

# CHAPTER I

## INTRODUCTION

### 1.1. Background of the Study

The transfer of skills learned in L1 into L2 is controversial though many theories have attempted to explain how the transfer of cognitive and linguistic skills from L1 and L2 occurs; but none of them have solved the controversy. Some of the controversial theories in the research literature about the development of L1 and L2 reading skills in different scripts include how transfer occurs from L1 to L2 are linguistic interdependence hypothesis (LIH), linguistic threshold hypothesis (LTH), central processing hypothesis (CPH), and script dependent hypothesis (SDH). The LIH and LTH differ in that the LIH stresses the significance of L1 reading skills, while the LTH advocates the importance of language proficiency in the L2. The CPH and SDH differ in that the CPH advocates for a universal approach in transfer of skills while the SDH gives a language specific explanation for skills transfer. The SDH, unlike the CPH contends that there are certain language constraints that may affect transfer of skills. They are all hypotheses about language transfer in bilingual, meaning that all they claim has not yet approved strongly. They are still open to investigate to find which of the theory is empirically proved.

Literature that examined the impact of first language knowledge on second language acquisition raises the issue of skills transfer between languages, or language-specifically (dependent on the script). Numerous studies have indicated

cross-language transfer of skills between alphabetic languages and English. Deacon, Chen, Luo, and Ramirez (2011) found that Spanish (with a shallow alphabetic orthography) sub-lexical orthographic processing was related to English word reading for Spanish-English bilingual children. This relationship survived controls for mother's education, verbal and nonverbal abilities, rapid automatized naming, and phonological awareness. Both of these studies were conducted with languages with the same units of representation: i.e., the Roman alphabet. The researchers explained their findings by claiming that the higher the level of similarity between two orthographies, the greater the chance of a linguistic transfer of ortho-graphic knowledge. Student's attention to features common to both languages might be one source of a linguistic transfer of orthographic processing to reading between languages (Deacon et al., 2013). These previous studies' findings support Cummins's linguistic interdependence hypothesis (1981).

Additionally, Cummins (1976) introduced the linguistic threshold hypothesis, though this hypothesis is more commonly referred to as the LTH (Bernhardt and Kamil, 1995). Cummins (1991b: 85) argues that it is probably unrealistic to expect significant progress in clarifying the precise nature of the hypothesized threshold. The LTH has always been criticized for its lack of explanatory power, specifically with regard to the absolute nature of the linguistic threshold that a learner has to attain (August, 2006, in Cui, 2007: 3). This has narrowed the scope of the theory.

The next theory is central processing hypothesis (Da Fontoura and Siegel, 1995) originated in the concept of "common underlying proficiency" in

Cummins' developmental interdependence hypothesis (1979,1991). According to Geva and Siegel (2000: 2), a range of cognitive and linguistic skills which facilitate learning to read in monolingual children (e.g. PA, working memory, efficient serial naming, verbal ability, speed of processing) also contribute to the acquisition of L2 reading and writing.

In contrary with LIH, LTH, and CPH, many other studies that investigated linguistic transfer of skills between alphabetic languages and English revealed that orthographic knowledge is language-specific and cannot transfer between languages. The crux of the contrastive analysis (Lado, 1964) relies on similarities and differences in language structure between a first and second language that are expected to explain positive and negative transfer between L1 and L2. At issue is the extent to which specific linguistic or cognitive skills developed in the context of one's first language influence the development of parallel linguistic skills in the L2. Researchers have been studying specific typological differences between the L1 and L2 that may enhance or impede the development of language or reading elements in the L2. Certain types of errors in the L2 may reflect structures in the L2 that differ considerably from those in the L1 (i.e., *negative transfer*). When the L1 and L2 are similar, fewer errors will be made in light of these common features, and learners may thus be able to rely on structures from the L1 when acquiring the L2 (i.e., *positive transfer*).

Bialystok, Majumder and Martin (2003) report that Spanish-English bilinguals outperform Chinese-English bilinguals on English PA tasks. They argue that this finding reflects the fact that the relative similarity of the phonemic

structures of Spanish and English contrast with that of Chinese. Another type of positive transfer concerns the ability to use cognates. For example, English, French, and Spanish speakers may all comprehend Latin-based words such as *expedition* (English), *expedición* (Spanish), and *expédition* (French). However, if children's home language (e.g., English) does not share cognates with the L2 (e.g., Hebrew), learners cannot rely on cognates in deriving possible word meaning. Sun-Alperin & Wang (2009) indicated that processing orthography did predict reading and spelling abilities in Spanish L1 and English L2, but there was no transfer between them. In other words, orthographic patterns may be language-specific, and therefore unlikely to transfer to the other language. Saiegh-Haddad and Geva (2008) reported that PA correlates with word reading in alphabetic languages that differ in orthographic features such as English and Arabic. Furthermore, they found a contribution from MA arabic to English word reading and fluency (controlling for English MA), but not vice versa, MA performance between English and Arabic was not correlated. These findings support the SDH that orthographic skills are not transferred between languages but are rather language-specific.

From previous researches, many factors also influence development of reading in bilingual students, such as: skills in L1 and L2, type of writing systems in L1 and L2, exposure of L2, etc. The writing system as the factor that influence the skills transfer from the first language to the second language are discussed in this study. As Perfetti (2003) stated that a universal step in learning to read is that the reader must understand how writing system of a language encodes the spoken

form. The writing system consists of several essential elements; signs and symbols, which convey either unique sounds or meaning in the target languages; the representation of these sets of signs and symbols are defined as a script. Each language, of course, uses different sounds, symbols, or signs which are combined according to rules of words form.

In Indonesia, bilingual education is a fact of life in today where bilingualism can be found in every society and in different age ranges and stages of life. English and Arabic are known as the foreign languages which studied by most learners in Indonesia. Bahasa Indonesia and English have the same symbols or signs but different sounds and word forms. Otherwise, Bahasa Indonesia and Arabic have different symbols, sound, and word forms, though some of the words in Bahasa Indonesia are borrowed from Arabic. It means that Bahasa Indonesia are related to English and Arabic whether its writing systems or other aspects of languages. Related to the hypotheses of cross-language transfer, it was interested to explore skills occurs in Bahasa Indonesia as first language (L1) transfer to second language (L2) with different scripts and how skills transfer in the process of learning second language (L2) which specific on linguistic or cognitive skills. In this respect, investigating L1 cognitive and linguistics skills transfer in the process of learning L2 different script is noteworthy due to there is no study which discusses about the cognitive and linguistics transfer from Bahasa Indonesia as the first language (L1) to different scripts such as English and Arabic in this study. Bahasa Indonesia and English which has script dependent was compared to Bahasa Indonesia and Arabic which has script independent. This study considers about the theories of cross-language transfer: linguistic



interdependence hypothesis, linguistic threshold hypothesis, central processing hypothesis and script dependent hypothesis. The finding of this study specified the theories of cross-language transfer that discussed about Indonesian speaking students learning English as a second language (L2) and Indonesian speaking students learning Arabic as a second language (L2) which provides an opportunity to observe cognitive and linguistic skills transfer.

### **1.2. Focus of the Study**

This study sought to address two questions which investigated L1 cognitive and linguistic skills transferred in the process of learning L2 of dependent and independent scripts and the reasons underlying L1 cognitive and linguistic transfer into learning L2 with dependent and independent scripts. This study also focused only in two groups of bilingual students: the first group is Indonesian students who learn English (L2), and the second group is Indonesian students who learn Arabic(L2).

### **1.3. Research Problems**

According to the background and focus of the study, some problems are addressed as the following:

1. How are L1 cognitive and linguistic skills transferred into the process of learning L2 of dependent scripts?
2. How are L1 cognitive and linguistic skills transferred into the process of learning L2 of independent scripts?
3. Why are the cognitive and linguistic skills transferred in the way they are?

#### **1.4.The Objectives of the Study**

In the relation to the problems, the main objectives of this study are:

1. To describe the process of L1 cognitive and linguistic skills transfer into the process of learning L2 of dependent scripts.
2. To describe the process of L1 cognitive and linguistic skills transfer into the process of learning L2 of independent scripts.
3. To find out the reasons underlying L1 cognitive and linguistic transfer into learning L2 with dependent and independent scripts.

#### **1.5. Significances of the Study**

The finding of this study are expected to have both theoretical and practical importance as a process and product especially the framework of reading. The significances of this study are:

1. Theoretically, the finding of this study is expected to confirm or modify the theories or hypothesis of reading development and cognitive & linguistics skills transfer from L1 to L2 with different scripts of bilingual program, especially Bahasa Indonesia-English and Bahasa Indonesia-Arabic bilingual students.
2. Practically, the finding of the study is expected to be useful for teachers of bilingual programs and other researchers. Firstly, the finding of this study is used to be the guidance for teacher in examine the development of reading in bilingual students. Secondly, other researcher use the finding of

this study as the basic knowledge in conduct research in other aspects of different scripts in bilingual.



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