CHAPTER 1

INTRODUCTION

1.0 Introduction

This chapter introduces the background to the problem that initiated this study. Next, it proceeds to discussing the objectives, research questions and the significance of the study to L2 learners and educators. Finally, the limitations of the study are discussed in this chapter.

Terms that are frequently used in this study like “first language”, “second language” and “novel compound nouns” are abbreviated to “L1”, “L2” and “ncn”, respectively throughout the thesis.

1.1 Background to the problem

Researchers have given a lot of importance and emphasis on the field of vocabulary acquisition (Zhou and Murphy 2011). According to Hunt and Beglar (2005), lexicon play the most important role in acquiring and learning a language where it helps to comprehend and use the language correctly. Hence, the students’ language acquisition and proficiency development are affected due to their inadequacy in lexical knowledge (Catalan, 2003). Moreover, acquiring a sufficient large vocabulary can be the hardest challenge for a language learner (Lewis, 2000). Laufer (2005) further argues

that the great difference between native speakers and foreign learners is the quantity of vocabulary that both groups have in their lexicon.

According to Catalan (2003), vocabulary is acquired spontaneously. The amount of the vocabulary acquired is dependent on the efforts of the teachers and students. Catalan (2003) continues to say that this situation has led to general inadequacy in vocabulary knowledge, especially for L2 learners. Therefore, more research should be conducted in the field of vocabulary acquisition and one of the vocabulary acquisition areas that needs to be explored further is compound nouns (Zhou and Murphy, 2011). Although compound nouns are seen as simple constructions of two parallel nouns yet in understanding and interpreting a compound noun, one has to be able to identify the difference between a head and a modifier. At the same time, one also has to understand the possible types of subcategorizations such as the possible thematic relations between a head and a modifier. Moreover, a compound noun can have several likely interpretations. For example, "chocolate bowl" can be interpreted as "a bowl for chocolate", "a bowl made of chocolate" and "a bowl that looks like chocolate because of its colour" (Krott et al., 2009). Thus, from the previous explanation, it can be concluded that there is a need to explore compound nouns further as it could not be interpreted directly.

Compound nouns are formed by combining two nouns (Lee, 2011). For example "snowman", "apple pie" and "chicken leg" (Krott, Gagne and Nicoladis, 2010). Compound is also one of the products of multi-word item (Lee, 2011). Moon (1997) defines multi-word item as a sequence of two or more words consisted in a vocabulary. A meaningful unit is then produced semantically and or syntactically through this sequence of words. According to Seaghdha (2008), a compound can be formed by

combining almost any pair of English nouns. Sometimes the combinations are not sensible yet compounds are still produced and used. For example, if one says that he has a “pineapple radio”, the hearer may interpret it as “a radio contained in a pineapple” or “a radio looks like a pineapple” instead of “a radio used for eating pineapples” or “a radio owned by a pineapple”. Although the compound nouns are new, yet the hearer or reader is able to understand its meaning.

The meanings of compound nouns have to be constructed by the readers or hearers because compounds are resulted from compounding (Jones, 1983). Compounding is used to form or create new words out of the existing words. Moreover, the new words are discovered in any lexicon (Jones, 1983). In other words, compounding is a productive process used to enrich the vocabulary of a language (Seaghdha, 2008). As a result, compounding is widely used in many languages such as English, Malay and Tamil. Malay is the mother tongue or language spoken by Malays while Tamil is the mother tongue or language spoken by Indians (Asmah Omar, 1985). According to Zhou and Murphy (2011), there is a need for more research on L2 learners and compound nouns as previous research only focused on native speakers of English. Therefore, this study is focused on L2 learners whose L1 is Malay and Tamil. In addition, the learners are from native languages which are also compounding languages like English.

In the past, many studies on compounding were conducted which have significant effects on the field of vocabulary acquisition (Lee, 2011). For example, Gleitman and Gleitman’s (1970) study revealed the various types of compounding in English and Clark’s study (1993) revealed that children acquiring compounding languages are able to produce novel compounds. In contrast, children acquiring non

compounding languages do not have the tendency to produce novel compounds. As an example, French is a non compounding language, thus children learning French do not have the possibility to generate novel compounds. Moreover, productive compounding is not allowed in French, whereas English as a compounding language, allows productive novel compounding (Hiramatsu, Synder, Roeper, Storrs and Saccoman, 2000). Besides English, Malay and Tamil languages are also compounding languages (Fabb, 2003). Compounds are formed productively in both languages as one of the means to form new words (Menaka, Vijay and Sobha, 2010; Asmah Omar, 1988).

According to Hampton (1996), the unfamiliar combination of two nouns is referred to as a novel compound noun. Once its usage has become popular or more known, it is then referred to as a lexicalized compound. Charteris-Black (1998) elaborates in detail the process of how a novel compound noun enters a language. In the beginning, it is usually written as two separate words. At this stage, the meaning of a novel compound noun has to be generated as it is not yet established (Gagne and Spalding, 2006). Once the meaning of a novel compound noun is fully established and used frequently, it is then written as a single word and referred to as a lexicalized compound. Novel compound nouns (ncn) are discussed in detail in chapter 2.

However, the orthography usage of a compound noun differs for different dictionaries. For example, the compound noun “best seller” is written without a hyphen in Merriam-Webster (2013), with hypen “best-seller” in Oxford (2013), and single word “bestseller” in Chamber (2011). The differences in the orthography pattern are caused by the popular usage of a particular compound noun in the written text sources. Hence, the differences in the spelling of a compound noun resulted in confusion for the readers. When the orthography pattern of a compound noun differs, one might question whether

the meanings for all types of orthography patterns are the same or vary (Juhasz, Starr, Inhoff, and Placke, 2003).

The interpretation process of a compound noun is called conceptual combination. Conceptual combination is a process where a relation links two concepts that are embedded in a compound. For example, “dining table” is interpreted as “a table for dining”. Hence, conceptual combination focuses on establishing appropriate thematic relations between noun-noun compounds when interpreting compound nouns (Lee, 2011).

Compounds are difficult for both native speakers and language learners because of few reasons. First, according to Fromkin and Rodman (1998), the same underlying juxtaposition of words could have different grammatical relations as in “boathouse” and “cathouse”. A “boathouse” is interpreted as “a house for boats”. In contrast, a “cathouse” is “not a house for cats”. This is resulted from the basic principles of compounding in English as English compounds are right-headed. For example, the compound noun “god child”, where the head “child” which is placed on the right indicates the subcategory of a “child” and not “god”. The right headed element functions to categorize a compound (Lieber, 1983).

Second, the differences and similarities in the word pattern between different languages affect L2 learners’ acquisition of compound nouns (Nguyen, 2010). For example, in English, the structure of compounds is “modifier + head” whereas in other languages like Thai and Vietnamese, the structure of compounds is “head + modifier”. The process of compounding in these languages occurs in a reversed order. Another example is the difference in the word pattern between English and Spanish. In Spanish,

the relationships between noun-noun are linked by prepositions whereas in English is different. The compound “carta de bomba” in Spanish means “letter of bomb”. The nouns in this compound are linked by the preposition “of” (Liceras and Diaz, 2001). On the other hand, in English, the compound “picture book” is not linked with any preposition. The difference in the structure of English and Spanish causes a difficulty in interpreting compound nouns among Spanish speakers (Pastor, 2008).

Apart from the differences in its structure, the comprehension of compounds is not easy for L2 learners because of idiomatic opacity, syntactic opacity and lexical novelty of the compounds (Charteris-Black, 1998). First, idiomatically opaque compound nouns are formed by metaphorical process. Here, the two elements have secondary meanings. The secondary meanings are then transferred to a compound form. For example, “the lawyer who is predatory and aggressive” is called as ‘“shark lawyer”. The noun “shark” functions as a metaphor only. However, if the noun “shark” is used literally, then the compound noun “shark lawyer” is interpreted as “a lawyer who represents an environmental group that protects sharks from being killed” (Goldvarg and Glucksberg, 1998). The metaphor can cause a difficulty for L2 learners in comprehending the compound nouns because of their inability to identify the metaphor and the head of a compound (Gerrig and Murphy, 1992). These types of compounds are used widely in academic and professional writing (Bhatia, 1992).

Next, the syntactically opaque compounds are complicated to understand because of the deletion of the syntactic indicators in a lexicalized form. According to Charteris-Black (1998), one who lacks the cultural knowledge of a language will face problems in understanding this type of compound. This is due to the inability to identify the element that has been deleted. The cultural knowledge of a language is crucial to

provide the information on the semantic relations of the compounds. For example, a compound noun “car crime” will be difficult to interpret if one could not identify the syntactic relation of the compound. Therefore, “car crime” would be interpreted as “a crime in which a car is used” or “a crime which is committed on a car” (Charteris-Black, 1998).

Another difficulty in interpreting compound nouns is the implicit semantic relations between two constituents nouns. This difficulty is seen with compound nouns like “GM car”, “woman doctor”, “diesel engine” and “voltage source”. In detail, one has to have the knowledge that “diesel is one kind of fuel” in order to interpret the compound “diesel engine”. The semantic relation “powered by” is the underlying relation that exists in this compound. However, this semantic relation tends to disappear. Usually this phenomenon occurs in technical English. Therefore, the recovery of this relation is fully needed for a full interpretation. Meanwhile, the existence of ambiguity is unavoidable for compound nouns that do not need the knowledge on semantic relations such as “woman doctor” and “voltage source”. Here, “woman doctor” is interpreted as “a doctor for woman” or “a doctor who is a woman” whereas “voltage source” is “a voltage for the source” or “voltage from the source” (Nguyen, 2010).

The previous discussions have proven the difficulties in acquiring and interpreting compounds especially with ncn. Previous studies by Krott, Gagne and Nicoladis (2009); Krott et al. (2010) and Gagne (2001) were conducted on how children and adults whose L1 is English from United Kingdom and Canada interpreted compounds and ncn. The findings gained from these studies gave significance effects toward the development and advancement in the field of English language acquisition

(Gagne, 2000). For example, Gagne and Shoben (1997) found that relation interpretation was preferred and used by the native speakers of English language to interpret ncn. On the other hand, Wisniewski (1997) found that property interpretation was used by the native speakers to interpret ncn.

In contrast, to date very few researches have been conducted with L2 learners and their acquisition of compounds and ncn especially whose native languages are also compounding languages (Zhou and Murphy, 2011). Hence, how Malay and Indian L2 adult learners in Malaysia interpret novel English compounds, specifically in noun-noun compound has been the main focus of this study. This is due to the fact that L2 learners also face the difficulty in interpreting ncn correctly (Zhou and Murphy,2011). Next, this study also aims to identify whether L2 learners' interpretations of novel noun-noun compounds were affected by their knowledge of related compounds and their modifier-head relations or their interpretations were based on the property interpretations. Apart from that, the findings of the study are aimed to help L2 learners and teachers identify an effective and suitable way of acquiring and comprehending the meaning of compound nouns.

1.2 Objectives of the research

The general purpose of this study was to explore how Malay and Indian adult L2 learners interpreted ncn. This study was also aimed to:

- Compare whether property interpretation or relation interpretation was used more to interpret ncn among Malay and Indian L2 learners.
- Identify the exposure and factors affecting the acquisition of L2 and the interpretation of ncn among Malay and Indian L2 learners.
- Identify whether L1 influences the interpretation of ncn.

1.3 Research questions

The following research questions were addressed in this study:

1. Which pattern of interpretation was used more to interpret ncn among Malay and Indian L2 learners?
2. What were the exposure and factors affecting the acquisition of L2 and the interpretation of ncn among Malay and Indian l2 learners?
3. How did L1 influence the interpretation of ncn among Malay and Indian L2 learners?

1.4 Significances of the study

Since L2 learners face problems in interpreting and comprehending ncn, there is a need to identify what is the most effective way that can help them to interpret ncn easily and accurately (Charteris-Black, 1998). However, many studies conducted in the past focused on how native speakers of English language interpret ncn and studies on L2 learners are very limited. In addition, the literature search done shows no research has been conducted on L2 learners whose native languages are compounding languages. Thus, this study intends to fill in the gap.

In summary, this study is hoped to create an awareness on the effective ways to acquire ncn among L2 learners especially among Malay and Indian L2 learners. The findings of this study are hoped to enlighten L2 instructors and teachers on the effective strategies to be used by students in interpreting ncn. In addition, the findings will also help the instructors and teachers identify their students' problems in interpreting and comprehending ncn and ways to overcome them. Similarly, more studies by future researchers on the interpretation of ncn using other patterns among L2 learners from various ethnics and backgrounds in the future would be added knowledge to the field of compounding study.

1.5 Limitations of the study

As there is no study done in the past on ncn and L2 learners in Malaysian context, it was difficult to find the related literature. Therefore, most of the literature used in this study is based on studies done in western countries. Apart from that, this study only focuses on Malay and Indian L2 learners, and, the findings of this study should not be generalized to:

1) other Malay and Indian L2 learners in Malaysia as the sample size used in this study was small.
2) other Malay and Indian L2 learners in Malaysia whose native languages are not Malay and Tamil, respectively.

1.6 Definitions of terms

Terms below are frequently used throughout the thesis.

1.6.1 First language (L1)

First language is a person's native language. (http://www.oxforddictionaries.com/definition/english/first-language).

1.6.2 Second language (L2)

Second language is a new language being acquired by children and adults after developing a full knowledge of L1 (Genesee, 2000 and Meisel, 2001).

1.6.3 Novel Compound Nouns (ncn)

Novel compound nouns are the unfamiliar combination of two nouns which are not frequently used (Hampton, 1996).

1.7 Conclusion

This chapter deals with the background to the problem of compound nouns, ncn and compounding languages experienced by L2 learners. The explanations for each term, the processes involved in forming them and the functions of compound nouns are described in detail.

This chapter continues to discuss the need to conduct study of this nature with L2 learners as most of the past researches focused on the native speakers of English language. Moreover, there was very few research found which involved L2 learners whose L1 are compounding languages like English, Malay and Tamil. This study intends to fill in that gap. Discussions about compound nouns and the types of difficulties that L2 learners face in interpreting compound nouns and ncn further support the need to conduct this study. Subsequent sections of this chapter present objectives of the study, research questions, significance of the study, and its limitations.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

This chapter provides literature pertinent to compounding and second language acquisition. It is divided into seven sections which are theoretical frameworks, novel compound nouns, compound nouns, compound, compounding language, second language acquisition and the influence of first language in the acquisition of second language.

This chapter begins with the discussion on the two theoretical frameworks used in discussing the findings of the first research question. The theoretical frameworks which are the Carin theory and the dual-process theory provide the information on how learners interpret ncn.

The following section presents arguments about ncn and compound nouns in detail. These sections discuss the definitions, the formation and the structure of both compound nouns and ncn. At the same time, the functions of ncn, the difficulties in comprehending them and the various means use to interpret them are also discussed in these sections.

A comprehensive discussion on compounds is presented next. It covers the definition of compounds, the functions of compounds, types of compounds and the

formation of compounds. This chapter continues with the arguments on compounding languages. English, Malay and Tamil languages are referred to as compounding languages. In this section, arguments are presented on the characteristics of compounding languages and the formation of compounds in these languages.

The literature on L2 acquisition is presented next. The discussion in this section relates to L2 learners and the factors which affect the acquisition of L2. This literature helps in discussing the findings for the second research question. Finally, the influence of L1 in the acquisition of L2 is also presented. This literature helps in discussing the findings for the third research question.

2.1 Theoretical frameworks

This study is based on two emerging theories which are the Competition among relations in nominal (Carin) theory (Gagne and Shoben, 1997) and the dual-process theory (Wisniewski, 1996). The Carin theory focuses on combination processes that generate relation interpretations whereas the dual-process theory is a process of mapping the specific properties from the modifier to the head noun (Zhou and Murphy, 2011). These two theories are focused in this study due to the great number of studies conducted by referring to these theories (Gagne, 2000; Gagne, 2001; Gagne, 2002; Gagne, & Shoben, 1997; Gagne, & Spalding, 2006; Krott, Gagne, & Nicoladis, 2009; Krott, Gagne, & Nicoladis, 2010; Tagalakis, & Keane, 2005; Zhou, & Murphy, 2011). In addition, these theories are focused because of the suitability of these theories on L2 learners as proven by Zhou and Murphy (2011).

According to the Carin theory, a modifier and a head noun can be linked with fixed and standard relations. The modifier is the first word encountered earlier than the head noun, therefore, there is a possibility for the modifier to have more influence than the head (Gagne and Shoben, 1997). At the same time, there is also a possibility for certain properties to belong to the modifier noun which gives the modifier the semantic privilege and influences the interpretation of a compound more than the head. This privilege can help determine a meaning to the compound. Meanwhile, the head is mainly used to determine the plausibility of a relation. For example, the relation "LOCATED AT" is connected more frequent than the relation "ABOUT" with the modifier "mountain" (Gagne, 2002) as in "mountain bird", "mountain lodge", "mountain lake" and "mountain path".

Next, this theory (Carin) proposes that a relation is selected to link two concepts. Hence, the relation plays a key role in interpreting the newly formed combined concept. For example, the compounds "tax magazine" and "mountain magazine". When the relation "about" is used to connect both compounds, it resulted to the meaning of "a magazine about tax" for "tax magazine" and "a magazine about mountain" for "mountain magazine" (Gagne and Shoben, 1997).

In contrast, Wisniewski (1996) in his dual-process theory reports that property interpretation is generic and simple. According to this theory, the property interpretation is created by transferring the property from a modifier concept to a head concept. For example, "an elephant fish" is interpreted as "a big fish". The property of the modifier which is "elephant" is transferred to the head concept which is "fish" (Estes, 2003).

Wisniewski (1997) explains in detail on how property interpretation is processed. First, the similarities and differences between two constituent concepts of a compound are compared. Next, one or more properties from one concept to the other is selected and transferred as in “cactus carpet”. Next, the similarities and differences between “cactus” which is prickly and “carpet” which is soft are then compared. Finally, cactus‘s prickly property is attributed to the carpet‘s textual dimension in which resulted to the interpretation of “cactus carpet” as “a prickly carpet” (Wisniewski 1997, 2000).

In addition, the dual-process theory predicts that similar concept has more frequent attribution like “zebra horse” than dissimilar concept like “zebra stable”. When the concepts are similar, the same thematic roles are performed, thus a relation interpretation does not play any role. For example, concepts which have same properties also perform same thematic roles like “zebra” and “horse”. Therefore, it is not easy to interpret “zebra horse” by using a relation interpretation. However, it can be easily interpreted using an attributive or a property interpretation. Therefore, it is interpreted as “a striped horse” (Estes, 2003).

In other words, here, the modifier “zebra” has a semantic privilege which influences the interpretation of a compound more than the head (Kako and Wagner, 2001). At the same time, the pragmatic perspective on “zebra” provides the supporting knowledge for this combination (Lynott and Keane, 2003). Apart from interpreting ncn based on semantic privilege and pragmatic representation, syntactic representation also plays a crucial in interpreting ncn. For example, “zebra horse” is interpreted as “a striped zebra” due to the syntactic properties of “zebra” and its place in lexical structures (Schmitt and McCarthy, 1997).

In a summary, Gagne (2000) states that one of the conceptual relations is attribution which is used when there is no relation between two nouns. Therefore, relational interpretation is preferred and often used in the interpretation of ncn (Gagne and Shoben, 1997). In contrast, the dual-process theory believes that two distinct processes which are property attribution and relation inference operate simultaneously in interpreting ncn (Wisniewski, 1996; Wisniewski and Love, 1998).

2.2 Novel compound nouns (ncn)

Figure 2.1 shows the process of compounding or the formation of ncn which later become lexicalized compound nouns after they are frequently used.

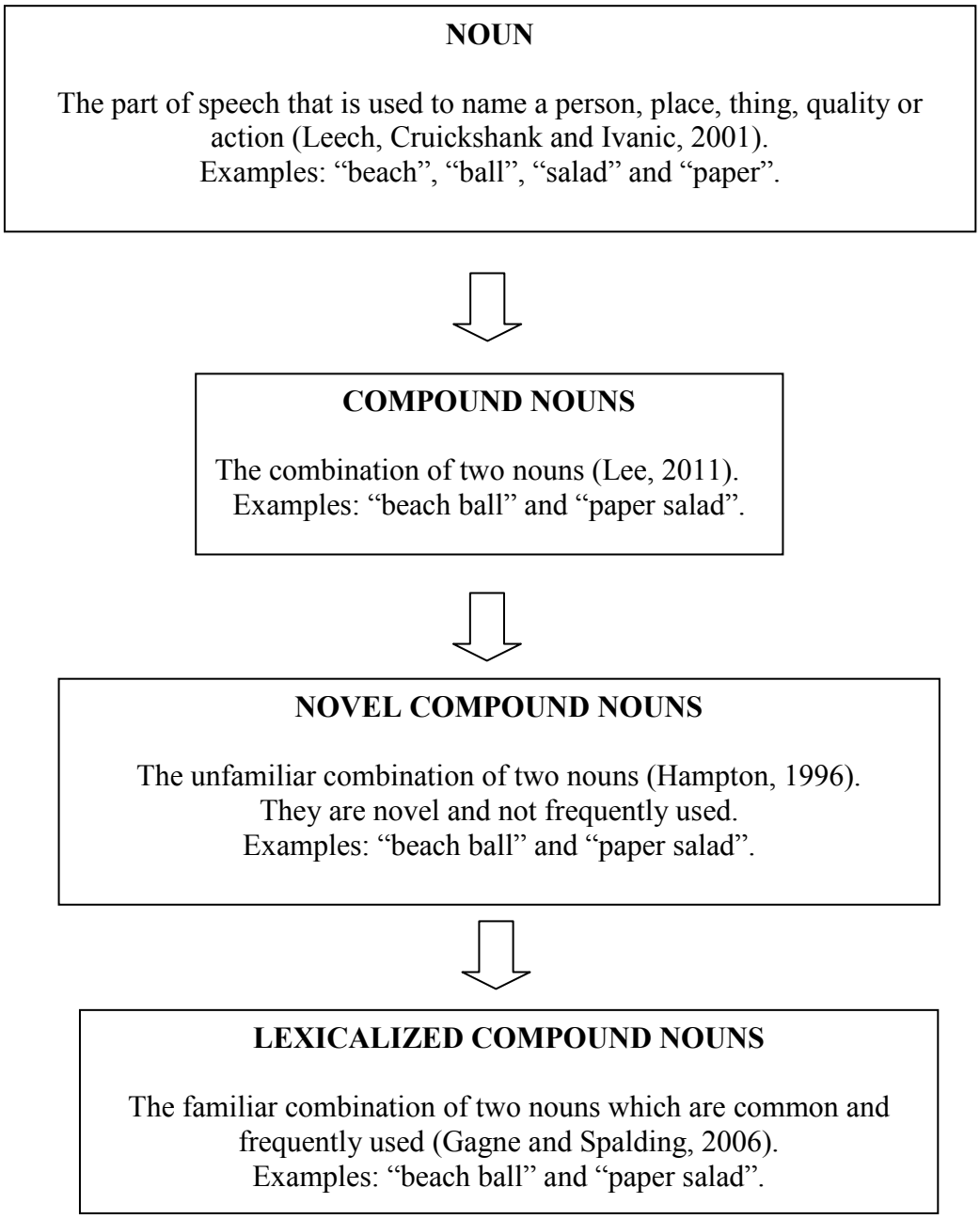

Figure 2.1: The process of compounding

From day to day, the rapidly updating compounding field produce novel compounds (Wang, Huang, Yu, and Sun, 2010). Ncn are unfamiliar combinations in the terms of their subject, object and linguistic expressions (Hampton, 1996). Therefore, the acquisition of ncn is very challenging because they are not produced independently. Since native speakers also face problems in understanding some ncn, L2 learners will face greater problems in comprehending them (Chi, 2006). One of the reasons that resulted difficulty in comprehending ncn is the problem in defining ncn by combining the definition of each component. For example, "death" and "line" cannot be interpreted as the meaning of "deadline" (Chi, 2006).

Ncn have few functions. Firstly, they are always used in everyday discourse in a communicative context. They function as tools to impart information elliptically and efficiently (Wisniewski, 1997). For example, people can comprehend that the meaning of "football parking" is "an area for those who attend the football game to park their cars". Readers can easily comprehend the meaning of it because it conveys precise information. Secondly, significant new categories can be designated by using ncn such as "ostrich steak", "ostrich burger", "ostrich meat" and "ostrich ranch" (Wisniewski and Love, 1998). Thirdly, they are used as devices for text comprehension (Lapata and Lascarides, 2003). Next, they function as a way to define an entity with no specific name (Downing, 1977). Finally, they are also used for technical writing and newswire text. For examples "memory stick" and "auction politics" (Gagne, 2001).

Gagne and Spalding (2006) state that a common way in introducing novel words into the lexicon is by using nominal compounding. Nominal compounding is the terminology used by linguists for the creation of modifier–noun phrases such as "tofu bun", "pet bird" and "corporate lawyer". Meanwhile, cognitive psychologists refer to

nominal compounding as conceptual combination. In this concept, a single concept will be denoted by two or more words. Conceptual combination is interpreted by using pragmatic context (Hampton, 1996).

Gagne and Spalding (2006) further add that the meanings of novel compounds have to be generated as their meanings have not yet been established. In addition, they are compounds that are not in the dictionary or corpora (Lee, 2011). This is because in the beginning, novel compounds are compounds that are not part of the language. When one creates novel compounds, a listener or reader will usually encounter some problems understanding them (Wisniewski and Love, 1998). However, after the novel compounds become frequently used, they become lexicalized compounds. Lexicalized compounds are the opposite concept of conceptual or nominal compounds. Lexicalized compounds can be defined straight from one's lexicon. For example, in the beginning, "copy editor" is one's novel compound, however, after it is used frequently, it becomes the lexicalized compound "copyeditor" (Gagne and Spalding, 2006).

According to Downing (1977), without knowing the prior context, the interpretation of novel noun-noun combinations will be difficult. For example, "apple-juice seat" is interpreted as "a place at a table in a restaurant where an order of apple juice had been placed". In this example, the solution to determine the interpretation of this compound noun is completed by knowing the communicative context. A research conducted by Gerrig and Murphy (1992) shows how "trumpet olive" is interpreted by using the influence of context and discourse. Their study revealed the influence of story context or discourse in the interpretation of a novel compound noun. Hence, one can interpret "trumpet olive" as "the olives reserved for the trumpet players for their interval

snack at a concert" or "a kind of olive which is stuffed into a trumpet to keep it in good working order". These interpretations are produced by manipulating the story context.

The relation between a modifier and a head noun is known as a semantic relation in the interpretation of ncn (Su and Baldwin, 2005). For example, "family car" relates to the semantic relation "possession" whereas "sports car" relates to the semantic relation "purpose". In contrast, Wisniewski (1996) studied modifier head combinations using a different approach. Unlike one of the assumptions about the use of thematic relations in linking a head and a modifier made by Gagne and Shoben (1993), Wisniewski (1996) findings revealed that a thematic relation is not always used to interpret modifier-head constructions. Instead, he generated "property mapping" where the mapping process occurs by taking the most prominent property of the modifier and mapped it onto the head noun directly. This property mapping predicts that the more similar two nouns, the higher the possibility for the property mapping to occur. At the same time, Wisniewski's (1996) study found that people tend to form a hybrid of the two when the similarity between two objects is high. For example, "horse cow" is interpreted as "a hybrid creature". Hence, it is interpreted as "half is horse and the other half is cow".

A phrase will be comprehended quickly if a relation is related frequently with a modifier. In contrast, it is difficult to understand a relation that is uncommon for a modifier. In addition, the association between a relation and a head noun has no influence to the comprehension of a compound. On one hand, the head noun which is the second noun usually indicates the category. On the other hand, the modifier which is the first noun indicates how a noun differs from the other members of its type or group (Glucksberg and Estes, 2000).

There are a few ways to help understand the meaning or interpret ncn. Firstly, one can interpret ncn by using knowledge of the constituents (Gagne, 2000). In order to interpret ncn by using the knowledge of constituents, a relation should be established. This relation will form the basis for the representation of the whole word. At the same time, the ncn will be easier to interpret if the relation availability is higher. It is compulsory to select a relation for the ncn especially when they are not part of the lexicon. For example, the relation "MADE OF" is used to interpret the novel compound "grasscord". This relation links the constituents "grass" and "cord". At the same time, a relation should be selected for familiar compounds too (Gagne and Spalding, 2006).

Secondly, ncn can be interpreted by using the knowledge on how to combine the concepts that correspond to the constituents. If one of the compound's constituent preceded, then the compound can be processed faster (Jarema, Busson, Nikolova, Tsapkini, and Libben, 1999; Libben, Gibson, Yoon and Sandra, 2003). These studies also evidenced that constituents can be used to identify compound words. Then, the interpretation of ncn can be processed by using lexical representation of the constituent words. According to Logan's (1990), a learner tends to locate a unified representation of the compounds especially for ncn. After that, the language system of the learner will derive the meaning of the compound based on the constituents and conceptual knowledge about how the constituents are related. At the same time, understanding of how novel words are interpreted is important for both conceptual and linguistic purposes.

Thirdly, one can also derive the meaning of ncn by using semantics perspective. Semantics mean abstract notion such as motion, mental activity, objecthood and substancehood (Kako and Wagner, 2001). It is easier to interpret ncn if they are

semantically transparent. Semantically transparent compounds can be defined as compounds that can be predicted based on their constituents. For instance, on one hand the contribution of "blue" and "berry" to the meaning of "blueberry" is clearly understood. On the other hand, the contribution of "rasp" is not so transparent even after the contribution of "berry" to the meaning of "raspberry" is clear. Hence, "blueberry" is a semantically fully transparent compound whereas "raspberry" is a semantically partially transparent compound. In contrasts to the previous examples, a compound like "humbug" is completely opaque. This is due to neither "hum" nor "bug" is related to the meaning of this compound. Therefore, transparent compounds are aided by prior exposure to a semantically related word whereas opaque compounds are not (Gagne, 2000).

Next, ncn can be interpreted by using pragmatic perspective. Here, one derives the meaning of ncn via the supporting knowledge that one has on ncn (Lynott and Keane, 2003). The supporting knowledge is information or knowledge given in the sentence description and it relies on one's prior knowledge or experience with the ncn. In other words, pragmatic knowledge about the world is used to derive the meaning of ncn (Soegaard, 2005).

Then, the semantic representations of the constituent's noun can also help to interpret ncn (Coolen, Henk, Van, and Robert, 1993). Here, syntactic structure is helpful in interpreting ncn. For example, "a note left for a milkman on a pole" and "a note left on a pole for a milkman". The way ncn is interpreted by a reader will be different. It will be either based on the syntactic position of the words in the sentence or from the influence of the world knowledge (Lynott and Keane, 2003).

Apart from that, contextual information is another helpful way used to interpret ncn. They can be easily comprehended if the information is provided in a larger context. Contextual information provides cues to choose the suitable meaning. For example, the ncn “shell pattern” as in “the stones were arranged in a shell pattern” and “some pearl oysters have a beautiful shell pattern” is interpreted distinctly (Murphy, 1990).

Finally, one can derive the meaning of ncn through familiar words that formed the ncn. In other words, the known derivational and inflectional additional are used as a way to interpret ncn (Gagne and Spalding, 2006). Derivational and inflectional are morphemes. On one hand, the meaning of a word is changed by derivational morphemes such as “ex-boyfriend”. Here, the derivational morpheme “ex” changes the meaning of “boyfriend”. On the other hand, inflectional morphemes simply make minor grammatical changes or tell about the behaviour of the grammatical word such as “-s” which indicates that a noun is plural (Leech et al., 2001).

In a few words, as ncn are created by combining two unfamiliar nouns, L2 learners need to be exposed to the proper way of interpreting ncn concisely. Therefore, learners face difficulty in interpreting them. In contrast, the lexicalized compounds are easier to interpret because they are the familiar complex words (Krott et al., 2009).

2.3 Compound nouns

A compound noun is defined as a production of a single noun from sequence of two or more nouns (Downing, 1977). In other words, a noun-compound is a compressed proposition between two concepts or two nouns. Noun-noun compounds can consist of at least two nouns (Krott et al., 2009) or sometimes can be very long (Jones, 1983). Three ways are used to write a compound noun which is by using a hypen "income-tax relief" or a single word "bathroom" or concatenation of words "AT and T headquarters".

Jones (1983) states that compound nouns can be freely constructed. Even though compound nouns are seen as simple constructions that consist of two parallel nouns but there is a semantic relation that connects them. Thus, in order to comprehend with compound nouns, one has to discover the implicit relationship between these two concepts (Butnariu and Veale, 2008). According to Lapata and Lascarides (2003), the formations of compound nouns in English language are very productive. Wang et al. (2010) claim productivity as the important features of compound nouns. Productivity is referred to the frequent method used by adult speakers to form new words (McDonald, 1995).

According to Gagne (2001), one usually faces some difficulties in comprehending and understanding lexicalized compound nouns like "chocolate bar" and ncn like "chocolate carrot". One of the ways that one can use to interpret the combinations "chocolate carrot" is by relating similar combinations with past experience.

Besides relating compounds with past experience, one can interpret compound nouns by identifying two distinct functions of the nouns. When one noun functions as a head, the other noun functions as a modifier (Gagne, 2002). In other words, the head is usually the noun on the right while the modifier is the noun on the left (Krott et al., 2009). Compound nouns can be interpreted easily when one has the knowledge of the constituents. For example, "beach ball" can be easily interpreted "as a kind of ball". The second constituent gives one the knowledge about the category of the ball (Gagne and Spalding, 2006).

Apart from identifying the head and the modifier of compound nouns, one has to choose an appropriate semantic relation between the two constituents. For example, in "paper salad", "paper" is the modifier and "salad" is the head. The semantic relation between the two constituents that can be chosen for "paper salad" is "made of". Hence, "paper salad" can be interpreted as "salad which is made of paper" (Zhou and Murphy, 2011).

According to Gagne (2000) and Wisniewski (1997), people can interpret the meaning of a compound noun by using both relation integration and property comparison. "Robin snake" is a commonly used example in the literature of compounds. If two concepts are related, the previous example is understood as "a snake that eats robins". On the other hand, if comparison is made and one key property is mapped from robin to snake, then "robin snake" is interpreted as "a snake that has red breast". However, rarely people interpreted both meanings simultaneously though both meanings are acceptable. In addition, people tend to derive the meaning that seems less difficult or easier than the other (Xu and Ran, 2011).

In conclusion, language learners have to equip themselves with knowledge of identifying the head and modifier in the compound nouns and the implicit relationship between them. This is due to the differences in the functions of the constituents in compounds. At the same time, they also need to understand the process involved in the production of compound nouns in specific and compounds in general. This information makes them acquire compounds easily and effectively.

2.4 Compounds

Compound is the most productive morphological process which deals with word formation (Lee, 2011). A compound consists of two or more words. For example, in English “paper salad”, is a compound that belongs to noun-noun constituents (Fabb, 2003).

Fabb (2003) states three types of compounds which are endocentric, exocentric and co-ordinate compounds. Endocentric compounds are compounds with head. The core meaning of the compound is signified by the head. In English language, the head in endocentric compound is usually on the right. For example, the compound “sneak-thief”. Here, “thief” is the head of the compound. In contrast, exocentric compounds are compounds without a head. The difference between both types of compounds can be seen on how one interprets a compound. For example, “greenhouse” can be either an endocentric or exocentric compound. It depends on whether one defines it as a house or not. The third type of compound is co-ordinate compound. The modifier in a co-ordinate compound almost shares the characteristic of a head such as in “student-prince”. This compound can be defined as “both a student and a prince”.

Compounds are generated by a productive process. Two elements are combined and related in this productive process. At the same time, compounds have two main characteristics. First, compounds are produced via a process of semantic drift. This process can include metonymy where “redhead” is defined as “a person who has red hair”. Second, the parts in a compound can have many semantics relationships. In these semantic relationships, structural position and preposition are not included (Fabb, 2003).

In order to interpret a compound, some restrictions are required because the noun functions as a generic and each word of a compound is defined separately. For example, “garbage man” is not used for “every man who takes out the garbage” (Downing, 1977). Moreover, the meaning of a compound can be compositional. For example, “popcorn” is defined as “a kind of corn which pops”. Here, it is clear how a part contributes to the whole meaning. Hence, “popcorn” can be defined precisely if one knows the meaning of the whole. In contrast, if one does not know the whole meaning, then the interpretation will be difficult. Furthermore, one will not be able to interpret it just by looking at the meaning of each part (Fabb, 2003).

According to Krott et al. (2010), one has to determine the meaning of the constituents (e.g. orange and juice) and to infer a relation between the constituents (juice made of orange) in order to understand and comprehend the meaning of a compound. Even though there are other arguments regarding the infinite ways in relating the constituents to each other, yet a small set of relations can be used to paraphrase most compounds. For example, the relation “HAS” for “apple pie”, the relation “FOR” for “hairbrush”, the relation “PART” for “chicken leg” and the relation

"MADE-OF" for the compound "snowman" as stated in Downing (1977) and Gleitman and Gleitman (1970).

One can directly retrieve the meaning from the lexicon for a compound that has a common usage and familiar. This type of compound is called lexicalized compound (Gagne and Spalding, 2006). Lexicalized compounds are compounds that have become familiar and idiomatic. The first noun which is also the modifier of a lexical compound is usually stressed such as "brick factory". As a lexicalized compound, it is defined as "a factory that makes brick" whereas when it is defined as "a factory made from bricks", it shows the novel modifier-head combination (Hampton, 1996). Another example is taken from a study conducted by Krott et al. (2009). This study reveals that a compound has a number of similar meanings. For example, "a chocolate bowl" can be interpreted as "a bowl for chocolate" or "a bowl made of chocolate" or "bowl that looks like chocolate because of its colour". Krott et al. (2009) state that one must be able to understand the possible types of categorization and the distinction between the heads and modifiers.

Compounds that have less familiar combinations and novel are called novel compounds. Morphological structure can be helpful in guiding one to interpret novel compounds (Lieber, 1983). As the meanings of novel compounds have not been established, therefore the meanings have to be computed. According to Hampton (1996), all compounds are novel compounds in the beginning. However, after frequent use, the novel compounds gradually become lexicalized compounds

Users of languages like English and Tamil always generate compounds that they have never encountered earlier (Seaghdha, 2008). Compound is used as a mean to enrich the vocabulary of a language by utilizing the existing lexical items (Conti, 2007). For example, English language users create the new words by combining the existing lexical. The combinations of existing words such as “flash mob”, “carbon footprint” and “designer baby” are examples of compounds entering English language as new terms. In short, English language is a compounding language because it allows the entering of compounds as a tool to enrich its vocabulary (Chi, 2006).

2.5 Compounding languages

Compounding languages are languages that produce complex words by combining two simple words (Alfonseca, Bilac and Pharies, 2008; Krott et al., 2009). Most languages in the world are compounding languages (Hiramatsu et al., 2000). When a compound is adopted and lexicalized in a language, it will begin to evolve gradually from either two or hyphenated words into a single word. The compound is then written as a single word after it is established. For example “audio-visual” becomes “audiovisual”. This process occurs to ncn before they become lexicalized compound nouns (Chi, 2006). Gagne (2000) explains that compounding is a way to introduce new words. Therefore, compounding functions as a source of introducing a new lexical unit (Hacken, 1992).

In English language, two ways are used to form compounds which are phrasal and lexical compounding. Examples of lexical compounding are “cat food”, “dinner plate” and “dish washer” whereas examples of phrasal compounding are “over-the-

fence gossip", "god-is-dead-theology" and "off-the-rack-dress" (Clahsen and Almazan, 2001). According to Jesperson (1942), coining new names for new objects resulted to combination of two concepts. This can be evidenced from the new compounds like "laptop computer, video player and soccer mom" that enter English language each year. These phrases are examples of combinations of existing words and prove that English language is one of the compounding languages besides Malay (Tagalakis and Keane, 2005).

Malay language is identified as a compounding language because compounds are one of the important morphological processes that are used to produce new words in this language (Fabb, 2003). The morphological processes encompass of affixation, reduplication and compounding (Abdullah Hassan, 1974 and Asmah Omar, 1988). Compounds are produced from compounding process. Here, two simple words are combined into single-word which is similar to English language. These compounds are put together by using either a hypen or without any indication (Baldwin and Su'ad Awab, 2006). For example "adat-istiadat" which is generated from "adat" (custom) and "istiadat" (tradition). Another example is "matahari" which is a compound noun that consists of two words or constituents which are "mata" and "hari". "Mata" means eyes whereas "hari" means day (Fabb, 2003). Each constituent formed in a compound noun can be either a derived form or root form. For examples, the noun-noun compound "kayuapi" and "suratkhabar" are derived from English language. Here, each constituent is transferred to Malay language from firewood (kayu "wood" + api "fire") and newspaper (khabar "news" + surat "paper").

Apart from English and Malay languages, compound nouns are formed productively in Tamil language. In addition, they are used the most in the formation of new words. Similar to English language, Tamil language has three morphological processes which are inflection, derivation and compounding. These processes are used to form new words in this language (Menaka et al., 2010). Thus, it is claimed that Tamil language belongs to the compounding language group. For example, a word like "kalvi-kuttam" is a compound noun. It consists of "kalvi" which means educational and "kuttam" which means institution (Ramaswami, 2001). There are several strategies in the formation of compound noun which is very productive in this language (Rajendran, 2004). Table 2.1 below shows some examples of compound nouns that can be found in Malay, Tamil and English language.

Table 2.1: Compounding languages

Languages	Examples
English	Orange juice, tooth brush, owl house (Krott et al., 2009)
Malay	Kaki perempuan (foot woman = womanizer) Cermin mata (mirror eye = spectacles) (Black, 2000)
Tamil	Viittuku katavu (house window) Kaattu vali (forest route) (Rajendran, 2005)

From the previous discussion and examples given, it is proven that English, Malay and Tamil languages are languages that allow their users to generate compounds through the combinations of existing lexical items. In other words, compounds play an important role in the enrichment of the vocabulary of a language. Hence, it is crucial for L2 learners to acquire compounds as they play an important role in L2 acquisition.

2.6 Second language acquisition

According to Genesee (2000) and Meisel (2001), L2 is a new language being acquired by children and adults after developing a full knowledge of L1. The learners who have fully acquired their L1 will be able to acquire their L2 better (Zhou and Murphy, 2011). The term L2 acquisition differs from bilingualism which is also called as simultaneous language acquisition. Here, children receive exposure to both languages simultaneously. Thus, L2 acquisition and simultaneous language acquisition occur at different times (Meisel, 2001).

In order to learn and acquire the new language successfully, L2 young children and adults have to take into considerations few factors that influence their acquisition of L2 (Hamidah Yamat, 2012). First, L2 learners have to be exposed to the correct and proper way of using the vocabulary especially when they come across with a novel or new vocabulary. This will help them to use a particular novel lexical accurately and precisely (Liu, 2008).

Besides the exposure to the proper way of using a novel word, L2 learners need to be exposed to contextualized input. Contextualized input uses the real situation to help learners acquire and learn a language. However, contextualized input causes difficulty in the extraction and integration of lexical meanings among L2 learners especially L2 adult learners. In other words, lacking of L2 conceptualized input, existence of L1 linguistics and conceptual input increase the difficulty for the L2 learners to acquire vocabulary and use the target language correctly. Moreover, L2 adults have already developed their L1 conceptual and semantic systems which can affect their acquisition of L2 vocabulary (Liu, 2008).

In addition, the amount of exposure towards English language is also a factor that helps L2 learners to learn and acquire English language. Krashen (1981) argues that the amount of exposure towards English language in the school system is an important factor in helping learners acquire and learn English language simultaneously. In addition, Krashen (1981) also reports that the amount of language used everyday is crucial in helping a learner becomes a better user of English language apart from the environment in and out of the school. According to Gömleksiz (2001), adult learners too can acquire language in the same way or better in an informal environment than those who are exposed to it in a formal environment.

Another factor that influences the acquisition and learning of L2 vocabulary learning is mental lexicon. Takač (2008) has proven that human memory can store and process a large quantity of data. Moreover, human memory is very flexible. However, the data should be systematically organized if a large quantity of data is to be processed. Hulstijn (1997) adds that some formal or semantic features can be used to link lexical items. Lexical items are stored in the mental lexicon without any interconnection. This

process is called as spreading activation. An example of spreading activation is noun-noun compounds as in “banana boat”. It is a compound noun consisting of two independent nouns and can be interpreted as “the boat for shipping bananas” or “a popular snack made of bananas and resembling a boat”. Here, the information on existing lexical items is expanded and completed during the process of spreading activation.

Next, Reece and Walker (1997) state teachers as a factor that can have a great impact on the acquisition of L2. Teachers help to maximise students’ level of motivation to learn and acquire English language. Gömleksiz (2001) claims that there are direct effects between the teacher and the students’ success in L2 acquisition.

Reece and Walker (1997) also denote learners’ motivation as a factor that can affect the acquisition of L2. According to Krashen (1985), motivated learners are more successful in L2 acquisition because motivation gives learners the desire to learn a language. Many studies like Ellis (1997), Brown (2000) and Holt (2001) have supported this claim.

At the same time, many studies have proven that learners’ attitude towards language learning affects the learning and acquisition of L2 (Karahan, 2007; Chalak and Kassain, 2010; Latifah Abdol Latif, Mansor Fadzil, Ramli Bahroom, Wardah Mohammad and Ng, 2011). According to Krashen (1985), attitude can be a barrier in learning a language. Learners with positive attitude towards language, English-speaking people and teacher in classroom will be successful language learners than those without the positive attitude (Ellis, 1994; Brown, 1994).

Apart from all factors discussed previously, another crucial factor that affects the acquisition of L2 is the learners' L1 (Ellis, 1997; Killborn, 1994). According to Ellis (1997), L1 has the high tendency to interfere in the learners' L2 acquisition.

2.7 The influence of L1 in L2 acquisition

Interference is defined as the surface structure of L1 being transferred automatically onto the surface structure of L2 (Dulay, Burt and Krashen, 1982). Interference is referred to as "transfer" by Ellis (1997). Similarly, Ellis (1997) refers interference as the acquisition of L2 being influenced by L1. The learners' perceptions on what are transferable govern the transfer of L1. The notion of interference differs from code switching and code mixing (Win Listyaningrum Arifin, 2011).

Studies have proven that transfer of L1 affects the comprehension and production of L2 as the transfer occurs in all linguistic subsystems. The effects can facilitate L2 acquisition (Ellis, 1997; Kilborn, 1994). L1 and L2 are dependent on each other. This is due to the routine, strategies and metacognitive skills that one experiences when acquiring L1. Hence, these strategies and skills are being generalized and adapted in the learning and acquisition of another language (McLaughlin, 1984).

L1 interference occurs in both children and adult acquiring L2. However, the interference of L1 is more obvious and occurs frequently among L2 adults than L2 children because the structures of L1 have become a habit of L2 adults as they get older (Hagège, 1999). On the other hand, similarities in the structure of L1 and L2 promote

easier learning and L2 acquisition (Mahendran, 2010). Thus it can be summarized that the differences and similarities between L1 and L2 affect the acquisition of a L2.

Lexical interference on similar items occurs more than other types of interferences (Albert and Obler, 1978). The similar lexical form between L1 and L2 makes the acquisition of L2 easier. For example, English and French languages use the word "table" to refer to "a place to put books and write down on it" (Win Listyaningrum Ariffin, 2011). This is also supported by Baljit Bhela (1999) who claims that the more similar the features of two languages, the more interference can occur. According to Krashen (1981), the similarities between L1 and L2 in many aspects cause L2 learners to rely on their L1 when they could not resolve any aspects of L2. In addition, L1 has the highest influence on compounds and translating the compounds (Krashen, 1981).

On the other hand, the differences between L1 and L2 can cause overlapping in the concepts. In detail, when there is no commonality between both languages, overlapping can emerge and cause confusion in the concept that learners express. Swan (1997) talks about interlingual confusion which is one of the errors in L2 acquisition. It resulted from L1 interference. Differences in the cultural domain between L1 and L2 also cause overlapping between the concepts expressed. Zhou and Murphy (2011) support the previous claim made by Swan (1997) on L1 interference by adding that the acquisition of a target language will be harder for L2 learners if there are no commonalities between two cultures. Moreover, L1 can also obstruct the process of recalling and using previously learnt words especially for complex lexical items that have not been used previously as a unit (Takač, 2008).

In the word association model, direct translation from L1 is used to define compound nouns in L2 (Blum-Kulka and Levenston, 1983). This process occurs for L2 learners who are acquiring and learning the meaning of a new word in L2 (Potter, So, Von, and Feldman, 1984). Besides, according to Kroll and Stewart (1994), mapping of L2 lexical to L1 is stronger than mapping of L1 lexical to L2.

Apart from the lexical items, the orthographic pattern and the novel sound pattern of L1 also influence the acquisition of L2. Knowledge of the orthographic pattern and the novel sound pattern is crucial to their L2 in order to learn a novel word successfully (Schmitt and McCarthy, 1997). In addition, according to Schmitt and McCarthy (1997), familiarity with the syntactic properties of a novel word and its place in lexical structures is crucial in acquiring the novel word. Besides, one has to have the knowledge on a novel word's semantic and referential properties in order to acquire the novel word successfully. Ellis (1994) states that it is important for L2 learners to learn the word form and its meaning in order to learn a novel vocabulary.

A study conducted by Haja Mohideen (1996) on Malaysian students has proven that L1 interferes in areas like syntax, lexis, grammar and pronunciation. For example, Malay students tend to pronounce "film" as "filem" (the Malay equivalent). Meanwhile, Indian students tend to speak English with strong vernacular accent. At the same time, Malay students use "although" and "but" in the same sentence. This is due to the influence of their first language. In another study conducted by Mahendran (2010) revealed that the writing of Indian students in L2 was influenced and interfered by their L1 which is Tamil language. For example, they wrote "my book where?", "She radio listen" and "I a boy". The Indian students also revealed that their L1 comes

automatically to them when they write in L2. Furthermore, they feel that they are better when they thinking in L1.

Mayila's (2010) study also noted the influence of L1 in the interpretation of compound words in L2 among Chinese students whose L1 is Mandarin. The same findings were revealed in the studies conducted on Finnish-Swedish bilingual students by Lehtonen and Laine (2003); Lehtonen, Niska, Wande, Niemi, and Laine (2006). In short, these studies have given significant proofs on the influence and interference of L1 in the interpretation of compound nouns in L2 and the acquisition of L2. Yet, this study was conducted to bridge the gap on the interpretation of compound nouns by focusing on L2 learners whose L1 is a compounding language like English.

2.8 Conclusion

This chapter presents all relevant literature that equips this study with information needed to discuss and analyse the findings and helpful in facilitating the readers on the importance and the need to conduct this study.

CHAPTER 3

METHODOLOGY

3.0 Introduction

Methodology implemented to achieve the objectives of the study is discussed in this chapter. It begins discussing the research design of this study. Next, the participants' population and reasons for selecting them are explained. The following section discusses the research instruments used. Then, the data collection procedure is explained which begins with the administration of a pilot test, followed by the questionnaire and the ncn test. A data selection procedure is briefly explained next. Finally, the analysis of the data and the ethical consideration are explained.

3.1 Research design

This study was a descriptive study which focused on a quantitative method. Two types of investigations were involved which were clarification and causal relationship investigations. On one hand, clarification investigation was used to identify how L2 learners interpret the ncn. On the other hand, causal relationship investigation was used to identify the similarities and differences between Malay and Indian participants on the factors that affect their L2 acquisition and the influence of their L1 in the interpretation of ncn.

3.2 Subjects

This study consisted of 19 Malay and 15 Indian students aged between 19-21 years old. All the participants were 34 first year undergraduates from the same class pursuing their degree in teaching of English as a second language (TESL). Apart from that, participants of the study come from native languages that are compounding languages which are Bahasa Malaysia and Tamil (Fabb, 2003). In addition, they represent the major races in Malaysia (Sri Rahayu Ismail, Haslinda Abdullah and Ahmad Zaid, 2009). The sampling involved was purposive sampling as only those whose native languages Malay and Tamil were chosen to participate in this study.

One of the academic entry requirements to pursue a degree in this course is a diploma with minimum Cumulative Grade Point Average (CGPA) of 2.0 in teaching of English as a second language (TESL) or a pass in STPM with a minimum Cumulative Grade Point Average (CGPA) of 3.0. STPM is also known as Malaysian Higher School Certificate. It is a pre-university examination offered in schools for students who intend to pursue their studies in tertiary education and an entry requirement in both public and private university.

Other than the academic entry requirements, students enrolling in this course must also obtain a minimum language proficiency of Band 4 in their Malaysian University English Test (MUET). MUET tests students in four skills which are speaking, listening, writing and reading. The grading system is as shown in Table 3.1.

Table 3.1: Grading system for MUET

Aggregated score	Band	User
260 – 300	6	Very good user
220 – 259	5	Good user
180 – 219	4	**Competent user**
140 – 179	3	Modest user
100 – 139	2	Limited user
0 – 99	1	Extremely limited user

On the average, the participants in this study were classified as competent users (Band 4) of English language.

3.3 Instruments

3.3.1 Questionnaire

The participants were asked to complete a language background questionnaire before answering the ncn test. This questionnaire was developed by the researcher (see Appendix A).

This questionnaire comprised of three parts. The first part included questions on demographic information. The information gained from this part was used to get some

background information of the participants. The information helped to identify the participants' ethnicity and their language proficiency.

Next, the second part asked participants questions on their L2 acquisition background. The questions were on the exposure to English language, the influences of L1 in L2 acquisition, factors influencing the learning of English language and factors influencing the interpretation of ncn. This information was obtained to answer the second and third research questions. A Likert scale was used to obtain each participant's responses. The scale was 1 for never, 2 for seldom, 3 for often and 4 for always.

Finally, the third part asked participants about their knowledge and awareness of compound nouns. This information was gained to identify participants' awareness and familiarity of compound nouns. In addition, this awareness indicates their ability to interpret compound nouns.

3.3.2 Novel compound noun test (Ncn test)

Ncn test was the most important instrument used in this study. This test was developed by Gagne's (2000) to compare the effectiveness between the Carin theory and the dual-process theory in interpreting noun-noun compounds by native speakers of English. This test was used in this study due to the suitability in administrating the test with L2 learners in Malaysia. In addition, Zhou and Murphy (2011) had also used the similar test with L2 learners in China. However, the test was modified to suit the objectives of this study and the feasibility in conducting this study (see Appendix B).

The modification was on conducting the test manually instead online. Gagne conducted the ncn test online because she used time taken to respond as a dependent variable. In the study, her objectives were to assess whether the relation interpretation and property interpretation were seen as equally appropriate for novel combinations and the rate for acceptability level for both types. In short, the acceptability level of a particular interpretation is shown higher when one took less time to answer the item. On the contrary, this study aims to identify the preferred pattern of interpretation only, thus time taken to respond was not used as a dependent variable. Gagne was also consulted via email regarding this matter before conducting this study and as confirmed by her, the variable "time" would not affect the findings of this study if the main focus was only on identifying the preferred pattern of interpretation.

In spite of the method of conducting the test, Gagne's ncn test (2000) was fully replicated in this study. The ncn test consisted of 10 experimental items and 10 filler items. As for the experimental items, the definitions of the items were extracted from two main sources. The first source was from Wisniewski and Love (1998) where Gagne (2000) replicated many of the property definitions from them. Next, the definitions for the second source were mainly from Gagne (2000). For example, "snake spear" was defined as "a spear for killing snakes" (relation definition) or "a spear that was curvy" (property definition). Meanwhile, the filler items were provided by using Gagne's (2000) study as a guideline to create the false definitions. For instance, "skunk beggar" was defined as "a beggar who smells nice". The filler items were used to reduce the likelihood that the participants would be biased toward either property interpretation or relation interpretation.

Next, two sets of ncn test labelled as set 1 and 2 in this study were given (see Appendix B). Each set had the same 20 items with different type definition order. For example, participant A received a property definition for item 1, participant B received a relation definition for the same item.

Finally, the participants were asked to complete two more tasks. First, the participants were required to write "Y" if the definition was acceptable or "N" if otherwise. They were then required to rate the level of acceptability for each acceptable definition by using a Likert scale. The scale used was 1 for highly unacceptable, 2 for unacceptable, 3 for neutral, 4 for acceptable and 5 for highly acceptable.

3.4 Data collection procedure

3.4.1 Pilot test

A pilot test was conducted with 4 students from the same institution. The participants consisted of 2 Malay and 2 Indian students in order to get an equal number of reliable data. This pilot test was conducted to identify if any amendments were needed based on their feedbacks and to anticipate the participants' performance. Interviews with the participants were also conducted to get their reaction on the feasibility and simplicity of the test.

3.4.2 Questionnaire

Before the learners answered the ncn test, they had to complete a language background questionnaire. They were given 10 minutes to answer the questionnaire. (Refer to section 3.3.1).

3.4.3 Novel compound noun test (ncn)

The participants were given instructions and explained on the format of the test using an example before administrating it. An approximate 30 minutes was allocated for this test. Participants were reminded that they were not allowed to discuss their interpretations and their answers in the test would not affect their assessment of English course.

3.5 Data selection procedure

All 34 participants answered all items in the ncn test and questionnaire completely as instructed by the instructor in 40 minutes.

3.6 Data analysis procedure

The data were analysed by using SPSS version 17. The number of interpretations that were based on relation interpretation and the number of interpretations that were based on property interpretation were counted by using means and percentages. Next, proportion for each pattern of interpretation based on the ethnicity was calculated by using percentages. Then, the mean and mode acceptability judgements for both types of interpretations were computed. Finally, means and percentages were also computed in order to identify the correlation between the exposure and factors that affect L2 acquisition and the interpretation of ncn based on the ethnicity and preferred pattern of interpretation. The data were later transferred into graphs and tables with some detailed description.

3.7 Ethical consideration

Consent from the head of the English department and students in the institution were obtained before conducting this study using a written consent form. Participants were assured that all their answers and responses will remain strictly confidential and will be used for research purpose only (see Appendix D).

3.8 Conclusion

This study was designed in a quantitative way to identify the pattern which was used the most in interpreting ncn. 34 proficient users (at least Band 4) of English language (19 Indians and 14 Malays) who come from compounding native languages were selected as the participants of this study. The ncn test and the questionnaire were used as the instruments to collect the data. Next, the data were analysed using SPSS version 17.0. Finally, consent was obtained from the head of English department and participants before conducting the test.

CHAPTER 4

RESULTS AND DISCUSSIONS

4.0 Introduction

This chapter presents the findings and results from the analysis in great detail. The data which were collected from 34 Malay and Indian students were analysed to answer all the three research questions posed in this study. All findings and results are presented by using graphs and tables to facilitate better understanding for the readers.

4.1 The pattern of interpretation (Research question 1)

SPSS version 17.0 was used to answer the research question for "Which pattern of interpretation was used more to interpret ncn among Malay and Indian L2 learners?". Participants' answers in the ncn test were computed by using One-Sample T-test. Property interpretation and relation interpretation were used as variables. This analysis identified the type or pattern of interpretation that was used more by L2 learners in interpreting ncn. Two types of interpretations which are property interpretation and relation interpretation were analysed in this study.

Next, the mean for each pattern of interpretation was computed based on the participants' ethnicity. The ethnicity was categorized as an independent variable whereas the type of interpretation as a dependent variable.

4.1.1 The findings

4.1.1.1 Overall findings

Overall, the findings revealed that property interpretation was more acceptable than relation interpretation by all participants in interpreting ncn. For example, "whale boat" was mostly chosen by the participants as "a boat that is big" than "a boat for seeing whales". The mean for property interpretation (M = 5.12) was higher than relation interpretation (M=4.88). The results obtained from the analysis are presented in Table 4.1 below.

Table 4.1: Overall results for both patterns of interpretations

One-Sample Statistics				
Type of interpretation	N	Mean	Std. Deviation	Std. Error Mean
Property	34	5.12	1.320	.226
Relation	34	4.88	1.320	.226

Second, the result for each pattern of interpretation based on the participants' ethnicity is shown in Table 4.2.

Table 4.2: Mean for each type of interpretation

Ethnicity		Property	Relation
Malay	Mean	4.95	5.05
Indian	Mean	5.33	4.67
Total	Mean	5.12	4.88

The most obvious results that emerged from the data were the significant differences on the preferred pattern of interpretation among Malay and Indian L2 learners. Although, in general all participants preferred property interpretation yet further analyses showed that Malay participants preferred relation interpretation to property interpretation. For example, they preferred to interpret dinosaur scientist as "a scientist who studies dinosaurs" than "a scientist who is old".

In detail, the findings revealed that relation interpretation (M= 5.05 or 50.5%) was used more than property interpretation (M= 4.95 or 49.5%) by Malay participants in interpreting ncn. In contrast, the findings showed that property interpretation (M= 5.33 or 53.3%) was used more than relation interpretation (M= 4.67 or 46.7%) by Indian participants in interpreting ncn. The differences are shown in Figure 4.1.

Although Malay participants preferred relation interpretation to property interpretation, yet the difference was very little (1%). Hence, it can be generalized that Malay participants used property interpretation as much as relation interpretation in interpreting ncn. In contrast, Indian participants preferred property interpretation to relation interpretation in interpreting ncn.

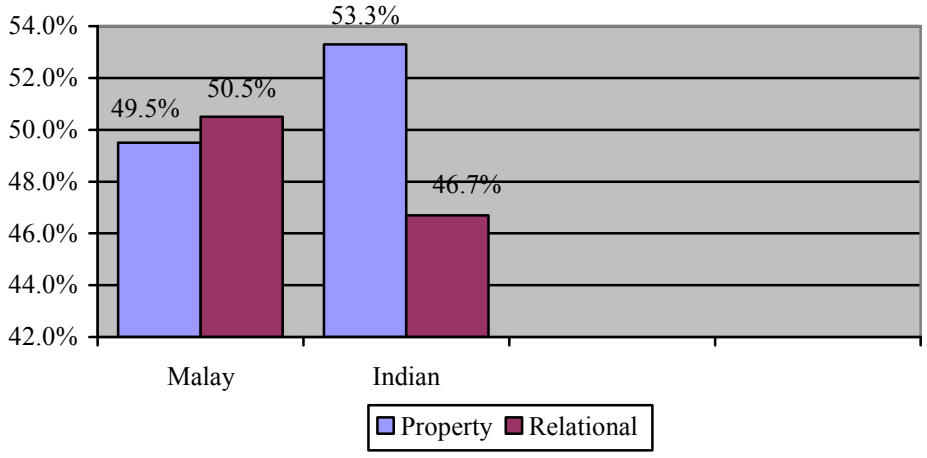

Figure 4.1: Overall preferred pattern of interpretation by ethnic groups

4.1.1.2 Malay participants

(a) Proportion for each pattern of interpretation

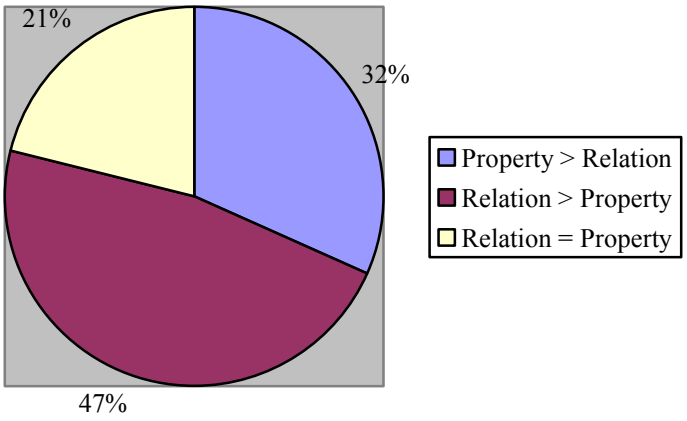

Figure 4.2: Proportion for each pattern of interpretation

Figure 4.2 shows the proportion for each pattern of interpretation by 19 Malay participants. The findings revealed that property interpretation was used more than relation interpretation by 32% of them. For example, “snake spear” was preferred to be interpreted as “a spear that is curvy”. In contrast, the findings revealed that relation interpretation was used more than property interpretation by 47% or almost half of them. For example, “snake spear” was preferred to be interpreted as “a spear for killing snakes”. At the same time, the findings revealed that both types of interpretations were equally used by another 21% of them.

(b) Mean for acceptability judgements

The acceptability judgement was used to identify the mean of acceptability for each pattern of interpretation. Although all participants preferred property interpretation to relation interpretation yet there is a difference in the preferred pattern of interpretation between Malay and Indian participants. Therefore, this task was useful to identify the level of acceptability for each pattern of interpretation based on the participants' ethnicity.

The ncn test was used as the instrument to identify the acceptability judgement for each pattern of interpretation based on the participants' ethnicity. Here, all participants were asked to rate the acceptability level for each acceptable interpretation. The rating was based on a Likert scale. A One-Sample T-test in SPSS version 17 was used to analyse the data. The mean for each ethnicity was computed based on the type of the interpretation.

The means of acceptability ratings stated by Malay participants for both property and relation interpretations were 3.11. Therefore, the findings revealed that Malay participants did not show any difference on the acceptability ratings for both types of interpretations. Apart from that, the findings also showed that they perceived both types of interpretations as equally appropriate and acceptable in interpreting ncn. The findings are presented in Tables 4.3 and 4.4.

Table 4.3: Mean acceptability rating for property interpretation

One-Sample Statistics

Ethnicity	N	Mean	Std. Deviation	Std. Error Mean
Malay	19	3.11	1.100	.252

Table 4.4: Mean acceptability rating for relation interpretation

One-Sample Statistics				
Ethnicity	N	Mean	Std. Deviation	Std. Error Mean
Malay	19	3.11	1.197	.275

(c) Mode for acceptability judgements

The participants' responses in the ncn test were used as the data to judge the acceptability rate of each acceptable interpretation using a Likert scale. The scale was 1 for highly unacceptable, 2 for unacceptable, 3 for neutral, 4 for acceptable and 5 for highly acceptable. To identify the mode for each interpretation, the results were computed using SPSS version 17.0 by summarizing the report for each acceptability level.

The following Table 4.5 is a summary of the data collected from Malay participants. Mode 4 (acceptable) was indicated by Malay participants as the highest acceptability rate for both patterns. It was repeated 27 times for property interpretation and 29 times for relation interpretation. For example, "ant vegetable" was accepted to be interpreted as "a vegetable that ant likes to eat" which is a relation interpretation and "a vegetable that is small" which is a property interpretation. In contrast, the lowest scale was 3 (neutral) for property interpretation and 5 (highly acceptable) for relation interpretation where the acceptability levels were repeated 13 and 14 times, respectively.

Table 4.5: The acceptability judgements

Ethnicity	Property Interpretation (Likert scale)			Relation Interpretation (Likert scale)		
	3	4	5	3	4	5
Malay	13	27	19	16	29	14

4.1.1.3 Indian participants

(a) Proportion for each pattern of interpretation

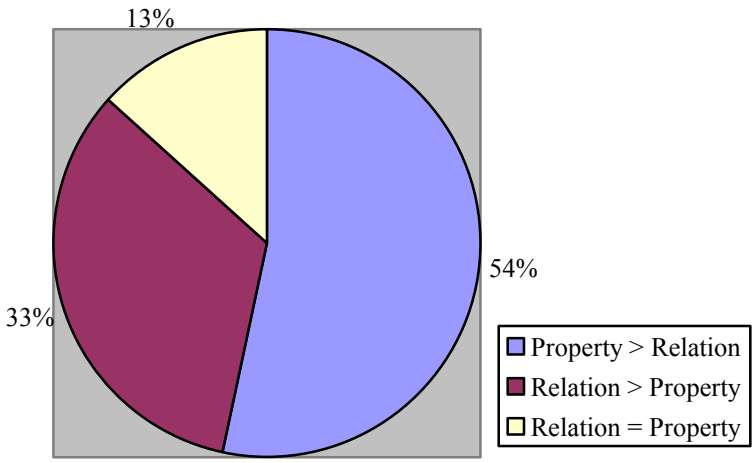

Figure 4.3: Proportion for each pattern of interpretation

Figure 4.3 shows the proportion for each pattern of interpretation by 15 Indian participants. The results revealed that property interpretation was used more than relation interpretation by 54% or more than half of them. For example, "kidnapper killer" was interpreted as "a killer who kidnaps people". On the contrary, relation interpretation was used more than property interpretation by 33% or one third of them. For example, kidnapper killer was interpreted as "someone who kills kidnappers". The findings also showed that both types of interpretations were equally used by another 13% of them.

(b) Mean for acceptability judgements

The findings showed that the mean of acceptability rating stated by Indian participants for property interpretation (M=3.07) was higher than relation interpretation (M=2.87). The results are as presented in Tables 4.6 and 4.7. The results revealed that property interpretation was indicated as more acceptable and appropriate than relation interpretation.

Table 4.6: Mean acceptability rating for property interpretation

One-Sample Statistics				
Ethnicity	N	Mean	Std. Deviation	Std. Error Mean
Indian	15	3.07	1.280	.330

Table 4.7: Mean acceptability rating for relation interpretation

One-Sample Statistics				
Ethnicity	N	Mean	Std. Deviation	Std. Error Mean
Indian	15	2.87	1.187	.307

(c) Mode for acceptability judgements

The following Table 4.8 is a summary of the data collected from Indian participants. Mode 4 (acceptable) was indicated by Indian participants as the acceptability rate for both patterns. For example, “book magazine” was accepted to be defined as “a magazine that is thick” which is a property interpretation and “a magazine that reviews books” which is a relation interpretation. It was repeated 27 times for property interpretation and 21 times for relation interpretation. In contrast, the lowest scale was 3 (neutral) for property interpretation and 5 (highly acceptable) for relation interpretation. Both acceptability rates were repeated 9 times.

Table 4.8: The acceptability judgements

Ethnicity	Property Interpretation (Likert scale)			Relation Interpretation (Likert scale)		
	3	4	5	3	4	5
Indian	9	27	10	13	21	9

4.2 Factors affecting the acquisition of L2 and the interpretation of ncn (Research question 2)

The second part of the questionnaire was used to answer the research question for "What were the exposure and factors affecting the acquisition of L2 and the interpretation of ncn among Malay and Indian L2 learners?". This part comprised of four main items. The first, second and third items were further broken down into detail sub-categories (see Appendix A).

A Likert scale was used to obtain the data. The scale was 1 for never, 2 for seldom, 3 for often and 4 for always. The analysis began with summarizing each participant's responses in the questionnaire. Next, all participants were categorized into four groups according to their ethnicity and preferred pattern of interpretation as shown below:

1) Malay participants who preferred property interpretation to relation interpretation
2) Malay participants who preferred relation interpretation to property interpretation
3) Indian participants who preferred property interpretation to relation interpretation
4) Indian participants who preferred relation interpretation to property interpretation

Means and percentages were computed in order to access the correlation between the exposure and factors that affect L2 acquisition and the interpretation of ncn with the participants' ethnicity and their preferred pattern of interpretation. The mean and percentage of each sub category in each item was computed in SPSS version 17.

Last but not least, the data were later transformed into charts. Simplifications are used in the charts for each exposure and factor (see Appendix C).

4.2.1 The findings

4.2.1.1 Exposure to English language

(a) Preference for property interpretation by Malay and Indian participants

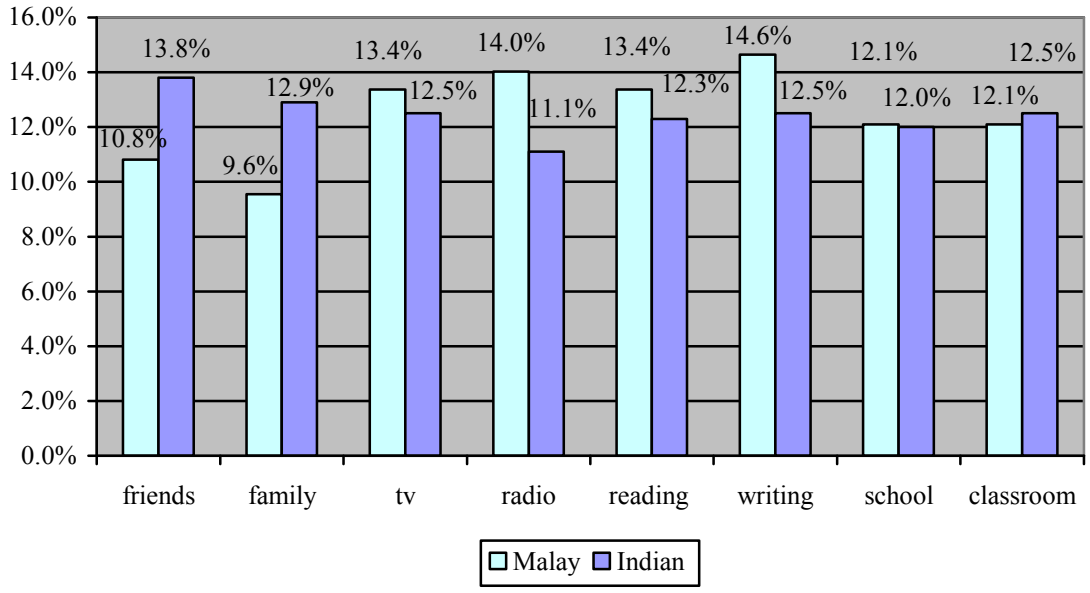

Figure 4.4: Exposure to English language

Figure 4.4 shows the results on the types of exposure to English language by Malay and Indian participants who preferred property interpretation to relation interpretation in interpreting ncn. It is apparent from Figure 4.4 that both groups differ on the types of exposure they receive in learning and acquiring English language.

First, both groups revealed the different highest and lowest type of exposure to English language. Writing in diaries, blogs, assignments and projects (14.6%) was stated by Malay participants as the highest exposure to English language. In contrast, interacting with friends (13.8%) was stated by Indian participants as the highest exposure to English language. Second, interaction with family members (9.6%) was indicated by Malay participants as the lowest exposure to English language. On the contrary, listening to radio (11.1%) was stated by Indian participants as the lowest exposure to English language.

The results also revealed that while listening to radio was stated by Indian participants as the lowest exposure to English language, it was indicated by Malay participants as the second highest exposure to English language. Next, when interacting with family members (12.9%) was stated by Indian participants as the second highest exposure to English language, it was indicated by Malay participants as the lowest exposure to the language.

(b) Preference for relation interpretation by Malay and Indian participants

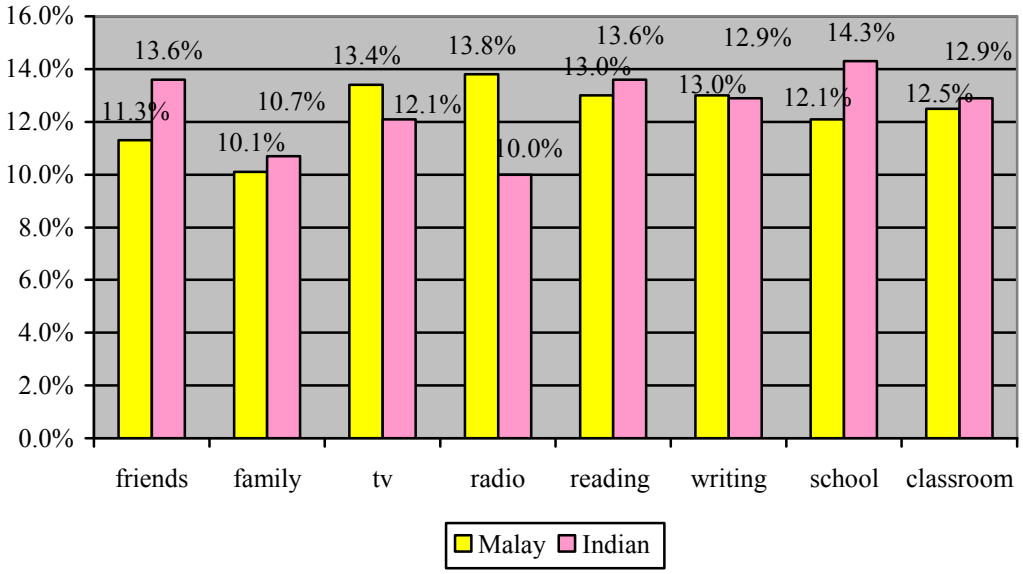

Figure 4.5: Exposure to English language

Figure 4.5 presents the comparison on types of exposure to English language between Malay and Indian participants who preferred relation interpretation to property interpretation in interpreting ncn. As shown in Figure 4.5, both groups revealed significant differences on the exposure they receive in learning and acquiring English language.

First, both groups revealed different highest and lowest exposure to English language. Listening to radio (13.8%) was stated by Malay participants as the highest exposure to English language. On the contrary, school environment (14.3%) was indicated by Indian participants as the highest exposure to English language. Second, interacting with family members (10.1%) was indicated by Malay participants as the lowest exposure to English language. In contrast, listening to radio (10%) was stated by Indian participants as the lowest exposure to English language.

It is apparent from the data in Figure 4.5 that there are some interesting findings from the analysis. First, listening to radio was indicated by Malay participants as the highest exposure to English language. At the same time, the same exposure was indicated by Indian participants as the lowest exposure to English language. Second, interacting with family members was stated by Malay participants as the lowest exposure to English language whereas it was indicated by Indian participants as the second lowest exposure to English language.

(c) Differences and similarities among Malay participants

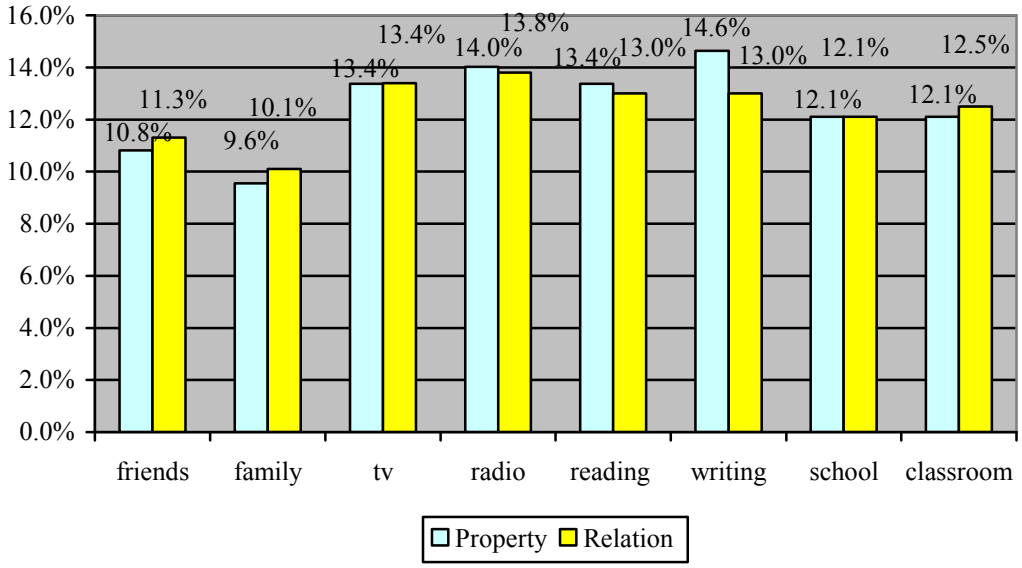

Figure 4.6: Exposure to English language

Figure 4.6 presents the types of exposure that are received by all Malay participants in acquiring English language. Figure 4.6 also demonstrates the differences and similarities among Malay participants who preferred property interpretation and Malay participants who preferred relation interpretation in interpreting ncn.

Writing in diaries, blogs, assignments and projects (14.6%) was indicated by participants who preferred property interpretation as the highest exposure to English language. In contrast, listening to radio (13.4%) was stated by participants who preferred relation interpretation as the highest exposure to English language. Despite this difference, family members were identified as the lowest exposure to English language by both groups (9.6% by participants who preferred property interpretation and 10.1% by participants who preferred relation interpretation).

d) Differences and similarities among Indian participants

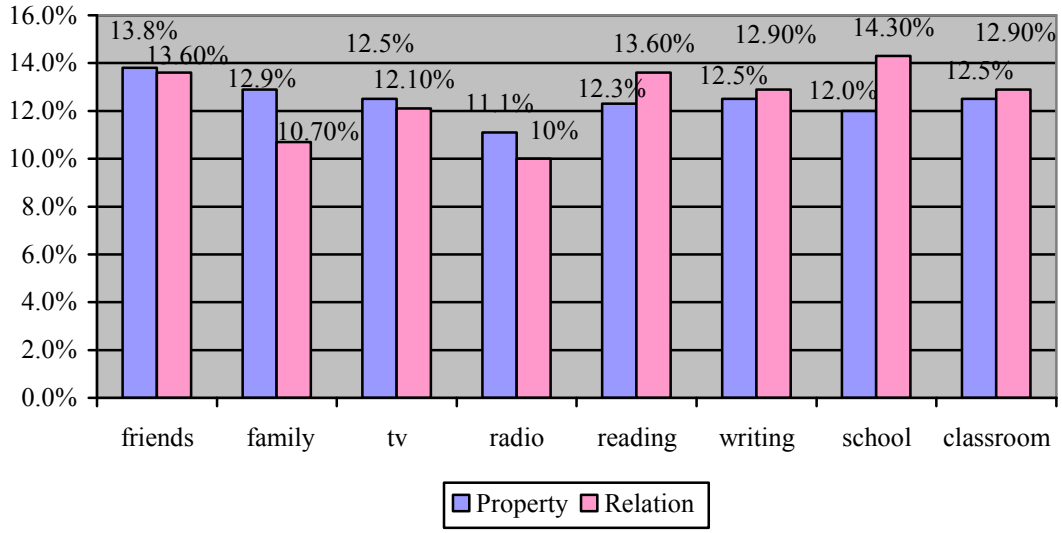

Figure 4.7: Exposure to English language

Figure 4.7 compares the differences and similarities on the types of exposure to English language between Indian participants who preferred property interpretation and Indian participants who preferred relation interpretation in interpreting ncn. The differences are quite significant for both groups as shown in Figure 4.7.

Interacting with friends (13.8%) was indicated by participants who preferred property interpretation as the highest exposure to English language. In contrast, school environment (14.3%) was indicated by Indian participants who preferred relation interpretation as the highest exposure to English language. Despite this difference, listening to radio was stated by both groups (11.1% by participants who preferred property interpretation and 10% by participants who preferred relation interpretation) as the lowest exposure to English language.

4.2.1.2 Factors influencing the learning of English language

(a) Preference for property interpretation by Malay and Indian participants

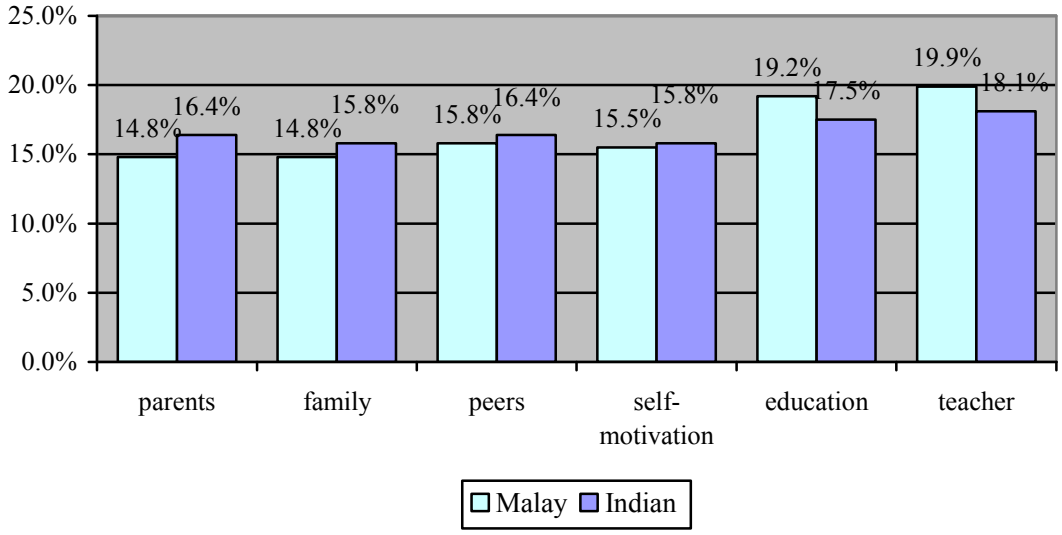

Figure 4.8: Factors influencing the learning of English language

Figure 4.8 shows the similarities and differences between Malay and Indian participants on the factors influencing the learning of English language. As shown in Figure 4.8, Malay and Indian participants stated language teacher (19.9% and 18.1%, respectively) as the highest factor influencing the learning of English language. This is the first similarity between both groups.

On the other hand, Malay and Indian participants indicated family members like siblings, grandparents and cousins (14.8% and 15.8%, respectively) as the lowest factor that influences the learning of English language. However, each group also indicated another different factor that influences their English language learning. Parents (14.8%) were indicated by Malay participants as the other lowest factor influencing the learning of English language. In contrast, self-motivation (15.8%) was stated by Indian participants as another lowest factor influencing the learning of English language.

Hence, similarities and differences were identified between both groups on the highest and lowest factors influencing the learning of English language.

Next, both groups stated similar second and third highest factors influencing the learning of English language. Education requirement (19.2% by Malays and 17.5% by Indians participants) and peers (15.8% by Malays and 16.4% by Indians participants) were indicated by both groups as the second and third highest factors influencing the learning of English language.

(b) Preference for relation interpretation by Malay and Indian participants

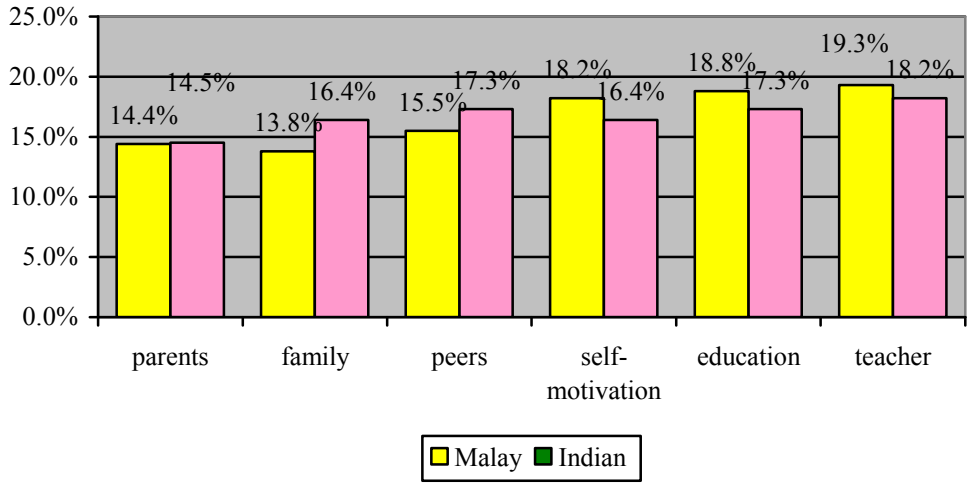

Figure 4.9: Factors influencing the learning of English language

Figure 4.9 presents the similarities and differences between both groups on the factors influencing their English language learning. Malay and Indian participants indicated language teacher (19.3% and 18.2%, respectively) as the highest factor influencing the learning of English language. This is one of the similarities between both groups.

Despite the similarity above, both groups showed their differences on the lowest factors influencing the learning of English language. Family members like siblings, grandparents and cousins (13.8%) were indicated by Malay participants as the lowest factor influencing the learning of English language whereas parents (14.5%) were stated by Indian participants as the lowest factor influencing the learning of English language.

Both groups also revealed similar second and third highest factors influencing the learning of English language. Both groups stated education requirement (18.8% by Malay and 17.3% by Indian) and self-motivation (18.2% by Malay and 16.4% by Indian) as the second and third highest factors that influence their English language learning. However, Indian participants also stated peers (17.3%) and family members like siblings, grandparents and cousins (16.4%) as the second and third highest factors influencing their English language learning.

(c) Differences and similarities among Malay participants

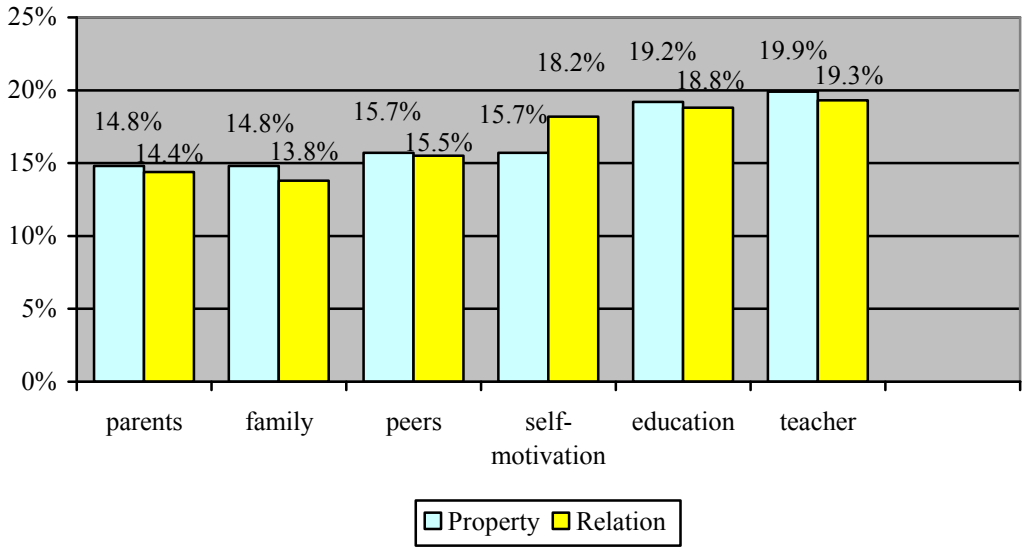

Figure 4.10: Factors influencing the learning of English language

Figure 4.10 shows the similarities and differences between both groups of participants on the factors influencing their English language learning. As shown in Figure 4.10, language teacher was indicated by both groups (19.9% by Malay participants who preferred property interpretation and 19.3% by Malay participants who preferred relation interpretation) as the highest factor influencing the learning of English language. Similarly, family members like siblings, grandparents and cousins were indicated by both groups (14.8% by participants who preferred property interpretation and 13.8% by participants who preferred relation interpretation) as the lowest factor influencing the learning of English language. However, apart from family members, parents (14.8%) were also indicated by participants who preferred property interpretation as another lowest factor influencing the learning of English language. This can be seen as one of the differences between both groups.

(d) Differences and similarities among Indian participants

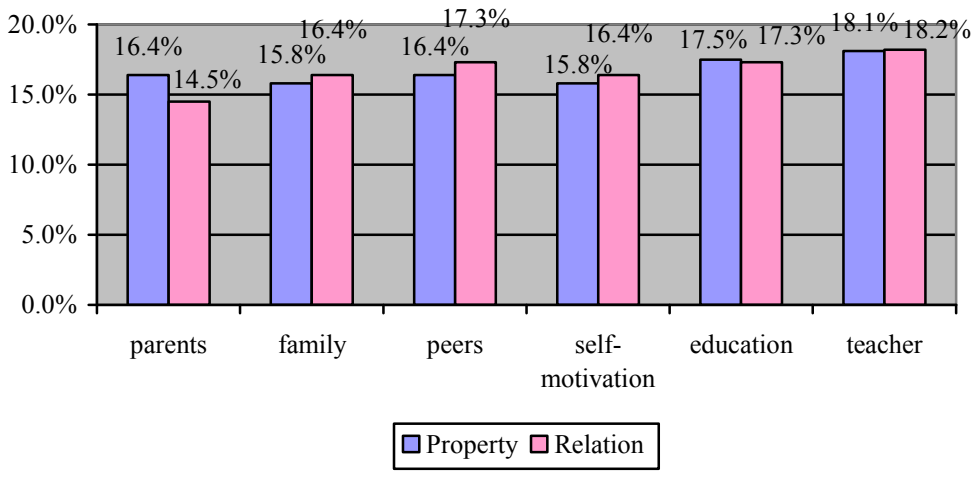

Figure 4.11: Factors influencing the learning of English language

Figure 4.11 compares the similarities and differences on the factors influencing the learning of English language as indicated by both groups of Indian participants. It is apparent that language teacher was revealed by both groups (18.1% by participants who preferred property interpretation and 18.2% by participants who preferred relation interpretation) as the highest factor influencing the learning of English language. This is one of the similarities between both groups.

In contrast, family members like siblings, grandparents and cousins and self motivation (each 15.8%) were stated by participants who preferred property interpretation as the lowest factors influencing the learning of English language whereas parents (14.5%) was stated by participants who preferred relation interpretation as the lowest factor influencing the learning of English language.

Another similarity between both groups is they indicated education requirement as the second highest factor influencing the learning of English language (17.5% by participants who preferred property interpretation and 17.3% by participants who preferred relation interpretation). However, peers were also indicated as the other second highest factor influencing the learning of English language by participants who preferred relation interpretation.

4.2.1.3 Factors influencing the interpretation of ncn

(a) Preference for property interpretation by Malay and Indian participants

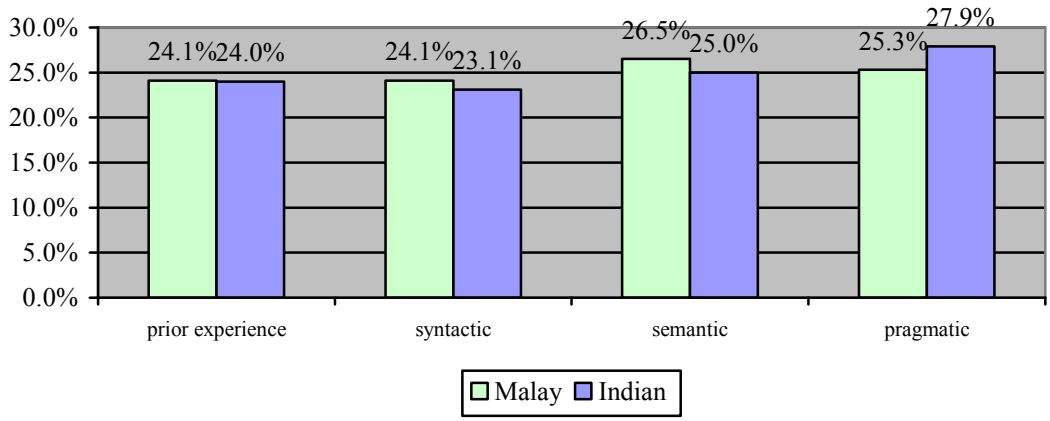

Figure 4.12: Factors influencing the interpretation of ncn

Figure 4.12 compares the factors influencing the interpretation of ncn among Malay and Indian participants who preferred property interpretation in interpreting ncn. The results revealed the similarities and differences on the way Malay and Indian participants derive the meaning of ncn.

Semantic knowledge (26.5%) was stated by Malay participants as the highest factor influencing the interpretation of ncn. In contrast, pragmatic knowledge (27.9%) was revealed by Indian participants as the highest factor that influences the interpretation of ncn.

Next, Malay and Indian participants indicated syntactic knowledge (24.1% and 23.1%, respectively) as the lowest factor influencing the interpretation of ncns. However, Malay participants stated prior experience (24.1%) as the other lowest factor influencing the interpretation of a ncn. From the data provided, it can be concluded that

both groups indicated different highest factors and similar lowest factor influencing the interpretation of ncn.

(b) Preference for relation interpretation by Malay and Indian participants

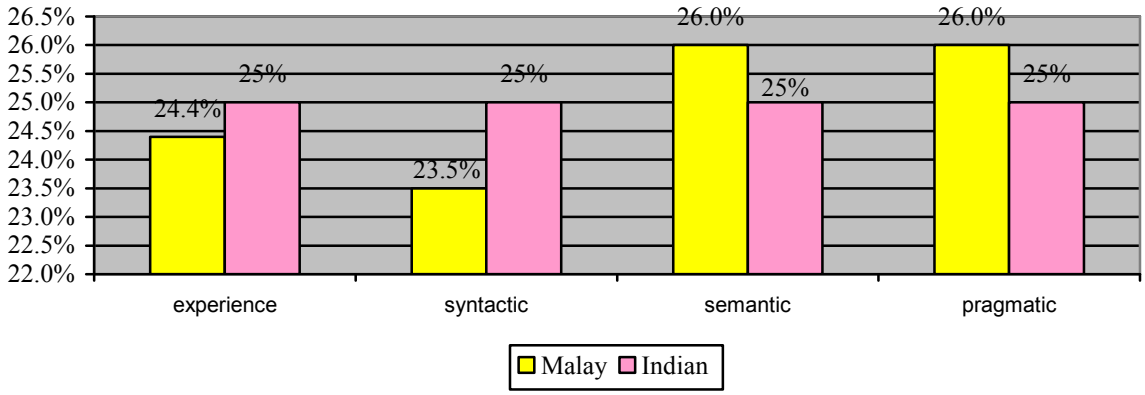

Figure 4.13: Factors influencing the interpretation of ncn

Figure 4.13 compares the factors that influence the interpretation of ncn among Malay and Indian participants who preferred relation interpretation to property interpretation in interpreting ncn. First, semantic and pragmatic knowledge (26% each) were stated by Malay participants as the highest factors influencing the interpretation of ncn. Second, syntactic knowledge (23.5%) was indicated by Malay participants as the lowest factor influencing the interpretation of a new word.

On the contrary, all four factors which are prior experience, syntactic knowledge, semantic knowledge and pragmatic knowledge (25% each) were stated as equally influencing the interpretation of ncn by Indian participants. In short, it can be concluded that Malay and Indian participants who preferred relation interpretation differ in the factors that influence their interpretation of ncn.

(c) Differences and similarities among Malay participants

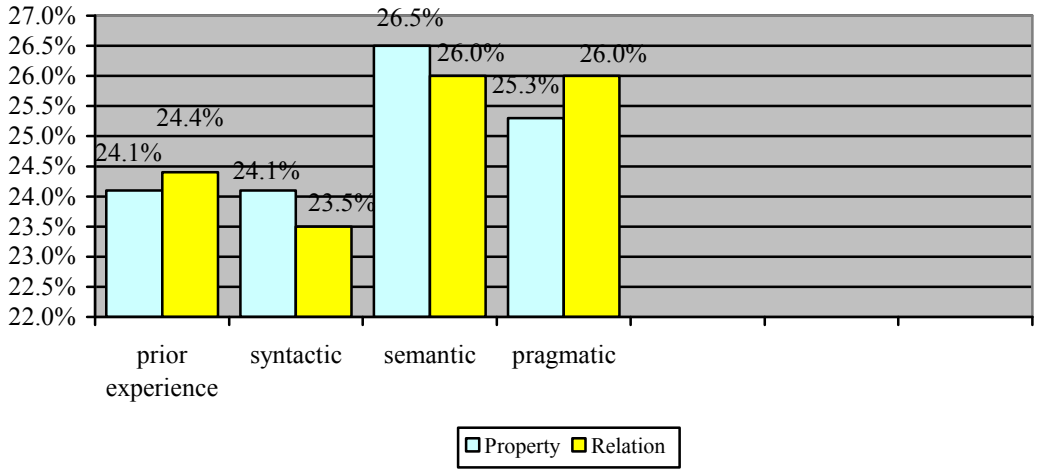

Figure 4.14: Factors influencing the interpretation of ncn

Figure 4.14 compares the differences and similarities between both groups of Malay participants on the factors that influence the interpretation of ncn. As shown in Figure 4.14, semantic knowledge was indicated by both groups (26.5% by participants who preferred property interpretation and 26% by participants who preferred relation interpretation) as the highest factor that influences the interpretation of ncn. This is one of the similarities between them. Besides semantic knowledge, pragmatic knowledge (26%) was also indicated by participants who preferred relation interpretation as another highest factor that influences the interpretation of novel words. Thus, this can be seen as a difference between the two groups.

Next, syntactic knowledge was stated by all Malay participants (24.1% by participants who preferred property interpretation and 23.5% by participants who preferred relation interpretation) as the lowest factor influencing the interpretation of a new word. This is another similarity between the two groups. Although both groups indicated the same lowest factor influencing their interpretation, prior experience (24.1%) was also stated by participants who preferred property interpretation as the

lowest factor that influences the interpretation of a new word. Hence, this can be seen as another difference between both groups.

(d) Differences and similarities among Indian participants

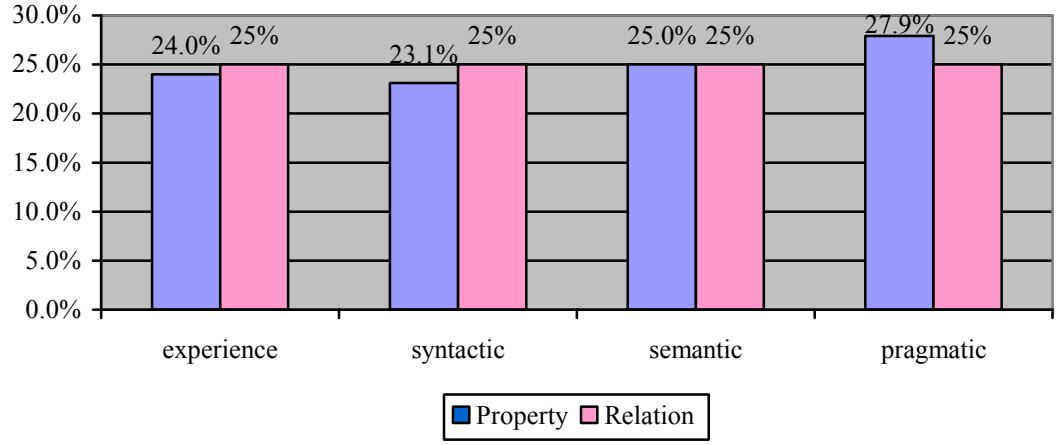

Figure 4.15: Factors influencing the interpretation of ncn

Figure 4.15 shows the differences and similarities on the factors influencing the interpretation of ncn among Indian participants. As shown in Figure 4.15, participants who preferred property interpretation stated pragmatic knowledge (27.9%) as the highest factor that influences the interpretation of ncn whereas syntactic knowledge (23.1%) as the lowest factor that influences the interpretation of ncn.

On the other hand, participants who preferred relation interpretation stated all four factors as equally influencing (25%) their interpretation of ncn. Therefore, it can be concluded that both groups are influenced by different factors when deriving the meaning of ncn.

4.3 The influence of L1 in interpreting ncn (Research question 3)

The participants' answers for the fourth question in second part of the questionnaire were used to answer the research question for "How did L1 influence the interpretation of ncn among Malay and Indian L2 learners?". The mean and percentage for each ethnicity on the influence of their L1 which are Malay and Tamil were computed and analysed in SPSS version 17.0.

4.3.1 The findings

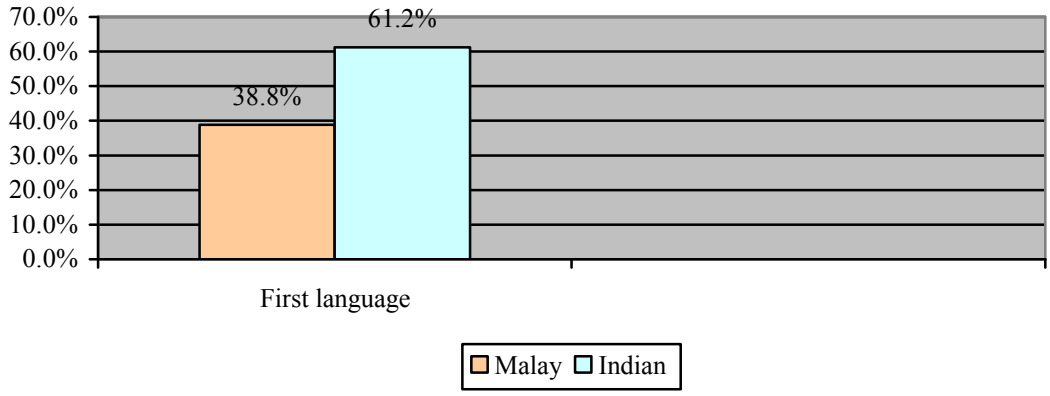

Figure 4.16: The influence of L1 in interpreting ncn.

Figure 4.16 shows the influence of L1 in deriving the meaning of a new word by both groups. As shown in Figure 4.16, mother tongue or L1 influences Indian participants (61.2%) more than Malay participants (38.8%) in interpreting ncn. In other words, the findings revealed that Tamil language has a higher influence on its user than Malay language in interpreting ncn.

4.4 Conclusion

In order to obtain the results of this study, the data reported in Chapter 3 were analysed in this chapter. The findings from analysis of the data have answered all the three questions set out in Chapter 1. Most important, the finding indicated that in interpreting ncn, property interpretation was used more than relation interpretation by L2 learners of Malay and Indian ethnicity. This finding answered the research question 1. This general finding supports the claim that property interpretation is used as much as relation interpretation made by Wisniewski (1996) in his dual-process theory and contradicts with the claim on the great use of relation interpretation in interpreting ncn made by Gagne and Shoben (1997) in their Carin theory.

The findings also revealed that Indian participants preferred property interpretation whereas Malay participants preferred relation interpretation in interpreting ncn. However, the difference between property interpretation and relation interpretation shown by Malay participants is seen as relatively small (1%). Therefore, it can be generalized that L2 learners preferred property interpretation to relation interpretation in interpreting ncn.

Finally, participants' answers in the second part of the questionnaire were used to answer the second and third research questions. In detail, the first, second and third questions were used to answer the research question 2 whereas the fourth question was used to answer the research question 3. As for the second research question, the findings showed the similarities and differences among Malay and Indian L2 learners on the exposure and factors affecting their acquisition of L2 and the interpretation of ncn as discussed earlier in section 4.2. First, all groups of participants stated different highest

exposure to English language. For example, on one hand, Malay learners who preferred property interpretation stated writing in diary, blogs, assignments and projects as the highest exposure to English language whereas Indian participants who preferred property interpretation indicated interacting with friends as the highest exposure to English language. On the other hand, Malay participants who preferred relation interpretation stated listening to radio as the highest exposure to English language whereas Indian participants who preferred relation interpretation revealed school environment as the highest exposure to English language.

Second, all groups of participants stated the same factor which was language teacher as the factor influencing them the most in English language learning. Third, semantic knowledge was indicated as the highest factor influencing the interpretation of ncn by both groups of Malay participants. Meanwhile, on one hand, pragmatic knowledge was indicated as the highest factor influencing the interpretation of ncn by Indian participants who preferred property interpretation. On the other hand, Indian participants who preferred relation interpretation stated all four factors as equally influencing them when interpreting ncn.

Meanwhile for the third research question, the findings showed that Indian participants whose L1 is Tamil have a higher tendency to be influenced by their mother tongue when encountered with ncn than Malay participants whose native language is Malay.

CHAPTER 5

CONCLUSION

5.0 Introduction

This chapter summarizes the findings of the three research questions in this study. This chapter also includes pedagogical implications of this study and recommendations for future studies. Abbreviations for terms like “L1”, “L2” and “ncn” are used for “first language”, “second language” and “novel compound nouns”, respectively.

5.1 Summary of the findings

The findings revealed some significant findings which answered all the three research questions of this study as discussed below:

5.1.1 Research question 1

Which pattern of interpretation was used more to interpret ncn among Malay and Indian L2 learners?

In general, property interpretation was identified as the preferred pattern of interpretation for L2 learners in interpreting ncn (see Table 4.1). This finding supports the claim made by Wisniewski (1996) in his dual-process theory. According to this

theory, property interpretation is used to interpret novel combinations because it is simple and generic like relation interpretation (Wisniewski and Love, 1998). Wisniewski and Love (1998) further add that both patterns of interpretation are equally used which contradicts with the claim made by Gagne and Shoben (1997) in their Carin theory.

Although, Gagne's (2000) study has proven that only relation interpretation is used as a common strategy to interpret ncn, the findings of this study contradict with the claim made by the Carin Theory (Gagne and Shoben, 1997) that property interpretation is rarely used and accepted to interpret ncn. Furthermore, the findings of this study support the claim made by the dual-process theory (Wisniewski, 1996) that property interpretation is also a common strategy used in interpreting ncn. The dual-process theory also believes that both patterns are equally used in the novel combinations.

In contrast, the Carin theory claims that property interpretation is used only for highly similar combinations and used as a last resort. This pattern is produced by comparing the modifier to the head noun and identifying the difference between them (Wisniewski, 1996). However, this study reveals that property interpretation is also used for dissimilar combinations and not as the last resort. This is because the findings showed that property interpretation were more preferred in spite of the combinations in the ncn test. The ncn test consisted of similar combinations like "painter photographer", "kidnaper killer", "spear chisel" and "book magazine" and dissimilar combinations like "ant vegetable", "dinosaur scientist" and "mourner musicians". These findings contrast with the claim made by the Carin theory. According to this theory, relation interpretation is always preferred especially for constituents noun that are dissimilar and combinations that have plausible relations. On the contrary, property interpretation is

used for combinations that have similar constituent nouns and without any plausible relations. This pattern of interpretation is used to interpret the ncn by using the property of each constituent. For examples, highly similar combinations like “apple pear” and “organ piano” (Wisniewski and Love, 1998) has no plausible relation. Hence, property mapping is processed to interpret the combinations (Gagne, 2000).

Next, in a more detailed analysis, the findings revealed that relation interpretation were stated by Malay participants as the preferred pattern of interpretation to property interpretation. Although relation interpretation was stated as the preferred pattern of interpretation but the difference in percentage was only by 1% which is very little. In contrast, property interpretation was revealed by Indian participants as their preferred pattern of interpretation to relation interpretation (see Table 4.2).

The data were further analysed in order to justify the above findings. The first analysis showed the proportion of each pattern based on the ethnicity. The findings showed almost half (47%) of Malay participants preferred to use relation interpretation more than property interpretation in interpreting ncn (see Figure 4.2). On the contrary, the findings revealed that half of Indian participants (54%) preferred property interpretation more than relation interpretation (see Figure 4.3). These findings confirm the previous findings (see Table 4.2) on the preference for different pattern by Malay and Indian participants to interpret ncn.

The acceptability judgements analysis was done to identify the acceptability judgements for both patterns of interpretations. The acceptability judgement is used to rate how an interpretation of ncn is viewed as acceptable and appropriate. The findings revealed that the acceptability ratings differed between Malay and Indian participants.

Although the findings showed that Malay participants preferred relation interpretation more than property interpretation, they did not indicate any biasness towards the acceptability level of both patterns of interpretations. Instead, both patterns were viewed as equally acceptable (see Tables 4.3 and 4.4). On the other hand, the findings revealed that Indian participants viewed property interpretation as more appropriate and acceptable than relation interpretation in interpreting ncn (see Tables 4.6 and 4.7).

Apart from the acceptability judgements for each pattern of interpretation, the findings identified the mode 4 (acceptable) was indicated as the highest acceptability rate for both patterns by both Malay and Indian participants (see Tables 4.5 and 4.8).

5.1.2 Research question 2

What were the exposure and factors affecting the acquisition of L2 and the interpretation of ncn among Malay and Indian l2 learners?

Table 5.1 shows the exposure and factors that affect the acquisition of L2 and the interpretation of ncn among Malay and Indian participants. In detail, both ethnics groups were further categorized into two groups which were a group of participants who preferred property interpretation and a group of participants who preferred relation interpretation in interpreting ncn.

Table 5.1: Exposure and factors affecting the acquisition of L2

Factors	Property preference		Relation preference	
	Malay	Indian	Malay	Indian
Exposure to English language	Writing in diary, blogs, assignments and projects	Interacting with friends	Listening to radio	School environment
Factors affecting the acquisition of L2	Language teacher	Language teacher	Language teacher	Language teacher
Factors influencing the interpretation of ncn	Semantic knowledge	Pragmatic knowledge	Semantic knowledge	Semantic knowledge, prior experience, syntactic knowledge, and pragmatic knowledge

First, all four groups of participants as shown in Table 5.1 reported different types of exposure as the highest factor that influence their interpretation of ncn. Writing in diaries, blogs, assignments and projects was stated by Malay participants who preferred property interpretation as the exposure that influences them the most in interpreting ncn. In contrast, listening to radio was indicated by Malay participants who preferred relation interpretation as the exposure that has the highest influence on them when interpreting ncn.

Meanwhile, interacting with friends was revealed by Indian participants who preferred property interpretation as the exposure that influences them the most in interpreting ncn. On the contrary, school environment was stated by Indian participants who preferred relation interpretation as the exposure that influences them the most in interpreting ncn. In summary, the findings prove that all four groups of participants indicated different types of exposure influencing their interpretation of ncn.

Second, all groups of participants stated language teacher as the highest factor towards their learning and acquisition of English language. Finally, the findings revealed that the interpretation of ncn is influenced by the usage of different knowledge. On one hand, semantic knowledge was indicated as the highest factor that influences the interpretation of ncn by both groups of Malay participants. On the other hand, pragmatic knowledge was revealed as the highest factor that influences the interpretation of ncn by Indian participants who preferred property interpretation. However, all types of knowledge and prior experience are indicated as used equally to interpret ncn by Indian participants who preferred relation interpretation.

5.1.3 Research question 3

How did L1 influence the interpretation of ncn among Malay and Indian L2 learners?

According to Perdue (1993), L2 acquisition is affected by the native language. The similarities and differences between L1 and L2 determine the success of acquiring L2. In addition, L2 learners who are aware of the similarities and differences between their native language and L2 can acquire their L2 better than those without it. This resulted to creating awareness among L2 learners to find and use effective vocabulary learning strategies.

The findings revealed that Tamil language has higher influence than Malay language in the interpretation of ncn. In other words, the transfer and interference of Tamil language occurs more frequently among Indian students than Malay students when interpreting ncn.

Wisniewski and Love (1998) have listed few factors such as structural properties of constituents (the similarity between two constituents) and context (prior use of a novel compound noun) can cause the usage of either property interpretation or relation interpretation in interpreting ncn. In addition to these factors, the study suggests another factor which is the interference and transfer of L1. The participants indicated in the questionnaire that transfer and interference of L1 occur during the interpretation of ncn. Moreover, L2 learners whose L1 are compounding languages like Malay and Tamil languages have the tendency to use property interpretation more than relation interpretation in interpreting ncn. Apart from Malay and Tamil languages, English language is also a compounding language. Therefore, all three languages share the same

characteristics that cause the usage of property interpretation to be more than relation interpretation in interpreting ncn as claimed by the dual-process theory.

5.2 Implications for teaching

In order to enable students acquire and comprehend ncn effectively, L2 teachers and instructors can teach and expose their students to the word order patterns of English language. This strategy will help their students to recognize the structure of compound nouns or the word order pattern and interpret them easily. Besides exposure to the word patterns of compound, L2 instructors and teachers can expose and teach their Malay and Indian L2 learners to interpret ncn by using property interpretation especially for combinations that have similar concepts such as “elephant fish” and “zebra horse”. The findings of this study and the claim made by the dual-process theory (Wisniewski, 1996) have proven that property interpretation is more preferred and easier than relation interpretation in interpreting ncn. However, teachers and instructors can also expose their students to using relation interpretation as an alternative strategy in interpreting ncn especially for combinations that have dissimilar concepts like “tax magazine” and “pancake spatula”.

5.3 Recommendations for future study

Future study is hoped to be initiated to fill in the gap of this study. Apart from filling in the gap, more research should be conducted on the interpretation of ncn among L2 learners from various backgrounds and ethnics. At the same time, future studies should also focus on qualitative research. In addition, studies on other patterns of interpretation besides relation and property interpretation should also be conducted in order to expand the research in use of compounding noun and second language acquisition.

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