictionary by Farlex. (n.d.). *Mania*. Retrieved August, 5 2013 from <http://medical-dictionary.thefreedictionary.com/mania>

CHAPTER III

METHODOLOGY

This chapter presents research designs and research methodology. The latter also describes participants, measurements, administration and data collection procedure, and some guidance of how data is analyzed.

3.1 Research Design

This research is a qualitative and a descriptive research. Accordingly, the place for data collection was at the outpatient department of psychiatry, Lampang Hospital. The data collection took a period of three months, from March 2014 to May 2014.

3.2 Research Methodology

3.2.1 Participant

There are two groups of participants in this present research – schizophrenic patients and psychiatrists.

1) Schizophrenic patients

Schizophrenic patients who visited the outpatient department of psychiatry at Lampang Hospital, who were informed and willing to participate in this current research were invited to participate in data collection. The numbers of this participant are 15¹ in total. Schizophrenic speakers were recruited according to the following inclusion criteria.

a. Inclusion Criteria²

1. Participants who are diagnosed schizophrenic disorder, according to DSM-V and ICD-10³.
2. Participants who visit the outpatient department of psychiatry at Lampang Hospital⁴ at the time of data collection.
3. Speaking ability in Northern Thai.
4. Participants who live in Lampang and/ or in Northern provinces at least for 5 years.
5. Participants who are 18 years old or above.
6. No sign of other psychiatric disorders.
7. Participants and/ or family members who are informed with “Participation Information Sheet” and willing to participate in the research.
8. Participants who are accompanied by their family members or close relatives at the time of data collection – Family members or close relative sign “Informed Consent Form” in lieu of participants.

b. Exclusion Criteria

1. Participants who are not diagnosed schizophrenic disorder, according to DSM-V and ICD-10.
2. Participants who are diagnosed schizophrenia and other psychiatric disorders.
3. Participants who are in-ward patients⁵ at Lampang Hospital.
4. Participants who cannot speak Northern Thai.
5. Participants who do not live in Lampang and/ or in Northern provinces.
6. Participants who live in Lampang and/ or in Northern provinces less than 5 years.
7. Participants who are under 18 years old.
8. Participants with neurological disorder, mood/affective disorder, substance-related disorder, organic mental disorder, personality trait/ disorder, or stress-related thought disorder.
9. Participants with seeing, hearing, and speaking disabilities.

10. Participants who are not accompanied by their family members or close relatives at the time of data collection – Family members or close relative does not sign “Informed Consent Form” in lieu of participants.

2) Psychiatrists

Psychiatrists, who work at the department of psychiatry at Lampang Hospital and were informed and willing to participate in the research, were also invited. Three psychiatrists, who were willing to participate in the research, were recruited according to the following inclusion criteria:

a. Inclusion Criteria

1. Participants who are psychiatrists at the department of psychiatry at Lampang Hospital at least for 5 years.
2. Participants who have examined the patients weekly.
3. Participants who have not made an errand leave for work or study at the time of data collection.

These criteria were sent to Lampang Hospital before the data collection procedure along with other required documents in order to meet the agreement of ethic committee from the hospital. The research was conducted after the hospitals acknowledged and signed the permission form.

3.2.2 Measurement

For collecting data, the measurement were a picture book entitled “*A boy, a dog, a frog, and a friend*”, which was used to elicit narrative discourse of schizophrenic participants, an audio recorder, and the sheet for the psychiatrists.

- 1) A picture book “*A boy, a dog, a frog, and a friend*” from Mercer Mayer and Marina Mayer (1971)

This wordless picture book belongs to the series entitled “Boy, dog, frog series”, which was used as an instrument in collecting data from schizophrenic participants. Participants were required to tell a story provided by series of picture of this wordless picture book, which contains 32 pages in total. The reasons why choosing this book are: (1) the books in this series “Boy, dog, frog series” are widely used in several studies. For example, the work of Trabasso and Rodkin (1994) applied the book entitled “Frog where are you?”, which is one of the books in this series to

their study. They focus on studying narrative skills i.e. topic development, sequence of the narratives, as well as storylines of the children with different ages. Regarding the research in Thailand, Jeeraumporn (2012) used the book entitled “A boy, a dog and a frog”, which is in a similar series with “A boy, a dog, a frog and a friend” to study child narratives between the children with typical development and normal developing children. However, the researcher has found no study that used the book entitled “A boy, a dog, a frog, and a friend” in studying the language of schizophrenic speakers. (2) This book “A boy, a dog, a frog, and a friend” exhibits a series of picture, which are in sequential order, and (3) other books in this series contain several items that are considered to be in western context. However, there is no particular item from western context containing in this wordless picture book “A boy, a dog, a frog, and a friend”.

Moreover, according to personal conversation with the psychiatrist, the patients diagnosed schizophrenia are not sensitive to pictures as there is a psychological test called Rorschach’s Test, which is used as assessment of thought in psychiatry. This psychological test is usually applied when the results of medical interview, physical examination, and/ or mental state examination are not clear. The psychiatrist further included that other than Rorschach’s Test there is no other test containing picture that is used as an instrument for language assessment (Personal conversation on August 19th, 2013). Moreover, the psychiatrist has also reviewed this book and affirmed that it contains pictures, which can ordinarily be seen in Thai’s life styles nowadays as well as the pictures in the book do not have any mental effect to the patients. Hence, the researcher sees that this wordless picture book “A boy, a dog, a frog, and a friend” is suitable for collecting narrative told from participants.

Accordingly, some pictures of the picture book are provided in appendix F. The short descriptions of each page are provided as follows:

Page 1-2: There are a boy, a dog, and a frog. They are fishing near the river.

Page 3: Something is caught, so that the boy cannot pull a fishhook up. The dog and the frog are looking at the fishhook (See Appendix F).

Page 4: The boy, the dog and the frog are jumping into the river (See Appendix F).

Page 5-6: They all see a turtle holding the fishhook into his month and goes up to the shore at the opposite side of the river.

Page 7: The dog talks to/ quarrels with the turtle, when the boy, who is still in the river, and the frog, which is standing at the shore, are watching.

Page 8: The boy goes into the river to get his fishhook, while the turtle bites the dog's hand. The frog jumps away.

Page 9: The boy helps separating the dog from the turtle by pulling the dog.

Page 10: The boy holds the dog on his shoulder, while holding the fishhook. The turtle still bites the dog's hand.

Page 11: The boy walks into the river, while holding the dog and the fishhook. The turtle, then, releases the dog's hand and jumps down into the river.

Page 12: The boy, who still holds the dog, and the frog are standing at another side of the shore.

Page 13: The boy starts picking up his spade and the water bucket. The dog licks his hand, while the frog is watching him.

Page 14: While the dog's tail lies in the river, something bites his tail. The boy is frightened, so he releases the spade and the water bucket.

Page 15: The boy holds his head with his hands and is at a loss of words while watching the dog sinks into the river. The frog looks at the dog helplessly.

Page 16: The boy unbuttons his shirt, while the frog jumps down into the river. The dog sinks.

Page 17: The boy takes off his shirt.

Page 18: The boy takes off his pants, while the frog comes up from the river and stays on top of the lotus. The dog emerges from the river.

Page 19: The boy dresses up again, while the dog comes up from the river penitently.

Page 20: The boy, the dog, and the frog look at the turtle that is assumed to be dead.

Page 21: The boy tries to get the turtle to the shore by his fishhook, while the dog tries to help. The frog looks at them helplessly (See Appendix F).

Page 22: The boy holds the turtle and the fishhook, and looks at the dog angrily. The frog looks at the dog pitifully (See Appendix F).

Page 23: The boy holds the turtle and the fishhook, and starts going somewhere. The dog and the frog follow them.

Page 24: The boy lays the turtle on the ground behind him, where the fishhook is placed nearby. He starts digging, while the dog and the frog are watching.

Page 25: The boy finishes digging a hold.

Page 26: The boy picks a flower near the hold up, planning to do something, while the dog sees the turtle revives and tries to get to the fishhook near him.

Page 27: The boy looks at the turtle happily, while the turtle holds the fishhook into his mouth. The dog and the frog are watching.

Page 28: The boy lifts the turtle up from the ground gladly, while the turtle and the frog jumps up.

Page 29: The boy goes somewhere, holding the spade and the water bucket in his hands, where the dog walks along with. The frog sits on the turtle's back, while the turtle follows the boy and the dog, holding the fishhook into his mouth.

2) Digital audio recorder: Iriver REI-T8 (B)

The data from the narrative discourse task is recorded by an audio recorder, which is an appropriate instrument for data collection and for analysis. In doing so, the researcher received permission from participants and their family members or close relatives before recording. Accordingly, the researcher has notified the participants and their family members or close relatives that the data recorded is used in this present research for academic purpose, which will not be publicized in any case. Personal information or other related information containing in the data, which involves participants, will be coded (if any). The data recorded will therefore be deleted when the present research is done.

3) Sheets for the psychiatrists

There were three tasks for the psychiatrists to answer after the entire narratives of 15 schizophrenic narratives were analyzed using three frameworks. This sheet contains the findings, which is resulted from the analysis (See Appendix D).

3.2.3 Administration and Data collection procedure

Before data collection process, the permission from Lampang Hospital was required to be done. In doing so, the researcher had sent following documents to the staff of the hospital: a letter from the Research Institute for Languages and Cultures of Asia, thesis proposal, measurement for data collection, participant information sheet, and informed consent form.

After receiving the permission from Lampang Hospital, the data collection process was conducted step by step as follows:

1. The leaflet concerning data collection was posted on the notice boards of the Lampang Hospital in order to recruit participants according to the inclusion criteria (only for schizophrenic speakers).

2. The staffs from the outpatient department of Lampang Hospital were requested to announce the researcher's research without any specific details. The researcher, then, provided details of the study with Participant Information Sheet when there was a volunteer according to inclusion criteria (see Schizophrenic speakers) who was willing to participate in the research.

3. After the participants reviewed the information in the Participant Information Sheet and were willing to participate, family members or close relatives signed Inform Consent Form

4. Data collection was collected with schizophrenic speakers in accordance to procedures as follows:

- 1) The schizophrenic speakers' tasks

Data collection consisted of three steps: general information, narrative discourse task, and questions about narrative discourse task, which were conducted in this order.

Step I: General Information: In this first step, schizophrenic speakers were required to answer some general questions concerning their state of illness. The reason why asking the questions is because the information received from the participants' response will be used as additional information in confirming participants' qualification whether participants were qualified according to the inclusion criteria. These questions were not accounted for data analysis. There were 2-4 questions, which took about five minutes. (See Appendix B)

Step II: Narrative Discourse Task: As previously stated in the purpose of the research that this present research aims to investigate characteristics of coherence in narrative discourse, therefore data in this step is used in data analysis, which was counted from the first second of the story told using a wordless picture book "A boy, a dog, a frog, and a friend" to the end of narrative discourse of each participant. This step took about 30 minutes. Notice that if the participants did not begin telling the

story from the picture book and begin talking about something else, that information was not used in data analysis. If there was a long pause during the participant's narrative discourse, the researcher then said *le:w⁶ caʔ⁵ day² tɔ:³ ca:w⁵* "What's next?" without involving in the content of story. If the researcher knew that the story nearly ended, but the participant did not end the story with an utterance such as *cop² le:w⁶* "end", but simply kept quiet, the researcher then said *cop² le:w⁶ kaʔ²* "Does it end?" to confirm that the participant finished his/her narrative discourse task. In case that too little narration was given in the narrative that was not enough for the analysis, the narrative discourse from that participant was not counted in the data analysis. Therefore, narrative discourse from other participant was required. To this point, new participant was recruited in accordance to the same inclusion criteria (see Schizophrenic speakers).

Step III: Questions about the narrative discourse task: This last step of data collection concerns questions in accordance with the narrative discourse task, which the participants were required to answer. These questions were used to confirm that the participants understand the story from what they has told, which was not counted in the data analysis, but was counted as an additional information for the discussion. There were 6 questions, which took about 10-15 minutes. The questions are provided in appendix C. In case that the participants continued telling their story, or started new story, the story told after these questions was not counted as the data analysis. Hence, the data used in the analysis is the data from step II (narrative discourse task). The audio recording was recorded from step I onwards.

2) The psychiatrists' tasks

After analyzing the entire narratives of the schizophrenic participants, three psychiatrists were requested to answer three tasks. The first task concerns with identifying types of positive formal thought disorder from the characteristics of narrative discourse of schizophrenic participants whether which types of positive formal thought disorder was the best match for each characteristic. The second task requires the psychiatrists to analyze examples of schizophrenic narratives and identify whether there is any type of positive formal thought disorder presented. And the third task requires the psychiatrists to answer a question concerning types of positive formal thought disorder (See Appendix D).

3.2.4 Data analysis procedure

The data collected from step II of the schizophrenic speakers' tasks was analyzed conforming to the following procedures:

1. Transcribed using phonemic transcription⁶
2. Divided the narratives into clauses, which comprises of clause complex and clause simplex
3. Analyzed using framework I: Cohesion (Halliday & Hasan, 1976) and (Hasan, 1984) Additional works: Channawangsa (1986) and Chuwicha (1986)
4. Analyzed using framework II: Cooperative principle (Grice, 1975)
5. Analyzed using framework III: Theme development - participant reference (Longacre, 1983) and storyline (Longacre, 1989) Additional work: Burusphat (1986)
6. Classified groups of schizophrenic speakers pursuant to the characteristics of their narrative discourses
7. Consulted with the psychiatrists who were recruited according to the inclusion criteria (See Psychiatrists) whether schizophrenic speakers can be characterized into groups, which is related to signs of positive formal thought disorder.

This chapter has presented research methodology, which comprises of research designs, data collection, which also includes participants of the research, measurements, administration and data collection procedure, and a short description of how data is analyzed. The following three chapters present some general and exceptional findings of the data analysis using cohesion, cooperative principle, and theme development, respectively.

Explanation on Chapter III

1. There are 15 schizophrenic participants in this present research that were recruited in accordance with the inclusion criteria.

2. Some inclusion criteria such as number 5, 7, and 8 are set in accordance with the MU-SSIRB (Office of The Committee for Research Ethics: Social Sciences, Mahidol University).

3. DSM-V and ICD-10 are the diagnosed criteria for the psychiatric disorders including schizophrenia, which are defined by the American Psychiatric Association.

4. The reasons why selecting the outpatient department of psychiatry at Lampang Hospital are as follows:

The researcher once had experienced observing and interviewing neurological and psychiatric patients at Lampang Hospital during October 15th to November 5th, 2012. In doing so, the researcher had completed the hospital ethic committee and other related procedures due to the hospital rights. Preliminary study on schizophrenic patients had also been done.

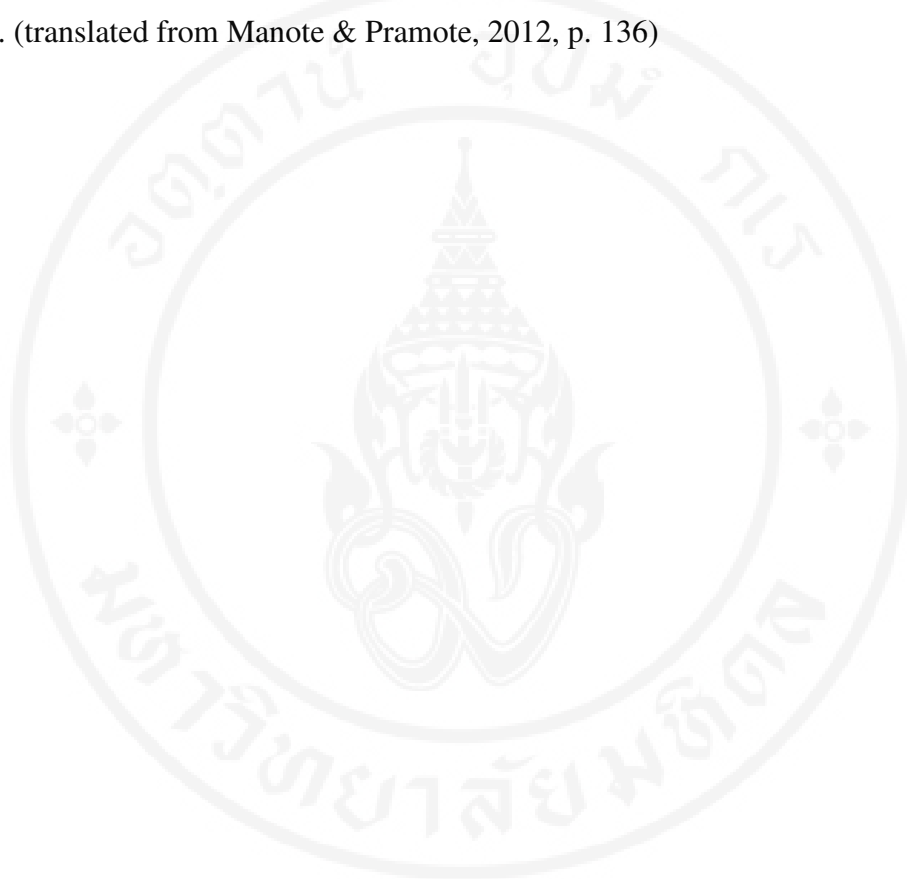
The number of schizophrenic patients who visit Lampang Hospital was relatively high (See Appendix E). For these reasons, researcher believes that choosing Lampang Hospital as the place for data collection is possible. Additionally, the reasons why not selecting psychiatric hospitals are as follows:

Schizophrenic patients who are hospitalized at the psychiatric hospitals tend to show uncommon behavior, which might cause harm to schizophrenic patients themselves and/ or to other people. In addition, they might have medical side effects and/or hospitalized in order to control medicine, or might have some problems in diagnosis (translated from Manote & Pramote, 2012, p. 136)

Due to the place of data collection (the outpatient department of psychiatry at Lampang Hospital) is located in northern region of Thailand, and participants according to inclusion criteria are required to speak northern Thai dialect; therefore transcription using Northern Thai phonemic transcription is based on the work of

Pankhuenkhat (1982) for consonant and vowel phonemes; and the work of Bunmee (2007) for tones.

5. The reason why not selecting in-ward patients for participant of the study is that in-ward patients are hospitalized due to several reasons such as uncommon behavior, medical side-effects, medicine control, or difficult to diagnose etc. (translated from Manote & Pramote, 2012, p. 136)



CHAPTER IV

COHESION

The present chapter deals with the findings of the data analysis using the comprehensive framework of Halliday and Hasan (1976) and Hasan (1984) – cohesion. The researcher begins with the key concepts of cohesion applied in this research. This chapter proceeds with cohesion analysis and its major findings. Some examples of the analysis as well as explanation are also illustrated. Summary of the chapter is provided at the end of this section.

4.1 Key concepts

In this present research, cohesion is seen as the connection between one linguistic element such as grammatical or lexical unit in one clause that ties to its interpretative source in the prior/ following clause(s), composing structural and/or semantic relationship. This interpretative source refers to any linguistic item that is realized by grammatical or lexical forms. Moreover, interclausal relation is adhered as the unit of analysis. Additionally, what is counted as cohesive ties has to be endophoric, which refers to element within the text. Therefore, elements that are exophoric are marked as non-cohesive, including ambiguous or unidentified tokens. As for tokens that create cohesive ties to other tokens in the discourse, but are unrelated to the current narrative of the picture book, these particular tokens will be marked as having cohesive, but irrelevant. This model of analysis can be summarized in figure 4.1 below.

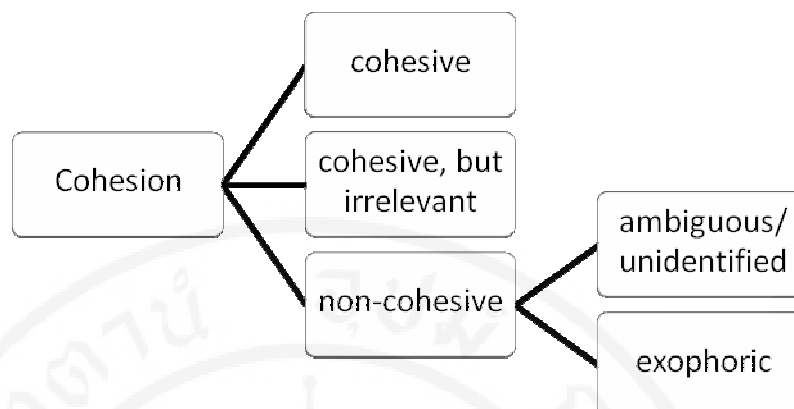


Figure 4.1 Model for cohesion analysis

Five cohesive ties are investigated, together with their sub-types and additional category of cohesion. Furthermore, this research also focuses on analyzing cohesion using Hasan's (1984) *Coherence and Cohesive Harmony*. The primary concern copes with the chain interaction, which further leads to the degree of coherence of each narrative. The following table illustrates characteristics of cohesion in narrative discourse of schizophrenic speakers.

Table 4.1 Characteristics of cohesion in narrative discourse of schizophrenic speakers

Cohesion	General findings	Exceptional findings
Cohesive ties in general	• Reference > lexical cohesion > conjunction > ellipsis > substitution in terms of frequency of occurrence • The percentage of tokens that are cohesively tied to total tokens ranges from 40% - 100%. • Some conjunctive elements and lexical items can be classified into more than one category due to several cohesive functions.	• Some narratives contain tokens that are cohesively tied, but irrelevant to the scope of the picture book. Some items are exophoric with no tie, resulting in non-cohesive tokens. • Some narratives result in 'highly cohesive' in terms of both grammatical and lexical cohesion, but they lack continuity of sense i.e. coherence.
Reference	• Third person pronouns are mostly applied as reference to the interpretative source. • Generic noun and noun phrase are listed as the sixth sub-category of pronominally used nouns in reference, which refer to noun or noun phrase that function as pronoun. • Most zero pronouns are in the subject position.	• First person pronouns such as <i>haw</i>² 'I/we', including kinship terms, personal names, occupation terms, and title terms are extensively applied in some narratives, which often result in exophoric. In contrast, there is no use of these terms at all in some narratives. • Cohesive pronominally used noun, especially generic reference and noun phrase reference are relatively applied as reference in some narratives, leading the narratives to become highly cohesive. However, there are some noun phrase references that occur mostly without referring to their sources in some narratives. • Zero pronouns are highly applied in some narratives without any interpretative source, which often lead to ambiguous and unidentified tokens. • None of demonstrative reference and comparative reference is applied as cohesive tie in some

Table 4.1 Characteristics of cohesion in narrative discourse of schizophrenic speakers (cont.)

Cohesion	General findings	Exceptional findings
		narratives, but when they occur, circumstance demonstrative reference is higher than participant demonstrative reference. Cohesive but irrelevant circumstance demonstrative references are double higher than those of completely cohesive. As for the comparative reference, it is the least occurring category of reference, which is cohesively used, but irrelevant to the narrative.
Substitution		No use of substitution is found in most narratives. However, when it occurs, only clausal substitution exists, which is usually cohesive but irrelevant.
Ellipsis	Nominal ellipsis is the most occurring sub-type among other ellipses.	Mostly, the elliptical items are cohesive but are irrelevant applied as cohesive tie in some narratives.
Conjunction	- Temporal conjunction is the most occurring category of conjunctive elements. - There are some conjunctive elements that can be added by noun or clauses to form temporal relationship.	All categories of conjunctive elements are cohesively used in some narratives. However, there are conjunctions that are applied in the context outside the picture book as well.
Lexical cohesion	'Same' item or lexical reiteration is the most occurring type of lexical cohesion. - The number of occurrence of superordinate, 'general' item, and collocation are rare.	Although there is no use of cohesive but irrelevant or non-cohesive lexical cohesion in some narratives, some of cohesive but irrelevant general items still exist in some narratives.
Hasan's Coherence and Cohesive Harmony (1984)	The ratio of Central Tokens (CT) to Peripheral Tokens (PT) and the percentage of Central Tokens (CT) to Total Tokens (TT) vary narrative by narrative.	- All narratives can be lined up in a cline from less coherent to more coherent. - The ratio of CT to PP ranges from 0.4 to 7.25. - The percentage of CT to TT results in 23% to 89%.

*General findings concern with the results from all narratives of schizophrenic speakers, while exceptional findings deal with the results from some narratives.

4.2 Characteristics of cohesion

This section presents characteristics of cohesion in schizophrenic narrative discourse. Some general as well as exceptional findings are provided simultaneously in accordance with categories of cohesive ties.

Among other cohesive ties, reference plays a significant role in most narratives, while substitution is the least occurring category. Lexical cohesion is the second most applied category, whereas conjunction and ellipsis are the third and the fourth occurring categories, respectively. In addition, some conjunctive elements and lexical items can be classified into more than one category due to their several cohesive functions.

While more than 1,000 times of tokens in some narratives are cohesive but irrelevant to the scope of the picture book and non-cohesive i.e. tokens that are exophoric with no tie, which are occurred in all sub-categories of cohesion, some schizophrenic speakers also use cohesive elements in appropriate manner i.e. cohesively use. The percentage of tokens that are cohesively tied to total tokens ranges from 40% - 100%, which means the higher percentage, the more cohesive a narrative is. However, there are some narratives that result in 'highly cohesive' in terms of both grammatical and lexical cohesion, but they lack continuation of senseness i.e. coherence. This point is illustrated in the example 4.1 as follows:

Example 4.1: Cohesion – lexical cohesion and reference: cohesive but not coherence

Clause 50:	bet ²	kin ¹	kay ³
	fishhook	eat	chicken
	The fishhook eats the chicken.		

Clause 51:	ma: ¹	p ^h ɔ: ³	taw ³
	dog	see	turtle
	The dog sees the turtle.		

Clause 52: kop² p^hɔ:³ taw³
 frog see turtle
 The frog sees the turtle.

Clause 53: ma:¹ kit⁵ bet²
 dog think fishhook
 The dog thinks of the fishhook.

Clause 54: ma:¹ kin¹ taw³
 dog eat turtle
 The dog eats the turtle.

Clause 55: ma:¹ kin¹ bet²
 dog eat fishhook
 The dog eats the fishhook.

According to the above example, only reference and lexical cohesion has been applied as cohesive devices. And these two devices cover the entire narrative without the use of other cohesive devices. None of ellipsis, substitution and conjunction occurs at all. Moreover, there is less ambiguous, unidentified and exophoric tokens when analyzing the entire narrative. The result indicates that this narrative is highly cohesive. However, there are several repeated clauses by the use of simple form – subject-verb-object structure without explicit conjunction. As a result, although this narrative is structurally cohesive, the content does not. Hence, cohesion cannot solely determine how coherent the narrative is, because a cohesive narrative does not mean that the narrative is coherent at all time.

4.2.1 Reference

Reference governs most part of all schizophrenic narratives. It can be divided into three sub-categories: pronominals, demonstratives, and comparatives. Correspondingly, cohesive pronominally used noun in some narratives results in the highest number, which usually leads the narratives to become highly cohesive. Zero

pronouns and pronouns are the second and the third most occurring categories. In contrast, zero pronouns are also extensively used in some narratives and most of them are cohesive but irrelevant. Moreover, first person pronouns are also applied to a great extent. Personal pronouns, kinship terms, personal names, occupation terms, and title terms are mostly cohesive but irrelevant and non-cohesive. The use of these cohesive devices noticeably distinguishes endophoric context from exophoric context. Moreover, unidentified tokens are usually caused by the use of noun phrase references, which occurs mostly without referring to their sources, resulting in non-referential cohesive. Although none of demonstrative reference and comparative reference occurs as cohesive tie in some narratives, when they occur, most of them are cohesive but irrelevant circumstance demonstrative references, which are double higher than those of cohesive as well as participant demonstrative reference in some narratives.

1) Pronominal reference

As for pronominal reference, this category consists of four sub-categories: personal pronouns, pronominally used nouns, zero pronouns and possessives. However, the researcher found that schizophrenic speakers also apply nouns and noun phrases to refer to the linguistic sources as well. This is illustrated later below in generic and noun phrase reference.

a. Personal pronouns

Personal pronouns are first, second, and third person, which varies in forms. In typical Northern Thai dialect, personal pronoun that usually applies to refer to the speaker i.e. first person is *haw*² 'I or we'. Moreover, this personal pronoun *haw*² can also refer to the listener, which means 'you'. The difference of the singularity 'I' or plurality 'we' as well as the listener 'you' depends on the context where the speech takes place. Since this personal pronoun can refer to the speaker(s) and/ or the hearer, it cannot be accounted for as cohesive, because it is considered as exophoric reference. These personal pronouns include (1) first person pronouns 'I' such as *pən*⁴, *tuə*¹*kaw*³, *p^hom*¹ and *ku*². Moreover, *pən*⁴ can either refer to the speaker himself or third person pronoun as well. (2) second person pronouns 'you' include *tuə*¹ and *miŋ*². And (3) third person pronouns 'they', 'it', 'he/ she' include *man*², *kə*², *pən*⁴, *k^haw*¹, *mu*³*k^haw*¹.

Most pronouns applied as reference to the interpretative source in the narratives of schizophrenic speakers are third person pronoun, which are *man*² ‘it’, *pən*⁴ ‘he/ she/ they’, and *k^haw*¹ ‘he’. First person pronouns such as *haw*² ‘I/we’ are extensively applied in some narratives, which is often considered to be non-cohesive. In contrast, there is no use of these exophoric personal pronouns at all in some narratives. Example 4.2 and 4.3 illustrate non-cohesive use of the first person pronoun *p^hom*¹ ‘I’, and third person pronoun *pən*⁴ ‘he/it’, respectively.

Example 4.2: Cohesion – personal pronoun: non-cohesive – exophoric

Clause 28: suŋ³nak⁵ kɔ:⁴ ce:²raŋ³ca:² kap² kop²
 a dog CON. negotiate CON. a frog
 ‘Then, the dog negotiates with the frog.’

Clause 29: tɔ:n¹han⁵ p^hom¹ kɔ:⁴ kɔ:y² ce:²raŋ³ca:²
 ADV. I AUX. was negotiate
 ŋa:n² kap² p^hu:⁴wa:⁴
 work CON. governor
 ‘At that time, I also negotiated work with the governor.’

*p^hom*¹ ‘I’ in clause 29 is exophoric personal pronoun that is not counted as cohesive.

Example 4.3: Cohesion – personal pronoun: non-cohesive – ambiguous

Clause 9: lɛ:w⁶ mɔ:¹han⁵ kɔ:⁴ wiŋ⁴
 CON. that child AUX. run
 ‘Then, that child runs.’

Clause 10: mi:² taw³
 there is/ there are a turtle
 ‘There is a turtle.’

Clause 11: taw³ ka:p² k^hɔ:¹
 the turtle hold a fishhook
 ‘The turtle holds a fishhook in his mouth.’

Clause 12: lɛ:w⁶ pən⁴ kɔ:⁴ naŋ⁴ laŋ¹ma:¹
 CON. he/it AUX. sit on the dog’s back
 ‘Then he/ it sits on the dog’s back.’

This personal pronoun pən⁴ ‘he/it’ can refer to either the child or the turtle. Hence, this personal pronoun causes ambiguity, therefore it is considered to be non-cohesive.

b. Pronominally used nouns

Pronominally used noun is the term coined by Chanawangsa (1986), which refers to nouns that use as pronouns. This present research found that there is generic noun and noun phrase reference¹ as the sixth sub-category that can be included in pronominally used nouns other than personal names such as p^hɔ:n²t^hip⁵ ‘Phonthip’ and sri:¹t^hɔ:ŋ² ‘Srithong’; kinship terms such as nɔ:ŋ⁶ ‘younger sister’ and mɛ:⁴ or ʔi:³mɛ:⁴ ‘mother’; occupation terms such as mɔ:¹ ‘a doctor’, tam¹rua:t³ ‘a policeman’; and title terms such as p^hu:⁴wa:⁴ ‘governor’, k^hun²yɪŋ¹ ‘lady’.

These generic nouns and noun phrase references refer to noun or noun phrase that functions as pronoun. The researcher defines this noun reference as ‘generic reference’ due to the referent terms are generic. Additionally, there are noun phrases that are used as referent terms in the some narratives. These are (1) noun that is attached by post-modifier ni:⁶ ‘this’ or han⁵ ‘that’ such as laʔ³ʔɔ:n³ni:⁶ ‘this child’, ma:¹tuə:¹han⁵ ‘that dog’, kop²ni:⁶ ‘this frog’ and the like. These noun plus post-modifier can be defined as ‘demonstrative noun phrase’; (2) nouns with conjunction lɛ:⁵ ‘and’ such as suʔ³nak⁵ kop² lɛ:⁵ taw³ ‘a dog, a frog and a turtle’; (3) noun phrase with or without head noun such as la:y¹k^hon²han⁵ ‘those many people’, sɔ:ŋ¹sa:m¹tuə:¹ni:⁶ ‘these two three [things]’, sa:m¹k^hon² ‘three people’, and sa:m¹tuə:¹ ‘three things’.

On the one hand, pronominally used noun is highly used as referent item, which is more than pronominal in some narratives. The most occurring sub-type are noun phrase reference and generic reference. Moreover, in some narratives there is no use of personal name, friendship term, occupation term, and title term at all. On the other hand, the uses of these terms, which are accounted for as cohesive but irrelevant and non-cohesive, are more than the cohesive items. There are also some noun phrase references that occur mostly without referring to their sources in some narratives, which is illustrated in the example 4.4 as follows:

Example 4.4: Cohesion – pronominally used noun (noun phrase reference): non-cohesive

Clause 224.1: $\emptyset$ day⁵ pla:¹ ma:² maʔ³ day⁵ pla:¹ ma:²
 zero pronoun get fish come NEG. get fish come
 ‘[$\emptyset$ = zero pronoun] gets a fish or not,...’

maʔ³ hu:⁶
 NEG. know
 ‘I don’t know.’

Clause 224.2: $\emptyset$ maʔ³ day⁵ p^hɔ:³ nay² hɔŋ⁵
 zero pronoun NEG. get see PREP. room
 ‘[$\emptyset$ = zero pronoun] does not see in the room.’

Clause 225: la:y¹ k^hon² han⁵ bɔ:k³
 many CLASS. DEM. tell
 ‘Those people tell.’

Noun phrase reference *la:y¹k^hon²han⁵* ‘those people’ is not referred to any previous source in the text as well as this noun phrase reference is also considered as exophoric as the speaker does not provide cohesive tie within the narrative of the picture book.

In addition, another point has been raised in the analysis of pronominally used noun, or pronoun in general. While some speakers rarely apply

sub-types of pronominally used nouns/ pronouns in their narratives, the narratives are considered to be ‘more cohesive’ in terms of both structure and content. In contrast, narratives of some speakers are full with wide range cohesive elements, but the narratives result in ‘less cohesive’, because of lacks structural links. Hence, it can be inferred that more use of various kinds of cohesive devices in a narrative does not always make the narrative to become ‘highly cohesive’.

c. Zero pronouns

Zero pronoun is another form of reference that is provided by unrealized linguistic element. In this present research, ambiguous, unidentified and exophoric zero pronouns are not accounted for as cohesive tie. Moreover, first mentioned zero pronoun is also not cohesive. It has been found that most of zero pronouns that are applied in the narratives are in the subject position. Zero pronouns in the object and possessive positions are rarely occurred. It is also found that zero pronouns that are used cohesively but irrelevant as well as non-cohesively are applied more than cohesive ones in some narratives. In this category, cohesive but irrelevant zero pronoun is more than any category of reference. Example 4.5 illustrates the use of non-cohesive zero pronoun.

Example 4.5: Cohesion – zero pronoun: non-cohesive (ambiguous)

Clause 72:	haw ²	kɔ: ⁴	naŋ ⁴	bɔ: ³ da:y ²
	participant/ the speaker	CON.	sit	nothing
	‘participant/ the speaker, then, is sitting down, doing nothing.’			
Clause 73:	∅	naŋ ⁴	bɔ: ³ da:y ²	
	<u>zero pronoun</u>	sit	nothing	
	‘[∅ = zero pronoun haw ² ‘participant/ the speaker?'] is sitting, doing nothing.’			
Clause 74:	lɛ:w ⁶	∅	kɔ: ⁴	com ³ bet ² lɛ:w ⁶
	CON.	<u>zero pronoun</u>	CON.	fish ASP.
	‘And [∅ = zero pronoun haw ² ‘participant/ the speaker?'] has fished already.’			

Zero pronoun in example 4.5 is ambiguous. It can either refer to participant in the narrative or the speaker himself. This is due to the unidentified pronoun *haw*² in clause 72, which can be used as first person pronoun, in this case – the speaker. Hence, the zero pronoun applied here is non-cohesive. This indicates that the speaker does not avoid ambiguity.

d. Possessive pronouns

Possessive pronoun is the combination of the preposition *k^hɔːŋ*¹ ‘of’ and the pronouns or nouns, resulting in possession, which involves possessor and possessed. Sometimes, the preposition *k^hɔːŋ*¹ ‘of’ can be omitted. In order for possessive pronoun and possessive determiner to be cohesive, the possessed is required to have an anaphoric tie to the earlier possessor. Most possessive pronouns in the narratives of schizophrenic speakers are cohesive but irrelevant and non-cohesive. However, only some of them are counted as cohesive. Example 4.6 illustrates the use of possessive pronouns as non-cohesive tie.

Example 4.6: Cohesion – possessive pronouns: non-cohesive (exophoric)

Clause 76: nok⁵ yaŋ² ma:² hɔːŋ⁶ tuə:y² na:¹
 bird PRE. come call too PAR.
 ‘A bird calls too.’

Clause 77: lɛ:w⁶ man² kɔː⁴ cɔɰ²cɔŋ²
 CON. it CON. be specific
 ‘And it is specifically...

ma:² hɔːŋ⁶ hɔŋ⁵ p^hɔːn²t^hip⁵ tuə:y na:
 come call room Phonthip too PAR.
 calls at Phonthip’s room.’

Example 4.6 shows the use of possessive pronoun *hɔŋ*⁵ *p^hɔːn²t^hip*⁵ ‘Phonthip’s room’, without preposition *k^hɔːŋ*¹ ‘of’ in clause 77. This

possessive pronoun is exophoric due to the personal name 'Phonthip' cannot be identified. Hence, it is marked as non-cohesive (See Appendix H in CD).

2) Demonstrative reference

Another sub-category of reference handles demonstrative, which can be referred to either participant or circumstance. Demonstrative reference is rarely applied in schizophrenic narratives, comparing to higher number of pronominals. In specify, it has been found that non-cohesive demonstrative reference is likely to be applied more than the cohesive one. However, none of these references occurs at all in some narratives. Accordingly, there are two types of demonstrative reference – participant demonstrative reference and circumstance demonstrative reference.

Participant demonstrative reference is sub-divided into two further sub-types – demonstrative pronoun and demonstrative determiner according to the distance from the nearest to the furthest such as *ni*:⁶ 'this', *han*⁵ 'that', *pu:n*⁶ 'these/those' etc. In this present research, the only participant demonstrative reference that is cohesively used is *niə*:⁵ 'this', which is combined with the premodifier *p^huə:k*⁴ or *mu*:³ 'a group of', becoming *mu*:³*niə*:⁵ 'these' forming plurality.

Circumstance demonstrative reference is a reference to a specific place or time in a particular context. Similar to participant demonstrative reference, circumstance demonstrative reference can be divided into two sub-types according to the distance from the nearest to the furthest, which comprises of place adverbials and time adverbials. Apart from *ti*:⁴*ni*:⁵ 'here', *ni*:⁵ 'here', *taŋ*²*ni*:⁶ 'here', *han*⁵ 'there', *po:n*⁶ 'over there', *tɔ:n*¹*han*⁵ 'then', *cuə:ŋ*⁴*han*⁵ 'then/ at that time', *cuə:ŋ*⁴*ni*:⁶ 'now, recently' also function as circumstance demonstrative reference.

None of demonstrative reference is applied as cohesive tie in some narratives, but when it occurs, circumstance demonstrative reference is higher than participant demonstrative reference. Cohesive but irrelevant circumstance demonstrative references are double higher than those of cohesive. Example 4.7 indicates participant demonstrative reference that is non-cohesively applied.

Example 4.7: Cohesion – participant demonstrative reference: non-cohesive (ambiguous)

Clause 72: lɛ:w⁶ taw³ kɔ:⁴ ka:p⁴ bet² way⁶
 CON. turtle CON. hold fishhook PAR.
 ‘And then, the turtle holds a fishhook into his mouth.’

Clause 73: k^hon² na:⁵caʔ³ di:²cay¹
 human may be happy
 ‘A person seems happy.’

Clause 74: lɛ:w⁶ laʔ³ʔɔ:n³ kɔ:⁴ caʔ³ pik⁵ ba:n⁵
 CON. child CON. will go back house
 ‘And the child will go back home.’

Clause 75: ni:⁵ miə:n¹ k^hon²t^hɛ:w¹ba:n⁵ nɔ:ŋ⁶
DEM. seem like neighbor I
 ‘This is like my neighbor.’

Participant demonstrative determiner *ni:*⁵ ‘this’ is ambiguous in this example. The interpretative are in two folds. Firstly, if interpreting *k^hon²* ‘a human being’ in clause 73 as similar person to *laʔ³ʔɔ:n³* ‘a child’ in clause 74, the demonstrative determiner *ni:*⁵ ‘this’ is not ambiguous, it definitely refers to *k^hon²* ‘a human being’ and *laʔ³ʔɔ:n³* ‘a child’. However, if considering *k^hon²* ‘a human being’ and *laʔ³ʔɔ:n³* ‘a child’ as separate participants, the demonstrative determiner *ni:*⁵ is ambiguous, whether it refers to either *k^hon²* ‘a human being’ or *laʔ³ʔɔ:n³* ‘a child’. Secondly, another participant can be accounted for as interpretative source, which is *taw³* ‘the turtle’. Since *ni:*⁵ ‘this’ is not strict to only human being, *ni:*⁵ ‘this’ can also be referred to animal like *taw³* ‘a turtle’ as well. Therefore, due to the ambiguity of interpretation, this demonstrative determiner is non-cohesive.

3) Comparative reference

The third and last category of reference associates with comparative reference. In order for cohesion to be established, a linguistic element must be

comparable with the other linguistic element(s) within the text. In this present research, comparative reference is the least occurring category of reference, with general comparative reference as the only sub-category in the narratives. These are *muə:n¹* ‘same’, *yaŋ³kap²* ‘like’, *yaŋ³* ‘like’, *muə:n¹kap²* ‘same as’, and *muə:n¹kan¹* ‘same’ as identity for general comparative. As for similarity, elements found are *caʔ²ʔiə⁵* ‘like this’, *yaŋ³ŋi⁶* ‘like this’, *yaŋ³ʔan⁵* ‘like that’, *caʔ²ʔan⁵* ‘like that’, *ʔi⁵* ‘like’, *caʔ²ni⁶* ‘like this’, *ʔiəʔ⁵* ‘like this’. Additionally, none of particular comparative reference is found in all narratives. Example 4.8 indicates the use of *caʔ²ʔan⁵* ‘like that’ as comparative reference, creating cohesive but irrelevant tie.

Example 4.8: Cohesion – comparative reference: cohesive but irrelevant

Clause 42: $\emptyset$ caʔ³ k^hwɛ:n¹ k^hɔ:² ta:y¹ na:¹niʔ⁴
 zero pronoun will hang neck die PAR.
 ‘[$\emptyset$ = zero pronoun] would like to commit a suicide.’

Clause 43: ni:⁵ k^haw¹ wa:⁴ caʔ²pay² yaʔ⁵ caʔ²ʔan⁵
 DEM. he/they say NEG. do like that
 ‘They said that I should not do like that.’

Clause 44.1: $\emptyset$ yaʔ⁵ caʔ²ʔan⁵
 zero pronoun do like that
 ‘[$\emptyset$ = zero pronoun] should not do like that.’

Clause 44.2: man² ba:p³ na:¹
 it sin PAR.
 ‘It’s a sin.’

This similarity comparative reference *caʔ²ʔan⁵* ‘like that’ refers back to *k^hwɛ:n¹k^hɔ:²ta:y¹* ‘commit a suicide’, which does not belong to the context of the picture book. Hence, in this case *caʔ²ʔan⁵* ‘like that’ is cohesive but irrelevant.

All in all, the first two types of reference, pronominal and demonstrative references concern one element that creates co-referential ties with the other element in the discourse in an inter-clausal relation, whereas comparative reference is formed by comparing one element to the other element in the discourse, also inter-clausally.

4.2.2 Substitution

Substitution addresses a replacement of one item by using the other item. It forms a co-classification relationship, while the previous cohesive device - reference, creates a co-referential relationship. In the analysis, substitution is the least occurring category among other cohesive tie. Moreover, the substituted elements encountered in this research are mostly cohesive but irrelevant, whereas none of this category occurs at all in some narratives. Furthermore, there is only clausal substitution occurred by the use of these substituted words: *yaŋ¹ʔan⁵*, *yaŋ¹ʔi:⁵*, *caʔ³ʔi:⁵*, *caʔ³ʔiəʔ⁵*, *caʔ³ni:⁵*, *ʔi:⁵*, and *ʔiəʔ⁵*. All of them mean ‘so’. Example 4.9 illustrates non-cohesive clausal substitution.

Example 4.9: Cohesion – substitution: non-cohesive (ambiguous)

Clause 178: *ma:¹* *tuə:¹* *han⁵* *mu:p³* *way⁶*
 dog CLASS. DEM. lie down PAR.
 That dog lies down.’

Clause 179: *laʔ⁵* *laʔ³ʔən³* *han⁵* *kɔ:⁴* *caʔ²* *pik⁵* *ba:n⁵*
 CON. child DEM. CON. will go back house
 ‘And that child will go back home.’

Clause 180: $\emptyset$ pik⁵ ban⁵ lɛ:w⁶
 zero pronoun go back house ASP.
 '[$\emptyset$ = zero pronoun *laʔ³ʔɔn³* 'the child' has gone back home already.]'

Clause 181: $\emptyset$ pen¹ yaŋ¹ʔiəʔ⁵
 zero pronoun verb to be so
 'It is so.'

Firstly, consider a zero pronoun in the subject position in clause 180, it refers to the child as the clause is repeated. Hence, this zero pronoun is not ambiguous. In contrast, a zero pronoun in clause 181 is ambiguous. It can either refer to *ma:*¹ 'a dog' or *laʔ³ʔɔn³* 'a child' as there are two participants exist, but no other cohesive tie other than *yaŋ¹ʔiəʔ⁵* 'so' is provided in clause 181. Secondly, *yaŋ¹ʔiəʔ⁵* 'so' is considered to be ambiguous whether it substitutes either clause 178, or 179 and 180, or the entire clauses presented. Thus, it is reasonable to mark this substituted word as non-cohesive.

Hence, substitution does not play a significant role in creating cohesion in the narratives of schizophrenic speakers as reference or other cohesive ties do. In fact, this might be because typically Thai people rarely substitute item from one element with the other, rather Thais create cohesion mostly by deletion when the topic of particular discourse continues, or by repetition (Chanawangsa, 1986).

4.2.3 Ellipsis

Whereas substitution is replaced by an explicit linguistic item that has a similar structure to the interpretative source, ellipsis is replaced by zero. To this extend, similar to substitution, ellipsis coheres also by a co-classification relationship. Moreover, in order for an ellipsis to be cohesive, the process of ellipsis requires the listener's/the reader's ability in interpreting the source where the elliptical item is referred to. In this present research, ellipsis is the second least occurring category of cohesive tie. Nominal ellipsis is exhibited higher than verbal ellipsis and clausal ellipsis in most narratives. Mostly, the elliptical items are cohesively but irrelevant

applied as cohesive tie in some narratives. Example 4.10 illustrates the use of cohesive but irrelevant ellipsis.

Example 4.10: Cohesion – ellipsis (verbal): cohesive but irrelevant

Clause 49:	taw ³	na: ⁵ caʔ ²	ta:y ¹	lɛ:w ⁶	
	turtle	may be	die	ASP.	
	‘The turtle may be dead already.’				
...					
Clause 51:	tɛ: ³	man ²	mi: ²	yu: ³	ya:ŋ ³ nɔʔ ⁵
	CON.	it-cleft	have	verb to be	one thing PAR.
	‘but there is a thing.’				
Clause 52:	p ^h ay ¹	p ^h ay ¹	kɔ: ⁴	kluə: ¹	ta:y ¹ tiŋ ² nan ⁶ mɛn ⁴ kɔ: ³
	every one	CON.	fear	die	PAR. Q. Tag
	‘Everyone fears to die, does not he?’				
Clause 53:	nɔ:ŋ ⁶	kɔ: ⁴	kluə: ¹	∅	
	I	also	fear	<u>verbal ellipsis</u>	
	‘I also fear [∅ = verbal ellipsis ta:y ¹ ‘to die’]’				

In clause 53, although ta:y¹ ‘to die’ refers back to lexical word ta:y¹ in clause 52 as verbal ellipsis (nuclear as head), the context is fading outside the story of the picture book, where clause 49 is about the picture book. Therefore, this verbal ellipsis is considered as cohesive but irrelevant.

4.2.4 Conjunction

Unlike reference, substitution and ellipsis, conjunction concerns with a semantic relation between two clauses i.e. inter-clausal relationship. This relation is established by conjunctive elements. Each conjunctive element holds different functions. This research focuses on the external relationship i.e. semantic relationship of conjunctive elements. Additionally, another important point has been raised

whether implicit conjunctive element should be taken into concerns. Since implicit conjunctive element may be interpreted by different people differently, only explicit conjunctive element is taken into account in this research. Analysis found that conjunction is the third most occurring cohesive ties. While conjunctions are applied cohesively in some narratives, all sub-types of conjunction are presented cohesively but irrelevant in some narratives as well, because the use of these elements occurs mostly outside the context of the picture book.

In terms of sub-types of conjunction, four sub-types are identified: additive, adversative, causal, and temporal conjunction. Accordingly, temporal conjunctive element is the highest usage among other conjunctive elements. It can be sequential, simultaneous, or precedent. This category consists of elements such as *laʔ⁵t^hi:²ni:⁶* or *le:w⁶t^hi:²ni:⁶* ‘and then’; *laŋ¹ca:k³han⁵* ‘after that’; *sut²t^ha:y⁶le:w⁶* ‘finally’; *c^huəŋ⁴niəʔ⁴* ‘recently’, *tɔ:n¹han⁵* ‘at that time/ by then’ etc. Some of this conjunctive elements can be added by noun or clauses to form temporal relationship such as *tɔ:n¹yam²nɔ:y⁵* ‘when I was young’, *taŋ⁵tɛ:³tɔ:n¹laʔ³ʔɔn³* ‘since I was a child’. Furthermore, as for additive, it signifies the coordination and contrast, which functions as adding more information in the narratives. These elements are *laʔ⁵kɔ:⁴*, *le:w⁶*, or *le:w⁶kɔ:⁴*, which mean ‘and’, *tɛ:³* or *tɛ:³le:w⁶* ‘but’ etc. Moreover, adversative relation creates and makes the unexpected element to come after for example *tɔ:n¹re:k⁴* ‘at first, *ʔɔw²pay²ʔɔw²ma:²* ‘as a result’, *k^haʔ²naʔ²ti:⁴* ‘while’. Adversative relation is the least occurring sub-type of conjunction. The last sub-type of conjunction deals with causal relation, which expresses the cause of the element that comes after the proceeded elements. These are such as *p^hɔ:²* ‘when’, *p^hrɔʔ⁵* ‘because of’, *p^hrɔʔ⁵wa:⁴* ‘because’, *kɔ:⁴* ‘then’, *kɔ:⁴lə:y²* ‘so’ etc. Example 4.11 indicates a conjunctive element, which is cohesively but irrelevant used.

Example 4.11: Cohesion – conjunction (temporal): cohesive but irrelevant

Clause 69.1: p^hɔ:² ∅ pay² suə:⁶ ∅ lɛ:w⁶
 CON. zero pronoun₁ go buy zero pronoun₂ ASP.
 ‘When [∅ = p^hom¹ ‘I/ the speaker’ in clause 68.3] have bought [∅ = ba:n⁵ ‘house’ in clause 68.2] already’

Clause 69.2: p^hom¹ kɔ:⁴ cam¹ day⁵
 I/the speaker AUX. remember get
 ‘I/the speaker can remember’

Clause 69.3: wa:⁴ ∅ pen¹ ban⁵ tɛ:⁶
 that zero pronoun verb to be house EMP.
 ‘that it is actually a house.’

Clause 70.1: lɛɰ⁵ca:k³han⁶ ∅ pen¹ ba:n⁵
CON. zero pronoun verb to be house
 ‘Thereafter it is the house,’

Clause 70.2: ti:⁴ nay²luə:ŋ¹ p^hraɰ⁵ra:t⁴c^haɰ²h^a:n² huə:⁵ tɛ:⁶
 that the king give PREP. ADV.
 ‘that the king actually gave.’

This conjunctive element *lɛɰ⁵ca:k³han⁶* ‘thereafter’ is considered as relating the previous clause 69 to 70 by means of temporal relation. However, this extract of text situated in the context outside the picture book, where the text does not related to the picture book. For this reason, the conjunctive element is considered to be cohesive but irrelevant.

It is necessary to mark here that some conjunctive elements can be classified into more than one type due to several cohesive functions. Additionally, although conjunction is relatively important in creating textual relation, it has been found to be lesser significant than the forthcoming category – lexical cohesion.

4.2.5 Lexical cohesion

Lexical cohesion is defined as the relationship among lexical items or phrases between one part and the other previous part(s) of the discourse. This type of cohesion differs from other previously mentioned types in the way that it concerns with lexical item, whereas other cohesive ties involve with grammatical item.

In this research, lexical cohesion is the second most occurring category of cohesive tie with the occurrence of all five sub-types. It has been found that ‘same’ item or lexical reiteration is the most occurring sub-type, while synonym or near synonym is the second. The third to the fifth sub-types – superordinate, general item, and collocation, are rare. In specify, although there is no use of non-cohesive lexical cohesion in some narratives, some of these items still exist in some narratives cohesively irrelevant and non-cohesively.

In terms of sub-types of lexical cohesion, although ‘same’ item i.e. repetition is the most occurring sub-types, repetition that occurs in the exophoric context, where no chain is established, is found more than the cohesive one. Example of repetition are *cuə:y*⁴ - *cuə:y*⁴ ‘help’, *cəm³bet²* - *cəm³bet²* ‘to fish’ etc. Another sub-type deals with synonym or near synonym, which creates through the synonymous in sense-relation of two or more lexical items. This sub-type also includes antonym as part of this sense-relation relationship. In this present research, synonym also plays a significant role in some narratives, although not a great deal in all narratives. Examples of this type are *han*¹ ‘see’ - *p^hɔ:³* ‘look’, *tok²cay*¹ ‘frightened’ – *di:²cay*¹ ‘glad’, *mi:⁵* ‘friend’ - *piə:n*⁴ ‘friend’, *taŋ²k^hwa:¹* ‘right’ - *taŋ²sa:y*⁶ ‘left’ etc.

In addition, superordinate is the relationship whereby one word is related to the other word by means of general meaning. For example, the superordinate of *taw*³ ‘turtle’ is animal; for *biə:³* ‘boring’ is *k^ha:m²hu:⁶suk²* ‘feeling’ etc. This sub-type of lexical cohesion is relatively rare, and it is mostly characterized as cohesive but irrelevant in some narratives. Similar to superordinate, the number of ‘general’ item is small. Moreover, some of cohesive but irrelevant general item are also found in some narratives. ‘General item’ are for example *k^hon*² ‘human’, *sat*² ‘animal’, *dek*² or *laP³Pɔn³* ‘child’, *ka:n*¹ ‘work’ etc. The last sub-type involves with the co-occurrence between one word and the other. In this present research, there are some occurrences

of collocation. Some examples of this type are *faŋ*¹ ‘bury’ – *ta:y*¹ ‘dead’, *mo:²ho:¹* ‘angry’ – *maʔ³pɔ:²cay¹* ‘unsatisfied’, *tok²na:m⁶* ‘fall down into the river’ – *com¹na:m⁶* ‘drown’, *t^ha:m¹* ‘ask’ – *tɔ:p³* ‘answer’ and the like. Example 4.12 indicates the use of cohesive but irrelevant elements as lexical cohesion.

Example 4.12: Cohesion – lexical cohesion (superordinate): cohesive but irrelevant

Clause 81: suə:n³ mu:¹ niəʔ⁴ man² muə:n¹ ka:n¹loŋ²t^hun²
 CON. pig DEM. it COMP. investigation
 ‘As for the pig, it is similar to an investigation.’

Clause 82.1: haw² maʔ³ hu:⁶
 I/we NEG. know
 ‘We do not know,’

Clause 82.2: wa:⁴ man² caʔ² k^ha:t³t^hun² ri:¹ day⁵t^hun²
 that it will lost CON. gain a profit
 ‘that it will make a lost or gain a profit.’

Lexical item *k^ha:t³t^hun² ri:¹ day⁵t^hun²* ‘lost or gain a profit’ in clause 82.2 lexically refers to its superordinate – *ka:n¹loŋ²t^hun²* ‘an investigation’ in clause 81. However, this lexical item cannot be accounted for as fully cohesive, because it belongs to the context outside the picture book. Hence, this lexical tie is considered as cohesive but irrelevant.

4.2.6 Hasan’s Coherence and Cohesive Harmony

As stated at the beginning of this chapter, coherence does not solely depend on the number of occurrences of cohesive ties. Hasan’s (1984) *Coherence and Cohesive Harmony* is also applied in the analysis of cohesion as well. In the analysis, what is considered as a “unified whole” is the “chain interaction”, which comprises of (1) “relevance token (RT)”, (2) “central token (CT)”, (3) “peripheral token (PT)”, and (4) “total token (TT)”. Example 4.13 illustrates the analysis using Hasan’s method.

Table 4.2 Example 4.13 Sample analysis using Hasan (1984) *Coherence and Cohesive Harmony*: clause boundary

Clause No.	Complex Clause	
	Simplex Clause	
1	kɔ: ⁴ mi: ² dek ² pɔ: ⁴ ca:y ² k ^h on ² niŋ ⁴ nɔ ² tok ² pla: ¹ There is a boy fishing.	
2	lɛ:w ⁶ pən ⁴ kɔ: ⁴ mi: ² su ² nak ⁵ He has a dog.	
3.1	tok ² pay ² tok ² ma: ² While he is fishing,	
3.2		kɔ: ⁴ tit ² bet ² something is caught
4	p ^h ɔ: ² tit ² bet ² lɛ:w ⁶ niɔ: ⁴ When something is caught,	[Ø] (clause is left unfinished.)
5	mi: ² su ² nak ⁵ lɛ:w ⁶ nɔ ² There is a dog, right?	
6	lɛ:w ⁶ kɔ: ⁴ tɔ:n ¹ ni: ⁶ kɔ: ⁴ pən ⁴ kɔ: ⁴ cak ² k ^h in ⁵ ma: ² And then he pulls the fishhook up.	
7.1	cak ⁵ k ^h in ⁵ ma: ² When he pulls up,	
7.2		lɛ:w ⁶ kɔ: ⁴ man ² koŋ ² nak ² the fishhook seems to be heavy
8.1	ʔɔw ² pay ² ʔɔw ² ma: ² p ^h ɔ: ² nak ² set ² When it is heavy,	
8.2		ʔɔ: ⁶ nay ² han ⁵ mi: ² taw ³ O! There is a turtle inside.
9	mi: ² su ² nak ⁵ tok ² loŋ ² pay The dog falls down into the river.	

Table 4.2 Example 4.13 Sample analysis using Hasan (1984) *Coherence and Cohesive Harmony*: clause boundary (cont.)

Clause No.	Complex clause	
	Simplex clause	
10	cak ² k ¹ in ⁵ ma: ² He pulls up.	
11	su ³ nak ² ko: ⁴ ʔu: ⁵ yu: ³ kap ² taw ³ The dog talks to the turtle,	
12	p ^h o: ² pən ⁴ pa ² na ² ʔ ¹ when he met	[Ø] (clause is left unfinished.)
13	pa ² kan ¹ They met.	
14.1	tok ² pay ² tok ² ma: ² While he is fishing,	
14.2		mi: ² kop ² ha:m ¹ there is a frog.
14.3		le:y ² cak ⁵ k ¹ in ⁵ ma: ² So, he pulls up.
15.1	cak ² l ^h in ⁵ pay ² cak ² k ¹ in ⁵ ma: ² He pulls up.	
15.2		ko: ⁴ pen ¹ piə:n ⁴ kan ¹ yu: ³ and becomes friends
16.1	pen ¹ piə:n ⁴ kan ¹ and becomes friends	
16.2		pen ¹ kop ² pen ¹ su ³ nak ⁵ la ² k ⁵ ko: ⁴ pen ¹ [Ø] the frog, the dog and [clause left unfinished]
17	dek ² yu: ³ tuə: ¹ k ¹ on ² diə:w ² the child who lives alone	

Table 4.2 Example 4.13 Sample analysis using Hasan (1984) *Coherence and Cohesive Harmony*: clause boundary (cont.)

Clause No.	Complex clause	
	Simplex clause	
18.1	le:w ⁶ ko: ⁴ pen ¹ piə:n ⁴ kan ¹ mot ² They all become friends	
18.2		pen ¹ kop ² pen ¹ taw ³ pen ¹ su ² nak ³ the frog, the turtle, the dog
19	ta ² ko:n ³ dek ² ko: ⁴ dek ² ko: ⁴ yu: ³ tuə: ¹ k ^h on ² diə:w ² nɔŋ ² At that time, the boy lives by himself.	
20	cuə:y ⁴ tuə: ¹ kaw ³ ma ² day ⁵ naŋ ¹ He cannot do anything.	

Free translation:

There is a boy. He is fishing. While he is fishing, something is caught. When something is caught... There is a dog. Now he pulls up, pulls up and it might be heavy. And when it is heavy,... Oh! There is a turtle. The dog falls down into the river. Pull up, and the dog talks to the turtle. When he met,... He met. While he is fishing, there is a frog. Then, he pulls up. Pull up, and they become friends. They become friends, the frog, the dog, and the boy living alone. They become friends, the frog, the turtle, and the dog. At that time, the boy stays by himself. He cannot do anything (See Appendix H in CD).

Table 4.3 Sample analysis using Hasan (1984) *Coherence and Cohesive Harmony*: analysis

Clause No.	Cohesive devices	Type	Interpretative source	Phoric status	Chain formation
2	lɛ:w ⁶ and pən ⁴ he	C1	Conjunction		
3.1	Ø = Zero pron.	R1.1	dek ² pɔ: ⁴ ca:y ² k ^h on ² niŋ ⁴ a boy	Anaphoric	2-1
		R1.3	dek ² pɔ: ⁴ ca:y ² a boy	Anaphoric	3.1-2-1
		L2	tok ² pla: ² to fish	Anaphoric	3.1-1
3.2	Ø = Zero pron.	R1.3	pla: ¹ fish	Anaphoric	3.1-1
	Ø = Zero pron.	R1.3	pla: ¹ fish	Anaphoric	3.2-3.1-1
4	p ^h ɔ: ² when	C3	Conjunction, but no tie	?	?
5	tit ² bet ² is caught (passive)	L1	tit ² bet ² is caught (passive)	Anaphoric	4-3.2
	Ø = Zero pron.	R1.3	dek ² pɔ: ⁴ ca:y ²	Anaphoric	5-3.1-2-1
	su p ³ nak ⁵ dog	R1.2	su p ³ nak ⁵ dog	Anaphoric	5-2
6	lɛ:w ⁶ kɔ: ⁴ then	C4	Conjunction		
	pən ⁴ he	R1.1	dek ² pɔ: ⁴ ca:y ² a boy	Anaphoric	6-5-3.1-2-1

Table 4.3 Sample analysis using Hasan (1984) *Coherence and Cohesive Harmony*: analysis (cont.)

Clause No.	Cohesive devices	Type	Interpretative source	Phoric status	Chain formation
	∅ = Zero pron.	R1.3	?	?	?
7.1	∅ = Zero pron.	R1.3	dekpo:ca:y	Anaphoric	7.1-6-5-3.1-2-1
	cakkinma: pull up	L1	cakkinma: pull up	Anaphoric	7.1-6
7.2	le:w ⁶ ko: ⁴ then	C4	Conjunction		
	man ² it	R1.1	?	?	?
8.1	p ^h o: ² when	C3	Conjunction		
	Zero pron.	R1.3	man ² it	?	?
	nak ² heavy	L1	nak ² heavy	Anaphoric	8.1-7.1
8.2	han ⁵ there	R2.2	?	?	?
9	su ² nak ³ dog	R1.2	su ² nak ³ dog	Anaphoric	9-5-2
10	∅ = Zero pron.	R1.3	man ² ? it	?	?
	cak ⁵ k ^h in ⁵ ma: ² pull up	L1	cak ⁵ k ^h in ⁵ ma: ² pull up	Anaphoric	10-7
11	su ² nak ³ dog	R1.2	su ² nak ³ dog	Anaphoric	11-9-5-2

Table 4.3 Sample analysis using Hasan (1984) *Coherence and Cohesive Harmony*: analysis (cont.)

Clause No.	Cohesive devices	Type	Interpretative source	Phoric status	Chain formation
	taw ³ turtle	R1.2	taw ³ turtle	Anaphoric	11-8.2
12	p ^h ɔ: ² when	C3	Conjunction	?	?
	pən ⁴ I/he/they	R1.1	?	?	?
	∅ = Zero pron.	R1.3	?	?	?
13	paɲ ² meet	L1	paɲ ² meet	Anaphoric	13-12
	∅ = Zero pron.	R1.3	?	?	?
14.1	∅ = Zero pron.	R1.3	?	?	?
	tok ² pay ² tok ² ma: ² fish	L1	tok ² pay ² tok ² ma: ² fish	Anaphoric	14.1-3.1
14.2	∅ = Zero pron.	R1.3	?	?	?
	cak ⁵ k ^h in ⁵ ma: ² pull up	L1	cak ⁵ k ^h in ⁵ ma: ² pull up	Anaphoric	14.2-10-7
15.1	∅ = Zero pron.	R1.3	?	?	?
	cak ⁵ k ^h in ⁵ pay ² k ^h in ⁵ ma: ² pull up	L2	cak ⁵ k ^h in ⁵ ma: ² pull up	Anaphoric	15.1-14.2-10-7
15.2	∅ = Zero pron.	R1.3	?	?	?
16.1	∅ = Zero pron.	R1.3	?	?	?
	pən ¹ piə:n ⁴ kan ¹ become friend	L1	pən ¹ piə:n ⁴ kan ¹ become friend	Anaphoric	16.1-15.2

Table 4.3 Sample analysis using Hasan (1984) *Coherence and Cohesive Harmony*: analysis (cont.)

Clause No.	Cohesive devices	Type	Interpretative source	Phoric status	Chain formation
16.2	kop ² frog	R1.2	kop ² frog	Anaphoric	16.2-14.1
	su ² nak ⁵	R1.2	su ² nak ⁵	Anaphoric	16.2-11-9-5-2
	dog		dog		
	Ø = Zero pron.	R1.3	?	?	Unfinished sentence
17	dek ² child	R1.2	dek ² pə: ⁴ ca:y ² a child	Anaphoric	17-7-6-5-3.1-2-1
18.1	le:w ⁶ kə: ⁴ then	C4	Conjunction		
	Ø = Zero pron.	R1.3	?	?	?
	pen ¹ piə:n ⁴ kan ¹ become friend	L1	pen ¹ piə:n ⁴ kan ¹ become friend	Anaphoric	18.1-16.1-15.2
18.2	kop ² frog	R1.2	kop ² frog	Anaphoric	18.2-16.2-14.1
	taw ³ turtle	R1.2	taw ³ turtle	Anaphoric	18.2-11-8.2
	su ² nak ⁵ dog	R1.2	su ² nak ⁵ dog	Anaphoric	18.2-16.2-11-9-5-2
19	ta ² kə:n ³ at that time	R2.2	?	Exophoric	?
	dek ² child	R1.2	dek ² pə: ⁴ ca:y ² a child	Anaphoric	19-17-7-6-5-3.1-2-1

Table 4.3 Sample analysis using Hasan (1984) *Coherence and Cohesive Harmony*: analysis (cont.)

Clause No.	Cohesive devices	Type	Interpretative source	Phoric status	Chain formation
	yu: ³ tuə: ¹ k ^h on ² diə:w ² live alone	L1	yu: ³ tuə: ¹ k ^h on ² diə:w ² live alone	Anaphoric	19-17
20	∅ = Zero pron.	R1.3	dek ² pə: ⁴ ca:y ² a child	Anaphoric	20-19-17-7-6-5-3.1-2-1

*? refers to unidentified tokens; the gray spaces indicate tokens that are ambiguous, unidentified and/or exophoric.

Table 4.3 analyzes cohesion using Hasan (1984). Firstly, in calculating the “relevant token (RT)”, the entire tokens that form cohesive tie are counted. To this extent, only tokens that are cohesively tied are accounted for, in other words, tokens that are considered as exophoric, ambiguous, and unidentified tokens are not counted (marked by gray space: 18 tokens). Hence, the number of RT in this example is 36. Secondly, “central token (CT)” concerns with two or more tokens that interact with each other in a tie, which also excludes exophoric, ambiguous, and unidentified tokens. Therefore, the number of CT in this example is 24. These CT are such as *lɛ:w*⁶ ‘and’ and *k^haw*¹ ‘he’ in clause 2, a zero pronoun in the subject position (*dek²pɔ:⁴ca:y²* ‘a boy’), a zero pronoun in object position (*pla:*¹ ‘fish’), and lexical cohesion *tok²* ‘to fish’ in clause 3.1 etc. As far as “peripheral token (PT)” is concerned, item that does not provide any connection with other items in the discourse is counted, which in this example are 6 items. These PT items are *tɔ:n¹ni:*⁶ ‘now’, *ɔw²pay²ɔw²ma:*² ‘as a result’, *sət²* ‘finish’, *tok²* ‘fall’, *ɔu:*⁵ ‘speak’, and *taɔ²kɔ:n³* ‘back then’. The “total token (TT)” can be achieved through the sum of RT and PT, which in this example is 42.

In order to interpret the result, two major concerns must be taken into accounted: (1) the central tokens as percentage of total tokens, which measures cohesive harmony; and (2) the central tokens per peripheral tokens, which measures coherence of the narrative discourse. This must be accounted for on the basis that “the higher the ratio of CT to PT, the more coherent the text would be” (Hasan, 1984, p. 217). In accordance with this notion, the percentage of CT to TT in this example is 66.67%, and the ratio of the CT to PT is 4. In rating how coherent a discourse is, a comparison between one discourse and another discourse is required to be done. The above example is the extract of the whole narrative of a speaker. The total result of this narrative results in 0.71 for the CT to PT, and 35.53% for the CT as the percentage of TT.

In the matter of analysis using Hasan (1984), it has been suggested that the ratio of Central Tokens (CT) to Peripheral Tokens (PT) and the percentage of Central Tokens (CT) to Total Tokens (TT) vary narrative by narrative. To this point, all narratives can be lined up in a cline from less coherent to more coherent. Hence, the ratio of CT to PT, which measures coherence, ranges from 0.4 to 7.25. As far as

cohesive harmony is concerned, the percentages of CT to TT rate from 23% to 89% from the entire narratives of schizophrenic speakers.

According to the cohesion analysis using Hasan (1984), a considerable remark has been raised whether a highly cohesive narrative leads to a coherent discourse? Consider example 4.1 above, this narrative results in a very high percentage and ratio when analyzing the whole narrative, which are 89% and 7.3, respectively. The narrative contains a relatively large amount of lexical repetition, which can explain the result of high percentage as it measures cohesive harmony. This seems to possess a major problem that lexical cohesion can uniquely lead to a coherent discourse. In fact, the items in this narrative are within themselves cohesive in terms of structure, but at a closer look at the content, it is hardly defined that this narrative is decisively coherent. Therefore, this analysis suggests that a cohesive discourse does not mean that the particular discourse is coherent at all times.

4.3 Summary of cohesion

This chapter analyzes cohesion of schizophrenic narratives by using Halliday and Hasan (1976) and Hasan (1984) as models for analysis. Five major categories of cohesive ties are occurred, which differ in sub-categories. The most to the least occurring categories are reference, lexical cohesion, conjunction, ellipsis and substitution, respectively. Although tokens in the narratives are cohesively used, cohesive but irrelevant and non-cohesive marked from exophoric, ambiguous, and unidentified tokens are also presented. The number of these tokens is much higher than cohesive elements in some narratives.

Moreover, at a closer look at the sub-types of each cohesive tie, some significant results have been found. While generic reference and noun phrase reference – the sixth sub-category of pronominally used noun, are applied in some narratives, which often lead the narratives to become highly cohesive, the use of exophoric cohesive tie such as personal pronouns, including personal names, title names, occupation terms, kinship terms and friendship terms, are applied to a great extend in some narratives as well.

Furthermore, all sub-categories of ellipsis are applied. Although the number of their usage is not significantly high, the interpretative sources of the omitted items are not ambiguous in some narratives. In contrast, ellipsis applied in some narratives usually creates ambiguous and unidentified interpretative source. As for conjunction, the use of temporal relation is higher than other sub-types. Moreover, one conjunctive element can also be categorized into two or more sub-categories, within the sub-categories of conjunction as well as other cohesive ties. As far as lexical cohesion is concerned, most of lexical items are considered as cohesive but irrelevant in some narratives as they are applied outside the context of picture book, but in a cohesive way. Moreover, it has been found that although various cohesive devices are applied, but they still lack structural and/or semantic links, the narrative does not always result in highly cohesive.

As far as analysis using Hasan (1984) is concerned, the results of cohesive harmony as well as coherence in all narratives differ from each other. The results of the ratio of CT to PT and the percentages of CT to TT can be lined up in a cline, ranging from the lowest to the highest, which further indicate how coherent each narrative is. Another point has been raised whether how cohesion leads to coherence. The finding indicates that a highly cohesive discourse does not always result in a coherent discourse, which can further prove the doubt about cohesion and coherence that cohesion do lead to coherence, but cohesion does not equate coherence.

Explanation on Chapter IV

1. These terms are defined by the researcher, because the analysis suggests that schizophrenic speakers often apply nouns and noun phrases to refer back to their sources in the narratives. Since these nouns and noun phrases function as pronoun, this category is classified into another sub-category of pronominally used noun.

CHAPTER V

COOPERATIVE PRINCIPLE

The present chapter deals with the analysis of the data using Gricean framework, cooperative principle (1975). The researcher begins with the main prospects of cooperative principle and its application in this present research. The next section concerns with the analysis and its findings. Some examples of the analysis as well as explanation are also provided. Next, summary of the chapter is given at the end of this section.

5.1 Key concepts

Grice's general principle is utilized as the main concept in this chapter, which runs: "make your contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged" (1975, p. 46). As Grice states in his proposal, participants who are engaged in the conversation are expected to follow or "observe" what he named "conversational maxims", which are quantity, quality, relevance and manner including their sub-categories. In addition, maxims observation and breaking maxims without creating any implicature i.e. infringing maxims are focused.

It is well known that Grice's framework is employed in the conversation, which clearly exhibits how participants in a conversation communicate with one another. However, in this present research, the researcher attempts to apply Grice's cooperative principle (1975) in analyzing narrative discourse. As regards, the researcher further assumes that in using Grice's cooperative principle, schizophrenic speakers try to "communicate effectively and efficiently" (Levinson, 1983), in other words, try to "observe" or "cooperate" in their narrative discourse task without any conversational implicature in the first hand. Hence, in order to be "cooperative", schizophrenic speakers must "cooperate" to the picture book that is used to narrate the

story, which, in this sense, acts as the other interlocutor. However, what lies beneath this “cooperation” deals with “logic”, which employs how far a schizophrenic narrative can go beyond the scope of the picture book. As for schizophrenia and even in a normal situation, people do have imagination to what they have perceived in the picture book and how they would like to narrate their stories. However, there is an invisible boundary between which information is acceptable and which is not. To this point, the pictures themselves set this boundary. To be clearer, there is a difference between “reality” (what exists in the picture book) and “fantasy” (the imagination beyond this existence).

In employing the term “cooperative” in this research, the definition of the term utilized here deals with “rationality” based on the notion of Davies (2007). Hence this present research argues that it is the “rationality” that underlines how cooperative a speaker is, which reflexes through his/her narrative i.e. is the information in the narrative seems ‘reasonable’ and ‘sensible’? Or does the narrative ‘make sense’ and ‘sound logical’? This can be seen by observing or infringing maxims. Accordingly, cooperativeness, in this sense, is in correspondence with coherence. Thus, the researcher proposes the degree of ‘cooperativeness/ rationality’ that can be determined by how schizophrenic speakers observe/ infringe maxims, which is illustrated in figure 5.1 below.



Figure 5.1 The degree of cooperativeness/ rationality

According to figure 5.1, the higher schizophrenic speaker infringes maxim(s), the lesser cooperative he/she has become. This can be inferred that the narrative accesses the direction of irrationality, but it does not mean that the narrative is absolutely irrational. Hence, the degree of cooperativeness/ rationality is proposed, based on the reason that “being cooperative or uncooperative” is not an absolutely definite condition. The following table illustrates characteristics of cooperativeness of schizophrenic speakers in their narratives.

Table 5.1 Characteristics of cooperativeness of schizophrenic speakers in their narratives

General findings	Exceptional findings
• The number of observing and infringing maxims varies speaker by speaker. • In observing maxims, percentage can be listed from 4% - 85%, which means the higher the percentage, the more cooperative the speaker is. • In infringing maxims, percentage can be ranged from 15% - 95%, which means the higher the percentage, the more uncooperative the speaker is. • Infringing maxim of relevance is the most occurring category, following by maxim of quantity, manner and quality. • In infringing maxims, 12 aspects are occurred, although the frequency of occurrence of each aspect differs narrative by narrative.	• Some meaningless utterances have been found, which can be accounted for as senseless and irrational, although they are not in a great number. • In some narratives, infringing maxim of relevance does not occur at all. • The speakers also infringe two or three maxims at the same time, which occur relatively frequent in some narratives.

*General findings concern with the results from all narratives of schizophrenic speakers, while exceptional findings deal with the results from some narratives.

5.2 Characteristics of cooperativeness

It has been found that all schizophrenic speakers observe as well as infringe maxims, but differs in frequency of occurrence and types of maxims. In observing maxims, schizophrenic speakers observe or cooperate in their narratives 430 times. The highest percentage of observing maxim is 85%. In contrast, they infringe maxims as high as 939 times. The highest percentage of infringing of maxim is 95%. This means that the higher percentage of infringing maxim, the more uncooperative schizophrenic speaker is. In specify, maxim of relevance is the most infringing of maxim, whereas infringing maxim of quality is the least occurring category. These infringing of all maxims do not occur in all narratives. Furthermore, the frequency of occurrence of infringing of maxim varies narrative by narrative. In infringing maxims, 12 aspects are encountered, but the frequency of occurrence of each aspect differs. Besides, there are infringing two or more maxims at the same times in some narratives.

5.2.1 Observing maxims

In observing maxims, the speakers provide information which presents in the picture book. The information narrated has sufficient evidence, which suggests that the utterances are true and believable. This sufficiency of evidence means that the narratives contain elements that state in the picture book. Hence elements that do not state in the picture book must be excluded. Moreover, the narratives told are related to the concept of the picture book. In terms of how the speakers narrate, the narrative itself is clear and contains no ambiguity, or has the least ambiguous linguistic items. Furthermore, the speakers provide utterances in a sequence manner, which is according to the sequence of the pictures in the book (See Chapter III, Measurements). Therefore, if the speaker provides his/her utterance in accordance with the fore-mentioned criteria, that utterance will be marked as observing maxim, which further indicates that the speaker is being cooperative in his/her narrative. Example 5.1 below illustrates maxim observation.

Example 5.1: Cooperative principle – maxims observation

Utterance 1: man² pen¹ riə:ŋ⁴ ti:⁴wa:⁴ laʔ³ʔon³ pə:⁴ca:y² ma:¹
 it verb to be story that child male dog

 kop² pen² piə:n⁴ kan¹
 frog verb to be friend PAR.

‘The story is about a friendship between a boy, a dog and a frog.’

Utterance 2: dek² ca:y² k^hon²niŋ⁴ ma:² kap² ma:¹ laʔ⁵kə:⁴ kop²
 child male CLASS. come CON. dog CON. frog

 laʔ⁵ ∅ kə:⁴ naŋ⁴ tok² pla:² yu:³
 CON. zero pronoun CON. sit to fish fish PROG.

‘The boy came with a dog and a frog, and is fishing.’

Utterance 3: t^hi:²ni:⁶kə:⁴ mi:² baŋ²siŋ³ kin¹ bet²
 CON. there is/there are something eat fishhook

‘Then, there is something that is caught.’

Utterance 4: ∅ diŋ² ∅ pay²
 zero pronoun₁ pull zero pronoun₂ go

‘[∅ = baŋ²siŋ³ ‘something’] pulls [∅ = bet² ‘a fishhook’].’

Utterance 5: dek² cay² k^hon² ni:⁶ hap⁵ na:m⁶nak² maʔ³way¹
 boy CLASS. DEM. hold weight NEG.

 ∅ kə:⁴lə:y² kraʔ³co:n² loŋ²pay² nay² na:m⁶
 zero pronoun CON. jump down PREP. river

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p^hrɔ:m⁶kap² ma:¹ kap² kop²

CON. dog CON. frog

‘This boy cannot hold the fishhook, and then he jumps down into the river together with the dog and the frog.’

[illegible]

‘But the thing that holds on the fishhook is a turtle.’

Utterance 7: taw³ ka:p³ bet² pay²
 turtle hold fishhook go

‘The turtle holds the fishhook on to his mouth and goes.’

Utterance 8: ma:¹ kap² k^hon² kɔ:⁴ ɕɔŋ⁵ mɔŋ²
 dog CON. human AUX. stare

taw ³	tuə: ¹	ni: ⁶	yu: ³
turtle	CLASS	DEM	PROG

‘The dog and the boy are staring at this turtle.’

Utterance 9: taw³ kɔ:⁴ kraʔ³do:t³ ɲap² ti:⁴ k^ha:¹ ma:¹

 turtle CON. jump bite PREP. leg dog

‘Then, the turtle jumps and bits the dog’s legs.’

Utterance 10: kop² kɔ:⁴ saɽ³duŋ⁵ kraɽ³do:t³ ni:¹
frog CON. frightened jump run away

‘The frog, then, is frightened. It runs away.’

5.2.2 Infringing maxims

As previously stated, how cooperative a speaker depends primarily on the degree of observing and infringing maxims. Infringing maxims happen when the speaker goes further off the scope of the picture book regardless of any respects i.e. the amount and/or standard of the information, the degree of relation, and the styles of narrating. The question: is it reasonable that the utterance can be used to narrate the pictures, is always inquired. If not, it means that ‘rationality’ is out of reach or there is no rationality at all. In this respect, the researcher means that infringing maxim is analyzed, which is based on how rational the particular utterance can be when comparing with the picture in the book? In specify, is the utterance ‘make sense and sound logical’ within the scope of the picture book?

As far as sub-types of infringing maxims are concerned, the number of occurrences differ category by category and in several aspects. Each speaker infringes maxims in his narrative differently. For example, the first speaker mostly infringes maxim of quantity, whereas infringing maxim of manner plays an important role in the narrative of the second speaker etc. In general, some speakers infringe maxims more than observing them. As previously stated, infringing maxim of relevance is the most occurring category in the narratives, which the speakers infringe 322 times. The second most infringing maxim is maxim of quantity. The speakers infringe this maxim as high as 244 times. Infringing maxim of manner results in 187 times, which is the third; and 186 times concerns with infringing maxim of quality – the least. Three examples below indicate some of these infringing of maxims.

Example 5.2: Cooperative principle – infringing maxim of quantity and quality

Utterance 43: dek² kɔ:⁴ dek² kɔ:⁴ yu:³ tuə:¹k^hon²diə:w²
 child AUX. child AUX. stay alone
 ‘A child lives alone’

The utterance number 43 infringes maxim of quantity, in which the speaker provides information that has been given before. The speaker repeats this utterance from the fore mentioned utterance in the utterance number 17, and keeps

repeating it in the utterance number 44 and 45, with the same meaning. Hence, these following utterances are also marked as infringing maxim of quantity.

Utterance 17: dek² yu:³ tuə:¹k^hon²diə:w²
 child stay alone
 ‘A child lives alone’

...

Utterance 44: ø maʔ³ mi:² piə:n⁴ nɔʔ²
 zero pronoun NEG. have friend PAR.
 ‘[ø = zero pronoun] has no friend’

Utterance 45: ø ma:² tuə:¹k^hon²diə:w²
 zero pronoun come alone
 ‘[ø = zero pronoun] comes alone’

Moreover, at a closer look at infringing maxim of quantity in utterance number 17, 43, 44 and 45, the speaker also infringes maxim of quality as well. The speaker provides information with insufficient evidence. As has been shown in the picture book, the child does not come alone. He goes fishing with a dog and a frog. Although, he comes alone, the dog and the frog always stay with him. Hence, the speaker gives wrong information, causing infringing maxim of quality to play a significant role in these clauses. This scene can be found in pages 1-2 of the picture book (See Chapter III, Measurements for more details).

Example 5.3: Cooperative principle – infringing maxim of manner

Utterance 26: caw⁵k^hɔ:ŋ¹ ca:y⁶ kan²bet² ti:¹ taw³
 owner use fishhook hit turtle
 ‘The dog’s owner hits the turtle with the fishhook.’

Utterance 27: hi:⁵ suʔ³nak⁵ kap² kop² p^hɔ:³
 PREP. dog CON. frog look

∅ lə:y² cap² taw³ way⁶
zero pronoun CON. catch turtle PAR.

‘The dog and the frog looks, then [∅ = ambiguous] catches the turtle.’

In this case, the speaker infringes maxim of manner, in which he does not avoid ambiguity. Ambiguity creates by the use of a zero pronoun in utterance number 27. This zero pronoun can refer to either *caw⁵k^hɔ:^η¹* ‘the owner’ or *suʔ³nak⁵* ‘the dog’. This scene can be found in page 21 of the picture book (See Chapter III, Measurements for more details).

Example 5.4: Cooperative principle – infringing maxim of relevance

Utterance 48: lu:k⁴ hok² k^hwa:p³ laʔ⁵
 son NUM. CLASS. PAR.
 ‘my son is six years old.’

This utterance is marked as irrelevance to what the picture book is about, marked from exophoric reference and context. Hence, the speaker infringes maxim of relevance by providing unrelated information.

Apart from these infringing of maxims, the analysis suggests that there are some meaningless utterances occurred in some narratives, but not in a great number. According to Davies (2007), these meaningless utterances can be accounted for as “pointless and irrational” (Davies, 2007, p. 2324). Examples of these utterances are given as follows:

Examples 5.5: Cooperative principle: meaningless utterances

Utterance 50: bet² kin¹ kay³
 fishhook eat chicken

The fishhook eats a chicken.

...

Utterance 53: ma:¹ kit⁵ bet²
 dog think fishhook

*The dog thinks the fishhook.

*means the utterance is ungrammatical.

According to the utterance number 50, the subject of this utterance is *bet*² ‘the fishhook’, which is an inanimate item that cannot initiate any action. However, the speaker of this utterance sets an action *kin*¹ ‘eat’ to this inanimate item, which is impossible. Another utterance concerns with the use of subject and verb that is senseless. Although the subject of this utterance is an animate item that can initiate any action, the action/ cognitive verb used in this utterance is incongruous, and the utterance is ungrammatical, because there is no prepositional element provided. Hence, these utterances can be marked as being “non-sense”.

In addition, in infringing maxims, 12 aspects are found. Each aspect does not occur in all narratives. Additionally, it also varies in frequency of occurrence. The following table illustrates these aspects.

Table 5.2 Infringing maxims and their aspects

Infringing maxims	Aspects
Infringing maxim of quantity: <i>“make your contribution as informative as is required for the current purposes of the exchange”</i>	(1) give insufficient information
	(2) provide unfinished utterance
Infringing maxim of quantity: <i>“do not make your contribution more informative than is required”</i>	(3) provide information that has been given before
	(4) provide information that is considered as the speaker’s personal comment
Infringing maxim of quality	(5) provide utterance that has insufficient evidence
	(6) provide untrue utterance
Infringing maxim of relevance	(7) provide irrelevant information in terms of vocabulary and content
	(8) provide personal story that is unrelated to the scope of the picture book
Infringing maxim of manner: <i>“avoid obscurity”</i>	(9) provide unclear reference and/ or utterance
Infringing maxim of manner: <i>“avoid ambiguity”</i>	(10) provide ambiguous reference or utterance
Infringing maxim of manner: <i>“be orderly”</i>	(11) provide information that are not in a sequence manner i.e. wrong place
Infringing maxim of manner: <i>“be brief”</i>	(12) provide information by using too many fillers, causing the utterances to be long-winded, but less informative

According to table 5.2, infringing maxims are created by various aspects. At a closer look, infringing maxim of quantity, in which the speaker should *“make your contribution as informative as is required for the current purposes of the exchange”*, causes by two aspects: (1) give insufficient information in terms of context, and (2) provide unfinished utterance. As for another subtype: *“do not make your contribution more informative than is required”*, it usually happens when the speakers (3) provide information that has been given before and (4) provide information that is considered as the speaker’s personal comment. In infringing maxim of quality, the speakers either (5) provide utterance that has insufficient evidence, or (6) provide untrue utterance. Infringing maxim of relevance also happens when the speakers (7) provide irrelevant information in terms of vocabulary and content, and/ or (8) provide personal story that is unrelated to the scope of the picture book. In terms of

infringing maxim of manner, in which the speakers should “*avoid obscurity*”, the speakers usually utter (9) unclear reference and/ or unclear utterance. In the second subtype, “*avoid ambiguity*”, the speakers tend to (10) provide ambiguous reference or utterance. In the subtype “*be orderly*”, the speakers (11) provide information that is not in a sequence manner i.e. wrong place. And as for “*be brief*”, the speakers (12) provide information using too many fillers, causing the utterances to be long-winded, but less informative. Examples below illustrate these infringing of maxims aspect by aspect, including pages of the picture book. For more detail, see Chapter III, Measurements.

Example 5.6: Cooperative principle – infringing maxim: aspect one - give insufficient information

Utterance106: kɔ:⁴ laʔ³ʔɔn³ han⁵ kɔ:⁴ pik⁵ ba:n⁵ pay² hiə:¹
 filler child DEM. AUX. go back house go PAR.
 ‘Then, that child goes back home.’

The speaker provides insufficient information, which is illustrated in utterance 106. The speaker mentions only the boy who is going back home, whereas other participants: the dog, the frog and the turtle, are not referred to. Hence, the speaker infringes maxim of quantity by giving insufficient information than what is stated in the picture book. From this example, it can be inferred that this speaker sets a boy as his main character in the narrative, which is the speaker’s main focus, who is mentioned here in this utterance unlike other supportive participants, who are not talked about in the previous as well as the following utterances. Hence, this might be the reason that other characters have been left out from the utterance, causing infringing maxim of quantity to play an important role. This scene can be found in page 29 of the picture book.

Example 5.7: Cooperative principle – infringing maxim: aspect two – provide unfinished utterance

Utterance 5: lɛ:w⁶ ø kɔ:⁴ kit⁵ k^hin⁵ma:²
 CON. zero pronoun CON. think up

wa:⁴ -----
 that (clause left unfinished)
 ‘Then, [ø = k^hon² ‘human’] thinks that...’

Utterance 6: lɛ:w⁶ ma:¹ kɔ:⁴ kraŋ³do:t³
 CON. dog CON. jump
 ‘And the dog jumps.’

The speaker provides utterance that is unfinished, which is illustrated in utterance 5. He continues providing further information in utterance 6, which is unrelated to the previous utterance in terms of sense relation. Hence, the speaker infringes maxim of quantity, causing the utterance to be “less informative”. This scene can be found in pages 3-4 of the picture book.

Example 5.8: Cooperative principle – infringing maxim: aspect three – provide information that has been given before

Utterance 63: ø ʔum⁵ ma:¹ lɛ:w⁶
 zero pronoun hold dog AUX.
 ‘[ø = mɔ:¹han⁵ ‘that boy’ in utterance 62] has held the dog already.’

Utterance 64: ø ploɯ³ bet² loŋ²ma:²
 zero pronoun let go fishhook down
 ‘[ø = mɔ:¹han⁵ ‘that boy’ in utterance 62] lets go off a fishhook.’

Utterance 65: $\emptyset$ plo^3 $\text{sa:y}^1\text{bet}^2$ $\text{lo}^2\text{ma:}^2$
 zero pronoun let go fishhook down
 ‘ $[\emptyset = m\text{ɔ:}^1\text{han}^5$ ‘that boy’ in utterance 62] lets go off a fishhook.’

Utterance 66: $\emptyset$ kɛ:m^2 ma:y^6
 zero pronoun hold fishhook
 ‘ $[\emptyset = m\text{ɔ:}^1\text{han}^5$ ‘that boy’ in utterance 62] holds a fishhook.’

Utterance 67: $\emptyset$ nep^2 ma:^1 tuə:y^2
 zero pronoun hold dog too
 ‘ $[\emptyset = m\text{ɔ:}^1\text{han}^5$ ‘that boy’ in utterance 62] holds the dog too.’

Utterance 68: $\emptyset$ ʔum^5 ma:^1 tuə:y^2
 zero pronoun hold dog too
 ‘ $[\emptyset = m\text{ɔ:}^1\text{han}^5$ ‘that boy’ in utterance 62] holds the dog too.’

The entire utterances of this example indicate the already given information, as utterances 63 and 68, utterances 64 and 65 provide similar information, whereas utterance 66 is the repetition of the fore mentioned utterances 25, 30, and 35. The utterance 67 also re-mentions from utterances 25 and 35, which illustrate below. Hence, according to this information, the speaker infringes maxim of quantity, causing too much information, but less informative. This scene can be found in pages 9-12 of the picture book.

Utterance 25: $m\text{ɔ:}^1\text{han}^5$ kɛ:m^2 bet^2 tuə:y^2 $\text{la}^5\text{kɔ:}^4$
 boy hold fishhook too CON.

$\emptyset$ ʔum^5 ma:^1 tuə:y^2
 zero pronoun hold dog too

That boy holds the fishhook and the dog too.

...

Utterance 30: $\emptyset$ $k\epsilon:m^2$ bet^2 $k\omega^4$ $di:^2$ $k\epsilon:m^2$
 zero pronoun hold fishhook AUX. ADJ. hold
 ‘ $[\emptyset = m\omega:^1han^5$ ‘that boy’ in utterance 25] holds the fishhook.’

...

Utterance 35: $\emptyset$ $k\epsilon:m^2$ $sa:y^1$ bet^2 nep^2 $ma:y^6$
 zero pronoun hold fishhook hold fishhook (literary: wood)
 ‘ $[\emptyset = m\omega:^1han^5$ ‘that boy’ in utterance 35] holds the fishhook.’

Example 5.9: Cooperative principle – infringing maxim: aspect four – provide information that is considered as the speaker’s personal comment

Utterance 49: taw^3 $na:^5ca\tau^3$ $ta:y^1$ $l\epsilon:w^6$
 turtle may be die AUX.
 ‘The turtle might be dead already.’

Utterance 50: $som^1na:m^6na:^5$
 ‘He deserves it!’

According to utterance 49, utterance 50 is provided, which is somehow considered to be a personal comment to the event of the narrative in utterance 49. Hence, providing personal comment is considered as infringing maxim of quantity, in which the speaker gives more information than the narrative of the picture book is required. Although personal comment can occur in the narratives that is not considered as a main point as well as it does not play an important role in making the narrative forward, the information given is considered to be more than what the picture book is stated. This scene can be found in page 20 of the picture book.

Infringing maxim of quantity, in which the speaker makes the narrative more informative by providing personal comment are also $na:^5so\eta^1sa:n^1 na\tau^3$ ‘what a pity!’, $na:^5so\eta^1sa:n^1 dek^2 na\tau^3$ ‘What a pity on the boy!’, $\tau\omega:^2\tau\omega:y^3$ ‘a kind of interjection’, $ma\tau^3di:^2t\epsilon:^6 ma\tau^3di:^2wa:^4h\omega:^3$ ‘(this) is so mean!’, $ca\tau^3day^2ham^1 ne\tau^2$ or $l\epsilon:w^6 pen^1 day^2 ham^1 ne\tau^2$ ‘what’s next?’, $man^2 ti\eta^2 ma\tau^3di:^2 t\epsilon:^6 na:^1 h\omega\tau^3$ ‘this is so mean!’, $ni:^5 pen^1 ri\omega:\eta^4 t\epsilon:^6 ka\tau^2$ ‘is this story true?’, $la\tau^3\tau\omega n^3 ni:^5 k\omega:^4 mi\omega:n^1$

p^hɔ:n²l^hip⁵ na:¹ ‘This child is like Phonthip.’, *cay¹dam²te:⁶ cay¹dam²wa:⁴* ‘too cruel’.

Hence, personal comment plays an important role in making the narrative more informative but not necessary.

Example 5.10: Cooperative principle – infringing maxim: aspect five – provide utterance that has insufficient evidence

Utterance 21: *man² hɔŋ⁶ ɲɛ:ɲ¹ ɲɛ:ɲ¹*
 it call a sound of the dog
 ‘it (*ma:¹* ‘the dog’) cries.’

The speaker provides the utterance of how the dog cries, whereas there is no picture that illustrates the dog cries in the picture book. This information is added by the speaker himself. To this extend, the speaker is infringing maxim of quality by giving insufficient evidence, which differs from “giving insufficient information” in aspect one. In this aspect, there is no information presented that can prove that the utterance is true, in this case, according to the content of the picture book. Unlike aspect one, the speaker provides insufficient information by giving incomplete utterance.

Example 5.11: Cooperative principle – infringing maxim: aspect six – provide untrue utterance

Utterance 94: *ma:¹ kɔ:⁴ han¹ k^hɛŋ⁴ pet¹ kaɽ³wa:⁴ kay³*
 dog CON. see leg duck CON. chicken

 kɔ:⁴ maɽ³ hu:⁶
 AUX. NEG. know
 ‘Don’t know, whether the dog sees the duck’s legs or the chicken’s.’

This utterance indicates the example of providing untrue information. It is untrue, because the duck and the chicken do not exist in the book. Therefore, the speaker infringes maxim of quality. The page of the picture book is uncertain.

Example 5.12: Cooperative principle – infringing maxim: aspect seven – provide irrelevant information in terms of vocabulary and content

Utterance 14: dəw² mɔ:¹ Ø hu:⁶sik² wa:⁴
wait doctor zero pronoun₁ feel that

Ø caʔ³ min²huə:¹
zero pronoun₂ will headache
'Doctor! Wait! I think I have headache.'

Utterance 15: ʔə:⁴ mɔ:¹ mɔ:¹ mi:² wat⁵ ʔay²k^hiw²
INT. doctor doctor have measure IQ
kap² ʔi:²k^hiw² kɔ:³
CON. EQ yes/no question mk.
'Doctor!, do you have a measurement for IQ and EQ?'

The utterances 14 and 15 illustrate the use of vocabularies that does not relate to the picture book. These vocabularies are such as mɔ:¹ 'doctor', which is exophoric reference; min²huə:¹ 'headache'; and wat⁵ ʔay²k^hiw² kap² ʔi:²k^hiw² 'the measurement for IQ and EQ'. Hence, in accordance with this example, these utterances are marked as infringing maxim of relevance in terms of vocabulary and content. Accordingly, there is no evidence from the picture book indicated.

Example 5.13: Cooperative principle – infringing maxim: aspect eight – provide personal story that is unrelated to the scope of the picture book

Utterance 99: tɔ:n¹ya^mnɔ:y⁵ pɔ:⁴ ta:y¹ laʔ⁵ lɛ:w⁶
CON. father die leave AUX.
'When (I/ the speaker) was a child, my father has been dead already.'

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Utterance 100: $\emptyset$ ma^3cay^4 hu^6
 zero pronoun NEG. know
 ‘[$\emptyset$ = the speaker] did not know.’

Utterance 101: k^haw^1 ma^2 $\text{b}\text{ɔ}^3\text{k}^3$ $\emptyset$
 he come tell zero pronoun
 ‘he told me.’

These utterances indicate personal story of the speaker, which is unrelated to what the picture book is about. Therefore, the speaker infringes maxim of relevance. There is no evidence from the picture book indicated.

Example 5.14: Cooperative principle – infringing maxim: aspect nine – provide unclear reference and/ or utterance

Utterance 21: $\text{di}\text{ə}^1\text{w}^1\text{ni}^6$ na^1 $\text{p}^h\text{ɔ}^2\text{n}^2\text{t}^h\text{ip}^5$ na^1 $\text{k}^h\text{a}^3\text{na}^3\text{t}^3$ pay^2
 ADV. PAR. Phonthip PAR. CON. go

 $\text{ta}^3\text{la}^3\text{t}^3$ ni^5 na^1 $\text{k}^h\text{ɛ}^1\text{n}^1$ ni^5 $\text{d}\text{ə}^2\text{n}^2$ con^2 $\text{p}\text{ə}^4\text{n}^4$
 market DEM. PAR. arm DEM. walk hit he/she/they
 ‘Now, when Phonthip goes to the market, Phonthip’s arms hit the others.’

This utterance contains unclear reference, which is $\text{p}^h\text{ɔ}^2\text{n}^2\text{t}^h\text{ip}^5$ ‘Phonthip’ as well as this utterance is first mentioned, which the researcher does not know who the speaker talks about. Further analysis suggests that this personal name is referred to the speaker himself. However, this utterance is still marked as infringing maxim of manner by providing unclear reference. There is no evidence from the picture book indicated.

Example 5.15: Cooperative principle – infringing maxim: aspect ten – provide ambiguous reference

Utterance 191:	k ^h on ²	kɔ: ⁴	p ^h ɔ: ³	ma: ¹
	human	AUX.	look	dog
	‘The human, then, looks at the dog.’			
Utterance 192:	ma: ¹	kɔ: ⁴	lu: ⁴	yan ²
	dog	AUX.	grab	brace up
	‘The dog tries to brace up.’			
Utterance 193:	lɛ:w ⁶	man ²	kɔ: ⁴	nɔ:n ² ɲa:y ¹
	CON.	it	CON.	lie on its back
	‘And then it lies on its back.’			

The utterances 191 and 192 are marked as maxim observation as the speaker correctly observes all the maxims, while utterance 193 contains ambiguous reference, which is *man*² ‘it’. This reference can either refer to *k^hon*² ‘human’ or *ma*¹ ‘dog’. To this extend, the speaker infringes maxim of manner by providing ambiguous reference. Moreover, infringing maxim of manner in this case also results from providing ambiguous utterance, which therefore happens when the reference is ambiguous, causing ambiguity to the whole utterance. This scene can be found in pages 19-20 of the picture book.

Example 5.16: Cooperative principle – infringing maxim: aspect eleven – provide information that are not in a sequence manner i.e. wrong place

Utterance 37:	taw ³	ni: ⁵	kɔ: ⁴	kam ² luəŋ ²	ʔa: ⁵	pa:k ³
	turtle	DEM.	AUX.	PROG.	open	mouth
	caɿ ³	kop ²	ti:n ¹		ma: ¹	
	will	bite	foot		dog	
	‘The turtle is opening his mouth in order to bite the dog’s feet.’					

This utterance is placed in the wrong place. In fact, it should be happened before utterance 26, which runs:

Utterance 26: lɛ:w⁶kɔ:⁴ taw³ kop² k^hɛŋ⁴ man²
 CON. turtle bite leg it
 ‘And the turtle bites the dog’s [= ma:¹ ‘the dog’ in utterance 25] legs’

In placing information in a wrong place, the speaker infringes maxim of manner by not “being orderly”. This scene can be found in page 14 of the picture book.

Example 5.17: Cooperative principle – infringing maxim: aspect twelve – provide information by using too many fillers, causing the utterances to be long-winded, but less informative

Utterance 55: haw² tɔŋ⁵ ma:² hap⁵hu:⁶ ʔaʔ³yaŋ¹ ʔiəʔ⁴
 I/we must come know something PAR.

 ti:⁴ ba:p³wa:⁴ k^hla:y⁶ k^hla:y⁶ ba:p³ ti:⁴ ba:p³wa:⁴ ba:p³wa:⁴
 that filler COMP. filler that filler filler

 maʔ³ ya:k³ mi:² k^hon² ni:⁶ ci:⁴ ni:⁶
 NEG. want have human DEM. name DEM.

 ba:p³wa:⁴ ʔiəʔ⁴
 filler PAR.
 ‘I must not know something that, thing that seems like, that I don’t want to have this person, this name, like this.’

This example indicates the use of too many fillers, causing the utterance to be long-winded. The usage of too many fillers also lead the utterance to be unclear.

Thus, the speaker infringes maxim of manner by not being “brief” as well as “clear”. There is no evidence from the picture book indicated.

In addition, it has been found that the speakers also infringe two or more maxims at the same time, which differs in types of maxims. These infringing of maxims occur relatively often in some narratives, while there is no infringing of these maxims occurs at all in other narratives of schizophrenic speakers. Example 5.18 illustrates this point. In addition, the following table indicates infringing of two or three maxims in narratives of schizophrenic speakers.

Example 5.18: Infringing maxim of quantity by being more informative, maxim of quality by not providing sufficient evidence

Utterance 28:	man ²	pen ¹	na:m ⁶	na: ¹
	it	verb to be	river	PAR.
	it (<i>taw</i> ³ ‘turtle’ in utterance 27) can swim.’			

Firstly, the speaker infringes maxim of quantity by providing information that is not necessary to the narrative. The speaker says that the turtle can swim. Although it is related to what the picture book is about, the information is not necessary for the event of the narrative. Moreover, while providing this utterance, the speaker also infringes maxim of quality by giving information without supporting evidence from the picture book.

Table 5.3 Infringing two or more maxims at the same time

	Infringing maxims	Explanation
(a)	Maxim of relevance and manner (not avoid obscurity)	The speakers provide unclear reference such as <i>k^haw¹</i> 'he', <i>man²</i> 'it' or <i>pən⁴</i> 'he/she/they' or utterance without interpretative source, causing the utterance to be unclear. Moreover, the utterances are also uttered in the context outside the scope of the picture book.
(b)	Maxim of relevance and quantity (more informative than is required)	The speakers provide irrelevant utterances outside the context of the picture book i.e. the speaker's personal story and keep repeating those utterances several times.
(c)	Maxim of quality and quantity (more informative than is required)	The speakers present information by providing less supportive evidence i.e. information that does not state in the pictures and keep mentioning it.
(d)	Maxim of quantity (more informative than is required) and maxim of manner (not avoid obscurity)	The speakers provide unclear reference such as <i>k^haw¹</i> 'he', <i>man²</i> 'it' or <i>pən⁴</i> 'he/she/they' without interpretative source, or demonstrative reference with determiner e.g. <i>han⁵</i> 'that' and <i>ni⁶</i> 'this' and the utterance is already mentioned at the previous clause (See example 5.19 below).
(e)	Maxim of quality and manner (not avoid obscurity)	The speakers provide unclear reference such as <i>k^haw¹</i> 'he', <i>man²</i> 'it' or <i>pən⁴</i> 'he/she/they' without interpretative source and that utterance is untrue. This means that the speakers provide information that is opposite to what states in the picture book.
(f)	Maxim of quantity (less informative) and manner (not avoid obscurity)	The speakers provide unfinished utterance, causing unclear information. This means that the speakers are being less informative and does not avoid unclarity.
(g)	Maxim of quantity (more informative than is required) and manner (not avoid ambiguity)	The speakers provide ambiguous reference/ utterance, which can be interpreted in two folds. Moreover, that particular utterance is also already mentioned before in the previous utterance.
(h)	Maxim of quality (not enough evidence) and manner (not being orderly)	The speakers provide untrue utterance i.e. not having sufficient evidence and that utterance is not in a sequential manner, which means that the utterance is uttered in a wrong place.

Table 5.3 Infringing two or more maxims at the same time (cont.)

	Infringing maxims	Explanation
(i)	Maxim of quantity (more informative than is required) and manner (not being orderly)	The speakers provide utterance that has been already given once before, which also is not provided in a sequential manner.
(j)	Maxim of relevance and quantity (less informative)	The speakers do not provide information in accordance to the scope of the picture book. Additionally, the utterance provided is left unfinished.
(k)	Maxim of quantity (more informative than is required), manner (not being orderly), and quality (untrue information)	The speakers give wrong information, which does not present in the picture book. Moreover, the utterance provided is not in a place where it should be and the utterance is already mentioned before in the narrative (See example 5.20 below).

Example 5.19 and 5.20 below illustrate these infringing of two maxims and three maxims, respectively.

Example 5.19: Cooperative principle – infringing maxim of quantity and manner

Infringing maxim of quantity by providing unnecessary information as well as maxim of manner by not “avoiding obscurity” – The speaker provides unclear reference and the utterance is already mentioned at the previous utterance.

Utterance 178: *ma:*¹ *tuə:*¹ *han*⁵ *mu:p*³ *way*⁶
 dog CLASS. DEM. crouch PAR.
 ‘That dog crouches.’

This utterance is considered as unclear by the demonstrative determiner *han*⁵ ‘that’ when it follows the utterance 177, which runs:

Utterance 177: *ma:*¹ *tuə:*¹ *ni:*⁶ *mu:p*³
 dog CLASS. DEM. crouch
 ‘This dog crouches.’

The utterance 178 is unclear, whether *ma:*¹ *tuə:*¹ *han*⁵ ‘that dog’ and *ma:*¹ *tuə:*¹ *ni:*⁶ ‘this dog’ are the same dog. Moreover, clause 178 also infringes maxim of quantity, in which the speaker already provides this utterance before. This scene can be found in pages 22-23 of the picture book.

Example 5.20: Cooperative principle – infringing maxim of quantity, manner and quantity

Infringing maxim of quantity by being more informative, maxim of manner by not being orderly, and maxim of quality by providing untrue information - The speaker gives wrong information, which does not present in the picture book. Moreover, the utterance provided is not in a place where it should be and the utterance is already mentioned before in the narrative.

Utterance 52: pən⁴ kɔ:⁴ diŋ² k^hiŋ⁵ ma:² day⁵
 he AUX. pull up come get
 ‘He can pull up.’

Utterance 53: ø diŋ² ma:¹ k^hiŋ⁵ma:² day⁵ nɔɔ²
 zero pronoun pull dog upward PROG. PAR.
 ‘[ø = laɔ³ɔɔn³ ‘the child’ in utterance 52] can pull the dog upward.’

Firstly, the speaker infringes maxim of quantity. The speaker provides this utterance, which has been given before in the previous utterance 52. Secondly, the speaker infringes maxim of manner by providing an utterance that is stated in the wrong place. In fact, this utterance should be uttered after utterance 9. However utterance 10, which contains the exact information of utterance 53, already exists. Thirdly, the speaker also infringes maxim of quality by providing wrong information. The boy does not pull the dog upward, rather the dog comes up from the river by himself. Hence, according to this example, the utterance infringes three maxims. This scene can be found in page 9 of the picture book.

The concept of “cooperative” focuses on how each schizophrenic speaker cooperates to the picture book while narrating the story. While it has been found that some schizophrenic speakers highly cooperate in their narrative, other schizophrenic speakers tend to be less cooperative. However, none of absolutely uncooperative schizophrenic speaker is found.

5.3 Summary

The present chapter concerns with the analysis using Grice’s cooperative principle (1975). The concept of cooperative has been primary dealt with. Whereas “cooperative” in other studies focuses on how the participant cooperate to other participant in their conversation. In this present research, “cooperative” in this sense means roughly that the speaker is cooperative to the picture book while narrating the story. It is “roughly cooperative”, because schizophrenic speakers can be ranged from

being less cooperative to more cooperative. This concept further leads to how coherent a narrative is, which can be measured by the degree of cooperativeness. While some schizophrenic speakers highly cooperate in their narrative, other schizophrenic speakers tend to be less cooperative. In doing so, the speakers are required to “observe” the so-called cooperative principle, which comprises of four maxims: quantity, quality, relevance and manner, including their sub-types.

In accordance with the finding, some narratives contain relatively less relevant information to the scope of the picture book, as well as the narratives are mostly narrated using unclear and ambiguous linguistic elements. Moreover, it can be inferred that the speakers of these narratives are more repetitive as the number of infringing maxim of quantity by providing information “more informative than is required” from the scope of the picture book also achieves high frequency of occurrence. Lastly, some speakers usually provide information based on their own inference with insufficient evidence i.e. less elements from the picture book is given in their narratives, resulting in infringing maxim of quality. In contrast, there are some speakers that observe the maxims, rather than infringing them although they infringe some of the maxims sometimes. For example, there are some unclear and ambiguous elements, but these elements do not make the listener incomprehensible in their narratives. Finally, it has been found that there are some utterances that result in “non-sense”, which, in this present research, they are counted as “irrational”.

CHAPTER VI

THEME DEVELOPMENT

This present chapter encompasses data analysis using two comprehensive linguistic frameworks provided by Longacre (1985; 1989), which are participant reference and storyline. It begins with how these frameworks are applied in this present research. The next section concerns with some significant findings of participant reference. Furthermore, the findings of storyline cover the next section, together with examples and explanation. The last section provides a summary of the chapter.

6.1 Key concepts

The primary concern of participant reference in this research deals with how participants are mentioned i.e. operated within the narratives. Hence, once a participant is introduced on a floor, how this particular participant is stayed, removed or reintroduced on the floor is mainly investigated. Furthermore, another concept deals with what is counted as ‘participant’? To this point, anything that does an action is considered as participant, regardless of its being animate or inanimate.

Another important component of the discourse information deals with storyline and non-storyline elements - supportive elements. This research chiefly enquires how the narrative is progressed in accordance with the presence of these storyline elements: (1) cognitive experience – punctiliar happenings, (2) event proper – a change of state, (3) motion verbs – showing direction, and (4) action verbs – actual happenings. Moreover, non-storyline components are also explored, which comprise of (1) cohesion - adverbial clauses functioning as linker of previous event to the next one, (2) evaluation – the speaker’s evaluation/ comment, (3) irrealis - situation that might or might not happen, (4) setting – description of an event, (5) flashback – events in the past, (6) cognitive state – gradual happenings.

The participant reference is firstly explored in the following section, whereas storyline and non-storyline are given thereafter. Table 6.1 below indicates the characteristics of participant reference in the narratives of schizophrenic speakers.



Table 6.1 Characteristics of participant reference in narratives of schizophrenic speakers

Participant reference	General findings	Exceptional findings
Participant rank	• Most schizophrenic speakers set 'a boy' as their main participant in the narratives. • The secondary and the tertiary participants vary narrative by narrative. • Referring to participants in group occurs in all narratives. • All speakers provide 'a fishhook' as their prop.	• In some narratives, the numbers of exophoric participants, including ambiguous/ unidentified participants are higher than endophoric elements, although exophoric participant does not exist in all narratives.
Participant operation	• Different participants are introduced, reintroduced, maintained, and removed by different linguistic features. • Secondary and tertiary participants are often reintroduced and rarely maintained. • Group participants and props are introduced and rarely maintained, and removed right after being introduced. • Pronouns and zero anaphora are commonly used for referring to participants.	• Some schizophrenic speakers make reference to endophoric participants in their narratives, while others provide ambiguous and exophoric reference to their participants. The percentage of endophoric participants ranges from 36% - 100%. • The chains of endophoric participant in most narratives of schizophrenic speakers are rarely established. • On the one hand, main participants are sometimes cut off from the narratives when exophoric context takes place. Some of them are brought back while others are never mentioned again. On the other hand, main participants are maintained throughout the entire narratives without the interruption of exophoric context at all. • In some narratives where exophoric context takes place, exophoric participants are operated in first-, second-, and third person reference, which are

Table 6.1 Characteristics of participant reference in narratives of schizophrenic speakers (cont.)

Participant reference	General findings	Exceptional findings
		often referred to by pronouns. Once they are introduced, the exophoric context remains for a period of time. In contrast, these participants are introduced and never maintained or reintroduced again in some narratives. • The chain of exophoric participants as topical subject in exophoric context seems to establish higher “conjoinability” than the chain of endophoric participants in some narratives. • There are some conversation-like chunks of clauses occurred in between the exophoric context, which is uttered by the speaker himself, although this feature is not found in most narratives. • Pronouns are commonly used for referring to exophoric participants in some narratives where exophoric context takes place, whereas in some narratives, third person pronoun is the only personal pronoun that is occurred. • Zero anaphora is usually applied in the subject position, both exophoric and endophoric contexts. When this grammatical form is applied in reintroducing participants, it often causes vagueness.

*General findings concern with the results from all narratives of schizophrenic speakers, while exceptional findings deal with the results from some narratives.

6.2 Characteristics of participant reference

6.2.1 Participant references of schizophrenic narratives in general

The analysis shows that schizophrenic speakers sometimes make reference to the participants in their narratives by using ambiguous, exophoric and/ or with unidentified reference. In some narratives, the number of these participants is higher than endophoric elements, although exophoric participant does not exist in all narratives. To this point, the percentage of endophoric participants ranges from 36% - 100%, which means the higher the percentage, the more endophoric participants exist.

The participants in all narratives are firstly ranked based on the frequency of occurrence of participant in each narrative in order to observe what participant is arranged as the most important participant in schizophrenic narratives. The participants can be divided into five categories: main, secondary, tertiary participants, groups, and props, excluding ambiguous, unidentified, and exophoric references. As stated in the picture book, there are (1) a boy, (2) a dog, (3) a frog, (4) a turtle, (5) a fishhook, (6) a water bucket, (7) a spade, and some other elements such as tree, flower, stone etc. These elements are counted as endophoric participants/ props, whereas other elements that are not presented in the picture book are accounted for as exophoric participants/ props. Accordingly, different speakers set different participants and/ or props in their narratives.

Most speakers set *dek*² ‘a boy’ as their main participant in the narratives, although there are some narratives that set both *dek*² ‘a boy’ and *taw*³ ‘the turtle’ as main participants. Main participants are usually mentioned throughout the whole narrative in some narratives of schizophrenic speakers, whereas they are left out off the stage sometimes in some narratives. They usually come back on stage again, but sometimes they don’t. Furthermore, secondary and tertiary participants differ narrative by narrative. For example, one speaker sets *taw*³ ‘the turtle’, whereas the other speaker sets *ma*:¹ ‘the dog’ as secondary participant. Additionally, some speakers set *kop*² ‘the frog’ as secondary participant, while other speakers set it as tertiary participant. In some narratives, more than one secondary or tertiary participant is provided. These participants do not occur on the stage the entire narrative in all narratives. They appear less frequency than the main participant, especially tertiary participant is usually

introduced and removed right after being introduced in most narratives. Secondary and tertiary participants are sometimes set up as locally thematic participant in the narratives.

Group participant is occurred in all narratives. These are, for example, *ma:¹ kap² kop²* ‘the dog and the frog’, *su²nak⁵ kop² taw³* ‘the dog, the frog, and the turtle’, and the like. Group is sometimes set up as locally thematic participant as well, but not as frequency as other participants. As for prop, it is defined as inanimate participant, who never initiate any action in the narrative. All speakers set *bet²* ‘a fishhook’ as the most occurring number for prop. Moreover, there are other props such as *na:m⁶ku⁵* or *t^haŋ¹na:m⁶* ‘a water bucket’, *p^ha:⁵* ‘cloths’, and *p^hluə:⁵* or *cə:p³* ‘a spade’ found in the narratives.

While some schizophrenic speakers make reference to endophoric participants in their narratives, others include ambiguous and exophoric references to participants, which the number of these participants is higher than endophoric participants in some narratives. Exophoric participant are such as *p^hɔ:n²t^hip⁵* ‘assumed to be the speaker’s name’, *lu:k⁴* ‘son/ daughter’, *pa:⁵* ‘aunt’, *mɔ:¹* ‘doctor’ and the like.

6.2.2 Participant operations according to their ranks and their grammatical forms

This section deals with how participants are operated in the narratives and by what grammatical features. As stated, different speakers set different participants to be their main, secondary or tertiary participants, even groups and props, because how significant each participant for a speaker is different. Summary of grammatical forms and some significant features of participants operation are provided as follows.

1) Grammatical forms

Grammatical features in schizophrenic narrative discourse can be divided into two types: overt marking, which includes noun phrase and pronouns; and covert marking, which includes zero anaphora.

Firstly, noun phrase consists of nouns with or without modifier. Noun without modifier is referred to as “simple noun phrase”, which is commonly used to refer to group of participants, whereas nouns with modifier are referred to in this

research as “noun phrase”. This noun phrase includes definite noun phrase and possessive noun phrase. According to the analysis, some noun phrases are found, both endophoric as well as exophoric participants. Examples of noun phrases are such as *ma:¹ kap² kop²* ‘the dog and the frog’, *lu:k⁴ kap² la:n¹* ‘the child and the grandchild’, *laʔ³ ʔɔn³ k^hon² han⁵* ‘that boy’, *p^huə:k⁴ niəʔ⁶* ‘these things’, *suʔ³ nak⁵ k^hɔŋ¹ k^haw¹* ‘his dog’ etc.

Secondly, schizophrenic speakers also use noun as grammatical item in referring to participants. This also encompasses generic noun. In addition, nouns are applied both endophorically and exophorically in the some narratives. These are such as *kan² bet²* ‘the fishhook’, *huə:y¹* ‘the lottery’, *k^hon²* ‘human’ and the like.

Thirdly, pronoun is defined as first, second or third person which refers to nouns or noun phrase that has been mentioned before in the narrative. This category also includes kinship terms, occupation terms, personal names, and title terms. Pronoun is commonly used for referring to exophoric participants in some narratives, while in some narratives third person pronoun is the only personal pronoun that is occurred, which is endophorically applied. Examples of pronouns are *k^haw¹* ‘he/she/they’, *pən⁴* ‘I/he/she/they’, *nɔ:ŋ⁶* or *p^hom¹* or *ku:²* ‘I’ and some others.

Lastly, zero anaphora (Li and Thompson, 1979, p. 312) or zero pronoun is another grammatical form that all speakers commonly use to encode participants in their narratives more than any other grammatical forms. Zero anaphora is defined as zero form that the speaker uses to refer to participants instead of full form and assumes that the listeners have ability to interpret. Zero anaphora is usually applied in the subject position, and in both endophoric and exophoric context. However, it also occurred in the object and possessive position, but not in a great number. This also includes ambiguous and unidentified zero form. More examples of grammatical forms can be found in Appendix G.

2) Participant operations

This section concerns with how participants are operated in the narratives. There are four aspects that are considered as participants operations in this present research: introduce, reintroduce, maintain, and removal of participants. As for introducing participant, it deals with how a particular participant is set up on the stage for the first time, whereas reintroducing participant concerns with a participant is

introduced again on stage after being left out off the stage for a short period of time or for a while. As for maintaining participant, it is referred to as a particular participant that is introduced or reintroduced and is continued on the stage, while removal of participant concerns with a participant is left out of the stage and never mentioned again for the rest of the narrative.

In schizophrenic narratives, different participants are introduced, reintroduced, maintained, and removed differently. Regardless of any linguistic features that are applied in operating participants, the chains of endophoric participant in most narratives of schizophrenic speakers are rarely established. Schizophrenic narratives are often broken down by exophoric context, which causes the endophoric participants to be disrupted. Accordingly, this pattern is a primary pattern of topical subject development of most schizophrenic narratives. Example 6.1 indicates this point.

Example 6.1: Endophoric participants interrupted by exophoric participants

Clause 46.1:	sua:n ³	k ^h on ²	∅	kit ⁵	wa: ⁴
	CON.	human	zero anaphora	think	that
	As for the child, I (the speaker) think				
Clause 46.2:	∅	na: ⁶ caʔ ²	pik ⁵	ba:n ⁵	
	zero anaphora	may be	turn	home	
	(∅ = the child) might go back home.				
Clause 47:	tɛ: ³	∅	yaŋ ²	maʔ ³	pik ⁵ tə: ⁴
	CON.	zero anaphora	yet	NEG.	turn PAR.
	But the child does not go back yet.				
Clause 48:	∅	k ^h iə: ³	taw ³	yu: ³	
	zero anaphora	stir	turtle	POST	
	(∅ = the child) still stirs the turtle.				

Clause 49: taw³ na:⁶caʔ³ ta:y¹ lɛ:w⁶
 turtle may be die ASP.
 The turtle may be dead.

Clause 50: som¹na:m⁶na:⁴
 It serves you right.

Clause 51: tɛ:³ man² mi:² yu:³ ya:ŋ³ nɔʔ⁵
 CON. it there is/ there are POST something PAR.
 But there is something.

Clause 52: p^hay¹ p^hay¹ kɔ:³ kuə:¹
 Wh. question Wh. question PRE. fear
 ta:y¹ tiŋ²ʔan⁶ cay⁴ kɔ:³
 die PAR. right Q. Tag
 Everyone fears of dead, right?

Clause 53: nɔ:⁶ŋ kɔ:³ kuə:¹
 sister PRE. fear
 I (the speaker) am also fear.

Clause 54.1: tɛ:³ ba:p³ p^hɔ:² nɔ:⁶ŋ
 CON. filler CON. sister
 kit⁵ p^hɔ:³ lɛ:w⁶ niə:²
 think see ASP. PAR.
 But when I (the speaker) ponder,

Clause 54.2: $ca\eta^3 day^2$ haw^2 $t\eta^6$ ma^2 $ya\eta^3$ $ca\eta^3 \eta an^5$
 Wh. question I must come do so
 Why do I have to do like that?

According to this example, the speaker uses endophoric participants such as $k^h on^2$ ‘human (here: the child)’ in clause 46 and continues referring to this participant by using zero anaphora in the following clauses 48 and 49. The speaker also provides taw^3 ‘the turtle’, which is also another endophoric participant in clauses 48 and 49. However, these participants are broken down by the introduction of exophoric participants such as $p^h ay^1 p^h ay^1$ ‘everyone’ in clause 52, which is continued by another form of exophoric participant $n\omega:\eta^6$ ‘I (the speaker)’ in clauses 53 and 54, and haw^2 ‘I (the speaker)’ in clause 54. Hence, most schizophrenic narratives exhibit this pattern, which often cause the chain of endophoric participant to be broken down.

Due to the interruption of exophoric participants in some narratives as illustrated in the example 6.1 above, the operation of the main participants also displays similar pattern. On the one hand, main participants are sometimes cut off from the narratives when exophoric context takes place. Some of them are brought back while others are never mentioned again. On the other hand, main participants are maintained throughout the entire narratives without the interruption of exophoric context at all. In some narratives where exophoric context takes place, exophoric participants are operated in first-, second-, and third person reference. Accordingly, the first person refers to reference to the speaker, the second category deals with reference to the listener, which is the researcher. And the last category refers to reference to other persons who are not existed in the current narratives. Once they are introduced, the exophoric context remains for a period of time. In contrast, these participants are introduced and never maintained or reintroduced again in some narratives as well. Regarding, the chain of exophoric participants as topical subject in exophoric context seems to establish higher “conjoinability” than the chain of endophoric participants in some narratives.

A typical pattern for the occurrence of exophoric participants is endophoric – exophoric – endophoric – exophoric. It is common that once exophoric participants are introduced, the exophoric context remains for a period of time. Then,

the speakers bring back the context of the picture book. While in some narratives, once exophoric context is introduced, it is difficult for the speakers to obtain the context of the picture book. Moreover, there are some conversations-like utterances occurred in between the exophoric context in some narratives. These conversation-like chunks of utterances are uttered by the speaker himself, which is uncommon in typical narratives. The following example illustrates the extract of conversation-like chunks of utterances, which is uttered by a speaker.

Example 6.2: A conversation-like chunks of utterances uttered by a speaker

Clause 166: pi:⁴ ʔɔw² k^hɔ:ŋ¹kin¹ ma:² hi:⁵ ni:⁵ nə:⁴
 sister take food come PREP. DEM. PAR.
 ‘I take some foods for you.’

Clause 167: k^hɔ:p³k^hun² nə:⁴ ʔiəʔ⁵
 thank you PAR. DEM.
 ‘Thank you, I said.’

Clause 168: ø ʔɔk²kay³ ʔɔk²k^hay³ ma:² hi:⁵ kin¹
 zero pronoun some kind of food come PREP. eat
 ‘I cook some foods for you.’

Clause 169: ø pay² kat³ kɔ:⁴ maʔ³ day⁵
 zero pronoun go market AUX. NEG. get
 ‘I cannot go to the market.’

ø caʔ² pəŋ³ p^hay¹ kɔ:⁴ maʔ³ day⁵
 zero pronoun will beg PRON. AUX. NEG. get
 ‘I cannot beg anyone.’

Clause 120: ʔan⁵ Ø pen¹ ma:² ni:⁵ si:⁶
 filler zero pronoun verb to be come DEM. buy

k^ha:w³tom³ bɔ:¹
 boiled rice yes/no question mk.
 ‘You are being like this; do you want boiled rice?’

Clause 121: ʔi:² maʔ³ si:⁶ ʔaʔ⁵
 INT. NEG. buy PAR.
 ‘No, I don’t.’

pay² yaʔ⁵kan¹ təʔ⁵
 go work PAR.
 ‘please go to work’

maʔ³ si:⁶ ʔaʔ⁵
 NEG. buy PAR.
 ‘please do not buy’

Another aspect of participant operation concerns with secondary and tertiary participants, which are often reintroduced and rarely maintained in all narratives. Furthermore, group participants and props are introduced and rarely maintained, and removed right after being introduced as well.

Other than these characteristics of participant operation in the narratives of schizophrenic speakers, there are some grammatical forms that are applied in operating each participant according to its rank, which are illustrated in the table 6.2. Some explanation and significant points are provided thereafter.

Table 6.2 Participant operations

Operations	Participants Rank	Grammatical forms					Covert form
		Overt forms					
		NP	DEM. NP	POSS. NP	N	PRON.	
Introducing	Main	✓			✓	✓	
	Secondary	✓	✓	✓			
	Tertiary	✓			✓		
	Groups	✓				✓	✓
	Props				✓		
Maintaining	Main	✓	✓	✓	✓	✓	✓
	Secondary			✓	✓	✓	✓
	Tertiary		✓	✓	✓		✓
	Groups	✓					
	Props				✓	✓	✓
Reintroducing	Main	✓	✓		✓	✓	✓
	Secondary	✓	✓	✓	✓	✓	✓
	Tertiary		✓				✓
	Groups	✓					✓
	Props	✓		✓			✓
Removal	Main	are sometimes cut off by exophoric participants, and are rarely brought back in some narratives, while others are mostly maintained throughout the narratives without the interruption of exophoric participants					
	Secondary	are usually introduced and rarely maintained, and are usually left out due to the exophoric context in some narratives					
	Tertiary	are usually introduced and rarely maintained					
	Groups	are usually removed right after being introduced, or being interrupted and never reintroduced					
	Props	are introduced and rarely maintained until removed, or are usually introduced and suddenly removed					

* Items that are marked in gray spaces are considered as untypical usage for participant operation in the narratives.

Table 6.2 Participant operations (cont.)

Participant operations for exophoric participants										
Operations	Types of exophoric participants	Grammatical forms								
		NP	DEM. NP	POSS. NP	N.	PER.	KIN.	NAM.	OCC.	TIT.
Introduce	First person (the speaker)					✓	✓	✓		
	Second person (the listener)					✓			✓	
	Third person (other people)	✓		✓	✓	✓	✓	✓	✓	
Maintain	First person			✓		✓	✓	✓		
	Second person					✓			✓	
	Third person	✓	✓	✓	✓	✓		✓	✓	
Reintroduce	First person			✓		✓	✓	✓		
	Second person								✓	
	Third person	✓	✓	✓	✓	✓	✓		✓	

Remarks: in maintaining exophoric participants, first and third persons are rarely reintroduced and maintained in some narratives. In terms of second person, it is not occurred in some narratives in all operations. * Items that are marked in gray spaces are considered as untypical usage for participant operation in schizophrenic narratives.

According to table 6.2, different participants are assigned different grammatical forms in operating in the narratives.

a. Introducing

Endophoric participants are firstly introduced in all narratives of schizophrenic speakers. None of exophoric participants are introduced at the beginning of the narratives. The main participant is often introduced before other participants, which is usually formed by existential clause *mi:*² ‘there is/ there are’. Sometimes, the participants are not mentioned at the beginning of the narratives, rather the speakers initiate the clause by providing event without any occurrence of participant, which means that the speaker sometimes introduces participant into the narratives without the use of any linguistic element i.e. zero anaphora. Example 6.3 indicates this point.

Example 6.3: introducing participant with none linguistic element

Clause 1:	∅	cɔm ³	pa: ¹
	zero anaphora	to fish	fish
	(∅ = ?) is fishing.		

Another extract also illustrates the same phenomenon:

Clause 1:	∅	cɔm ³	bet ³
	zero anaphora	to fish	fishhook
	(∅ = ?) is fishing.		

In terms of introducing participants by grammatical features, most narratives introduce their main participant using overt grammatical forms, which is noun phrase (noun, adjective, classifier, and numeral) and noun such as *laʔ³ʔɔn³* ‘a boy’. Although there is a narrative that uses pronoun *ba:ŋ²siŋ³* ‘something’, it does not cause ambiguous. Additionally, secondary and tertiary participants are usually introduced by using noun phrases and noun, although there are some narratives that provide possessive noun phrase e.g. *ti:n¹suʔ³nak⁵* ‘a dog’s foot’ and demonstrative noun phrase such as *kop²tuə:¹han⁵* ‘that frog’ in introducing their secondary

participants. As for group participant, most narratives introduce their participants in group using noun phrase such as *ma:¹ kap² kop²* ‘the dog and the frog’, *ma:¹ kap² taw³* ‘the dog and the turtle’ etc. However, in other narratives, the speakers also apply zero anaphora and pronoun *t^huk⁵k^hon²* ‘everyone’ in referring to participants in group, which is uncommon. Using zero anaphora often leads to unidentified and ambiguous clause, which often breaks the chain of continuation of participants. As far as props is concerned, all narratives introduce their props using nouns such as *bet²* or *kan²bet²* ‘the fishhook’, and *yua:³* ‘the victim’.

b. Reintroducing

According to the analysis, reintroducing participants regardless of any rank often results in breaking the chain of continuation of participants. Schizophrenic speakers usually reintroduce participants by using zero anaphora and pronouns, which are untypical, although all speakers sometimes apply noun phrase and nouns as reference in their narratives such as *laʔ³ʔɔn³pɔ:⁴ca:y²* ‘a male child/ a boy’; generic noun such as *k^hon²* ‘human’; demonstrative noun phrase such as *laʔ³ʔɔn³ni:⁶* ‘this child’, *laʔ³ʔɔn³han⁵* ‘that child’, or *mɔ:¹han⁵* ‘that child’. As for pronouns, mostly *haw²* ‘I/ we’; *k^haw²* ‘he/they’ are applied. To this extend, reintroducing participants by using pronouns and zero anaphora often lead the narratives to become ambiguous. The use of zero anaphora and pronoun in reintroducing participants is illustrated in the example 6.4 as follows:

Example 6.4: zero anaphora and pronouns as grammatical features used in reintroducing participants

Clause 1:	kɔ: ³	mi: ²	dek ³	pɔ: ⁴ ca:y ²	k ^h on ²	niŋ ³	nɔʔ ²
	filler	there is/ are	child	male	CLASS.	NUM.	PAR.

There is a boy.

Clause 2:	lɛ:w ⁶	pən ⁴	kɔ: ³	mi: ²	suʔ ³ nak ⁵
	CON.	he	PAR.	have/has	dog

And he has a dog.

Clause 3.1: $\emptyset$ tok² pay² tok² ma:²
 zero anaphora fish go fish come
 While ($\emptyset$ = he) fishes,

Clause 3.2: $\emptyset$ ko:³ tit⁶ bet³
 zero anaphora PAR. stick fishhook
 ($\emptyset$ = something) is caught.

Clause 4.1 p^hɔ:² $\emptyset$ tit⁶ bet³ lɛ:w⁶ niəɽ²
 CON. zero anaphora stick fishhook ASP. PAR.
 When ($\emptyset$ = something) is caught, _____ (sentence is left unfinished.)

Clause 5: lɛ:w⁶ $\emptyset$ mi:² suɽ³nak⁵ nɔɽ²
 CON. zero anaphora have/has dog PAR.
 And ($\emptyset$ = the boy) has the dog.

Clause 6: lɛ:w⁶ko:³ tɔ:n¹ni:⁶ pən⁴ ko:³
 CON. CON. he filler
 diŋ² $\emptyset$ k^hin⁵ ma:²
 pull zero anaphora up come
 Then, he pulls ($\emptyset$ = ?) upward.

Clause 7.1: diŋ² $\emptyset$ k^hin⁵ ma:²
 pull zero anaphora up Come
 ($\emptyset$ = the boy) pulls ($\emptyset$ = ?) upward.

Clause 7.2 lɛ:w⁶ko:³ man² k^hoŋ² nak⁶
 CON. it might be heavy
 Then, it might be heavy.

Clause 8.1: p^hɔ:² Ø nak⁶ set⁶
 CON. zero anaphora heavy PAR.
 When it is heavy,

Clause 8.2: nay²han⁵ mi:² taw³
 PREP. there is/are turtle
 There is a turtle in the river.

Clause 9: mi:² suʔ³nak⁵ tok⁶ loŋ² pay²
 there is/are dog fall down go
 The dog falls down into the river.

Clause 10: Ø diŋ² Ø k^hin⁵ ma:²
zero anaphora₁ pull zero anaphora₂ up come
 (Ø = ?) pulls (Ø = ?) up.

According to this example, the speaker uses zero anaphora as a referring expression to their participant both properly and ambiguously. With regard to the use of zero anaphora in reintroducing participant, zero anaphora in clause 5 refers back to the boy in clause 1. In addition, there is an ambiguous use of this linguistic feature in clause 6, which is assumed to be used in reintroducing ‘something’ in the narrative that the boy caught from the river. However, the use of this zero anaphora is intervened by another zero anaphora in clause 5, which refers to the boy. Moreover, there is another participant introduced in that clause, which is ‘a dog’. Hence, the use of zero anaphora in clause 6 is vague. This zero anaphora continues to be used in maintaining this ‘something’ in clause 7.1. The use of pronoun approaches in clause 7.2, which also refers to the same participant. Zero anaphora is applied again in clause 8.1 for maintaining. This chain of ‘unclear’ participant is partially removed in clause 9, where it is further reintroduced again in clause 10 by using zero anaphora. In avoiding unclear participant/ utterance, overt grammatical item must be applied in this case, rather than applying the chain of zero anaphora and pronoun.

This phenomenon is commonly found in some narratives, where most exophoric participants are applied, while in some narratives where less or no existence of exophoric participant, do not exhibit this uncertain use of zero anaphora in reintroducing endophoric participants.

c. Maintaining

As far as maintaining of the main participants is concerned, all narratives maintain their main participant by using zero anaphora as well as pronouns such as *pən*⁴ ‘he’ and nouns as common grammatical forms. Some narratives use demonstrative noun phrase and possessive noun phrase, but not in a great number. In maintaining secondary and tertiary participants, grammatical forms that are usually encoded are noun and zero anaphora. Moreover, secondary and tertiary participants in some narratives are rarely maintained. Some participants are reintroduced and never stayed in the narratives. In maintaining group of participants, grammatical forms that are encoded are noun phrase. The number of group of participants is relatively lesser than any category. As for props, nouns are commonly used as grammatical form. Zero anaphora and pronoun are not applied to a great extent. Moreover, groups and props in some narratives are introduced and rarely maintained, and some of them are only in-/reintroduced and suddenly removed.

Typically, the chain of topic continuity in Thai establishes by chain of zero anaphora (Burusphat, 1983, p. 215), which means “where the topic established in the first clause serves as the referent for the unrealized topics in the chain of clauses following it” (Li & Thompson, 1979, p. 313). Hence, when the chain of topic creates, it also establishes “conjoinability”, which refers to clauses that share similar antecedent (Burusphat, 1983, p. 215). However, in this present research, participants are maintained by the use of various grammatical features, which some of them are interrupted by exophoric context. Moreover, as previously stated in reintroducing participants, participants are usually brought back to the scene by zero anaphora and pronouns, which often leads to unclear participants. These often results in the broken chains of endophoric participants. Moreover, participants are introduced and maintained, but are interrupted by other participants in the narratives in some narratives. Hence, the chains of endophoric participant in most narratives of schizophrenic speakers are rarely established.

d. Removal

On the one hand, the main participants in most narratives are always maintained throughout the entire narratives. However, it has been found that in some narratives where exophoric context takes place, the main participants are sometimes cut off from the narratives. Main participants are sometimes brought back to the narratives after the exophoric context, however there are some narratives that exophoric context is presented and the endophoric context is never brought back, where main and other participants are also never mentioned again. On the other hand, there are some narratives that the main participants are always maintained throughout the entire narratives without the interruption of exophoric context. As for removal of secondary, tertiary participants, groups and props, these participants in some narratives are usually left out from the narratives due to the presence of exophoric context. It is also usual that they are brought back to the narratives, but not as often as the main participants. When they are left out from the narratives, they are hardly brought back. Usually, these participants are removed from the narratives before the main participant.

e. Participant operation for exophoric participants

In some narratives where exophoric context takes place, these exophoric participants are operated in first-, second-, and third person reference. Exophoric participants including ambiguous and unidentified participants in some narratives receive the highest number. These participants are mostly referred to by pronouns. Moreover, noun phrases, nouns, as well as zero anaphora are also commonly applied. However, this kind of participant does not exist in all narratives.

According to table 6.2 above, schizophrenic speakers usually introduce themselves using zero anaphora, personal names, or pronouns at the first time. Of these references, it is difficult for the listener to realize whether when the speakers move from endophoric context to exophoric when zero anaphora is applied, whereas using pronouns and personal names are easily noticeable. As for reference to second person at the first time, the speakers commonly refer to the listener by using occupation term *mɔː*¹ ‘the doctor’, zero anaphora, or pronouns such as *ʔiː*³*piː*⁴ ‘you (literally: sister)’. Reference to the third person at the first time is usually applied by various grammatical features. The most occurring grammatical forms are nouns and

pronouns such as *kʰaw*¹ ‘he’, *pən*⁴ ‘he/she/they’, *kɛ*² ‘she/he’. Noun phrase such as *kʰon*²*ti*⁴*yu*³*tʰe*¹*ba*⁵ ‘a person who is staying at home’ or *mu*¹*kap*²*ɣuə*² ‘a pig and a cow’; and possessive pronouns such as *pi*⁴*nɔ*⁶*ɣ*⁶ ‘my older sister’ are also applied, but not as many as the previous forms. Title terms, personal names, kinship terms, as well as occupation terms are not often occurred. The least occurring grammatical form is demonstrative noun phrase. In referring to the third person, reference using pronouns are difficult to make an inference to who the speaker is talking about.

In maintaining exophoric participants, the speakers mostly continue the reference of self using zero anaphora. Pronouns such as *haw*¹ ‘I’ is also extensively applied when maintaining self-reference. Zero anaphora and pronouns are used appropriately as they are commonly applied in the continuity of the topical subject. Some speakers also refer to themselves using kinship terms such as *nɔ*⁶*ɣ*⁶ ‘I (literally: sister)’, however the use of this form is not as high as the previous two forms. Possessive noun phrase such as *sa*²*ɲ*³*mɔ*¹*ɣ*¹*nɔ*⁶*ɣ*⁶ ‘my brain’ etc. is also applied. It has been found that personal name is rarely used as self-reference. As for maintaining the listener’s reference, the speakers usually make reference by using occupation term *mɔ*¹ ‘the doctor’, pronouns or zero anaphora. As for other reference, the speakers commonly apply zero anaphora to maintain the third persons. Pronouns such as *kɛ*² ‘he/she’, *pən*⁴ ‘he/she/they’, or *man*² ‘it’ are also used. However, reference using *man*² ‘it’ creates ambiguity as there are some clauses that contain two or more participants. When *man*² ‘it’ is applied in this case, it is difficult to notice whether which participants it refers to. Other grammatical forms that are used to encode third persons are kinship terms such as *mɛ*⁴ ‘mother’, noun phrase, and nouns. Title terms, personal names, occupation terms, demonstrative noun phrase, and possessive noun phrase are found to be infrequently used.

In reintroducing exophoric participants, the speakers often reintroduce themselves by zero anaphora and pronouns. This is a significant remark as reintroducing participants using zero anaphora and pronouns usually cause the clauses or information in the clauses ambiguity and vagueness. By using zero anaphora, it is unknown whether the speakers talk about the participant in the picture book or about their private lives, which the latter is considered as exophoric. By using pronouns, it is

clear that the speaker explicitly reintroduce themselves into the floor again. Apart from these grammatical forms, kinship terms such as *nɔːŋ*⁶ ‘I (literally: sister)’ is relatively used as reintroducing self-reference. Possessive noun phrases as well as personal names are also applied. In terms of reintroducing the second person, occupation term is highly used, however one zero anaphora is found. As for reintroducing third person, the most occurring grammatical form is pronouns, which is uncommon for the typical narrative, because reintroducing using pronoun often causes clauses to be unclear to which participant is being talked about. Sometimes, pronouns are used to reintroduce participants and never mentioned the referring source. These pronouns are such as *man*² ‘it’ and *k^haw*¹ or *pən*⁴ ‘he/she/they’. Kinship terms and title terms are also frequently used. Another grammatical form that is considered to cause the clauses unclear is zero anaphora. This form is also frequently applied as reference to re-occurrence of third persons. Moreover, noun phrase is also applied, which is the typical use of re-occurrences. The least occurring forms are occupation terms, demonstrative noun phrase, nouns, and possessive noun phrase.

Additionally, in using pronouns and zero anaphora among participants that are introduced and reintroduced, sometimes it is not sure whether some of those participants are the same participants that the speakers refer to. Moreover, of those participants, some of them are ambiguous. However, sometimes participant is reintroduced by using zero anaphora and is re-mentioned in the following clause by noun. This can be interpreted that the speaker is aware of the fact that the narrative might be unclear and the listener might be misunderstood. Another point that should be taken into consideration is the use of zero anaphora in maintaining participants. While zero anaphora is applied to a great extend in maintaining exophoric participants regardless of first-, second-, or third persons in exophoric context, which often lead the exophoric context to be highly progressive, the use of this form as maintaining endophoric participants is rare, comparing to other grammatical forms. To this extend, as previously mentioned, the chain of exophoric participants as topical subject in exophoric context establishes higher “conjoinability” than the chain of endophoric participants in some narratives.

6.3 Characteristics of storyline

This section deals with another component of discourse information – storyline. Table 6.3 illustrates characteristics of storyline and non-storyline in the narratives of schizophrenic speakers.



Table 6.3 Characteristics of storyline and non-storyline

	General findings		Exceptional findings
Overall			• While there is a continuity of storyline elements and sequential markers without the interruption of non-storyline elements in some narratives, there is also a chain of non-storyline elements without the disruption of storyline elements in some narratives as well. • Some narratives comprise of a large number of non-storyline elements with a small amount of storyline elements and sequential markers. • Moreover, there are some narratives that exhibit the combination of both storyline and non-storyline components, together with sequential markers. • While storyline elements are usually attached by sequential markers in some narratives and most of them are temporal conjunctive elements, no or less sequential marker is found in some other narratives.
Non-storyline	• There are five non-storyline components: background, setting, evaluation, irrealis and flashback. • Irrealis is the most occurring category, which is usually marked by negation and futurity, whereas none of cohesion occurs in all narratives. • Setting is commonly marked by existential and descriptive verbs. • Various grammatical forms are applied as indicating irrealis more than other categories of		• Action verbs with pre-serial verb <i>kam²lay²</i> ‘progressive marker’ / post-serial verb <i>yu.</i>³ ‘stay’ are usually use to create background element. However, element in this category is rare in some narratives. Cognitive verb is usually functioned as cognitive state. • No element of flashback occurs in some narratives. However, when it exists, it is usually marked by time phrases.

Table 6.3 Characteristics of storyline and non-storyline (cont.)

	General findings	Exceptional findings
	non-storyline. • Direct comment and descriptive words usually indicate evaluation, whereas there is no evaluation occurs at the beginning and the end of the narratives.	
Storyline	• The percentage of storyline elements ranges from 0% - 78%. The higher the percentage of storyline elements, together with sequential markers, means the more the narrative moves forward. • There are four elements of storyline: action verbs, motion verbs, cognitive experience, and event proper, listing from the most occurring to the least. • Directional verbs as main verbs are mostly applied as motion verb.	• While passive construction and reported speech are rare in some narratives, none of causative construction occurs at all. • Although less cognitive experience is found in some narratives, when it occurs, cognitive verbs usually function as cognitive experience. Additionally, emotion verbs are also commonly applied in some narratives, which usually attached by auxiliaries and conjunctive elements.

*General findings concern with the results from all narratives of schizophrenic speakers, while exceptional findings deal with the results from some narratives.

According to the analysis, the percentage of storyline elements ranges from 0% - 78%. The higher the percentage of these elements, together with the presence of sequential markers, means the more the narrative moves forward. Four components of storyline are found: action verbs, motion verbs, event proper, and cognitive experience. In addition, there are five components of non-storyline: background, setting, flashback, irrealis, and evaluation. The frequency of occurrence of each type varies narrative by narrative. While a large amount of storyline elements are occurred in some narratives, storyline elements are rarely existed in some other narratives as well. In general, action verb is the most occurring category of storyline components, whereas irrealis is the most occurring type of non-storyline elements.

While there is a continuity of storyline elements and sequential markers without the interruption of non-storyline elements, which create highly progressive narratives in some narratives, there is a chain of non-storyline elements without the disruption of storyline elements in some narratives as well, which often leads the narratives to become less progressive. Moreover, it has been found that there are some narratives that exhibit the combination of both storyline and non-storyline components, together with sequential markers indicating temporal relationship. Hence, narratives that display this last pattern often result in a good narrative in terms of both progression and narration as Longacre (1989) indicates that “the line of sequential punctiliar happenings is the main structural feature of the story” (Longacre, 1989, p. 414). Therefore, according to these significances, three patterns of theme line of development are established in schizophrenic narratives: (1) the chain of storyline elements, which is illustrated in the example 6.5; (2) the chain of non-storyline elements, indicated in the example 6.6; and (3) the chain of the combination of storyline and non-storyline elements, which is depicted in the example 6.7, respectively.

Example 6.5: a chain of storyline elements

Clause 7.1: lɛ:w⁶ dek² kɔ:⁴ han¹ taw³
 CON. child PRE. see turtle

Then, the boy sees the turtle.

Clause 7.2: $\emptyset$ ka:p⁴ bet³
 zero anaphora hold fishhook
 ($\emptyset$ = the turtle) holds the fishhook into his mouth.

Clause 8: le:w⁶ ma:¹ ko:⁴ pay² ha:¹ taw³
CON. dog PRE. go meet turtle
 Then, the dog comes to see the turtle.

Clause 9: le:w⁶ $\emptyset$ ko:⁴ do:n² taw³
CON. zero anaphora PRE. PASSIVE turtle
kat² ti:⁴ k^hen⁴ ti:⁴ ti:n¹
bite PREP. leg PREP. Foot
 Then, ($\emptyset$ = the dog) is bitten at his leg.

Clause 10: dek² ?an⁵ din² ma:¹
 child filler pull dog
?o:k³ ca:k³ pa:k³ taw³
out PREP. mouth turtle
 The boy pulls the dog from the turtle's mouth.

This example depicts the use of various storyline elements such as cognitive verb *han*¹ 'see' in clause 7.1, action verb *ka:p*⁴ 'hold into one's mouth' in clause 7.2, following by motion verb *pay*² 'go' plus action verb *ha*:¹ 'meet' in clause 8. Moreover, there is a passive voice *do:n*²... *kat*² 'is bitten' in clause 9, which another action verb with directional verb *din*²... *?o:k*³ *ca:k*³ 'pull out' that comes after. These storyline elements are accompanied by sequential markers such as *le:w*⁶... *ko*:⁴ 'and then' in clause 7.1, 8, and 9, forming a highly sequential chain of progression.

Example 6.6: a chain of non-storyline elements

Clause 37.1: taw^3 ni^5 ko^4 kam^1lan^2 $ʔa^5$ $pa:k^3$
 turtle DEM. PRE. PRE. open mouth
 The turtle is opening his mouth.

Clause 37.2: $\emptyset$ $caʔ^3$ kop^2 $ti:n^1$ ma^1
 zero anaphora will bite foot dog
 ($\emptyset$ = the turtle) will bite the dog's foot.

Clause 38: $\emptyset$ $maʔ^3$ di^2 $tɛ^6$
 zero anaphora NEG. good ADJ.

 $maʔ^3$ di^2 wa^4 ho^1
 NEG. good ADJ. PAR.
 ($\emptyset$ = the turtle) is absolutely bad.

Clause 39: $\emptyset$ tin^2 pen^1 $caʔ^3ʔi^5$ na^1
 zero anaphora PRE. verb to be so PAR.
 That's it.

Clause 40: pi^4 $no:n^6$ ko^4 $maʔ^3$ ma^2
 older sister younger sister PRE. NEG. come
 Sisters do not come.

Clause 41: $\emptyset$ $ca:y^1dam^2$ $tɛ^6$ $ca:y^1dam^2$ wa^4
 zero anaphora cruel ADJ. cruel PAR.
 ($\emptyset$ = sisters) are totally cruel.

Clause 42: $\emptyset$ caʔ³ k^hwɛ:n¹ kɔ:² ta:y¹ na:¹ niʔ⁴
 zero anaphora will hang dead PAR. PAR.
 (∅ = ?) will execute by hanging oneself to dead.

Clause 43.1: ni:⁵ pən⁴ wa:⁴
 DEM. they say
 They said that

Clause 43.2: $\emptyset$ pay² yaʔ⁶ caʔ³ nan⁶
 zero anaphora NEG. do so
 Do not do like that.

Clause 44.1: $\emptyset$ yaʔ⁶ caʔ³ nan⁶
 zero anaphora do so
 If (∅ = ?) do that,

Clause 44.2: $\emptyset$ ba:p³ na:¹
 zero anaphora sin PAR.
 It's sinful.

According to this example, a chain of non-storyline components is formed by several categories. To begin with, although ʔa:⁵ pa:k³ 'open one mouth' in clause 37.1 is an action verb, but it is accompanied by a pre-modifier kam¹ laŋ² forming a background. The chain continues by the use of futurity caʔ³ kop² 'will bite' in clause 37.2, which is further intensified by evaluation maʔ³ di:² tɛ:⁶ maʔ³ di:² wa:⁴ 'it's absolutely bad' in clause 38. Clause 39 also indicates the use of evaluation tiŋ² pen¹ caʔ³ ʔi:⁵ 'that's it'. The chain further goes on by using negative maʔ³ ma:² 'does not come' in clause 40. Another form of evaluation is applied in clause 41, which is ca:y¹ dam² tɛ:⁶ ca:y¹ dam² wa:⁴ 'they are totally cruel'. Clause 42 provides another irrealis of futurity caʔ³ k^hwɛ:n¹ kɔ:² ta:y¹ 'will hang oneself' with the accompany of

unclear reference. Another negative marker *pay*² ‘not’ in *pay*² *yaɿ*⁶ *caɿ*³ *nan*⁶ ‘do not do like that’ is given in the following clause. The chain further continues by using conditional in clause 44. A closer look at the content, this example illustrates the transition from endophoric context in clause 37-39 to exophoric context from clause 40 onwards. This pattern is usually occurred in most narratives where exophoric context takes place in between the narratives.

Example 6.7: a chain of storyline and non-storyline elements

Clause 1: wan²nɪŋ³ dek³ pɔ:⁴ca:y² k^hon² nɪŋ³
 ADV. child male CLASS. NUM.

ma:² tok²pla:¹ ti:⁴ ta:⁴na:m⁶
come to fish PREP. shore

One day, a boy goes fishing at the shore.

Clause 2: ∅ ma:² kap⁵ suɿ³nak⁵
 zero anaphora come PREP. dog

tuə:¹ nɪŋ³ kap⁵ kop²
 CLASS. NUM. PREP. frog

(∅ = the boy) comes with the dog and the frog.

Clause 3.1: k^haɿ³naɿ³ti:⁴ pən⁴ kam¹lan² tok²pla:¹ yu:³
 ADV. he PROG. to fish POST.

While he was fishing,

Clause 3.2: kɔ:³ mi:² kuə:k³
 CON. there is/ are shoe

There is a shoe

Clause 3.3: $\emptyset$ lɔ:y² ma:²
 zero anaphora float come
 ($\emptyset$ = the shoe) floats.

Clause 4.1: kɔ:³ muə:n¹ mi:² ʔaʔ²yaŋ¹
 CON. seem like there is/are Wh. Q. mk
 It seems like there is something

Clause 4.2: $\emptyset$ tit²bet³ yu:³
 zero anaphora attach POST.
 ($\emptyset$ = something) is still caught.

Clause 4.3: pən⁴ ciŋ² diŋ² $\emptyset$ k^hin⁵
 he CON. pull zero anaphora up
 He, then, pulls ($\emptyset$ = something) upward.

Clause 5.1: tɛ:³ maʔ³tan²ti:⁴ $\emptyset$ caʔ³ diŋ² k^hin⁵
 CON. ADV. zero anaphora will pull up
 But not until ($\emptyset$ = the boy) pulls ($\emptyset$ = something) upward.

Clause 5.2: bet³ kɔ:³ com¹na:m⁶ pay²
 fishhook CON. drown go
 The fishhook drowns.

Clause 5.3: lɛ:³ dek³ pɔ:⁴ca:y² k^hon²
 CON. child male CLASS.
 ni:⁶ kɔ:⁴ tok²na:m⁶ pay² tuə:y²
 DEM. CON. fall go too
 Then, this boy falls down into the river too.

This example illustrates the use of storyline and non-storyline elements, together with some sequential markers, forming a narrative. From the first clause, the event is created by the use of motion verb and action verb *ma:² tok²pla:¹* ‘go fishing’. The narrative continues with the use of another motion verb *ma:²* ‘come’ in clause 2. Then, the narrative is accompanied by element in the background category marked by a pre-modifier *kam¹lay²* and a post-modifier *yu:³*, which is non-storyline. And the clause is further attached by adverb of time *k^ha³na³ti:⁴* ‘while’, indicating the present happening. The speaker further continues providing another non-storyline category, setting, indicated by *mi:²* ‘there is/are’ in clause 3.2, while he/ she provides an action verb together with directional verb *lɔ:y² ma:²* ‘float’ in clause 3.3. However, the whole clause is accounted for as setting, because it illustrates the existence of a prop *kuə:k³* ‘shoe’ in the previous clause. Clause 4.1 is another use of setting *mi:²* ‘there is/are’, but it is accompanied by marker *muə:n¹* ‘seem like’ indicating uncertainty, which is counted as irrealis. The following clause indicates background category by the use of post-modifier *yu:³* in *ti²bet³ yu:³* ‘is still caught’, while clause 4.3 provides action verb with directional verb *diŋ²... k^hin⁵* ‘pull upward’ together with marker indicating causal relation *ciŋ²* ‘so’. However, the event is broken down by irrealis *ca³ diŋ² k^hin⁵* ‘will pull up’ and marker indicating negative *ma³tan²ti:⁴* ‘not until’ in clause 5.1, forming an unfulfilled event, which is replaced by another event in clause 5.2 and 5.3 by the use of action verbs *com¹na:m⁶ pay²* ‘drown’ and *tok²na:m⁶ pay²* ‘fall down’, respectively, which are further attached by temporal conjunctive element *le:³... kɔ:⁴* ‘and then’.

While storyline elements in some narratives are usually accompanied by non-storyline components and sequential markers such as temporal conjunctive elements, forming progressive narratives, other narratives comprise of a large number of non-storyline elements with a small amount of storyline elements. In addition, none or less number of sequential markers is applied at all in some narratives as well. It is hardly determined that the events in these narratives are progressed. Example 6.8 illustrates an extract of a narrative where none sequential marker occurs.

Example 6.8: narrative without sequential marker

Clause 19: taw³ kin¹ bet²
 turtle eat fishhook
 The turtle eats the fishhook.

Clause 20: k^hon² ʔum⁵ ma:¹
 human hold dog
 The boy holds the dog.

Clause 21: k^hon² ʔum⁵ ma:¹
 human hold dog
 The boy holds the dog.

Clause 22: taw³ kin¹ bet²
 turtle eat fishhook
 The turtle eats the fishhook.

Clause 23: k^hon² ʔum⁵ ma:¹
 human hold dog
 The boy holds the dog.

According to the example illustrated above, all verbs are accounted for as action verbs, which can be counted as storyline components. However, at a closer look at the sequentiality of the narrative, there is no use of sequential marker at all in this extract as well as in the entire narrative. To this extend, this narrative is marked as “no progression” and it cannot be accounted for in storyline analysis, because the quality of being storyline requires (1) punctuality, (2) sequentiality, (3) and volition. However, this narrative lacks sequentiality.

Other than the fore-mentioned patterns of the chain of storyline and non-storyline elements in the narratives, there are some characteristics of these components that have been found in the analysis. To this point, characteristics of non-storyline

components in narratives of schizophrenic speakers are firstly provided. Next, characteristics of their storyline elements are also illustrated thereafter.

6.3.1 Non-storyline elements

Non-storyline is defined as components, which serves as supportive elements of the storyline that does not move the story forward. Irrealis is the most occurring category, which is usually marked by negation and futurity, whereas none of cohesion occurs in all narratives. Table 6.4 illustrates non-storyline elements that are applied in the narratives of schizophrenic speakers.

Table 6.4 Non-storyline elements in narratives of schizophrenic speakers

Elements of non-storyline	Linguistic features	Accompanied markers	Examples
Background	Cognitive verbs	- adverbs of frequency <i>taʔ³lɔːt³</i> ‘always, all the time’ - durative adverbs <i>cʰuəːŋ⁴niŋ⁴</i> ‘for a while’, <i>tiŋ²wan²niː⁶</i> ‘today/ everyday’, and <i>caːŋ⁴</i> ‘usually’ - post-serial verbs <i>yuː³</i> ‘to be in progress’ - perfective marker <i>lɛːw⁶</i> ‘already’ - without any marker	- <i>huː⁶kuː³yaːŋ⁴maː²taʔ³lɔːt³</i> ‘know everything all the time’ - <i>huː⁶yuː³lɛːw⁶</i> ‘have known already’ - <i>daːy⁵taw³maː²lɛːw⁶</i> ‘have got the turtle’ - <i>kit⁵pʰɔː³tɛː⁶</i> ‘profoundly think’ - <i>diŋ⁵pʰɔː³</i> ‘staring’ - <i>diŋ⁵cəː⁴kəː⁴</i> ‘stand tight’ - <i>kuəː¹yuː³han⁵</i> ‘is still afraid’
	Action verbs	- pre-serial verb <i>kam²laŋ²</i> ‘progressive marker’ - post-serial verbs <i>yuː³</i> ‘stay’ or <i>yuː³han⁵</i>	- <i>kam²laŋ²tʰam¹yuː³</i> ‘is doing’ - <i>kam¹laŋ²tʰɔːt³siaː⁵pʰaː⁵yuː³</i> ‘is taking off the cloths’
	Emotive verbs		- <i>diː²cay¹</i> ‘happy/glad’
Flashback		- time phrase <i>tɔːn¹laʔ³ʔɔn³</i> ‘when I was young’, <i>taʔ³kɔːn³</i> ‘back then’, <i>tɔːn¹han⁵</i> or <i>cʰuəːŋ⁴haːn⁵</i> ‘then’	- <i>tɔːn¹laʔ³ʔɔn³nɔːŋ⁶faːn¹kʰay⁶yaːk³pen¹</i> ‘when I was a child, I dreamed to be a businessman.’
		- perfective marker <i>lɛːw⁶</i> ‘already’	- <i>pɔː⁴mɛː⁴nɔːŋ⁶kɔː⁴taːy¹lɛːw⁶</i> ‘my parent died.’

Table 6.4 Non-storyline elements in narratives of schizophrenic speakers (cont.)

Elements of non-storyline	Linguistic features	Accompanied markers	Examples
Settings		- auxiliaries <i>kə:y</i> ² ‘used to’	- <i>no:ŋ</i> ⁶ <i>kə:y</i> ² <i>kit</i> ² <i>wa:</i> ⁴ ‘I used to think’
		- the combination between time phrase and auxiliary	- <i>tə:n</i> ¹ <i>yan</i> ² <i>nə:y</i> ⁵ <i>pə:</i> ⁴ <i>ta:y</i> ¹ <i>la</i> ⁵ <i>le:w</i> ⁶ ‘my father died since I was young.’
	Verbs in simplex clauses that follow the clause that contains time phrase indicating events in the past		
	Existential verbs	- pre-serial verb <i>yan</i> ² ‘still’ - post-serial verb <i>yu:</i> ³ ‘still’	- <i>mi:</i> ² <i>ma:</i> ¹ <i>kap</i> ² <i>kop</i> ² ‘there are a dog and a frog’ - <i>kop</i> ² <i>yan</i> ² <i>yu:</i> ³ <i>bon</i> ² <i>bay</i> ² <i>tuə:</i> ³ <i>yu:</i> ³ ‘the frog is still on the lotus’
	Without existential verb		- <i>taŋ</i> ² <i>kə:</i> ⁴ <i>nə:y</i> ⁵ ‘have not much money’
Irrealis	Equative verb <i>pen</i> ¹ ‘verb to be’		- <i>pen</i> ¹ <i>piə:n</i> ⁴ <i>kan</i> ¹ ‘be friends’
	Descriptive verbs <i>pen</i> ¹ or <i>k’i:</i> ² ‘verb to be’		- <i>man</i> ² <i>pen</i> ¹ <i>riə:ŋ</i> ⁴ <i>ti:</i> ⁴ <i>wa:</i> ⁴ ‘it is the story about...’ - <i>pen</i> ¹ <i>pra</i> ³ <i>sa:</i> ³ <i>f</i> ³ ‘is being crazy’ - <i>how</i> ¹ <i>tow</i> ⁵ <i>k’i:</i> ² <i>rə:ŋ</i> ² <i>na:y</i> ² <i>yok</i> ⁵ <i>k’ə:</i> ¹ <i>pra</i> ³ <i>ʔe:</i> ⁴ <i>ʔay</i> ² ‘Howtow (Chinese terms) is a vice-president of Thailand’
		Verbs without verb to be	- <i>sa</i> ³ <i>ba:</i> ² <i>y</i> ² <i>di:</i> ² ‘well/ good’ - <i>na:</i> ⁵ <i>biə:</i> ³ ‘boring’ - <i>tuk</i> ⁵ ‘poor’
		Negation	- <i>ma</i> ³ <i>k’ə:</i> ⁴ <i>ŋy</i> ⁴ <i>day</i> ⁵ <i>riə:ŋ</i> ⁴ ‘it does not seem to work’ - <i>diŋ</i> ² <i>k’i:</i> ¹ <i>n</i> ⁵ <i>ma</i> ³ <i>way</i> ¹ ‘could not pull up’
		- pre-negative marker <i>yan</i> ¹ ‘yet’, <i>yan</i> ¹ <i>tuə:</i> ¹ ‘not yet’,	- <i>yan</i> ¹ <i>ma</i> ³ <i>pik</i> ⁵ <i>tuə:</i> ⁴ ‘not yet back home’

Table 6.4 Non-storyline elements in narratives of schizophrenic speakers (cont.)

Elements of non-storyline	Linguistic features	Accompanied markers	Examples
		- <i>ya:</i>¹ ‘do not’ - <i>pay</i>² or <i>pay</i>²<i>di:</i>² ‘do not’	- <i>pay</i>²<i>di:</i>² <i>wiŋ</i>⁴ ‘do not run’
	Futurity	- pre-serial verb <i>caP</i>³ ‘will’ - <i>we:</i>²<i>la:</i>² ‘when’ - <i>kam</i>²<i>laŋ</i>²<i>caP</i>³ ‘is about to’ - <i>kaP</i>²<i>caP</i>³ or <i>kaP</i>²<i>wa:</i>⁴<i>caP</i>³ ‘is going to’	- <i>caP</i>³ <i>pay</i>² <i>cuə:</i>⁴ ‘will help’ - <i>we:</i>²<i>la:</i>² <i>saŋ</i>⁵ <i>ba:n</i>⁵ ‘when you build a house,...’ - <i>kam</i>²<i>laŋ</i>² <i>caP</i>³ <i>t</i>¹<i>i:</i>¹ ‘is about to hold’
	Condition	- Conjunctive element <i>t</i>¹<i>a:</i>⁵ - ‘if’, <i>yu:</i>³ <i>di:</i>² <i>di:</i>² ‘if’ - without conjunction	- <i>t</i>¹<i>a:</i>⁵ <i>ha:</i>¹ <i>kə:</i>⁴ <i>caP</i>³ <i>k</i>^h<i>liə:</i>⁴ <i>t</i>¹<i>a:</i>¹ ‘if gets well, then Ø will get stress again’ - <i>yu:</i>³ <i>di:</i>² <i>di:</i>² <i>pən</i>⁴ <i>pay</i>² <i>taŋ</i>⁵ <i>t</i>¹<i>aP</i>³ <i>na:</i>² <i>y</i>² ‘if they assigns a lawyer....’ - <i>caP</i>³ <i>day</i>⁵ <i>nə:</i>⁵ <i>kaP</i>³ <i>wa:</i>⁴ <i>day</i>⁵ <i>nak</i>⁵ <i>man</i>² <i>kə:</i>⁴ <i>man</i>⁵ <i>k</i>^h<i>oŋ</i>² <i>t</i>¹<i>a:</i>¹ <i>wə:</i>² <i>n</i>² ‘no matter how much it pays, it is stable’.
	Uncertainty or prediction	- <i>soŋ</i>¹ <i>say</i>¹ ‘perhaps’ - Help verb - <i>t</i>¹<i>ay</i>⁴ or <i>t</i>¹<i>ay</i>⁴ <i>caP</i>³ or <i>na:</i>⁵ <i>caP</i>³ ‘may be’ - <i>k</i>^h<i>oŋ</i>² ‘might be’ - <i>ʔa:</i>³ <i>caP</i>³ ‘may be’ - <i>si:</i>¹ ‘seem’ or <i>si:</i>¹ <i>t</i>¹<i>a:</i>⁴ ‘seem like’ - Post-serial verb - <i>maŋ</i>⁶ or <i>kə:</i>³ ‘right?’	- <i>soŋ</i>¹ <i>say</i>¹ <i>caP</i>³ <i>də:</i>² <i>n</i>² <i>pik</i>² <i>ba:n</i>⁵ ‘go back home, perhaps’ - <i>t</i>¹<i>ay</i>⁴ <i>caP</i>³ <i>loŋ</i>² <i>pay</i>² <i>cuə:</i>⁴ <i>y</i>⁴ ‘may be help’

Table 6.4 Non-storyline elements in narratives of schizophrenic speakers (cont.)

Elements of non-storyline	Linguistic features	Accompanied markers	Examples
		Question marker - <i>mən⁴kɔ:³</i> ‘is it?’	
	Wish	- <i>ya:k³caɔ³</i> , <i>ya:k³</i> , <i>k^hay⁴</i> or <i>may¹wa:⁴</i> ‘would like’ - <i>p^hiə:⁴ti:⁴caɔ³</i> ‘as for/ in order to’	- <i>ya:k³ma:²tok²bəɛ²</i> ‘would like to fish’ - <i>k^hay⁴ta:y¹pay²</i> ‘would like to die’ - <i>p^hiə:⁴ti:⁴caɔ³cua:y⁴</i> ‘in order to help’
	Impression of being or doing	- <i>muə:n¹wa:⁴</i> , <i>muə:n¹caɔ³</i> , <i>k^hla:y⁶wa:⁴</i> , <i>p^hɔ:²lɛ:w⁶</i> or <i>p^hɔ:²muə:n¹caɔ³</i> ‘seem like’	- <i>muə:n¹caɔ³riə:⁴p⁴rɔ:⁶te:³maɔ³riə:⁴p⁴rɔ:⁶y⁶</i> ‘it seems smooth, but it does not.’ - <i>klɛ:ɣ⁵ta:y¹</i> ‘pretend to be dead’
	Assumption	- <i>som¹mut⁵wa:⁴</i> ‘it is assumed that’ - without marker	- <i>som¹mut⁵wa:⁴k^haw¹hi:⁵pɔw²pay²</i> ‘it is assumed that he lets you brought’
	Imperative	- <i>tɔɣ⁵</i> ‘must’	- <i>tɔɣ⁵ma:²yaɔ³</i> ‘must do’
	Questions	- Wh-marker <i>nay¹</i> ‘where’, <i>pay¹</i> ‘who’ etc. - Without marker e.g. <i>mən⁴kɔ:³</i> ‘right?’	- <i>ka:p⁴yua:³pay²nay¹</i> ‘where do you go with the victim?’
	The act of attempting	- <i>p^haɔ⁵ya:²ya:m²</i> ‘try to’	- <i>p^haɔ⁵ya:²ya:m²cua:y⁴</i> ‘try to help’
	Description words		- <i>maɔ³di:²</i> ‘bad’, <i>lam²ba:k³</i> ‘trouble’
	Direct comment		- <i>som¹na:m⁵na:⁵</i> ‘it serves you right’, <i>suɔ³p^ha:p⁴di:²</i> ‘sound appropriate’
	Questions i.e. rhetorical question		- <i>pen¹caɔ³day²he:m¹neɔ²</i> ‘What’s next?’
Evaluation			

a. Background

Background is the category that possesses the nearest position to the elements of storyline. It is defined as customary or routine activities, which includes cognitive states that comprises of cognitive verbs and emotive verbs together with durative markers. Cognitive verb is the most occurring elements in the background category. These cognitive verbs are usually attached by adverbs of frequency such as *taʔ³lɔ:t³* ‘always, all the time’ and the post-serial verbs *yu:³* or *yu:³han⁵* ‘to be in progress’, forming cognitive state. They are also attached by post-serial verb *yu:³* ‘to be in progress’ and perfective marker *le:w⁶* ‘already’, *da:y⁵...le:w⁶* ‘have got’. Moreover, without any adverb of frequency, cognitive verbs can also stand alone as making the clause a supportive element as it requires a period of time. A similar case also involves action verbs that require a period of time, action verbs with pre-serial verb *kam²laŋ²* ‘progressive marker’ and post-serial verbs *yu:³* ‘to be in progress’. Moreover, emotive verb *di:²cay¹* ‘happy/glad’ are also applied. Other markers are durative adverbs *cʰuə:ŋ⁴niŋ⁴* ‘for a while’, *tɪŋ²wan²ni:⁶* ‘today/ everyday’, and *ca:ŋ⁴* ‘usually’. Example 6.9 below illustrates this background information.

Example 6.9: Non-storyline (background)

Clause 12:	dek ²	<u>ʔum⁵</u>	ma: ¹	<u>yu:³</u>
	child	<u>hold</u>	dog	<u>POST.</u>
	‘The child is holding the dog.’			
...				
Clause 15:	dek ²	<u>di:²cay¹</u>		
	child	<u>happy</u>		
	‘The child is happy.’			

According to example 6.9, when the action verb *ʔum⁵* ‘hold’ stays alone in the clause, it is counted as action verb in the storyline. In contrast, this action verb is attached by the post-serial verb indicating progressive state of an event. As a result, this action verb is counted as background, which is a non-storyline item.

Moreover, clause 15 also indicates the use of emotive verb *di:²cay¹* ‘happy’, which is considered to be in background category as well.

b. Flashback

Flashback is counted as a background scene that occurs earlier in time than the main story or the mainline. This category is not found in all narratives. There are various grammatical forms that indicate the happenings in the past in this research. These forms are time phrases, auxiliary *kə:y²* ‘used to’, perfective marker *lɛ:w⁶* ‘already’, and the combination of time phrase and auxiliary. Time phrase is the most occurring types of flashback. These are such as *tɔ:n¹laɰ³ɰɔn³* ‘when I was young’, *taŋ⁵tɛ:³ tɔ:n¹ nɔ:y⁵nɔ:y⁵* ‘since I was very little’, *tɔ:n¹ nɔ:ŋ⁶ yu:³ praɰ³t^hom¹* ‘when I was in the primary school’, *taɰ³kɔ:n³* ‘back then’, *tɔ:n¹han⁵* or *c^huə:ŋ⁴ha:n⁵* ‘then’. Moreover, verbs in simplex clauses that follow the clause that contains time phrase are also counted as flashback as well. However, the boundary between the ends of this function of time phrase depends largely on the context of the narrative itself. Example below illustrates the chain of time phrase, functioning as flashback.

Example 6.10: Non-storyline (flashback)

Clause 76.1:	pən ⁴	kə:y ²	ma: ²	t ^h a:m ¹	nɔ:ŋ ⁶
	he	<u>AUX.</u>	come	ask	I
	‘He used to ask me’				

Clause 76.2:	hi: ⁵	nɔ:ŋ ⁶	liə:k ⁴
	PREP.	I	choose
	‘to choose’		

Clause 76.3:	wa: ⁴	mi: ²	mu: ¹	kap ²	ŋuə: ²
	that	there is/there are	pig	CON.	cow

caɰ ³	liə:ŋ ⁶	ʔaɰ ² yaŋ ¹
will	feed	Wh.question: what
‘what I want to feed between a pig or a cow’		

This auxiliary *kə:y*² ‘used to’ in clause 76.1 covers the other simplex clauses 76.2 and 76.3 as they stay in the same context.

Other than time phrase and auxiliary *kə:y*² ‘used to’, the perfective marker *lɛ:w*⁶ ‘already’ is also occurred frequently alone or attached with the other fore-mentioned elements. This perfective marker indicates the happening that had already been occurred before the time of the speaking. Moreover, the perfective marker *lɛ:w*⁶ can be used as an attachment to time phrase as well. Flashback not only provides descriptive details that functions as supportive material, it also signifies that the speaker is going further off the scope of the picture book. As is illustrated by temporal markers, those markers can be found exophorically where the personal story of the speaker is narrated.

c. *Setting*

Setting is defined as descriptive of an event, which also functions as supportive material for the progression of the storyline. It consists of a description of temporal and spatial settings. In terms of elements in the setting category, the most occurring types are descriptive verbs and existential verbs. Following is equative verb. Existential verb is signified by existential verb *mi*:² ‘there is /there are’, and the existential verb *yu*:³ ‘exist’, which is also marked by pre-serial verb *yaŋ*² ‘still’ and post-serial verb *yu*:³ ‘still’, indicating the duration of action. Sometimes, existential verb *mi*:² is omitted from the clause. Additionally, the existential verb *yu*:³ also indicates non clarity such as *yu*:³ *niəʔ*⁵ ‘[I’m] here’. As for equative verb, it indicates the being of someone or something. This equative verb *pen*¹ ‘verb to be’ not only signifies the state of being, but also indicates description i.e. what something or somebody is like, which can be defined as descriptive verb. Apart from *pen*¹, sometimes *k^hi*:² ‘verb to be’ is also used to describe things. Usually, some speakers apply *pen*¹ as descriptive verb, but not as describing things, for instance, *pen*¹ *saʔ³p^ha:p⁴ba:p³ʔiəʔ⁵* ‘is like this’, *pen*¹ *caʔ³ʔiəʔ⁵* ‘is like this’, which often causes the listener incomprehensible to what the speaker is talking about. Other verbs that are counted as description are verbs without verb to be. Example of setting is illustrated below.

Example 6.11: Non-storyline (setting)

Clause 13: taw³ kɔ:⁴ yaŋ² yu:³ ti:⁴ t^ha:n²na:m⁶ yu:³
 turtle AUX. CON. exist PREP. watercourse POST.
 ‘The turtle is still at the watercourse.’

The existential verb *yu:*³ ‘exist’ in the example above signifies setting. Additionally, pre-serial verb *yaŋ*² ‘still’ and post-serial verb *yu:*³ ‘still’ help making the verbs to be counted in the setting category.

d. Irrealis

Irrealis or collateral refers to happenings that are not happen at the time of the speaking. The situation might happen in the future or might not happen at all. Various grammatical forms are applied as indicating irrealis more than other categories of non-storyline. These grammatical features are negation, futurity, condition, uncertainty or prediction, wish, impression of being, assumption, imperative, questions and the act of attempting.

As for negation, one the most occurring aspects of irrealis, the grammatical form that indicates the state of negation is negative markers such as *ma*²³ ‘not’, *ma*²³*mi:*² ‘none’. Negation is also marked by pre-negative marker *yaŋ*¹ ‘yet’, *yaŋ*¹ *tuə:*¹ ‘not yet’, *ya:*¹ ‘do not’. Moreover, negation is usually marked by *pay*² or *pay*²*di:*² ‘do not’. Futurity is another most occurring form in the narratives that is occurred relatively frequent, but not as many as negatives. Futurity illustrates happening that might happen in the future. The pre-serial verb *ca*²³ ‘will’ is usually applied as the marker of futurity, which indicates “potentiality, assertion, determination, or volition” (Kanchanawan, 1978, p. 43). Another marker of futurity is *we:*²*la:*² ‘when’, which indicates the event that does not happen at the time of the speaking. Other markers that used to form futurity are *kam*²*laŋ*²*ca*²³ ‘is about to’; *ka*²*ca*²³ ‘is going to’, *ka*²*wa:*⁴*ca*²³ ‘is going to’.

Condition is another aspect that signifies irrealis. In this present research, condition is usually marked by conjunctive element *t^ha:*⁵ ‘if’. Another marker is *yu:*³*di:*²*di:*² ‘if’, which also functions as conditional marker that does not happen at the time of the speaking. Conditional clauses also happen without

conjunction $t^ha:5$ ‘if’, which in this case, context plays an important role. Moreover, uncertainty or prediction also indicates irrealis as the situation might or might not happen. This aspect is marked by $so\eta^1say^1$ ‘perhaps’; help verb t^hay^4 or $t^hay^4ca\mathcal{P}^3$ or $na:5ca\mathcal{P}^3$ ‘may be’, $k^ho\eta^2$ ‘might be’, $\mathcal{P}a:t^3ca\mathcal{P}^3$ ‘may be’, and $si:1$ ‘seem’ or $si:t^ha:4$ ‘seem like’. Additionally the post-serial verb $ma\eta^6$ or $k\mathcal{O}:3$ ‘right?’; question marker $men^4k\mathcal{O}:3$ ‘is it?’ are also applied as indication of uncertainty.

Irrealis can happen when the speaker wishes for something. Grammatical forms that indicate wishes are would or would like in English as it uses to describe a possible event that did not in fact happen, but can be happened. In schizophrenic narratives, $ya:k^3ca\mathcal{P}^3$ or $ya:k^3$ ‘would like’ is used to describe this aspect. Another grammatical form that has similar meaning to would like is k^hay^4 ‘would like’, $may^1wa:4$ ‘would like’. Wish is also signified by $p^hi\mathcal{O}:4ti:4ca\mathcal{P}^3$ ‘as for/ in order to’. Furthermore, impression of being or doing something that may not be true is also counted as irrealis. Similar to uncertainty or prediction, this impression of being or doing is usually marked by “seem” or “seem like” in English. It is different from uncertainty in the way that after providing impression of being or doing, the predicted action or event does not happen, or not successful, whereas prediction indicates action or event that might happen, but not yet happen. Impression of being or doing is usually marked by $mu\mathcal{O}:n^1wa:4$, $mu\mathcal{O}:n^1ca\mathcal{P}^3$, $k^hla:y^6wa:4$, $p^h\mathcal{O}:2le:w^6$ or $p^h\mathcal{O}:2mu\mathcal{O}:n^1ca\mathcal{P}^3$ ‘seem like’. Other than these markers, there are $kle:\eta^5$ ‘pretend to be’, $t^ham^2t^ha:4mi\mathcal{O}:n^1ca\mathcal{P}^3$ ‘seem to be’. Interestingly, there are some elements that can be grouped in irrealis. These elements can be defined as ‘the act of attempting’, which is usually illustrated by $p^ha\mathcal{P}^5ya:2ya:m^2$ ‘try to’.

Assumption also plays a role in making the clause unrealistic. When the speaker assumes something to be happened, the event is marked as untrue. The primary marker of assumption is $som^1mut^5wa:4$ ‘it is assumed that’. Expression of assumption can also left unattached by any marker, however context plays an important part in determining a clause to function as assumption, for example $hi:5man^2pen^1kop^2$ ‘suppose it was a frog’. Another aspect of irrealis is imperative, which is a thing that is very important and requires attention. Imperative is usually marked by

$tɔŋ^5$ ‘must’. However this aspect is rarely occurred. Another least occurring form of irrealis is question, for example, $ka:p^4 yuə:3 pay^2 nay^1$ ‘where do you go with the victim?’. The following example illustrates irrealis.

Example 6.12: Non-storyline (irrealis)

Clause 16: $we:2la:2yaʔ^5kan^1$ $ʔaʔ^4$ $nɔ:ŋ^6$ $caʔ^3$ pen^1
 when work PAR. I will verb to be

$ba:p^4wa:4$ $maʔ^3kɔy^4$ $day^5ruə:y^4$
 filler not really work
 ‘When I work, I am not ready getting to work.’

Clause 17.1: $nɔ:ŋ^6$ $ya:k^3$ $hu:6$
 I would like know
 ‘I would like to know.’

Clause 17.2: $wa:4$ $ʔaʔ^2yan^1$ $saʔ^3mɔ:ŋ^1$ $nɔ:ŋ^6$ $tiŋ^2ba:p^3$ $kʰi:2ba:p^3$
 that Wh.question: brain I filler filler
 what

maʔ^3 kit^5 $ŋay^2$
NEG. think PAR.
 ‘that why my brain does not work.’

Clause 18.1: $ti:4$ $ba:p^3wa:4$ $ya:ŋ^3cʰen^4$ $som^1mut^5wa:4$
 that filler example supposing that
 ‘supposing that’

Clause 18.2: mɔ:¹ hi:⁵ ŋa:n² ni:⁵ ma:² nɔʔ⁴
 doctor give work DEM. come PAR.
 ‘You give me this work.’

Clause 18.3: ø pay² yaʔ⁵ka:n¹ niəʔ
 zero pronoun go work DEM.
 ‘[ø = nɔ:ŋ⁶ ‘I/the speaker’] works on this work.’

The above example illustrates the use of various aspects of irrealis. These aspects are firstly, futurity *caʔ³ pen¹ [...]maʔ³kɔy⁴ day⁵riə:ŋ⁴* ‘not ready getting to work’ in clause 16, which is marked by pre-serial verb *caʔ⁴* ‘will’ as well as adverb of time *we:²la:²* ‘when’ that indicates event that does not happen at present. Apart from futurity, irrealis indicating wish also found in clause 17.1 as marked by *ya:k³* ‘would like’. Another aspect is negation as signed by pre-negative marker *maʔ* ‘not’ in *maʔ³hu:⁶* ‘not know’ in clause 17.2. The last aspect found is assumption in clause 18.1, including its simplex clauses. This assumption is illustrated by *som¹mut⁵wa:⁴* ‘supposing that’ that leads simplex clauses 18.2 and 18.3 to become untrue.

e. Evaluation

Evaluation refers to the speaker’s judgment of an event, which does not count as the storyline element. Analysis indicates that no evaluation occurred at the beginning and at the end of all narratives. Moreover, despite the most occurring exophoric reference such as *haw²* ‘I/you/ we’ and other first person pronouns, it is difficult to say that those clauses that contain this first person pronoun indicate evaluation. Items that indicate evaluation in this research are description words, direct comment, questioning, and the use of first person pronoun. Description words are the most occurring type. Additionally, direct comment is easy to detect as it involves the direct comment of the speaker for a particular part of the narratives. Questioning is another form that marks evaluation as the speakers assume to ask the listener, however the question is not required to be answered. Lastly, the use of first person pronoun that

indicates evaluation is in the form *haw² kit⁵wa:⁴* ‘I think that...’ that involves in making an opinion. However, this form of evaluation is rarely occurred type. Example 6.13 below illustrates the use of evaluation.

Example 6.13: Non-storyline (evaluation)

Clause 10:	tɔ:n ¹ han ⁵	ma: ¹	ti: ⁴	ma: ²	kap ²	pən ⁴
	ADV.	dog	that	come	PREP.	he
	‘Suddenly, the dog that comes with him’					
Clause 11:	suʔ ³ nak ⁵	t ^h ay ⁴	di: ²	k ^h wa: ³	ka: ⁶	
	dog	look	good	COMP.	Q.Tag	
	‘The dog (formal) sounds better, right?’					
Clause 12:	<u>suʔ³p^ha:p⁴</u>	<u>di:²</u>				
	<u>appropriate</u>	<u>good</u>				
	‘Sounds appropriate’					

The evaluative word *suʔ³p^ha:p⁴di:²* ‘sounds appropriate’ in clause 12 illustrates evaluation as it is the speaker’s comment that the word *ma:¹* ‘the dog’ (informal) in clause 10 is informal, whereas the word *suʔ³nak⁵* ‘the dog’ (formal) with similar meaning sounds more appropriate.

6.3.2 Storyline elements

The essential parts of discourse information deals with storyline. It is defined as elements that move the story forward. There are four characteristics of storylines: motion verbs, action verbs, cognitive experience, and event proper. These on-the-line elements are usually attached by sequential markers such as clause serialization; temporal clause, phrase or words; completive markers; perfective marker; auxiliary; and pre-serial verb. As previously stated, action verbs is the most occurring type of storyline, whereas event proper is the least. Accordingly, the use of storyline elements varies speaker by speaker. Table 6.5 illustrates storyline elements in the narratives of schizophrenic speakers.

Table 6.5 Storyline elements in narratives of schizophrenic speakers

Elements of storyline	Linguistic features	Accompanied markers	Examples
Action verbs	Action verbs without directional verbs		- <i>com³be²</i> ‘fish’, <i>tok²na:m⁶</i> ‘fall into the river’
	Action verbs with directional verbs		- <i>tok²na:m⁶ loŋ²pay²</i> ‘fall down into the river’ - <i>cuə:y⁴ ʔɔ:k³</i> ‘help getting out’ - <i>diŋ² k^hin⁵</i> ‘pull up’
	Passive construction	- with or without directional verbs	- <i>do:n² la:k⁴ loŋ²pay²</i> ‘is pulled down’ - <i>tiŋ²be²</i> ‘is caught’
	Reported speech	- <i>pra: koŋ²wa:⁴</i> ‘it appears that’	- <i>pra: koŋ²wa:⁴</i> ‘it appears that’
Motion verbs	Motion verbs without directional verbs	- Directional verbs functioning as main verbs	- <i>pay</i> ‘go’, <i>ma:²</i> ‘come’, <i>pay² ha:¹</i> ‘go to meet’
	Motion verbs with directional verbs	- Directional verbs and other verbs	- <i>k^hin⁵ pay² yu:³</i> ‘goes up to stay’
		- Double directional verbs	- <i>loŋ² ma²</i> ‘come down’
	Cognitive verbs and emotional verbs	- without marker	- <i>han¹</i> ‘see’, <i>prik²sa:¹</i> ‘consult’, <i>tok²cay¹</i> ‘frightened’, <i>di:²cay¹</i> ‘glad’
Cognitive experience		- temporal markers e.g. <i>le:w⁶ t^hi:² ni:⁶</i> ‘suddenly’ and auxiliary <i>kɔ:⁴</i> ‘then’	- <i>kop² kɔ:⁴ pɔ:³ na:⁵ ma:¹ tuə:¹ han⁵</i> ‘then, the frog looks at that dog’s face’
		- directional verbs	- <i>kit k^hin⁵ ma:²</i> ‘figure out’
		- follow action verbs	

Table 6.5 Storyline elements in narratives of schizophrenic speakers (cont.)

Elements of storyline	Linguistic features	Accompanied markers	Examples
Event proper	Verbs indicating change of state		- <i>man² kla:y¹ pen¹ taw³</i> ‘it becomes a turtle’ - <i>kan² be² kɔ:⁴ hak² pay² pen¹ ma:y⁶</i> ‘the fishhook is broken into woods’
Sequential markers	Temporal	- temporal conjunctions - adverbial clauses	- <i>le:w⁶ kɔ:⁴</i> or <i>se² le:w⁶</i> ‘then’ - <i>laP⁵ t^hi:² ni:⁶</i> or <i>le:w⁶ t^hi:² ni:⁶</i>, <i>laP⁵ kɔ:⁴</i> or <i>le:w⁶ kɔ:⁴</i> ‘and then’, <i>le:w⁶</i> or <i>laP⁵</i> ‘then’, <i>t^hi:² ni:⁶</i> ‘then’, <i>le:w⁶ ... kɔ:⁴</i> or <i>laP⁵ ... kɔ:⁴</i> or <i>le:⁵ ... kɔ:⁴</i> ‘and...then’, <i>le:⁵ ca:k³ han⁵</i> ‘and after that’, <i>lay¹ ca:k³ han⁵</i> ‘after that’, and <i>ca:k³ han⁵</i> ‘thereafter’, <i>tɔ:n¹ han⁵</i> ‘suddenly’
	Causal		- <i>p^hɔ:²</i> ‘when’, <i>kɔ:⁴</i> ‘then’, <i>kɔ:⁴ laɔ:y²</i> ‘so’, <i>le:w⁶ p^hɔ:²</i> ‘when’, <i>t^hiŋ¹ ... kɔ:⁴</i> ‘although...so’, <i>tɛ:³ ... kɔ:⁴</i> ‘but...so’
		- auxiliaries - perfective markers - completive markers - pre-serial verbs	- <i>kɔ:⁴</i> ‘then’, <i>le:w⁶</i> ‘already’, <i>laɔ:y²</i> ‘then’, <i>se² le:w⁶</i> ‘finish’, <i>ciŋ²</i> ‘consequently’

a. Action verbs

Action verbs can be classified into four sub-categories: action verbs without directional verbs; a series of action verbs with directional verbs such as action verbs function as main verbs and are attached by directional verbs; the passive construction; and reported speech.

Action verbs without directional verb is commonly found in this category of storyline, for example, *ka:p⁴bet²* ‘hold a fishhook into the mouth’, *pik⁵ba:n⁵* ‘go back home’ and the like. Action verbs with directional verbs are also highly used. These are such as *ka:p⁴bet² pay²* ‘holds the fishhook into the mouth and goes’, *p^hot² k^hin⁵ma:²* ‘appear’, *plɔy³ pay²* ‘let it go’. Directional verbs that are attached to action verbs are *pay²* ‘direction away from the speaker’, *ma:²* ‘direction towards the speaker’, *pɔ:k³* ‘out’, *k^haw⁵* ‘in’, which are not function as main verbs. Moreover, some of action verbs can signify the direction in the verbs themselves such as *tok²* ‘fall’, which serves as something is falling down.

Apart from these two forms, another grammatical form that uses to illustrate action is passive construction, which can be attached by directional verbs or without them. This passive construction functions as making the clause on the line, for example *do:n² ka:p⁴ pay²* ‘is gone’. Passive construction without directional verb is such as *tu:k³rum²* ‘is bullied’. Another element counted as action verbs is reported speech. It is in the form of *pra:¹ko²wa:⁴* ‘it appears that’. However, reported speech is rarely occurred in most narratives, as well as causative construction, none of this element occurs as well.

In terms of sequential markers, temporal clause as marked by temporal conjunctive element such as *le:w⁶kɔ:⁴* or *set²le:w⁶* ‘then’ is mostly found. Moreover, conjunctive elements function as causal relationship are also occurred, for example *p^hɔ:²* ‘when’, *kɔ:⁴* ‘then’, which indicate sequentiality. Other elements are auxiliary *kɔ:⁴* ‘then’, and perfective marker *le:w⁶* ‘already’. Additionally, sequential markers are rarely occurred in some narratives. Other conjunctive elements are illustrated in table 6.5 above. Example of action verbs is illustrated below.

Example 6.14: Storyline (action verbs)

Clause 15.1: p^hɔː²diː² $\emptyset$ paː² $\emptyset$ niː¹
CON. zero pronoun₁ lead zero pronoun₂ run away
 ‘[Then, [$\emptyset$ = *ca:w⁵k^hɔː¹* ‘the owner’] leads [$\emptyset$ = *suɔ³nak⁵* ‘the dog’] to
 run away’

Clause 15.2: taw³ kɔː⁴ tit² to:y² pay²
 turtle AUX. fasten together go
 ‘The turtle is fastened with.’

Clause 16: t^hiː²niː⁶ p^hɔː²diː² kop² kɔː⁴ kraɔ³doːt³
CON. CON. frog AUX. jump

pay² to:y² taw³
go too turtle
 ‘Then, the frog jumps along with the turtle.’

Clause 17: laɔ⁵kɔː⁴ taw³ kɔː⁴ tok² lon² ca:k³ ti:n¹ maː¹
CON. turtle AUX. fall down PREP. foot dog
 ‘And then, the turtle falls down from the dog’s foot.’

The above example illustrates the series of action verbs of various kinds. The example begins with action verbs without directional verbs in clause 15.1. Then it continues with another action verbs with directional verb *pay²* ‘go’ in clause 15.2. Clauses 16 and 17 also indicate action verbs with directional verbs. Moreover, what does hold these clauses together is the function of sequential elements such as conjunctive element *p^hɔː²diː²* ‘then’, *t^hiː²niː⁶* *p^hɔː²diː²* and *laɔ⁵kɔː⁴* ‘and then’; and auxiliary *kɔː⁴* ‘then’. This series of action verbs hold the events on-the-line as some narratives appear to be (See Appendix I in CD).

b. Motion verbs

Unlike action verbs with directional verbs, motion verb concerns with directional verbs that function as the main verbs. Motion verbs consist of two categories: motion verbs without directional verbs and motion verbs with directional verbs. The former deals with directional verbs as main verbs, whereas the latter refers to directional verbs that do not function as main verbs.

The most occurring type of motion verb is directional verbs as main verbs. This type of motion verbs can be divided into two sub-types, which are directional verbs and directional verbs with other verbs. The latter is highly used more than the former sub-types. Directional verbs and other verbs are for example, *ma:*² *k^hop*² ‘come to bite’. As for directional verbs alone functioning as main verbs are such as *pay* ‘go’, *pay*² *ha:*¹ ‘go to meet’. These motion verbs also indicate sequence by adding temporal markers such as *le:w*⁶ *ko:*⁴ ‘and then’, or auxiliary *ko:*⁴ ‘then’. Double directional verbs are also commonly used such as *k^hin*⁵ *ma:*² ‘go up’. Motion verbs are also attached by sequential elements such as auxiliary *ko:*⁴ ‘then’; perfective marker *le:w*⁶ ‘already’, however these sequential markers occur less than in the action verbs. Additionally, most of motion verbs that occur in some narratives usually accompany action verbs, conducting the events of the storyline. Example 6.14 illustrates motion verbs.

Example 6.15: Storyline (motion verbs)

Clause 19.1:	<i>k^hon</i> ²	<u><i>ma:</i></u> ²	<u><i>han</i></u> ¹
	human	<u>come</u>	<u>see</u>
	‘The boy comes to see.’		

Clause 19.2:	∅	<u><i>ko:</i></u> ⁴	<u><i>ʔum</i></u> ⁵	<i>ma:</i> ¹	<i>way</i> ⁶
	zero pronoun	<u>AUX.</u>	<u>hold</u>	dog	AUX.
	‘Then, [∅ = <i>k^hon</i> ² ‘human’] holds the dog.’				

Clause 20: taw^3 $kɔː^4ləːy^2$ tit^2 $k^həp^2$
 turtle CON. fasten PAR.
 ‘Then, the turtle fastens.’

Clause 21: $\emptyset$ ηap^5 $k^hɛŋ^4$ $maː^1$ way^6
 zero pronoun bite leg dog AUX.
 ‘ $[\emptyset = taw^3$ ‘the turtle’] bites the dog’s leg.’

Clause 22: $\emptyset$ $lɔːy^2tuəː^1$ k^hin^5 $toːy^2$ $k^hɛŋ^4$ $maː^1$
 zero pronoun float up follow leg dog
 ‘ $[\emptyset = taw^3$ ‘the turtle’] rises following the dog’s leg.’

Clause 23: k^hon^2 $kɔː^4ləːy^2$ lon^2 $naːm^6$ pay^2
 human CON. down river go
 ‘The boy, then, goes down into the river.’

As far as motion verbs are concerned, $maː^2 han^1$ ‘come to see’ in clause 19 and $lon^2...pay^2$ ‘goes down’ in clause 23 are considered. The first one is directional verbs together with cognitive verbs functioning as motion verbs, whereas the second one consists of two directional verbs. As far as clauses 19.2, 20, 21, and 22 are concerned, the entire verbs in these clauses function as action verbs with various types. In clauses 19.2, 20 and 21, ηum^5 ‘hold’, tit^2 ‘fasten’, and ηap^5 ‘bite’ are action verbs without directional verb. As for $lɔːy^2tuəː^1 k^hin^5$ ‘rise’, it comprises of action verb with directional verb, functioning as action verbs. Moreover, what affirms these elements to be on-the-line is the sequential markers, which are auxiliary $kɔː^4$ ‘then’ in clause 19.2, conjunctive element $kɔː^4ləːy^2$ ‘and then’ in clause 20 and 23.

c. Cognitive experience

Cognitive experience concerns with punctiliar events, which is usually marked by punctiliar adverbs and time phrase. These markers make cognitive experience differs from cognitive state, as the latter depends on duration of time. The

verb of cognitive experience is cognitive verbs. Apart from cognitive experience markers, context plays a significant part in determining on the line event.

Two types of cognitive experience are found: cognitive verbs with markers and cognitive verbs without markers. As for cognitive verbs with markers, there are markers such as temporal markers; auxiliary; directional verbs, and cognitive verbs that followed the clauses that contained action verbs. Cognitive verbs with temporal markers or with auxiliary are mostly found. Cognitive verbs that are marked by directional verbs are, for example *kit*⁵ ‘think’ with two directional verbs *k^hin*⁵ *ma*², forming cognitive verb that means ‘figure out’. As for cognitive verbs without markers, most elements are formed by accompanying auxiliary *kɔ*⁴ ‘then’ or conjunctive element *kɔ*⁴*lə*²*y*² ‘then/ as a result’ to make the verbs on-the line. Other than cognitive verbs, emotional verbs are also applied, which are usually attached by auxiliary. In addition, other sequential markers such as time phrase *sut*²*t^ha*²*y*⁶*le*²*w*⁶ ‘finally’ and punctiliar adverbial *le*⁵*mi*²*ə*⁴ ‘when’ are also applied. Moreover, some cognitive verbs that are not accompanied by any time phrase or punctiliar adverbs are counted as storyline elements if that particular cognitive verb follows action verbs or motion verbs as illustrated in the example 6.16 below.

Example 6.16: Storyline (cognitive experience)

Clause 31: *p^hɔ*²*di*² *su*²*nak*⁵ *k^hɔ*²*ŋ*¹ *pən*⁴ *kɔ*⁴ *k^hin*⁵ *ma*² *da*²*y*⁵

CON. dog POSS. he AUX. up come AUX.

‘Then, his dog can come up.’

Clause 32: *dek*² *pɔ*²*ca*²*y*² *han*¹

child male see

‘The child sees.’

The cognitive verb *han*¹ ‘see’ in clause 32 cannot be marked unless the context is made clear, which is indicated by motion verbs *k^hin*⁵ *ma*² ‘come up’ in clause 31, together with other sequential markers, which are conjunctive

element $p^h\text{ɔ}:\text{di}:\text{2}$ ‘then’ and completive marker in the form of modal verb $da:y^5$ ‘can’. Hence, han^1 ‘see’ is marked as cognitive experience.

d. Event proper

The least occurring category of storyline deals with event proper. This category consists of verbs that contain a change of state. To this extend, agent of these verbs lefts off his/her own volition, in other words, the subject of events proper is patient. The element of even proper found in the narratives is rarely occurs. For example $kla:y^1pen^1$ ‘become’ as in $man^2 kla:y^1pen^1 taw^3$ ‘it is become a turtle’, $ha:k^2 pay^2 pen^1$ ‘is broken into’ in $kan^2bet^2 kɔ:\text{4} hak^2 pay^2 pen^1 ma:y^6$ ‘the fishhook is broken into woods’. Together, this serial verbs mean ‘has changed into’, which similar to ‘become’. Hence, this serial verb indicating a change of state is accounted for as event proper.

As for the analysis of this part of discourse information - storyline analysis, all schizophrenic speakers apply action verbs, motion verbs, cognitive experience, settings, and irrealis in their narratives. Other elements such as event proper, background, evaluation, and flashback are employed in some narratives and not in a great number. While most schizophrenic speakers aware of the fact that in forming a well-organized progressive narrative, they are required to provide actual happenings and clauses that show direction, or some of punctiliar happenings and clauses that contain change of state, together with some elements from non-storyline, some schizophrenic speakers still provide a large amount of situations that might or might not happen and clauses that describe the happenings. Additionally, they also add clauses about events in the past, which are usually about the speakers’ private lives, together with some comments outside the scope of the picture book. Hence, due to lacks of punctiliar and sequential happenings, some schizophrenic narrative discourses are marked as less progressive.

6.4 Summary of theme development

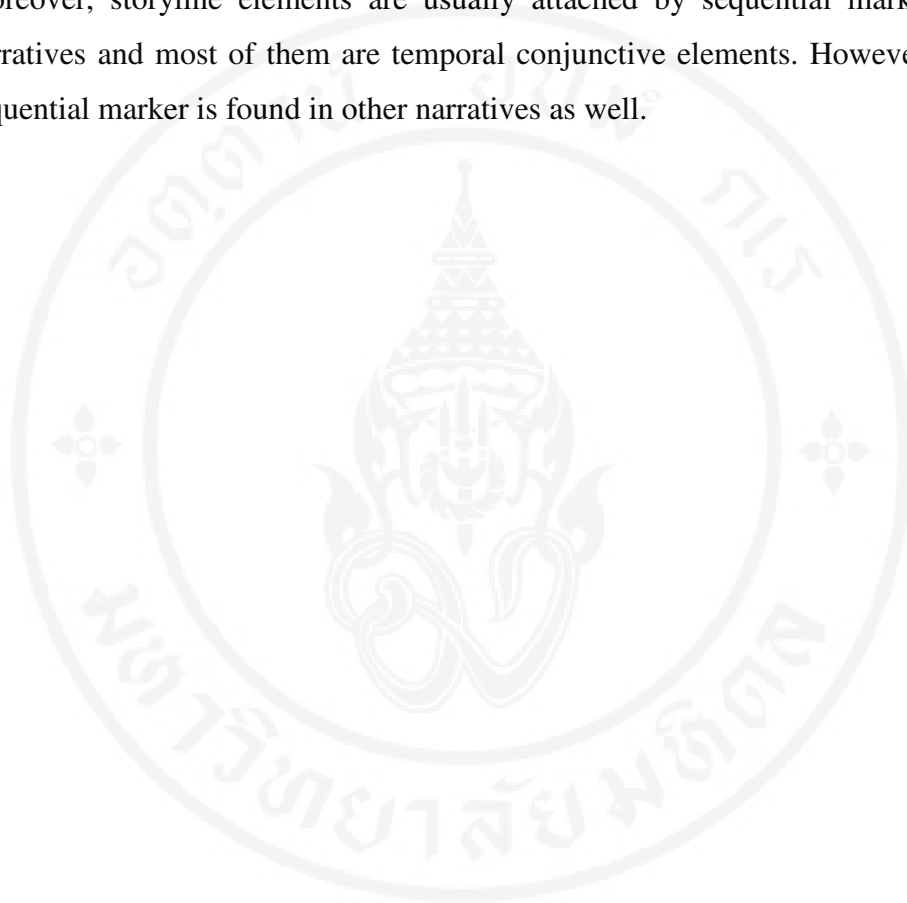
This present chapter deals with data analysis using two aspects of discourse information – participant reference and storyline. It has been found that schizophrenic speakers often make reference to the participants in the narrative by using exophoric reference more than endophoric ones in some narratives. In contrast,

these participants are rarely referred to in other narratives. The percentage of endophoric participants ranges from 36% - 100%.

Due to different speakers set different participants as their main, secondary, tertiary, including group and props in the narratives, different participants are introduced, reintroduced, maintained, and removed by different linguistic features. To this point, although pronouns are commonly used for referring to participants where exophoric context exists, third person pronoun is the only personal pronoun that is occurred in some narratives. Apart from pronouns, zero anaphora is usually applied in most narratives. This grammatical form is also used in reintroducing various participants, which often cause ambiguity. It is difficult to interpret whether which participant is being referred to. Additionally, main participants are sometimes cut off from the narratives when exophoric context takes place. Some of them are brought back while others are never mentioned again. In contrast, these participants are always maintained throughout the entire narratives without the interruption of exophoric context at all in some narratives. Furthermore, secondary and tertiary participants, including group participants and props are often reintroduced and rarely maintained. In terms of how participants in the narratives are maintained, the chains of endophoric participant in most narratives of schizophrenic speakers are rarely established, whereas in some narratives where exophoric context takes place, once they are introduced, the exophoric context remains for a period of time, with a strong chain of exophoric reference.

As for storyline analysis, storyline and non-storyline elements are mainly observed. The percentage of storyline elements in all narratives ranges from 0% - 78%. The narrative that receives 0% means that the particular narrative cannot be accounted for as having sequentiality, because the narrative has no progression, in other words, although some storyline elements are appeared, there is no use of sequential marker at all. Thus, the higher the percentage means the more the narrative moves forward. There are five non-storylines, which are background, setting, evaluation, irrealis and flashback. Irrealis is the most occurring category, which is usually marked by negation and futurity, whereas none of cohesion occurs in all narratives. This can be inferred that schizophrenic speakers primarily rely on non-events that might or might not happen in the future and non-events that are not

possible in the narratives, which further leads to the consideration of uncertainty about what might or might not in fact happen. In terms of storyline, there are four elements of storyline: action verbs, motion verbs, cognitive experience, and event proper. Action verb is the most occurring category of storyline, while event proper is the least. Moreover, storyline elements are usually attached by sequential markers in some narratives and most of them are temporal conjunctive elements. However, no or less sequential marker is found in other narratives as well.



CHAPTER VII

DISCUSSION AND CONCLUSION

The last chapter comprises of two major sections: discussion and conclusion. The former section deals with some in-depth discussion on the characteristics of cohesion, cooperative principle and theme development, as well as the interview with the psychiatrists. As for the latter - conclusion, this section provides summary of the previous chapters, including suggestion for future researches.

7.1 Discussion

7.1.1 The characteristics of schizophrenic narrative discourse

Of the entire 15 schizophrenic narratives, the researcher found that these narratives can be classified into groups in accordance with the patterns of cohesion, cooperative principle, and theme development as illustrated in the following table.

Table 7.1 Criteria for the classification of schizophrenic narrative discourse

Linguistic frameworks		Characteristics of coherence	
		Less coherent	More coherent
1. Cohesion - How cohesive the narrative?	less	/	
	more		/
2. Cooperative principle - How cooperative the speaker?	less	/	
	more		/
3. Theme development - How developed the endophoric participants? - How progressive the narrative?	less	/	
	more		/
Groups of schizophrenic speakers		Group One	Group Two

According to the table 7.1, linguistic frameworks applied in this present research are cohesion – the structure; cooperative principle – the content; and theme development – the overall narrative. Each narrative of schizophrenic speaker is measured by (1) how cohesive the narrative; (2) how cooperative the speaker; and (3) how developed the endophoric participants in the narrative, as well as how progressive the narrative. Hence, if a narrative is less cohesive, less progressive in terms of both endophoric participants and sequential punctiliar happenings, and the speaker is less cooperative, that narrative can be grouped into Group One, which is “less coherence”. In contrast, the narratives that receive more cohesive, more progressive, and the speaker is more cooperative, that narrative can be classified into Group Two, which is “more coherence”.

Hence, by the whole of 15 schizophrenic narratives, 5 narratives can be grouped into Group One, and 6 narratives can be classified into Group Two. As for other 4 narratives, these narratives cannot be classified into either of these two groups, because the analysis using three frameworks are not congruent with each other. Hence, these remaining 4 narratives are firstly separated and will be mentioned after the characteristics of these two groups. The summary of the analysis of all narratives is provided in the table 7.2 below. Furthermore, the significant characteristics of narratives of each group are given thereafter in table 7.3.

Table 7.2 Summary of the analysis of schizophrenic narratives

Percentages of each schizophrenic narrative measured by each framework					
	1 st Speaker	2 nd Speaker	3 rd Speaker	4 th Speaker	5 th Speaker
Cohesion					
• CT as % of TT	23.11%	60.77%	43.42%	57.28%	42.54%
• CT per PT	0.41	3.04	1.11	5.9	0.85
• Tie as % of TT	39.50%	100%	47.04%	97.89%	40.64%
Cooperative principle					
• Obs. as % of TT	22.52%	78.26%	20.74%	85.29%	3.78%
Theme development					
• PR as % of TT	38.27%	100%	42.08%	97.33%	46.20%
• S as % of TT	18.06%	77.78%	50.84%	73.91%	28.69%
Group classification	Group 1	Group 2	Group 1	Group 2	Group 1

	6 th Speaker	7 th Speaker	8 th Speaker	9 th Speaker	10 th Speaker	11 th Speaker
Cohesion						
• CT as % of TT	25.10%	43.34%	88.77%	73.86%	72.84%	82.35%
• CT per PT	1.5	1.07	3.41	2.83	6.48	4.48
• Tie as % of TT	98.09%	36.07%	85.96%	94.15%	83.40%	97.14%
Cooperative principle						
• Obs. as % of TT	32.88%	22.90%	59.44%	63.27%	60%	81.82%
Theme development						
• PR as % of TT	44.46%	36.10%	75.21%	91.51%	75.54%	100%
• S as % of TT	46.67%	33.95%	56.94%	70%	56%	70.91%
Group classification	Group 1	Group 1	Group 2	Group 2	Group 2	Group 2

*CT = central token, TT = total token, PT = peripheral token, Obs. = observing maxims, PR = endophoric participants, S= storyline elements

Table 7.3 The significant characteristics of schizophrenic narratives of Group One and Group Two

Frameworks	Characteristics of narratives of Group One	Characteristics of narratives of Group Two
Cohesion	1. Non-cohesive reference such as pronouns <i>man</i> ² 'it', <i>pən</i> ⁴ 'I/you/he/she/they', <i>haw</i> ² 'I/we/you', <i>k^haw</i> ¹ 'he' is the most occurring category.	1. The narratives of this group can be categorized as having strong tie in terms of reference.
	2. Demonstrative noun phrase such as <i>ma:</i> ¹ <i>tuə:</i> ¹ <i>han</i> ⁵ 'that dog' seems to raise a question of whether what demonstrative determiner <i>han</i> ⁵ 'that' and some others such as <i>ni:</i> ⁶ 'this' that attached to noun refer to, as the demonstrative determiner itself requires an exophoric reference such as the extralinguistic expression 'pointing to something'. However, the speakers do not allow looking at the picture book while narrating.	2. There is no use of circumstance demonstrative reference and demonstrative noun phrase.
	3. Circumstance demonstrative reference also poses some problems with the use of demonstrative determiner <i>ni:</i> ⁵ 'this', <i>han</i> ⁵ 'that', <i>niəp</i> ⁵ 'this', <i>pan</i> ⁵ 'that' and the like.	3. Temporal conjunction is the highest occurring sub-category of conjunction, which signifies that the narratives flow through the sequence of temporal relation.
	4. Some of occupation terms, friendship terms, kinship terms, title names, and personal names are highly applied, causing the narratives to become highly exophoric.	4. Any referring expression that is considered as exophoric i.e. kinship terms, personal names, title names, occupation terms and friendship terms are rarely applied. In specify, these categories occur in a small number in one narrative of this group.

Table 7.3 The significant characteristics of schizophrenic narratives of both groups (cont.)

Frameworks	Characteristics of narratives of Group One	Characteristics of narratives of Group Two
Cooperative Principle	5. The percentages of cohesive elements are lesser than the percentages of cohesive but irrelevant and non-cohesive elements.	5. The percentages of cohesive elements are much higher than those of cohesive but irrelevant and non-cohesive ones.
	6. The ratio of CT to PT and the percentages of CT to TT are significantly lower in all narratives of group one.	6. The ratio of CT to PT is relatively high in all narratives in this group. All percentages of CT to TT are also more than those of group one.
	7. Most of the information in all narratives of group one contain relatively less relevant information to what the picture book is about.	7. Less irrelevant information are given in the narratives of the second group. To this point, the speakers are aware that the narratives told are in the scope of the picture book.
	8. All narratives are narrated ambiguously and unclearly by providing too many unidentified and exophoric references/utterances i.e. the speakers often use idiosyncratic references.	8. Although the speakers provide ambiguous references and/ or utterances, when the narratives progress, those references are identified, which do not make the listener incomprehensive.
	9. Infringe maxim of quantity by providing too much information is often caused by repetitive utterance and personal comment.	9. The speakers also provide too much information, which can be inferred that the speakers of this group are being more informative too.
	10. The speakers often provide utterances based on their own inferences. The utterances usually result from the speakers' faulty assumptions.	10. Sometimes utterances are uttered with less sufficient evidence from the picture book.
	11. There are various disruptions by the presence of exophoric participants in all narratives and the breakdown of the chains of endophoric participants.	11. The chains of endophoric participants usually remain for a period of time and are rarely or never disrupted by exophoric context.
Theme Development: participant reference		

Table 7.3 The significant characteristics of schizophrenic narratives of both groups (cont.)

Frameworks	Characteristics of narratives of group one	Characteristics of narratives of group two
	12. The chain of exophoric participants as topical subject in exophoric context establishes higher “conjoinability” than the chain of endophoric participants	12. The chain of endophoric participants establishes the highest “conjoinability” as being topical subjects in the narratives of this group.
	13. Pronouns and zero anaphora are applied in reintroducing the main, secondary, and tertiary participants, which often cause ambiguity.	13. Although the participants are sometimes reintroduced by using pronouns and zero anaphora, the use of these forms is not in a great number.
	14. Various grammatical forms are applied in maintaining participants, which often makes the clause unclear. To this point, zero anaphora is rarely used in maintaining endophoric participants.	14. The participants in the narratives are introduced by overt forms and usually maintained by covert forms, causing the participants to be “highly maintained” in terms of topical subject or topic continuity.
	15. When the exophoric participants are introduced in the narratives, they are highly maintained and hardly removed in all three categories: self-reference, listener reference, and other references. Usually, they are operated by zero anaphora, which indicates a strong continuum.	15. There is less number of exophoric participants, which are introduced after the narrative nearly ends, and usually marked by the context. This indicates the speakers’ comment, rather than changing the topic of the current narrative. When these participants are established, pronouns are applied in maintaining.
	16. Pronouns and personal names are explicitly marked the boundary between endophoric references and exophoric ones.	16. The use of kinship terms and pronouns that refer to third person indicates the explicit boundary between the endophoric context and exophoric context.
	17. Although the speakers of this group try to keep continuity of their participants in the narratives by using pronoun, the pronoun	17. The speakers are aware of keeping the continuity of their participants. Therefore covert form is applied while no ambiguity occurs.

Table 7.3 The significant characteristics of schizophrenic narratives of both groups (cont.)

Frameworks	Characteristics of narratives of Group One they commonly choose, which is <i>man</i> ² 'it', is ambiguous.	Characteristics of narratives of Group Two
Theme Development: storyline	18. Main participants are sometimes cut off from the narratives when exophoric context takes place. Some of them are brought back while others are never mentioned again.	18. Main participants are maintained throughout the entire narratives without the interruption of exophoric context at all.
	19. Various categories of non-storyline elements are applied in the narratives of this group. Irrealis is the most occurring category, which means that the speakers often provide statements based on their personal inference that the events could or could not happen in the future.	19. Irrealis is also the most occurring category of non-storyline. Moreover flashback and cohesion are not found in the narratives of this group, which indicate that the speakers do not wish to talk about the past events that are not in a chronological order of the storyline.
	20. There is a chain of non-storyline elements without the disruption of storyline elements in some narratives of this group.	20. When the storyline elements occur, it is hardly interrupted by non-storyline elements. However, non-storyline elements are also found, which together form good narratives.
	21. There are lesser storyline elements as well as sequential markers than non-storyline elements.	21. Usually, most sequential markers are temporal conjunctive i.e. adverb of time. This can be inferred that the events flow in accordance with temporal relationship, which significantly makes the events "more progressive".
Characteristics of coherence	"less cohesive, less cooperative, and less progressive"	"more cohesive, more cooperative, and more progressive"

Other than classifying schizophrenic narratives into two groups, there are other 4 schizophrenic narratives that cannot be arranged. The finding is illustrated in the table 7.4 below.

Table 7.4 Summary of the analysis of other four schizophrenic speakers

	12th Speaker	13th Speaker	14th Speaker	15th Speaker
Cohesion				
• CT as % of TT	56.49%	64.04%	58.54%	80.56%
• CT per PT	3.48	3.08	3.00	7.25
• Tie as % of TT	85.43%	75.80%	89.19%	81.36%
Cooperative principle				
• Obs. as % of TT	32.69%	40.28%	38.04%	17.19%
Theme development				
• PR as % of TT	69.67%	60.33%	75.95%	83.70%
• S as % of TT	51.11%	62.65%	30.68%	<u>does not count*</u>

*This narrative cannot be accounted for in storyline analysis, because no characteristic of storyline i.e. sequentiality is provided.

The question whether which groups these narratives can be categorized into can be interpreted in two folds: on the one hand, these narratives can be grouped into another group, which is “Group Three” based on the reason that the results using three frameworks are incongruous with each other and they can be situated in between Group One and Group Two as being “a Transition Group”. On the other hand, these narratives, excluding the narrative of the 15th speaker, can be classified as a sub-category of “Group Two”, because the analysis shows that they establish similar characteristics of narratives of Group Two more than the other group. To this point, the narratives are more cohesive, and the participants in the narratives are highly developed. Although only one narrative that can be marked as less progressive, other narratives are more progressive i.e. the narratives of 12th and 13th speakers. As for cooperative principle, all four speakers are less cooperative in their narratives, which is one of the characteristics of narratives of Group One. Hence, in accordance with these results, these three narratives are similar to the narratives of schizophrenic speakers of Group Two. The researcher would suggest categorizing these three narratives as a sub-category of Group Two.

As for the last narrative, the narrative of the 15th speaker is the most outstanding narrative in terms of all three frameworks, and especially in storyline analysis. To begin with, the narrative of this speaker depends largely on lexical cohesion in terms of same item or repetition as the highest occurrence. The number of exophoric or non-cohesive tokens is relatively low, comparing to the tied tokens that occurred normally. Hence, according to the highest percentage of cohesive ties, this narrative is marked as “more cohesive”. However, the speaker provides information based on the re-occurrences of simple sentence, which is subject-verb-object pattern. Accordingly, some clauses do not make sense in terms of content such as *k^hon² kin¹ bet²* ‘the human eats a fishhook’, *k^hon² kit⁵ bet²* ‘the human thinks a fishhook’, *bet² kin¹ k^hay³* ‘the fishhook eats the chicken’. It can be inferred that such repeated items cause the narrative to become highly cohesive, especially in terms of lexical items and reference. Hence, this narrative is clearly cohesive, but in terms of content, it lacks content of the picture book as is illustrated by the analysis using cooperative principle.

Due to the highest number of repeated elements as well as utterances with insufficient evidence from the picture book, the narrative results in the highest number of infringing maxim of quantity by being more informative and quality by providing information based on his own inference. Most utterances result in “non-sense”. Infringing maxim of manner also plays a role in this narrative, which the speaker usually provides unclear utterances. Of the highest number of infringing maxims, the speaker is considered to be “less cooperative”. In terms of participant reference, the number of endophoric participants is very high, whereas only a small number of item is counted as ambiguous or exophoric participants. When eliminating those exophoric and ambiguous or unidentified participants, participants in the narrative are introduced or reintroduced mostly by noun. Moreover, no use of zero anaphora for reintroducing participant occurs. As for exophoric participants, the speaker usually applies zero anaphora for reintroducing participants. Thus, in terms of participant reference, all participants in this narrative are characterized as highly maintained.

Lastly, as for storyline analysis, the number of storyline elements is more than non-storyline elements. For storyline, the speaker usually provides events which comprise of action verbs more than any other categories. However, considering the story as a whole, the speaker often repeats clauses. Therefore, the repeated storyline

elements are not accounted for, resulting in a less amount of storyline elements. Moreover, the speaker does not provide story in terms of what the narrative should be like, rather the speaker describes the happenings by providing simple clauses. Additionally, there is no sequential marker occurred at all. Hence, in terms of storyline analysis, this narrative cannot be accounted for as being progressive.

In sum, although this narrative results in “highly cohesive”, the researcher would suggest that the items in this narrative are within themselves cohesive in terms of structure, but in terms of content, it is hardly defined that this narrative is coherent as the speaker is “less cooperative” in the analysis of cooperative principle. This seems to pose a major consideration to the distinction between the structure’s coherence and the content’s coherence. However, one significant remark drawn from the analysis clearly suggests that cohesion does not equate to coherence. In other words, a cohesive discourse does not mean that that particular discourse is coherent. Hence, according to the finding, this particular narrative cannot be identified.

The following table summarizes some significant characteristics of coherence in narratives from all schizophrenic speakers, which are further used in task one of the psychiatrists’ task.

Table 7.5 Characteristics of coherence in narratives of schizophrenic speakers

Characteristics of coherence in narratives of schizophrenic speakers
A. The speakers provide clauses or present some ideas in the narrative, but the whole narrative <u>lacks logical relation/meaningful relationship</u> between those clauses or ideas. This is often shown from the following characteristics: ▪ The speakers do not attempt to provide references for sources that <u>require references</u>, or where necessary. This characteristic often causes by the use of unidentified zero anaphora. ▪ The narratives contain relatively large amount of <u>exophoric references</u>. ▪ The speakers overuse <u>unclear/ ambiguous references</u> ▪ The speakers often <u>shift</u> one reference to another idiosyncratically. ▪ The speakers <u>do not explicitly mark a link</u> between a present clause and the prior clause, which often characterized by confusing conjunctive elements/ or without any conjunctive element ▪ Sometimes, some lexical items/ clauses are <u>omitted</u> of a clause/ complex clauses without finishing, causing the narrative to be incomprehensible. ▪ The speakers use <u>lexical items</u>, which are considered to be <u>completely unrelated</u> to other lexical items in the narratives, which often characterized by providing a large amount of exophoric lexical items.
As far as content of narrative discourse is concerned, the speakers, especially Group One often provide some or most of these following items (item B-I): B. Most utterances/concepts in the narrative are <u>irrelevant</u> to most elements of the whole narrative, or the speakers <u>often change ideas</u>, and those ideas are <u>unrelated</u> with each other. These are usually signified by infringing maxim of relevance in terms of Grice's cooperative principle. C. The speakers <u>rarely maintain the topical subjects</u>, in other words, the speakers often reintroduce participants and those participants are rarely kept existed in the narratives. This lead to the problem about <u>topic continuity</u>.

D. The speakers keep repeating a particular sentence or sentences over and over again in the same context, which does not help the progression of the narrative. This is usually illustrated by infringing maxim of quantity by being “*more informative than is required*”.

E. The narratives are productive, but less informative, and some ideas are provided with many unnecessarily redundant details. These details are such as too many fillers. This is usually illustrated by infringing maxim of quantity by being “*more informative than is required*” as well as infringing maxim of manner by not being “*brief*”.

F. The speakers, sometimes, provide too little information, which does not cover all important points in the narrative, often characterized by providing unfinished utterances, resulting in infringing maxim of quantity by does not “*make your contribution as informative as is required for the current purposes of the exchange*”

G. The speakers often make illogical inference, or draw some conclusions from faulty assumption. This is usually characterized by infringing maxim of quality by providing untrue utterances or information/ or giving insufficient evidence.

H. The speakers provide too much extralinguistic information such as a person, place, thing, or concept that does not present in the picture book. Most of the content of the narratives are considered to be situated in exophoric context. This is often illustrated by the use of exophoric participants/ props.

I. Events in the narratives are obviously not in sequential manner, by providing fewer amounts of storyline elements and sequential markers. Moreover, this characteristic is often occurred by infringing maxim of manner by not being “*orderly*”.

Other characteristics of schizophrenic speakers can be listed as follows (item J-L):

J. Some speakers talk rapidly. Sometimes, it is difficult to interrupted, or when the speakers are being interrupted by questions of the researcher, it is common that the speakers continue talking. So, the narratives are provided in a great length, with repeated information. This can be accounted for as infringing maxim of quantity by providing more information than actually needed.

K. The speakers reply to a question in an indirect manner i.e. not answer directly to what the question asks. Sometime, the answer is irrelevant to a question. The characteristic is marked as infringing maxim of relevance.

L. It is not often, but it has been found that the speakers stop talking without finishing the on-going clauses/utterances, and begin to talk about different/ unrelated topic, which often related to some nearby objects, which often marked by infringing maxim of relevance.

7.1.2 The interviews with the psychiatrists

According to Chapman and Chapman (1973), “thought disorder is schizophrenia’s most prominent symptoms” (Rochester & Martin, 1979, p. 6) and as previously stated, the study of schizophrenic’ disorganized speech might shed some light on the nature of schizophrenic’ disturbance of thought, the researcher hypothesizes that linguistic frameworks applied in this research can use to categorize groups of schizophrenic speakers, which is also related to positive formal thought disorder. Three psychiatrists were invited to participate in the research. They were requested to answer three tasks (See Chapter III Methodology, the psychiatrists’ task). Sheet for the psychiatrists is also provided in appendix D.

The information from the psychiatrists suggests that after categorizing schizophrenic narrative discourses into groups in accordance with their characteristics of cohesion, cooperative principle, and theme development, it has been suggested that schizophrenic speakers from Group One show signs of positive formal thought disorder, whereas those from Group Two exhibits mild to none of positive formal thought disorder.

In terms of types of positive formal thought disorder, the researcher found that cohesion can measure ‘derailment/ loose association’ as expected, but it has been revealed that cohesion cannot measure ‘incoherence/ word salad’ as aimed. According to Andreasen (2000), derailment concerns with speech that lacks meaningful relationship. Sometimes there is connection presented, however no connection can occur. In sum, the speeches are often characterized by lack of cohesion.

Moreover, cooperative principle can access ‘tangentiality’, ‘illogicality’, ‘circumstantiality’, ‘pressure of speech’, and ‘distractible speech’ as stated. To be specify, infringing maxim of quantity, which runs “*do not make your contribution more informative than is required*”, can be used to measure ‘tangentiality’, ‘circumstantiality’ and ‘pressure of speech’, whereas infringing maxim of quantity by do not “*make your contribution as informative as is required for the current purposes of the exchange*” cannot measure any types of positive formal though disorder. In terms of ‘tangentiality’, Andreasen (2000) states that this type is defined as irrelevant answer that is replied to a question, it has been suggested by the psychiatrists that tangentiality also concerns with the speech that contains relatively less direct information, or full with indirect information to the scope of the talk. As for circumstantiality, it concerns with long-winded sentences, but lacks information that relevant to the scope of the talk or sometimes the speech hardly or never reaches its goal. The speaker tends to present too many details in the speech. As far as pressure of speech is concerned, it deals with a large amount of speech, which is hardly intruded. Sometimes the speech is left unfinished, and it continues with different topic. In accordance with these three types of positive formal thought disorder, they are suggested as being consistent with infringing maxim of quantity by providing too much information.

As far as infringing maxim of quality is concerned, it can be used to access ‘illogicality’, which deals with sentences that thought out in a logical way and the speaker usually makes faulty inference (Andreasen, 2000), which is matched with cooperative principle in the way that the speaker infringes maxim of quality by providing utterances without sufficient evidence from the picture book, untrue utterances based on his own assumption, or irrational utterances. Infringing maxim of relevance can be accounted for ‘distractible speech’. In addition, it has been suggested

that infringing this maxim can also measure ‘incoherence / word salad’ as well. Distractible speech is defined as the unfinished speech that is interrupted by the nearby objects (Andreasen, 2000). This can be inferred that the current speech is switched from one topic to another topic, which is similar to the infringing maxim of relevance. Another type of positive formal thought disorder that is correlated with this infringing of maxim is incoherence, which is signified by words or phrases that join together in an unrelated manner. As for infringing maxim of manner in the category “*be orderly*”, this maxim can be used to access ‘incoherence’. In order to observe this maxim of manner, the speech is required to be carefully organized in a logical way. However, infringing this maxim leads to ‘incoherence’ as defined by Andreasen (2000), in which the speech is completely incomprehensible as the sentences or clauses are not uttered in a sequential manner.

As for theme development, information from all psychiatrists suggests that the only type of positive formal thought disorder that can be applied to is ‘incoherence’. However, one of these psychiatrists suggests that it might be utilized to measure ‘tangentiality’ as well. Table 7.6 illustrates linguistic frameworks that are considered to be in relation with types of positive formal thought disorder.

Table 7.6 Linguistics frameworks in relation to types of positive formal thought disorder

Linguistic frameworks – types of disorganized speech	Psychiatrist 1	Psychiatrist 2	Psychiatrist 3
Cohesion Analysis – derailment / loose association	/	/	/
Cohesion Analysis – incoherence / word salad	X	X	X
Cooperative principle – tangentiality	/	/	/
Cooperative principle – illogicality	/	/	/
Cooperative principle – circumstantiality	/	/	/
Cooperative principle – pressure of speech	/	/	/
Cooperative principle – distractible speech	/	/	/
Theme development – derailment	X	X	X
Theme development – incoherence	/	/	/
Theme development – circumstantiality	X	X	X
Theme development - distractible speech	X	X	X
Suggestions:			
Cooperative principle – derailment	X	/	/
Cooperative principle – incoherence	/	/	/
Theme development – tangentiality	X	/	X

According to the table 7.6, if these linguistic frameworks can be used to measure types of positive formal thought disorder as expected, the other four remaining narratives discussed above might be able to interpret. For instance, in terms of cooperative principle, the narrative of the twelfth speaker receives 32.69% for maxim observation, which is relatively low. This speaker infringes maxim of quantity 23 times out of 35, by providing “*more informative than is required*”, therefore this speaker can be considered as having one or more of these types: “tangentiality”, “circumstantiality” and/ or “pressure of speech”. As for the thirteenth speaker, it has been found that the speaker is less cooperative. The highest percentage of infringing maxims is maxim of quality. From the psychiatrist’s perspective, infringing maxim of quality seems in relation to ‘illogical inference or faulty assumption’. Hence, this speaker can be considered as having a sign of ‘illogicality’ etc.

7.1.3 The comparison with previous studies

1) Cohesion

From the beginning, it has been stated that “cohesion occurs where the interpretation on some element in the discourse is dependent on that of another. The

one presupposes the other, in the sense that it cannot be effectively decoded except by recourse to it.” (Halliday & Hasan, 1976, p. 4) This holds true for cohesion analysis of schizophrenic’s narratives. Any elements in the narratives that do not presuppose any interpretative source are not accounted for as cohesive elements.

As far as the work of Hasan (1984) is concerned, Hasan proposes one aspect on cohesion that textual cohesion is not an absolute property, which in other words, it is possible to rank texts on a cline (Halliday, 1961). At a closer look at table 7.2 and 7.3 on the ratio of the CT to PT, which measures coherence of the text, if taken Hasan’s perspective into account, a cline of a group of texts can be created from the least to the most coherent, listed from 0.41 to 7.25. In relation to this ratio, the first five narratives on the list include all five narratives of Group One. The other ten lists are from the narratives of Group Two, with some of ‘The Remaining Group’ in between. The most coherent, in terms of Hasan’s perspective goes to the narrative of the fifteenth speaker. According to this point, the question has been raised earlier whether the narrative of this speaker is in fact the most coherent narratives, because the researcher has found that lexical cohesion in the category ‘same items’ plays an important role in this narrative, which means that lexical cohesion governs the narrative and makes it become highly cohesive, as previously discussed. The question remains whether this narrative is within itself coherent. Consider this: if there is one narrative that the speaker keeps repeating the lexical items until the narrative ends. The narrative results in highly harmonic. But, at a closer look at its content, the narrative is incomprehensible and cannot be consigned as a typical narrative. To this extend, should we still count this narrative as being ‘highly coherent’? Thus, this point is answered by the analysis using cooperative principle, which focuses on how cooperative a speaker is to his narrative. The result suggests that cohesion does not always lead to coherence. Moreover, lexical cohesion alone cannot create the unity of discourse. As previously mentioned, a cohesive discourse does not equate to a coherent discourse.

Another point raised by the second hypothesis of Hasan (1984), which holds true for the findings of this present research. Hasan urges that “the greater the continuity of ties relating to each other, the greater the coherence” (Hasan, 1984, p. 187-188). This is suggested by the number of CT (Central Tokens), which is counted

from the interaction among ties. Therefore, the higher percentage of CT to TT, the greater the coherence would be. Again, at a closer look at table 7.2 and 7.3 above, the total percentages of narratives rate from 25% to 89%. The highest percentages involve the narratives of Group Two, together with 'The Remaining Group' in between, with the percentages rating from 56% to 89%, whereas all narratives of Group One receive lesser percentages, rating from 23% to 43%. The reason that the narratives of Group One receive the lowest percentages might be because of the presence of exophoric context, as a result they receive the highest percentages of non-cohesive elements over the cohesive ones. Moreover, this percentage of CT to TT measures how great cohesive harmony a text is, as Hasan adds that "the greater the cohesive harmony in a text, the greater the text's coherence" (Hasan, 1984, p. 216). This further suggests the degree of coherence in a text. To this point, narrative that receives the highest percentage of CT to TT, the most coherent that narrative is. The results suggest that it is the narrative from Group Two. In contrast, the narrative that receives the lowest percentage of CT to TT, the least coherent the narrative is – narrative from Group One.

Regarding the sub-categories of cohesive ties, the present research acquires some similarities and differences comparing to Chanawangsa's (1986) study. As for similarity, Chanawangsa (1986) concludes that substitution is the least occurring category of cohesive ties, whereas reference is the most occurring types in Thai. This aspect also holds true in this present research as it has been found that the number of substitution that are applied in all narratives is very rare. This might be because of the application of usage. Thai people rarely substitute words or clauses, rather they often repeat them instead. Additionally, information from the analysis of Chanawangsa (1986) and this present research clearly suggest that ellipsis has been extensively applied as cohesive device more than substitution. In terms of differences, firstly, Chanawangsa (1986) divides pronominally used nouns into five categories, which are kinship terms, personal names, friendship terms, occupation terms, and title terms. However, Chanawangsa (1986) does not state the use of noun as reference to noun as source in her classification. It has been found in this present research that there are the use of noun phrase and noun as reference to their sources. Thus, this research includes noun phrase reference and generic reference as another sub-types of pronominally used noun. Secondly, in terms of conjunctive elements, Chanawangsa

(1986) sub-divides conjunction into 16 sub-types, however the researcher sees that some conjunctive elements in this present research can as well be grouped together. Conjunctive elements consist of all four subtypes characterized by Halliday and Hasan (1976), which the findings cover some of Chanawangsa's (1986) categorization except enumerative relation, comparative relation, reformulatory relation, and inferential relation.

As for Chuwicha (1986), who analyzes spoken Thai narratives in three aspects, which are participant cohesion, theme cohesion, and structural cohesion, conjunctive element that mostly found are such as causal, sequential, and additive. Reference such as demonstrative and substitution are rare. Thirdly, Chanawangsa (1986) suggests the multifunction of conjunctive elements such as *sŷŋ* and *kŏ* that they obtain various functions, whereas in this research, *kŏ*:⁴ establishes several semantic relations such as temporal conjunctive element, pre-serial verb, auxiliary, and filler. Another sub-category that has been excluded from lexical cohesion in Chanawangsa's (1986) work is repetition. Chanawangsa (1986) believes that repetition does not only happen in word level, but also in phrase and clause. However, repetition in this research is included in lexical cohesion as the researcher believes that clausal repetition can be analyzed in another clause, because this research analyzes cohesion in inter-clausal level. As for phrase repetition, it can be counted as lexical cohesion.

Cohesion analysis in this present research relies on the study of how spoken narrative discourse is tied up. The level of analysis is inter-clausal relation, whereas Chanawangsa (1986) studies both written and spoken texts, but also in clause level. As for Chuwicha (1986), she analyzes linguistic item both in clause and paragraph level.

According to Rochester and Martin's study on cohesion in *Crazy Talk* (1979), their findings indicate that both thought disorder and non-thought disorder schizophrenia exhibit disturbance in referential relation. Schizophrenic speakers often rely on extralinguistics such as referring to an object in their discourse by pointing. This result is supported by the finding of this current research. The researcher found that schizophrenic speakers from Group One exhibit difficulty in using reference. The numbers of ambiguous as well as exophoric references are much higher than the number of ties jointed by reference. However, the study of Chaika and Lambe (1989)

found that schizophrenic use of each cohesive tie is inconsistency. Additionally, Rochester and Martin (1979) urge that thought disorder speakers fail to establish chain of reference as other speakers do. In this research, the finding demonstrates that schizophrenic speakers of Group One who are marked as 'less cohesive' have problem in creating cohesive reference. This can be inferred that these speakers rarely establish chain of reference. Moreover, Rochester and Marin (1979) also found that it is difficult for schizophrenic speakers in assigning the presumed information i.e. interpretative source, especially thought disorder schizophrenia. The data from the current research also indicates that in analyzing items that are referred to by cohesive ties, the researcher found vague presumed information, and sometimes these referring items are not identified. In terms of lexical cohesion, Rochester and Martin's (1979) result reveals that non-thought disorder schizophrenia uses small amount of lexical cohesion, which is in contrast with the used of lexical cohesion in thought disordered discourse, which significantly rely on lexical cohesion more than any other cohesive categories. This is true for one of the narratives of Group One. The number of ambiguous lexical cohesion is higher than lexical that tied discourse together, while this result does not compatible with the use of lexical cohesion of other narratives in the same group. Additionally, the researcher found that the number of ambiguous lexicon found in the narrative of this speaker is lesser than the number of lexicon that coheres. Hence, the finding from the analysis suggests that narratives of schizophrenic speakers who are considered to have positive formal thought disorder do not always rely on lexical cohesion i.e. by using collocation as suggested in Rochester and Martin (1979). Another study on cohesion comes from Wykes and Leff (1982). They point out that schizophrenic speech contains less structural links. However, Wykes and Leff (1982) do not make a separation between thought and non-thought disorder. As analyzed, the researcher found less structural links in the narratives of schizophrenic speakers in Group One, whereas the narratives of Group Two contain much higher number of structural links. Unlike Rochester and Martin (1989) as well as the finding from this current research, Wykes and Leff (1982) found that schizophrenic speakers use small amount of lexical cohesion.

In addition, Chaika and Lambe (1989) also study cohesion in narrative of schizophrenic speakers. Their finding of cohesion analysis differentiates from the

result of Rochester and Martin (1979). Chaika and Lambe (1989) claim that schizophrenic uses of cohesive ties are inconsistency, in other words, the use of cohesive tie varies. Unlike Rochester and Martin (1989), Chaika and Lambe (1989) found that schizophrenic speakers use cohesive tie as moderate number as normal speakers and most of them are anaphoric, whereas Rochester and Martin's (1979) result suggests that schizophrenic speakers use less cohesive tie and most of them are exophoric. Similarly, cohesion analysis of narratives of Group One in this present research results in a large amount of non-cohesive tokens, and most of them are exophoric. Moreover, Chaika and Lambe (1989) indicate that schizophrenic speakers suffer a great deal in producing narrative discourse. This aspect is supported by some of the narratives of 'The Remaining Group' in this current research, especially the narrative of the fifteenth speaker. The participant fails to narrate the story in the narrative-like manner. Instead, he rather describes the events from the beginning to the end.

2) Cooperative principle

The study of Narksuk (2006) analyzes how maxims in Thai conversation are flouted, which involves how flouting of maxims function. Narksuk's (2006) finding suggests that the most flouting of maxim is quality. Narksuk (2006) believes that flouting of the maxims reflects characteristics of Thai people in everyday conversation. Moreover, Narksuk proclaims that "what has been said by the speaker and the hearer in the conversation does not always seem to follow the "cooperative principle" in Thai conversation" (Narksuk, 2006, p. 83). According to this point, people do not follow the conversational maxim and so do the schizophrenic speakers. However, the difference lies on normal people intentionally flouting the maxims, while schizophrenic speakers do not deliberately flout them.

The work of Savetamalya (2011), which analyzes English comics, found implicit meanings that generate humor. Of the entire scripts, most of them flouted the maxims. The highest occurrence of flouting the maxim is maxim of manner. Moreover, flouting maxims is suggested to cause from several language functions, which similar to the aspects arisen from infringing of maxims in this present research. However, again, those aspects are raised without intention. As far as sub-maxims are

concerned, maxim of quality is flouted the highest in Narksuk's (2006) study, whereas in Savetamalya's (2011) study it is maxim of manner. In this present research, maxim of relevance is infringed the most. According to this point, it can be inferred that with the highest number of infringing maxim of relevance in schizophrenic's narratives, schizophrenic speakers' characteristics can be observed that they often provide unrelated information to the current talk.

Accordingly, the works of De Decker and Van de Crane (1987), Frith (1992) and Abu-Akel (1999) as cited in Covington et. al. (2005) report that schizophrenic speakers are uncooperative. However, their works do not make a separation between thought and non-thought disorder, as well as they do not clearly state the finding of each infringing of maxims. To this point, this current research found that schizophrenic speakers of Group One are less cooperative, which is in contrast to the other group. However, none of schizophrenic narrative that is counted as uncooperative is found, rather schizophrenic narratives can be arranged in accordance with the degree of cooperativeness/ rationality – from less cooperative to more cooperative. The study of Chaika and Lambe (1989) also support that schizophrenic speakers often provide information such as people who are not stated in the video quite often. Moreover, their topic of the narrative usually follows the speaker's preferred topic. Hence, evidence from the present research is in relation to the findings of De Decker and Van de Craen (1987), Frith (1992) and Abu-Akel (1999) and the study of Chaika and Lambe (1989).

3) Theme development

a. Participant reference

In order to measure how participants in the narratives are operated, as Grimes (1972) stated, particular participant is being introduced and maintained on the floor at least for a while, no matter what grammatical features that encode, a link of the same participant creates. This aspect of Grimes (1972) holds true for participant operation in the narratives of Group Two, which the speakers highly maintain participants regardless of what participant is referred to, although the participants are sometimes reintroduced. Another reason why participants in the narratives of this group are more developed is that the narratives contain less amount of exophoric participants in between or after the narratives, whereas the narratives of

Group One consist of a large amount of exophoric participants, which always broke the chain of continuity of endophoric participants.

As for types of narrative discourse defined by Longacre (1983), which has not yet been discussed in this present research, there are three types of narratives focusing on how narrative is told: (1) 'first person narrative', which the narrator is the participant in the story who does actions; (2) 'as told to first person narrative' is the participant in the story himself tells the readers a story by using first person references; and (3) 'third person narrative', which the participant in the story is referred to by third person reference. At a closer look at the narratives of Group Two, all of them are told by using third person reference, which fits the third type 'third person narrative', the most common type of narrative. The speaker himself plays a role as a teller who does not get involved in the narrative at all. In contrast, the narratives of the first group usually contain first and second person reference, as well as third person who do not occur in the picture book. This can be inferred that the narrator sometimes acts as a participant in the story. Hence, the narratives of this group consist of the first type 'first person narrative' and the third type 'third person narrative'.

In terms of participant rank, as stated, Burusphat (1986) uses the framework of Givón (1983) in analyzing participants in folktales. However this present research ranks the participants in accordance to their frequency of occurrence in the narratives, which is: the higher number of the participant occurred, the greater that participant is set up as main participant. As far as participant analysis of Sornlump (1983) is concerned, the participant analysis of Sornlump (1983) differs from this present research, in which Sornlump (1983) focuses on participants in accordance to the text structure, which are title, body, and conclusion. In terms of participant rank, Sornlump (1983) divides each participant in accordance to his role, which the distinction among participants is not obviously found. As for another study, Chuwicha (1986) mainly focuses on how participant in a narrative is identified and by what grammatical features. The participants are divided also by their importance in narratives, which are main, secondary, tertiary participants and props.

Burusphat (1986) further states the point that main participant usually accompanies by background information in order to describe the participant. In this research, the participant analysis of both groups show that the speakers rarely

describe main participant when introducing him, rather the main participant is introduced mostly by existential clause and the speakers continue with what his main participant is doing.

In terms of grammatical forms that encode participants in their operation, as Burusphat (1986) states that indefinite noun phrase is applied in introducing the participant, whereas definite noun phrase is applied when maintenance of the participant established. In the narratives of Group One, noun is commonly applied in introducing participants, regardless of main, secondary, or tertiary participants, and props. Indefinite noun phrase is also relatively used. The significant point for participant analysis of narratives of Group One relies mostly on reintroducing. Zero anaphora and pronouns are extensively used in reintroducing participants in the narratives of Group One. In contrast, overt marking is applied when reintroducing participants in the narratives of Group Two, which is typical in the narratives. Another significant point concerns with the maintenance of participants. Looking at a whole picture, most of schizophrenic speakers usually maintain participant using nouns, pronouns and sometimes with zero anaphora, whereas Burusphat (1986) states that zero anaphora is a common form that used to encode participants when there is no text discontinuity occurs. The use of zero anaphora creates a high sequential of participant. In the work of Sornlump (1983), grammatical features that use to maintain participants are mostly zero anaphora. Chuwicha (1986) defines zero anaphora as deletion. She urges that deletion can remain in the story where there is none ambiguity exists, but when participant is changed, more overt grammatical form is required to employ.

Regardless of any grammatical features, Chuwicha (1986) urges that a particular participant is defined as cohesive when that participant is made known that he is being referred to in introducing as well as reintroducing. Moreover, it is essential that the participant is introduced and maintained on the floor. This point holds true for the narratives of Group Two, which participants are being introduced or reintroduced and usually maintained for a while without the interruption of exophoric participants. To this point, a chain of participant continuity creates. In contrast, maintaining of participants in the narratives of Group One establishes difficulty,

because participants are usually interrupted either by other participants in the narrative, or by exophoric participants.

b. Storyline

The last framework employed in this research is storyline analysis. As far as cohesion as one of non-storyline elements is concerned, unlike the findings of Burusphat (1986), which suggests that adverbial clauses such as tail-head linkage or summary-head linkage are common features that link events together, this research found no use of this adverbial clause in all narratives. Moreover, in folktales there are thematicity devices such as *kɔ:n* ‘first’, *tɔ:pay* ‘next’ and the like used as cohesive devices in Burusphat’s (1986) study, while this device is not found in this present research either.

Evaluation, another non-storyline element that usually encoded by first personal pronoun *raw* ‘we’ in Burusphat’s (1986) work, this first person pronoun is also found in the present research, but it does not occur as frequent as descriptive words and direct comment. Questions asking the reader i.e. rhetorical question is also applied. Burusphat (1986) found words or phrases that are expressed at the beginning or at the end of the story are also counted as evaluation. However this feature does not occur in this research.

As for irrealis, Burusphat clearly mentions that the pre-serial verb *caʔ* ‘will’ is the most grammatical form of irrealis that functions as “potentiality, assertion, determination, or volition” (Burusphat, 1986, p. 124). This pre-serial verb is also commonly used in this present research. Furthermore, the present research also found that what is also counted as irrealis does not limit to the previous mentioned features, rather uncertainty or prediction, impression of being or doing, wishes, the act of attempting, assumption and imperative are also included.

Setting, another non-storyline element, is usually described by non-dynamic verbs i.e. descriptive verbs, possessive verbs, existential verbs, equative verbs, and directional verbs in this research. The most salient feature of setting is existential verbs indicating the state of being. This finding is compatible with the work of Burusphat (1986) as well.

In this research, cognitive states in the background category are usually signified by cognitive and emotional verbs together with durative adverbs,

pre-serial verbs or post-serial verbs as in the work of Burusphat (1986), but Burusphat (1986) found additional elements such as adverb of frequency e.g. *t^hukwa:n* ‘everyday’ together with auxiliary *mak* or *makca?* ‘likely to’, and temporal adverbs that signify prolonged activities, while the most occurring form of background in this current research is action verbs together with pre-serial verb *kam²laŋ²* ‘progressive marker’ and post-serial verbs *yu:*³ ‘stay’.

As for another study of discourse information, Thammawong (1989) divides non-storyline elements into two levels by their occurrences in the story. The first level (background, cognitive state, flashback) consists of happening that occurs in the story but never does any action. Another level (setting, irrealis, evaluation, cohesion) concerns the elements that do not occur in the story. The findings from this present research are slightly differed from the work of Thammawong (1989) in the way that verbs with no storyline or non-storyline marker that come after clause that contains action verbs are also counted as storyline element. Furthermore, verb that signifies direction in itself such as *tok²* ‘fall’, which means ‘something is falling down’, is also accounted for as action verb. In other words, although there is no actor, but there is an action occurred. Burusphat (1986) further discusses the presence of action verb that it cannot be accounted for as storyline element, if that action verb is accompanied by non-storyline features. This point holds true in this present research as well. As previously stated, action verbs also occur in the background category, which is defined as non-storyline, as it accompanied by durative pre-serial verb such as *kam²laŋ²* ‘progressive marker’ as well as post-serial verbs *yu:*³ ‘stay’. In contrast, if this action verb is attached by the perfective marker *le:w⁶* ‘already’; completive marker *set²le:w⁶* ‘finish’; or auxiliary *ko:*⁴ ‘then’, this particular action verb can therefore be in the storyline. These markers are essential in identifying storyline elements as Burusphat states that “sequentiality is a significant way in which Thai marks the difference between the storyline and non-storyline. [...] The sequentiality of foregrounded events requires that an event occur after the completion of a prior event” (Burusphat, 1986, p. 155). Accordingly, these sequential markers are extensively found especially in the narratives of Group Two, where less non-storyline components occurred.

Similar to Burusphat (1986), Thammawong (1989) proposes a salient scheme ranking from the most significant component of discourse to the

least important one, from peak to non-storyline. What is different between Thammawong's (1989) work and Burusphat's (1986) as well as this present research is the separation between elements that counted as storyline or non-storyline. Whereas this present research is close to the work of Burusphat (1986), which views storyline and non-storyline as single information that distinguish element from one another by grammatical features, Thammawong's (1989) study rather views discourse information in a wider scope.

As previously stated, the work of Chuwicha (1986) overlaps the first framework (cohesion) and the third framework (theme development in terms of storyline) of this research. Chuwicha (1986) defines storyline as theme of the story, functioning as relating events in a discourse together. However this exophoric context is significant in determining the distinction among narratives in this research. Therefore, this research counts all elements in the narratives. Chuwicha (1986) further identifies some markers that used to signal storyline theme, which some of these markers are consistent with sequential markers of Burusphat (1986). As stated, Chuwicha (1986) analyzes texts within and above clause level, which includes paragraph, however this research focuses on the clause level. Thus, it is normal that some of the markers found in Chuwicha's (1986) work are different.

All in all, this present research applies three linguistic frameworks to study coherence in narrative discourse of schizophrenic speakers in these aspects:

a) This research has analyzed narratives using cohesion, cooperative principle, and theme development, which includes participant reference and storyline.

b) This research has explained how narratives are tied up, how they are communicated, and how they are progressed. The analysis mainly results in two groups: Group One is characterized as "less coherent", which measured by "less cohesive, less cooperative, and less progressive", while Group Two is defined as "more coherent", measured by "more cohesive, more cooperative, and more progressive".

c) The findings using three linguistic frameworks can be used to classify groups of schizophrenic speakers, although there are some remarks about

'The Remaining Group'. The information from the psychiatrists also indicates that this classification of schizophrenic narratives leads to the deliberation on positive formal thought disorder, which can be explained by linguistic frameworks applied in this research.

7.2 Conclusion

The research begins with chapter one, which provides background information of schizophrenia, its symptoms, schizophrenia language significance, problems on its language deficits, and rationale of the current research. Moreover, research question, objectives, hypothesis, including benefits of the research, issues in ethic consideration and scope of the research have also been given. The chapter ends with linguistics information that used in the research analysis.

Chapter two concerns with literature review, which presents information such as theoretical frameworks, reviews of related works and previous studies that involve the studies of schizophrenic language.

Chapter three deals with research methodology, which comprises of research designs, data collection, including participants of the research, measurements, administration and data collection procedures, and a short description of how data will be analyzed.

Chapter four concerns with a comprehensive framework of Halliday and Hasan (1976) and Hasan (1984) - the analysis of cohesion. Five major categories of cohesive ties are occurred – reference, substitution, ellipsis, conjunction, and lexical cohesion, which differs in sub-categories depends on the information found during analysis. Reference is the most occurring category, while substitution is the least occurring category. It has been suggested that various cohesive devices are applied non-cohesively in some narratives. As a result, there are some narratives of schizophrenic speakers that result in “more cohesive”, whereas the other narratives are accounted for as “less cohesive”, which is usually signified by the presence of ambiguous, unidentified, and exophoric tokens. As far as analysis using Hasan (1984) is concerned, the ratio of CT to PT, which measuring coherence as well as the percentage of CT to TT, which measure cohesive harmony, are mainly focused.

Accordingly, all narratives can be lined in a cline from less coherence to more coherence.

Chapter five focuses on the analysis using Grice's cooperative principle (1975), which comprises of four maxims: quantity, quality, relevance and manner together with their sub-types. The speakers either observe or infringe maxims. This further suggests how cooperative each schizophrenic speaker is, based primarily on the degree of cooperativeness/rationality. There are some narratives that consist of less relevant information to the scope of the picture book. The narratives are mostly narrated in unclear and ambiguous manner. Furthermore, the speakers usually provide repeated clauses relatively often and provide information based on their own inference without sufficient evidence. These speakers can be marked as being "less cooperative". Sometimes, schizophrenic speakers provide "senseless or pointless" utterances in their narratives, although the number of these occurrences is low. As for other narratives, the speakers highly observe the maxims, although they sometimes infringe some of the maxims. Additionally, there is less unrelated information in the narratives. As a result, these speakers are marked as "more cooperative".

Chapter six focuses on the analysis of narratives using two aspects of discourse information— participant reference and storyline, it begins with a short overview of how participants are mentioned in accordance to their significance in the narratives, which are main, secondary, tertiary participants, group, and props. Accordingly, different speakers set different participants and/ or props in their narratives. It has been found that some schizophrenic speakers often make reference to the participants in the narrative by using exophoric reference, while other speakers rarely apply these exophoric participants. Another aspect of participant reference discusses how each participant in the narratives is operated. Four aspects are considered: introduce, reintroduce, maintain, and removal of participants. Grammatical forms that use to encode participants are both overt marking and covert marking. Nouns and noun phrase are highly used in introducing participants, whereas pronouns and zero anaphora are applied in reintroducing participants. Accordingly, zero anaphora often causes the narrative ambiguous. In maintaining participants, zero anaphora is not commonly applied, rather noun is the highest usage. Moreover, it is remarkable that some narratives contain a large amount of exophoric reference,

including ambiguous and unidentified reference to participants, which pronouns are relatively used as reference for these participants. In these narratives, it is common that once exophoric participants are introduced, the exophoric context remains for a period of time. However, in some narratives, once exophoric context is introduced, it is difficult for the speakers to bring back the context of the picture book again, while these exophoric participants are not occurred in all narratives.

Chapter six continues with the analysis of storyline. It has been found that some schizophrenic speakers provide most of the characteristic of storyline elements, together with several sequential markers, forming well sequential punctiliar happenings i.e. “highly progressive”. To this point, some non-storyline elements are also existed, which together form well-organized narratives. In contrast, there are some narratives that consist of a large amount of non-storyline elements. Sometimes, the narratives contain no sequential marker at all, causing the narratives to become “less progressive”.

Chapter seven encompasses discussion and conclusion. The former includes characteristics of schizophrenic narrative discourses that can be divided into two major groups, together with ‘The Remaining Group’ that cannot be categorized into either of these two groups. The chapter proceeds with the interviews with the psychiatrists, and the comparison between previous relevant studies and this present research on cohesion, cooperative principle, and theme development studied in schizophrenic speakers. The last sections provide conclusion and suggestions for future study.

7.3 Suggestion for future study

As stated in Rochester and Martin: “for most clinicians, the assessment of ‘thought disorder’ is based on inferences from the discourse of patients” (1979, p. 6). This research concerns with the major language impairment of schizophrenic patients, which is coherence. Future study is suggested to be completed by analyzing more narratives of schizophrenic participants, which may lead to further outstanding of characteristics of coherence. Other study can be done by involving the patients’ clinical symptoms such as period of medical treatment, relapses, types of

schizophrenia, phrases of schizophrenia, other treatments, or some social factors etc. Moreover, the study in the area of language assessment in schizophrenia can further be investigated and integrated in order to help accessing the patients before scheduling with the psychiatrists, whether or not the patient establishes positive formal thought disorder due to a limitation of time when the psychiatrists interview the patients, and most importantly, linguistics highly involves with schizophrenic language deficit.



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APPENDIX A

Scale for Assessment of positive symptoms (SAPS)

(Andreasen, 2000)

Apart from normal clinical investigation, this scale aims to evaluate positive symptoms of psychotic disorders, which includes hallucinations, delusions, bizarre behavior, and positive formal thought disorder. It is necessary that clinician asks the subject on a broader topic for a few minutes before leading the subject on the specific topic. It has been suggested that clinical interview such as direct observation, family's report, as well as subject's report cannot be abandoned when observing the subject with this scale. There are four major parts included in this assessment: Hallucination, delusion, bizarre behavior, and positive formal thought disorder. Each part includes subparts as well as descriptions, details, and examples of speech from the subject. The scale rates in accordance with the degree of severity, from 0 to 5 – none, questionable, mild, moderate, and severe, respectively. At the end of the rating scale, global rating of positive formal thought disorder is provided, concerning the whole picture of subject's positive symptoms.

Remarks: The reason why the researcher chooses to study only positive symptoms is because the study aims to use linguistic approaches in assessing formal thought disorder, which is considered to be type of positive symptoms of psychotic disorders. Hence, only the part "*positive formal thought disorder*" is required in this research.

1. Derailment (Loose Associations)

A pattern of spontaneous speech in which the ideas slip off one track onto another which is clearly but obliquely related, or onto one which is completely unrelated. Things may be said in juxtaposition which lack a meaningful relationship, or the subject may shift idiosyncratically from one frame of reference to another. At times there may be a vague connection between the ideas, and at others none will be apparent. This pattern of speech is often characterized as sounding "disjointed." Perhaps the commonest manifestation of this disorder is a slow, steady slippage, with

no single derailment being particularly severe, so that the speaker gets farther and farther off the track with each derailment without showing any awareness that his reply no longer has any connection with the question which was asked. This abnormality is often characterized by lack of cohesion between clauses and sentences and by unclear pronoun references.

2. Tangentiality

Replying to a question in an oblique, tangential or even irrelevant manner. The reply may be related to the question in some distant way. Or the reply may be unrelated and seem totally irrelevant. In the past tangentiality has sometimes been used as roughly equivalent to loose associations or derailment.

3. Incoherence (Word Salad, Schizophrenia)

A pattern of speech which is essentially incomprehensible at times. Incoherence is often accompanied by derailment. It differs from derailment in that in incoherence the abnormality occurs within the level of the sentence or clause, which contains words or phrases that are joined incoherently. The abnormality in derailment involves unclear or confusing connections between larger units, such as sentences or clauses. This type of language disorder is relatively rare. When it occurs, it tends to be severe or extreme, and mild forms are quite uncommon. It may sound quite similar to Wernicke's aphasia or jargon aphasia, and in these cases the disorder should only be called incoherence when history and laboratory data exclude the possibility of a past stroke, and formal testing for aphasia is negative.

4. Illogicality

A pattern of speech in which conclusions are reached which do not follow logically. This may take the form of non-sequiturs (= it does not follow), in which the subject makes a logical inference between two clauses which is unwarranted or illogical. It may take the form of faulty inductive inferences. It may also take the form of reaching conclusions based on faulty premises without any actual delusional thinking.

5. Circumstantiality

A pattern of speech which is very indirect and delayed in reaching its goal idea. In the process of explaining something, the speaker brings in many tedious details and sometimes makes parenthetical remarks. Circumstantial replies or statements may last for many minutes if the speaker is not interrupted and urged to get to the point. Interviewers will often recognize circumstantiality on the basis of needing to interrupt the speaker in order to complete the process of historytaking within an allotted time. When not called circumstantial, these people are often referred to as "long-winded."

6. Pressure of Speech

An increase in the amount of spontaneous speech as compared to what is considered ordinary or socially customary. The subject talks rapidly and is difficult to interrupt. Some sentences may be left uncompleted because of eagerness to get on to a new idea. Simple questions which could be answered in only a few words or sentences are answered at great length so that the answer takes minutes rather than seconds and indeed may not stop at all if the speaker is not interrupted. Even when interrupted, the speaker often continues to talk. Speech tends to be loud and emphatic. Sometimes speakers with severe pressure will talk without any social stimulation and talk even though no one is listening. When subjects are receiving phenothiazines or lithium, their speech is often slowed down by medication, and then it can be judged only on the basis of amount, volume, and social appropriateness. If a quantitative measure is applied to the rate of speech, then a rate greater than 150 words per minute is usually considered rapid or pressured. This disorder may be accompanied by derailment, tangentiality, or incoherence, but it is distinct from them.

7. Distractible Speech

During the course of a discussion or interview, the subject stops talking in the middle of a sentence or idea and changes the subject in response to a nearby stimulus, such as an object on a desk, the interviewer's clothing or appearance, etc.

APPENDIX B

แนวคำถามทั่วไป (General questions)

1. คุณรู้สึกว่าการเปลี่ยนแปลงไปจากชีวิตประจำวันหรือเปล่าคะ อะไรที่เปลี่ยนแปลงแล้ว เป็นมานานหรือยังคะ
2. ก่อนหน้านี้คุณมีอาการอะไรถึงมาหาหมอคะ คุณมาหาหมอนานเท่าไรแล้วคะ

คำถามสำรอง

1. คุณเคยได้ยินเสียงแว่วหรือภาพหลอนบ้างไหม (ถ้ามี) ยังมีอยู่ไหม มีบ่อยแค่ไหน เริ่มมีมานานแล้วหรือยัง
2. คุณมีความคิดเบี่ยงตัวเอง เบี่ยงคนรอบข้างไหม และ/หรือไม่รู้สึกริक्तทำอะไรไหม มีบ่อยแค่ไหน เริ่มมีมานานแล้วหรือยัง

APPENDIX C

แนวคำถามหลังจากการเล่าเรื่อง (Questions about the narrative task)

1. คุณคิดว่าเรื่องนี้เกี่ยวกับอะไรค่ะ (approaching main idea and understanding)
2. คุณคิดว่ามีใครอยู่ในเรื่องนี้บ้างค่ะ (approaching participant)
3. คุณคิดว่าเรื่องนี้เกิดขึ้นที่ไหนและเมื่อไหร่ค่ะ (approaching setting)
4. คุณคิดว่าเรื่องนี้จบดีไหม คืออย่างไร (approaching evaluation)
5. ก่อนที่จะเริ่มเล่าเรื่องคุณเคยคิดไว้ไหมว่าจะเล่าเรื่องแบบไหน (หากคิด) คุณคิดว่าจะเล่าเรื่องอย่างไรค่ะ (approaching planning)
6. คุณชอบเรื่องเล่านี้ไหมค่ะ (ถ้าชอบ) ทำไมถึงชอบค่ะ (approaching personal comment)

APPENDIX D

Sheets for psychiatrists

Task I: Identify types of positive formal thought disorder/ disorganized speech

Number	Types of disorganized speech (positive symptoms)
1	Derailment / loose association
2	Incoherence / Word salad
3	Tangentiality
4	Circumstantiality
5	Distractible speech
6	Pressure of speech
7	Illogicality
X	Unidentified

Structure of the narrative

- _____ A. The speaker utters sentences or presents some ideas in the narrative, but the whole narrative lacks logical relation/meaningful relationship between those ideas. This often shows from the following characteristics:
- The speaker does not provide references for items that require references, or where necessary.
 - The narrative contains relatively large amount of exophoric references, something outside the narrative.
 - The speaker overuses unclear/ ambiguous references, or may shift one reference to another idiosyncratically.
 - The speaker does not mark explicitly conjunctive links between a present sentence and the prior sentence, which often characterized by confusing connections or without any connection.
 - Some words are left out of a sentence without finishing, causing the narrative to be incomprehensible.
 - The speaker uses words, which are considered to be completely unrelated to other words in the narratives.

Content of the narrative

- _____ B. Most of sentences/concepts in the narrative are irrelevant to the most elements of the whole narrative.
- _____ C. The speaker often changes ideas, and those ideas are unrelated with each other.
- _____ D. The speaker keeps repeating a particular sentence or sentences over and over again in the same context, which does not help the progression of the narrative.
- _____ E. The narrative is productive, but less informative, and some ideas are provided with many unnecessarily redundant details.
- _____ F. The speaker provides too little information, which does not cover all important points in the narrative.
- _____ G. The speaker often makes illogical inference, or draws some conclusions from faulty assumption.
- _____ H. The speaker provides too much extralinguistic information such as a person, place, thing, or concept that is not present in the narrative, causing the whole narrative to be ambiguous.
- _____ I. Sentences are obviously not in sequential manner. Thus, the narrative is difficult to comprehend.

Other characteristics

- _____ J. The speaker talks rapidly and is hardly interrupted, or when interrupted, the speaker often continues talking. So, the sentences are answered in a great length.
- _____ K. The speaker obliquely replies to a question, and the answer is sometimes irrelevant to a question.
- _____ L. The speaker stops talking without finishing the on-going sentence, and begins to talk about different/ unrelated topic, which often related to some nearby objects.

Task II: Analyze examples according to types of positive formal thought disorder/ disorganized speech

Example I:

ก็มีเด็กผู้ชายคนนึงเนาะตกปลา แล้วเค้าก็มีสุนัข ตกไปตกมาก็ติดเบ็ด พอติดเบ็ดแล้วเนี่ยะ มีสุนัขแล้วเนาะ แล้วก็ตอนนี้ก็เค้าก็ดึงขึ้นมา ดึงขึ้นมาแล้วก็ มันคงหนัก เอาไปเอามา พอหนักเสร็จ โอ้ ในนั้นมีเต่า มีสุนัขตกลงไป ดึงขึ้นมา สุนัขก็พุดอยู่กับเต่า พอเค้าเจอนะ เจอกัน ตกไปตกมามีกบอีก เลยดึงขึ้นมา ดึงขึ้นไปขึ้นมาเป็นเพื่อนกันอยู่ เป็นเพื่อนกัน เป็นกบ เป็นสุนัข ละก็เป็นเด็กอยู่ตัวคนเดียว แล้วก็เพื่อนกันหมด เป็นกบ เป็นเต่า เป็นสุนัข เมื่อก่อนเด็กก็ เด็กก็อยู่ตัวคนเดียวเนาะ ช่วยตัวเองไม่ได้เนะ เดี่ยวเนาะ พรทิพย์เนะ ขนาดไปตลาดนั้นนะ แขนนี้เดินชนเค้า แขนขวานี้เนะมันไม่มีแรง แต่ว่าเดือนหนึ่งก็ไม่ค่อยพอใช้เนาะ เค้าให้สองพัน ไม่มานานแล้วละ เค้าไปตั้งแต่ตอนเล็กๆแล้ว ก็คิดวิตกกังวลอยู่ช่วงเนี่ยะ แบบสับสน เช่นนู่นเช่นนี้ เรื่องจะไปเช่นทรัพย์สินเค้า ให้เค้าคนเดียว ก็คิดวิตก แก้ปัญหาไม่ตก กลัวเค้าเซ็นแล้วเค้าเบี้ยวเราเลยอะ เป็นสัญญาจ้างเลย ที่เราจะต้องเซ็น ถ้าเซ็นเราก็คงหมดเลยนะ หมด ไม่มีอะไรแล้วนะ ก็ยังไม่เซ็น ก็เป็นปัญหาอยู่ เค้าอาจจะกลั่นแกล้งเราได้ [pause] นี่เที่ยงอยู่หรอคะ ทำไมนาฬิกาเที่ยงอยู่คะ บ่ายโมงแล้วหรือเปล่า [pause] เด็กก็ เด็กก็อยู่ตัวคนเดียว ไม่มีเพื่อนเนาะ มาตัวคนเดียว กระโดดลงไปช่วย เด็กก็ไม่มีเพื่อน ลงไปช่วยสุนัข ยิงนานลงไปมันก็ลืก ลงไปช่วย เจอเต่าเจอกบอีก เค้าก็ดึงขึ้นมาได้ ดึงสุนัขขึ้นมาได้เนาะ เป็นเพื่อนกันเลย 3 คนที่นี้ คราวนี้ก็ 3 ตัวขึ้นมาเองหมดเลยนะ เป็นเพื่อนกันหมดเลย เพื่อนกับเด็กคนนี้เลยนะ เค้าจะรู้เลยนะว่า เต่า กบ สุนัข เป็นพวกเดียวกันหมดเลยนะ รู้เวลาเรียก เวลากิน เวลาทำอะไร รู้กันหมดเลยนะ เด็กก็มีเพื่อนไป เป็นกบเป็นอะไรไป นี่เป็นเรื่องจริงหรอคะเนี่ยะ ธรรมชาติ สัญชาตญาณของลูกผู้ชาย นำสงสารนะ นำสงสารเด็กนะ เค้าถูกรุม ถูกอะไรละ เค้านำสงสาร แล้วเค้าเป็นนั่นนะ ในหัวสมองเค้าคงแบบว่ามีแต่พวกเนี่ยะ สุนัข กบเต่า อะไรยังเงี้ยะ อาจจะมีพวกญาติพี่น้องอะไรหยังเงี้ยะ เค้าจะมีวิญญาณอะไรเปล่าคะเนี่ยะ พวกสุนัข พวกอะไรยังเงี้ยะคะ ก็นั่นแหละคะ ถ้าเรารักเค้ามาก เค้าเป็นอะไรไปก็นำสงสารเค้าเนาะ กบ กบ เต่า อะไรยังเงี้ยะ อยู่ทุกวันนี้ก็เป็นยังเงี้ยะ มีสุนัข มีกบ มีเต่า มีนกนะ นกยังมาเรียกด้วยนะ แล้วมันก็จะมาเรียกห้องพรทิพย์ด้วยนะ ตอนอยู่คนเดียวนี้เรียกเลยนะ เรียกดังๆ เคยมีกาเหมือนกันนะ นกกามา แต่เค้าว่านกกาเป็นคนตายเนาะ นี่ก็ยังไม่เคยตกปลานะ ก็เราอยู่ได้ด้วยความสบายใจ ทุกวันนี้อยู่ได้ด้วยความสบายใจ แต่ก็คิดอยู่เนี่ยะว่าอยากไปอยู่ที่อื่นสักหนึ่ง ทางนี้มันเป็นภาระของเค้าเนะ มันเป็นหน่วยงานของไฟฟ้าเค้า แล้วเราก็ออยู่ยังเงี้ยะ เค้าบอก มันก็นานแหละ ให้เราย้ายที่อยู่ได้แล้ว เราก็เนี่ยะหละ เดือนก็พันก็ไม่พอและก็ต้องเซ็นอะไรให้เค้ารีเปล่าเนี่ยะ ก็ถึงว่า เซ็นบ้านให้เค้า 80000 มันเป็น นส.3 เนาะ แล้วเป็นไม้สักทั้งหลัง แล้วก็นส.3 เนาะ ก็เป็น เค้าจะรื้อถอนมาอยู่ทางบ้านตรง กน.นะ แล้วมันมีแต่ล้อของเรา เราทิ้งไปจน

เปล่าประโยชน์เลย สู้เค้าไม่ได้ เค้าโกงเราเอาไปกินเลย ก็ถึงว่า ลำบากเหมือนกันนะ ถ้าเราไปเซ็นให้ใคร ก็ไม่รู้ว่าใครจะไปวิ่งเต้นให้เราได้ละ ถ้าครบสามปีเค้าก็จัดการมาไล่เราได้นะ เค้าอยู่ดีๆเค้าไปตั้งนายมาไล่เราออกจากบ้าน ไม่รู้ว่าจะไปจ้างใครไปคุยกับเค้า ก็ลำบากอะเนาะ เรื่องเงินทอง สองพันก็ไม่ค่อยพอ ขอให้ช่วย ของสามี เพราะมันกำหนดสี่พันอะเนาะ พรทิพย์ก็ลำบากมาก นั่นแหละเนาะ ชีวิตคนเรา คุณเด็กคนนี้ก็เหมือนพรทิพย์นะ อยู่ตัวคนเดียว ช่วยเหลือตัวเอง แต่สุดท้ายเด็กก็มีเพื่อนนะ

✓ If any items presented	Types of disorganized speech (positive symptoms)
	Derailment / loose association
	Incoherence / Word salad
	Tangentiality
	Circumstantiality
	Distractible speech
	Pressure of speech
	Illogicality
	Unidentified

จากตัวอย่างข้างต้นท่านคิดว่าเคสนี้มีลักษณะของความผิดปกติของรูปแบบคำพูด (disorganized speech) หรือไม่ (ถ้ามี) ท่านคิดว่าความผิดปกติของรูปแบบคำพูดที่พบอยู่ในระดับใด

Questionable Mild Moderate Severe

Example II:

ก็เด็กคนหนึ่งเขาไปตกปลา แล้วก็มีส่วนกับกบเป็นเพื่อน มันไปตกปลาด้วย พอดีไม่รู้ว่าอะไรไปกินเหยื่อ ที่นี้พอดิจะกระดกเบ็ดขึ้น เขาก็ตกลงไปในน้ำ พอดิส่วนกับกบก็ตกใจโดดตามลงไป โดดตามลงไป ปรากฏว่าเต่าคาบเหยื่อออกไป ขึ้นบกไป แล้วที่นี้สุนัขก็สอบถามเต่าว่าคาบเหยื่อไปไหน ที่นี้เต่าก็ทำร้ายสุนัข ไม่พอใจ กบก็กลัวเลยกระโดดหนีไป ที่นี้เจ้าของก็จับสุนัขไว้ไม่ให้เต่ากัด พอดิจะพาหนี เต่าก็ติดไปด้วย ที่นี้พอดิก็กระโดดตามไปด้วย แล้วก็เต่าก็ตกลงจากเท้าสุนัข สุนัขกับกบก็เลยปรึกษากันว่าจะทำยังไง สุนัขก็เลยกระโดดลงไปจะทำร้ายเต่า พอดิเจ้าของก็โมโหละ กบก็กระโดดตามลงไปช่วย เจ้าของก็กระโดดลงด้วย ที่นี้กบก็กระโดดตามลงไป สุนัขก็ขึ้นมาได้แล้ว แล้วพอดิสุนัขทำร้ายเต่า มันก็หงายท้องขึ้นมา เจ้าของใช้คันเบ็ดตีเต่า ให้สุนัขกับกบดู เลยจับเต่าไว้ นี่ก็จะเอาเต่ากลับบ้านไปฝัง คันเบ็ดก็หัก แต่เต่าก็เดินมาหาคันเบ็ด เต่าก็ฟื้นแล้ว เต่าก็คาบคันเบ็ดมาส่งให้เจ้าของ พร้อมจะเป็นมิตรแล้ว เจ้าของดีใจเลยชูเต่าขึ้น พร้อมเป็นเพื่อนเดียวกัน สุดท้ายก็พากันกลับ ทั้งเต่า ทั้งกบ พากันกลับหมด

✓ If any items presented	Types of disorganized speech (positive symptoms)
	Derailment / loose association
	Incoherence / Word salad
	Tangentiality
	Circumstantiality
	Distractible speech
	Pressure of speech
	Illogicality

จากตัวอย่างข้างต้นท่านคิดว่าเคสนี้มีลักษณะของความผิดปกติของรูปแบบคำพูด (disorganized speech) หรือไม่ (ถ้ามี) ท่านคิดว่าความผิดปกติของรูปแบบคำพูดที่พบอยู่ในระดับใด

Questionable

Mild

Moderate

Severe

Task III: Answer the following question

จากการตรวจผู้ป่วยจิตเวช ไม่ทราบว่าท่านเคยพบความผิดปกติของรูปแบบคำพูด (Types of disorganized speech) แบบไหนมากที่สุด

****การตอบคำถามจะไม่มีส่วนในการวินิจฉัยความผิดปกติของรูปแบบคำพูดของผู้เข้าร่วมการวิจัยใดๆทั้งสิ้น****
การตอบคำถามจะเป็นไปตามข้อมูลเกี่ยวกับภาษาที่ได้จากการวิเคราะห์เรื่องเล่าของผู้เข้าร่วมการวิจัยที่แบ่งเป็นกลุ่มแล้ว

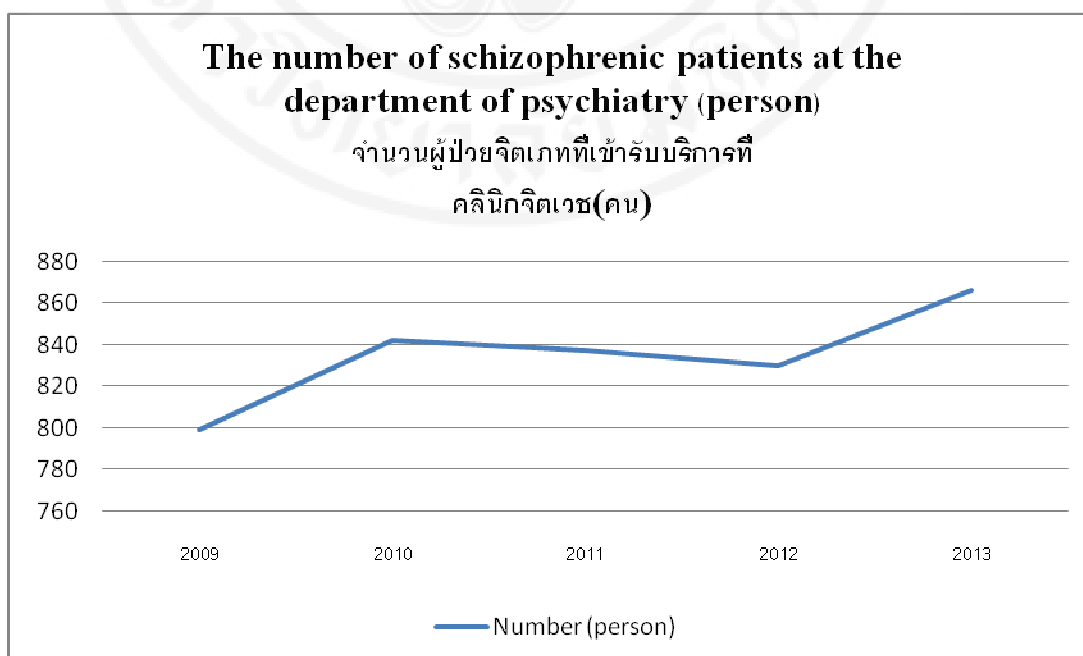
เท่านั้น

ขอบคุณค่ะ

APPENDIX E

The number of schizophrenic patients at the department of psychiatry at Lampang hospital from 2009 – 2013 (Lampang Hospital)

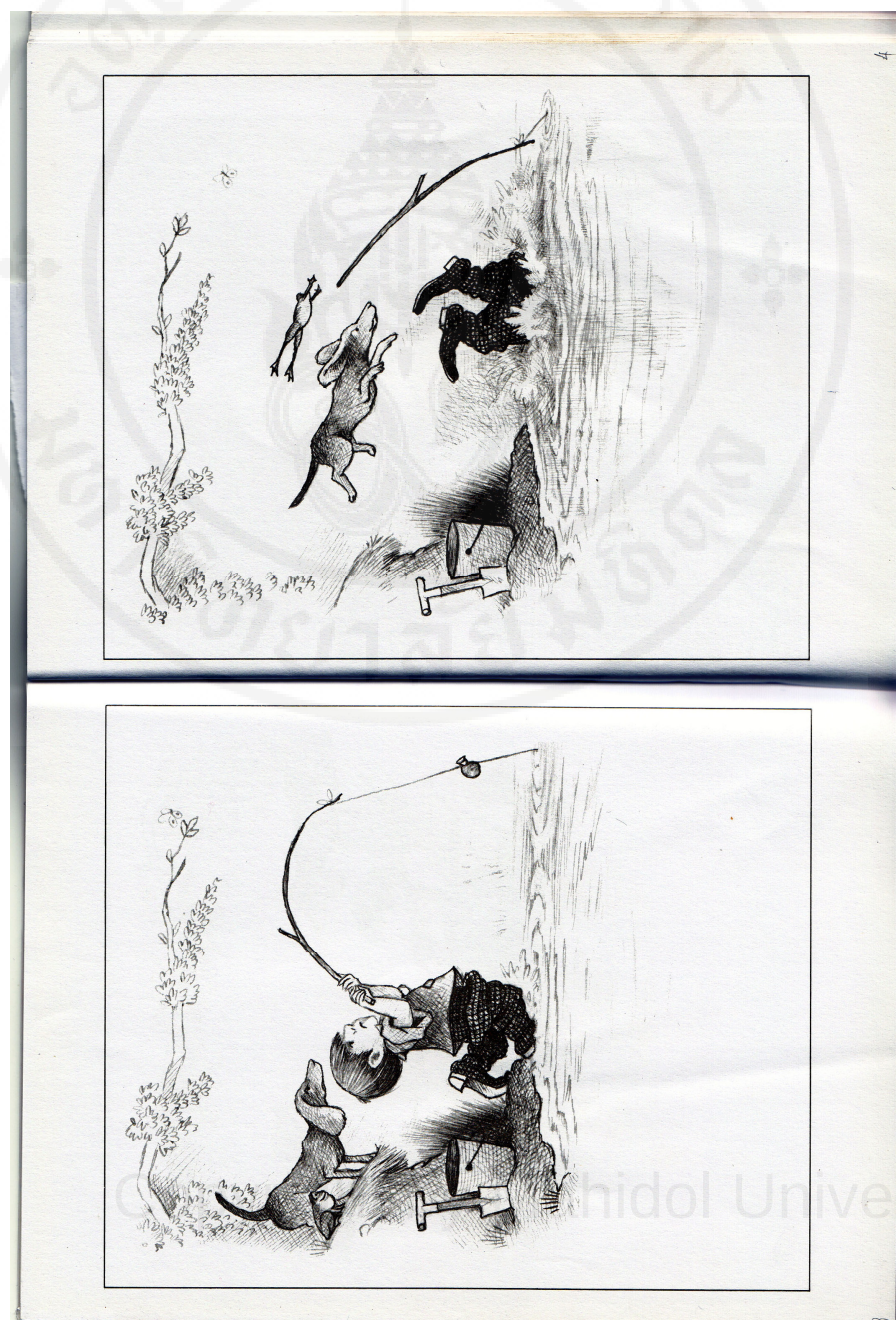
Year	Number (person)
2009	799
2010	842
2011	837
2012	830
2013	866

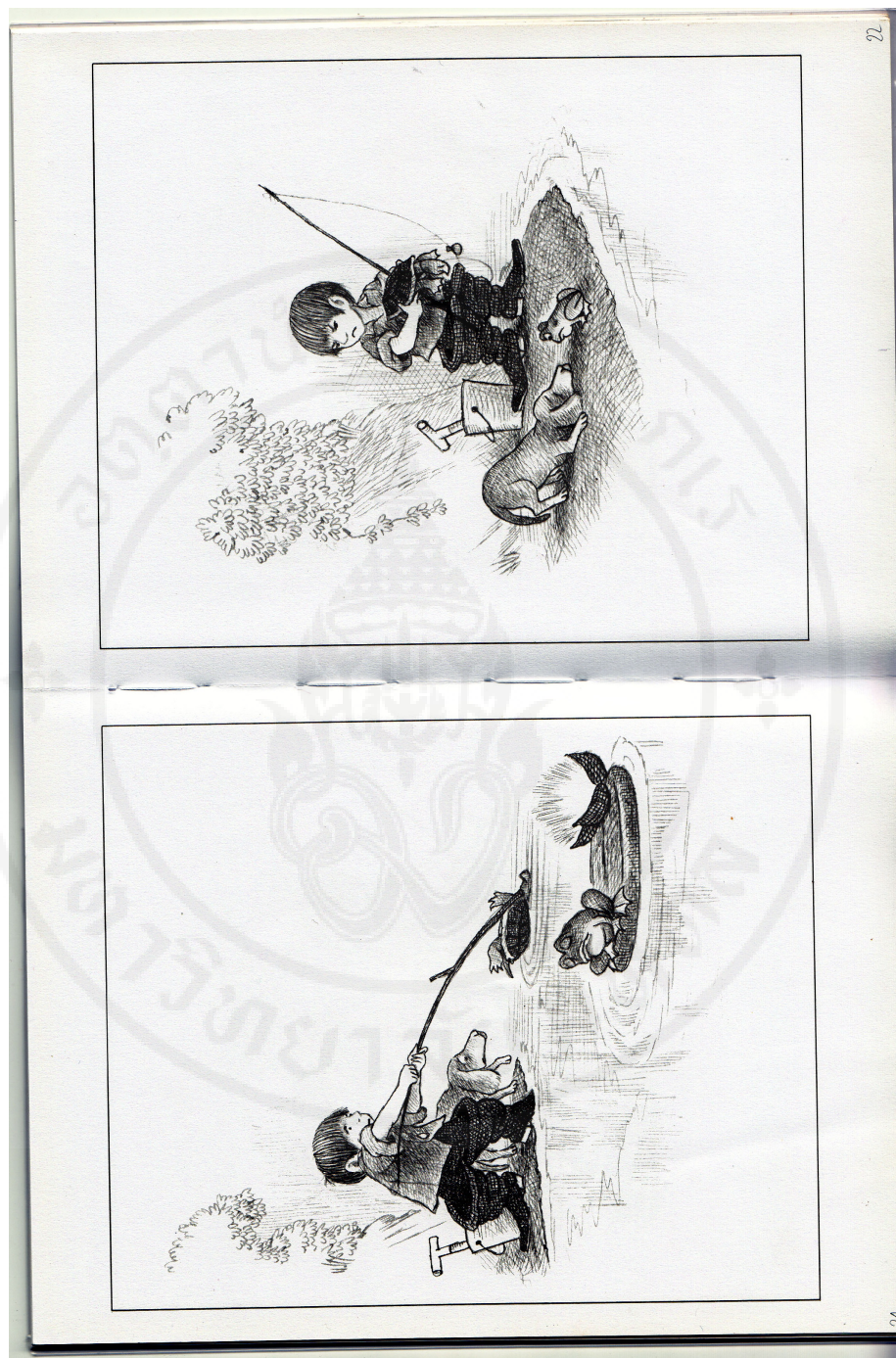


APPENDIX F

Sample pictures from “A boy, a dog, a frog, and a friend”

(Mayer, Mercer & Marina , 1971)





APPENDIX G

Grammatical forms that use to encode participants in the narratives

Grammatical forms	
Noun phrase reference	
Simple noun phrase	
<i>ma:¹ kap² kop² or su³ nak⁵ kap² kop² or</i> <i>ma:¹ le² kop²</i>	The dog and the frog
<i>taw³ ma:¹ k^hon²</i>	The turtle, the dog, the boy
<i>ma:¹ kap² taw³</i>	The dog and the turtle
<i>kop² su³ nak⁵ taw³</i>	The frog, the dog, the turtle
<i>taw³ kop² su³ nak⁵ nok⁵</i>	The turtle, the frog, the dog, the bird
<i>k^hon² le² ma:¹</i>	The boy and the dog
<i>ma:¹ kap² k^hon²</i>	The dog and the human
<i>lu:k⁴ kap² la:n¹</i>	My child and my grandchild (exophoric)
Definite noun phrase	
<i>la³ p³on³ ni:⁶ or la³ p³on³ k^hon² ni:⁶ or</i> <i>dek² ca:y² k^hon² ni:⁶</i>	This boy
<i>la³ p³on³ han⁵ or la³ p³on³ k^hon² han⁵ or</i> <i>dek² nɔ:y⁵ k^hon² han⁵</i>	That boy
<i>la:y¹ k^hon² han⁵</i>	Those many people
<i>mɔ:¹ han⁵ or k^hon² ni:⁶</i>	That guy, This guy
<i>ma:¹ tuə:¹ han⁵</i>	That dog
<i>kop² tuə:¹ han⁵</i>	That frog
<i>taw³ ni:⁶ or taw³ tuə:¹ ni:⁶; taw³ tuə:¹ han⁵</i>	This turtle; That turtle
<i>p^huə:k⁴ niə⁶</i>	These things (exophoric)
Possessive noun phrase	

<i>laŋ¹ ma:¹</i>	The dog's back
<i>mə:² ma:¹</i>	The dog's hand
<i>ti:n¹ ma:¹</i>	The dog's foot
<i>ta:¹ mɔ:¹ han⁵</i>	That guy's eye
<i>mə:² mɔ:¹ han⁵</i>	That guy's hand
<i>haŋ¹ ma:¹</i>	The dog's tail
<i>laŋ¹ taw³</i>	The turtle's back
<i>pa:k³ taw³</i>	The turtle's mouth
<i>t^ha:w⁶ k^hɔ:ŋ¹ ma:¹ or ti:n¹ suɔ³nak⁵ or mi:² suɔ³nak⁵</i>	The dog's foot/ The dog's hand
<i>k^hεŋ⁴ ma:¹</i>	The dog's leg
<i>suɔ³nak⁵ k^hɔŋ¹ k^haw¹ or ma:¹ tuə:¹ kaw³</i>	His dog/ his own dog
<i>taɔ³k^hɔ:¹ bet² k^haw¹ or bet² k^hɔŋ¹ k^haw¹</i>	His fishhook
<i>kε:ŋ⁴ k^haw¹</i>	His leg
<i>mε:⁴ nɔ:ŋ⁶</i>	My mother (exophoric)
<i>pi:⁴ nɔ:ŋ⁶</i>	My sister (exophoric)
<i>pɔ:⁴ mε:⁴ nɔ:ŋ⁶</i>	My parents (exophoric)
<i>la:n¹ nɔ:ŋ⁶</i>	My grandchild (exophoric)
<i>k^hεŋ⁴ peɔ²</i>	The duck's leg (exophoric)
<i>ti:n¹ peɔ²</i>	The duck's foot (exophoric)
<i>ba:n⁵ p^ho:m¹</i>	My house (exophoric)
<i>k^hon² t^hε:w¹ ba:n⁵ nɔ:ŋ⁶</i>	My neighbor (exophoric)
Noun phrase	
<i>laɔ³ɔn³ pɔ:⁴ca:y² or dek²cay² k^hon² niŋ⁴</i>	The boy
<i>k^hon²ti:⁴ tok²bet²</i>	A person who is fishing
<i>dek² k^hon² han⁵ kap² ma:¹</i>	That boy and a dog
<i>taw³ tuə:¹ kaw³</i>	The old turtle

<i>ma:¹ kʰɔ:ŋ¹ kʰaw¹ lɛ²⁵ kop²</i>	His dog and a frog
<i>su²³ nak⁵ tuə:¹ niŋ⁴ kap² kop² tuə:¹ niŋ⁴</i>	One dog and one frog
<i>pi:⁴ taŋ² ba:n⁵ ciə:ŋ² ha:y²</i>	The sister who lives in Chiang Rai (exophoric)
<i>mɛ:ŋ² sɔ:ŋ¹ tuə:¹</i>	Two animals (exophoric)
<i>pi:⁴ mɛ:⁴ yi:ŋ²</i>	My older sister (exophoric)
<i>nay² luə:y¹ ɔŋ² ti:⁴ sip²</i> <i>kʰɔ:ŋ¹ pra²³ tʰe:f⁴ tʰay¹</i>	The 10 th king of Thailand (exophoric)
<i>kʰon² ti:⁴ pen¹ caw⁵ kʰɔ:ŋ¹ ba:n⁵</i>	The house owner (exophoric)
<i>kʰon² ti:⁴ kʰa:y¹ ba:n⁵ hi:⁵ pʰom¹</i>	The person who sell the house to me (exophoric)
Nouns	
<i>la²³ ɔŋ³ or dek²</i>	The child, the boy
<i>bet² or kʰɔ:¹ bet² or sa:y¹ bet² or kan² bet²</i> <i>or ta²³ kʰɔ:¹ bet²</i>	The fishhook
<i>yuə:³</i>	The victim
<i>ma:¹ or su²³ nak⁵</i>	The dog
<i>taw³ or tuə:¹ taw³</i>	The turtle
<i>ma:y⁶</i>	<u>Here</u> : the fishhook
<i>kop² or ca:w⁵ kop²</i>	The frog
<i>na:m⁶ ku²⁵ or tʰaŋ¹ na:m⁶</i>	The water bucket
<i>pʰluə:⁵ or cɔ:p³</i>	The spade
<i>pla:¹</i>	The fish
<i>dek² or dek² ca:y²</i>	A boy
<i>ca:w⁵ kʰɔ:ŋ¹</i>	An owner
<i>pʰa:⁵</i>	Cloths
<i>buə:²</i>	Lotus
<i>siə:⁵</i>	Shirt

<i>ka:ŋ¹ke:ŋ¹</i>	Plants
<i>mu:¹</i>	The pig (exophoric)
<i>ŋuə:²</i>	The cow (exophoric)
<i>kay³</i>	The chicken (exophoric)
<i>rot⁵kiəŋ⁴</i>	The motorbike (exophoric)
<i>pet²</i>	The duck (exophoric)
<i>k^hi:⁵diə:n²</i>	The worm (exophoric)
<i>rot⁵</i>	The car (exophoric)
<i>t^ha:n³</i>	The charcoal (exophoric)
<i>huə:y¹</i>	The lottery (exophoric)
<i>nok⁵</i>	The bird (exophoric)
<i>ka:¹</i>	The crow (exophoric)
<i>ba:n⁵</i>	The house (exophoric)
<i>lek²</i>	Iron (exophoric)
<i>pu:n¹</i>	Lime (exophoric)
<i>saw¹taŋ⁵ca:w⁵</i>	Pillar (exophoric)
<i>rɔ:ŋ²t^ha:w⁶</i>	Shoes (exophoric)
Generic noun (applied in both endophoric and exophoric context)	
<i>k^hon²</i>	Human being
Pronouns (applied in both endophoric and exophoric context)	
<i>k^haw¹</i>	He/she/they
<i>pən⁴</i>	I/he/she/they
<i>man²</i>	It
(all items are applied exophorically)	
<i>nɔ:ŋ⁶ or p^hom¹ or ku:²</i>	I

<i>haw</i> ²	I/we/you
<i>praʔ⁵ʔoŋ</i> ²	You/he/she (higher status)
<i>k^hε:</i> ²	you/he/she
<i>nay</i> ² <i>luə:y</i> ¹	You/ he (for the King)
Kinship terms (all items are applied exophorically)	
<i>pi:</i> ⁴ or <i>pi:</i> ⁴ <i>saw</i> ¹ or <i>ʔi:</i> ³ <i>pi:</i> ⁴	Older sister
<i>pɔ:</i> ⁴	Father
<i>mε:</i> ⁴ or <i>ʔi:</i> ³ <i>mε:</i> ⁴	Mother
<i>pa:</i> ⁵	Aunt
<i>la:n</i> ¹	Grandchild
<i>pi:</i> ⁴ <i>baw</i> ³	Older brother
<i>sa:</i> ¹ <i>mi:</i> ²	Husband
<i>lu:k</i> ⁴	Child
Occupational terms (all items are applied exophorically)	
<i>mɔ:</i> ¹	Doctor
<i>tam</i> ¹ <i>ruə:t</i> ³	Policeman
<i>t^haʔ³na:y</i> ²	Lawyer
<i>p^hu:</i> ⁴ <i>wa:</i> ⁴	Governor
<i>rɔ:ŋ</i> ² <i>na:y</i> ² <i>yok</i> ⁵ <i>k^hɔ:ŋ</i> ¹ <i>praʔ³t^he:t⁴t^ha:y</i> ²	Vice-president of Thailand
<i>p^hu:</i> ⁴ <i>k^hum</i> ⁶ <i>kan</i> ¹	Bodyguard
<i>c^ha:ŋ</i> ⁴	Mechanic
Title terms (all items are applied exophorically)	
<i>k^hun</i> ² <i>yiŋ</i> ¹	The lady
Personal names (all items are applied exophorically)	
<i>p^hɔ:n</i> ² <i>t^hip</i> ⁵	Phonthip
<i>p^hot</i> ⁵	Phot



Additional appendices are attached in CD.

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BIOGRAPHY

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- Oral presentation at the Australian Systemic Functional Linguistics Association 2014 (ASFLA), the International Conference on the theme “New text, New challenge” under the topic: *Coherence in narrative discourse of schizophrenic speakers: A cohesion analysis* at University of New South Wales (Sydney), Australia, 29th Sept. – 2nd Oct. 2014.

