Changes in Patterns of Thinking with Second Language Acquisition
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# CHAPTER 1

# INTRODUCTION

> "Language in its entirety has many different and disparate aspects. It lies astride the boundaries separating various domains. It is at the same time physical, physiological and psychological. It belongs both to the individual and to the society." (Saussure, 1986, 10)

## 1.1 Statement of the Problem

Learning a language involves not only learning linguistic forms, but learning how to use these forms appropriately in different contexts. Being proficient in a language includes knowing what needs to be marked and expressed in the language and what can be inferred by listeners (Berman and Slobin, 1994). This knowledge develops in first language learners over a period of time so that by adulthood speakers of a language can fully use the language's forms to express events and thoughts.

Slobin (1991, Slobin 1996a, 1996b; Berman and Slobin 1994) has proposed that each language's grammatical constructions and lexicon not only provide native speakers of a language with a framework for the expression of events and thought, but also restrict how events and thought are expressed. In other words, speakers learn a particular way of "thinking for speaking." Stam (1998) proposed that if first language (L1) acquisition involves learning a particular way of thinking for speaking, then

second language (L2) acquisition involves learning another way of thinking for speaking.

McNeill (1992, 2005) has argued that speech and gesture are a single-integrated system and express two aspects of thought: the verbal and the imagistic. McNeill proposes a model for verbal thought — "a 'language-imagery' or language-gesture dialectic" (McNeill, 2005, 25) in which the static and dynamic dimension aspects of language are combined.

> When co-expressive speech and gesture synchronize, we can see something that is simultaneous and sequential, as Wundt envisioned. There is a combination of two semiotic frameworks for the same underlying idea, each with its own expressive potential. Speech and gesture are co-expressive but nonredundant in that each has its own means of packaging meanings. (McNeill, 2005, 91)

It has been claimed that speakers of Spanish and English have different patterns of thinking for speaking about motion both linguistically and gesturally (Slobin, 1991, 1996a, 1996b; Berman and Slobin 1994; Slobin and Hoiting 1994; Stam, 1998; McNeill and Duncan, 2000; McNeill, 2000; Kellerman and van Hoof, 2003; Neguerela et al., 2004). For example, Spanish speakers express path linguistically on verbs, and their path gestures tend to occur with path verbs, while English speakers express path linguistically on satellites, and their path gestures tend to occur with satellites (adverbs or prepositions) and verbs + satellites. What happens when Spanish speakers learn English, do their patterns of thinking for speaking change?

The second language acquisition process is complex, gradual, nonlinear, and dynamic (Larsen-Freeman, 1991), and learners progress from one level of proficiency to another with varying degrees. Since it is impossible to view the rules and structures learners have internalized, learners' performance and production errors in speech and writing have been used as a basis for assessing their level of proficiency (Ellis, 1986). Although this method has merit, it does not provide a full picture of learners' mastery of the language. Learners may produce grammatically well-formed utterances and still assign different meanings to semantic categories such as temporality, space, motion, and causality (Klein, 1986).

A means to access learners' underlying mental representations is needed so that the meanings learners assign to the utterances they make become apparent. Vygotsky (1986) pointed out that the only way to study an internal process is to externalize it experimentally. Several empirical studies have been conducted that have elicited subjects' gestures as well as their speech to see what additional information the gestures provide (Marcos, 1979; McNeill, 1992, 2000; Goldin-Meadow, 1999, 2000; Goldin-Meadow, Wein, and Chang, 1992; Goldin-Meadow and Alibali, 1995). These studies have shown that examining both subjects' speech and gesture gives researchers an enhanced window onto the mind through which mental representations and processes can be observed.

In this thesis, I use spontaneous gestures as a means to investigate second language acquisition. I argue that looking not only at learners' speech but also at their accompanying gestures gives us a clearer and more complete picture of their progress in learning another language than looking at speech alone. "To make a gesture . . . is to bring thought into existence on a concrete plane, just as writing out a word can have a similar effect" (McNeill, 2005, 99). By looking at gestures, we can see learners' thought processes in action. Furthermore, if both nonverbal communication and verbal communication are part of learners' communicative competence as Pennycook (1985) and Neu (1990) have suggested, then it is necessary to look at learners' gestures as well as their speech to have a true sense of their proficiency in their L2.

This perspective has only recently been applied to the field of second language acquisition in the study of second language learners and their progress in acquiring their second language (Stam, 1998; Kellerman, 2001). Consequently, an objective of this thesis is to demonstrate the value of looking at gesture as well as speech as a means of investigating second language acquisition.

Two studies were conducted with this objective in mind. In Study 1, I explored how the addition of gestural information influences raters' scoring of oral proficiency interviews. I

investigated the scoring of oral interviews by six raters under two conditions: an audio only condition and an audio/visual condition. I hypothesized that the addition of gestural information in the audio/visual condition would influence the scoring. The scoring would be possibly higher under one condition for one learner and higher under the other condition for another learner depending on what information the gesture added.

In Study 2, I investigated Slobin's (1991) thinking-for-speaking hypothesis further in terms of second language acquisition. I examined the expression of path in the motion events of monolingual Spanish and native English speakers and two groups of Spanish learners of English (intermediate and advanced) to see how thinking for speaking about motion changes both linguistically and gesturally with second language acquisition. In this study, I sought answers to the following questions.

1. How is path expressed both linguistically and gesturally in the narrations of monolingual Spanish and native English speakers?
2. How is path expressed linguistically and gesturally in the narrations of Spanish learners of English (English language learners) in both their L1 Spanish and their L2 English?
3. How does the expression of path in the English narrations of the English language learners compare with that of the native English speakers?
4. What is the relationship between the English language learners' proficiency level and thinking for speaking in English?
5. What changes first — speech or gesture?

## 1.2 Structure of the Dissertation

This thesis brings together three areas of research: thinking for speaking, gesture, and second language acquisition. It is organized in the following manner. Chapter 2 is concerned

with the relationship between language and culture and the thinking for speaking hypothesis. Chapter 3 discusses gesture and relevant gesture studies. Chapter 4 provides background on second language acquisition. Chapter 5 reports on the study on the scoring of oral proficiency interviews under the two conditions (Study 1). Chapter 6 presents the motion events study (Study 2) and discusses how path is expressed linguistically and gesturally by monolingual Spanish speakers, native English speakers, and Spanish learners of English. Chapter 7 summarizes the findings, discusses how thinking for speaking patterns are learned, and suggests some areas for future research.