Gesture and Language as a System of Embodied Learning

by

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B.Ed, University of Victoria, 1994

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Supervisory Committee

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ABSTRACT

This study examines the relationship between gesture and a deep understanding of a second language. The participants, including the researcher, are second-language educators who have experience drastic changes in levels of fluency after switching from traditional teaching methods, prioritizing grammar and thematic teaching, to the gesture approach. Data of this phenomenon is collected through a series of semi-structured interviews giving priority to narrative accounts of personal experiences. A phenomenological framework is employed to allow the dialogues to fuse and new understandings to emerge in the spaces in between. The findings are presented in an in-depth conversation between the participants and including well-known dynamic systems theorists to allow new insights and connections to develop, which are then creatively summarized and further explored in the final chapter through multi-lingual slam poetry.

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Dedication

For Keelan, Talia and Carl… I (thumb pointing to chest) love (arms across chest with adoring look on face) all (circling hands in air) of (letter d with third finger touching thumb and index finger raised) you (index finger pointing at all of you).

CHAPTER ONE

Introduction

My Journey to Bilingualism

This study began a decade ago when I found myself in the frustrating position of desperately trying to communicate in a foreign language. I had just moved to Buenos Aires, Argentina to start a new chapter of my life, and to try my hand at teaching English to secondary students at a prestigious private school. It was my first experience with total immersion in a foreign language and I felt completely lost. At the school I was the only native English speaker on staff, and as such the undisputable expert of all things English. The other teachers came to me with their bizarre English slang, their undecipherable phrasal verbs, and their questions of pronunciation and I, in all my native-speaking wisdom, answered effortlessly in the accent of their choice with the unwavering confidence of an all-knowing Anglo-guru. Then the school day would end and I would find myself standing in line at the *supermercado* (supermarket) in an anxious state worrying about the upcoming transaction with the teller, staring blankly at cryptic signs amidst a cacophony of undistinguishable sounds, surrounded by people and feeling completely alone. And what did I do if someone tried to strike up a conversation, or the teller asked me a question? I gestured.

It started off with simple gestures. A shrug of the shoulders, a pleading look of apology mixed with a poorly pronounced *no hablo español* (I don't speak Spanish) to let others know that I felt badly about my second-language short-comings. The word *tienes* (do you have) followed by a pantomime of peeling a banana would produce laughter

among the produce girls, and invariably lead to bananas in my basket. I found with gesture that I could weave together my limited Spanish with actions and not only make myself understood, but also have some interaction with my Argentine neighbours. Living immersed in Spanish was the ultimate motivation to learn to speak and as my vocabulary grew my gestures decreased. Single words became strings of words, the music of Spanish became attached to meaning, and after two years I could finally communicate in Spanish and feel like my true personality was conveyed. As an educator I had a certain fascination with my own language learning journey. Teacher as student is a humbling experience, and I found myself observing my own frustrations, obstacles and breakthroughs along the way.

When I look back I see that I was doing research on myself all along. I could sit for an hour with a list of vocabulary, or a conjugated verb going over and over and over the words in my mind, but I could not carry that information in my long-term memory unless I linked it to something else. The strange new words, so similar in structure and so filled with vowels, would blend together in their meaning. It was only with the use of the words, the physical act of forming them, that the meaning and the sound became linked and the words became part of me. That is the best way I can explain that process. The words actually became part of my physical being and I knew they would always be part of me. I can remember holding an orange in my hand repeating *naranja, naranja, naranja* (orange) allowing the meaning to link to the sound and to my physical understanding of an orange, *una naranja*. I started to notice that if I held an object and repeated the word my recall would be faster. Sometimes the object was not at hand, or the word required an action, and at those times I would create a gesture to go along with the

word. I would jump up and down saying *saltar, saltar* (jump), or point to myself and cup my hands *yo tengo* (I have), or make a heart by cupping my two hands together *corazón* (heart) and it worked. The next time I would need to use the word in conversation I could visualize myself doing the gesture or action and the word would come to me, as if by magic. Over time my mind linked the word to the gesture, and ultimately to meaning, and as that understanding grew I came to a bizarre and wonderful realization…I was bilingual.

When I returned to British Columbia it felt like a natural shift in my career to change my teaching area from English (which I had done for ten years) to Spanish. How hard could it be? I had learned the language in two years with a thirty-year old brain, certainly my students should be able to pick it up in no time at all. I started a Spanish program at my school and proceeded to teach the way that I had been taught. Not the way that I had learned in Argentina, but the way I had been taught French growing up in Ontario. Looking back on that first year I'm not really certain why I taught in that traditional way. Probably because I thought that was how languages "should be taught." I wrote lists of vocabulary and conjugated verbs on the board and had the students write them out and study them, and what I discovered very quickly was that my students became efficient at copying words off the board, but they couldn't speak any Spanish at all. I taught with a nagging feeling in my gut, that this was not the most effective way to teach the language, but I had no other tools to work with and so continued dragging the students through a Spanish grammatical wasteland for half the year.

By January of that year I was feeling like a failure. The students were tired of the grammar and bored with the language, and worse, I was bored with my own class! Then

everything changed. I went to a language conference with a colleague in search of inspiration, and I discovered the gesture approach. It was like walking into a room where everyone was discussing something I knew as an absolute truth but could never put into words. The workshop was about teaching French with the new "gesture approach." The teachers, mostly from elementary classrooms, were saying the words together and gesturing with a teacher standing at the front of the room. After the demonstration there was a discussion and I sat mesmerized as teachers discussed the drastic improvement in fluency rates among their students after they started using gestures to teach French. Here was a teaching tool that linked gesture to language, physical actions to meaning, and the excitement in the room about the success of this teaching method was almost tangible. I took the literature, bought the video and promptly went home and modified it all for my Spanish class.

The gesture approach completely transformed my classroom. Not only were students speaking more Spanish, but they were retaining the language and recalling the language with a confidence and excitement that only success can bring. As I observed their learning new insights emerged in my own understanding of second-language acquisition. I knew from my own experience that you cannot attain fluency until you feel the language and I began to wonder about the physicality of language. Why were the fluency rates so much higher when I taught language with gesture? What is the link between gesture and recall? These are the questions that remain the *corazón* (heart) of this study. During my Masters course work I was introduced to dynamic systems theory and another light went on. Language as a system, language-acquisition as systemic, gesture and physical understanding as part of this system… the more I read, the more it

made sense. Throughout this report I will weave my own understandings and beliefs with those of my participants, especially in the final chapter. In this way I position myself as both an observer and a participant in my own study.

Problem Statement

The purpose of this study is to explore the phenomenological relationship between second language learning and gesture in relation to dynamic systems theory using a semi-structured interview process with secondary teachers, and a narrative-based representation of findings. This study will attempt to answer the questions:

Why does gesture help students to feel the language at a deeper level?

How does gesture increase fluency rates and assist in second-language recall?

How is this phenomenon linked to dynamic systems theory?

Rationale

Scholars working in the area of gesture, language, and second language-acquisition have focussed the bulk of their research on the relationship between gesture and cognition, but very little has been written on the use of gesture as a teaching tool, especially at the secondary level. In my literature review it will become apparent that current trends in secondary language research point to dynamic systems theory as a theoretical foundation of language and language acquisition, including the embodied understanding facilitated by gesture, but this is a fairly recent addition to gesture and language research and therefore sources are limited. One of the reasons for developing this study was because there is a lack of research in this area.

Secondary teachers who have taught with traditional methods and the new gesture approach are often shocked by the transformation, and passionate about their support for the program. Their stories and insights are presented in this study to offer a critical starting point to understanding a very important link that research has overlooked.

Definitions

Second language: For the purposes of this study second language will include any language taught to a student other than English. Of course for many students this may be their third or fourth language, and for others English may be their second language, but in the British Columbia school system the majority of students have English as their first language and French as their "second language" which is learned at school.

Traditional language teaching: Traditional teaching of second languages in elementary and secondary schools has included a strong emphasis on rote memorization of the second-language. See *Historical Overview of Language Teaching in BC* in Chapter two for a comprehensive overview of language teaching progression in BC over the last century.

Grammatical and communicative approaches: For the purposes of clarity between the various approaches to teaching French, I find it helpful to draw on the work of Canale and Swain (1980) who distinguish between grammatical (or grammar-based) approaches, and communicative (communication-based) methods. Grammatical approaches tend to be organized with an emphasis on grammatical forms such as phonological forms, morphological forms, syntactic patterns,

lexical items and "emphasizes the ways in which these forms may be combined to form grammatical sentences" (p. 2). On the other hand, communicative approaches, such as the gesture approach, have communication as their ultimate goal, and focus on such areas as describing, inviting, expressing likes and dislikes, meeting and greeting and communicating to enrich cultural understanding.

Gesture approach: This non-traditional methodology uses gesture to help teach and reinforce the second language. For example, a teacher using the gesture approach would not just say a new word to the class, or have the students copy it from the board, instead the teacher would say the new word and provide a gesture simultaneously. The students would then copy the gesture and say the new word with the teacher. This differs from the "call and response" techniques used in traditional classrooms.

AIM (Accelerative Integrated Method): This method of using gesture to teach a second language was designed by Wendy Maxwell in the 1990's. The program has been expanded to include elements of drama, music and dance and is used mostly in French classrooms at both the elementary and secondary levels. Teachers using this method speak only in the second language, provide a gesture for every word in the second language, and speak with the students while doing the gestures.

Core French: French taught within the public system to students who are not in an immersion program. For most elementary schools in BC French is taught daily for approximately thirty minutes, but at the secondary level students may

receive two to three hours of French weekly, or an hour daily for half the school year depending on their school timetable.

SLA (Second Language Acquisition): The study of the teaching and learning of a second or foreign language.

Overview of the Report

Chapter one has outlined my story and my reason for developing this study. Chapter two will provide an overview of literature that is relevant to the study of second language education, gesture, and cognitive phenomenon in relation to systems theory. A further explanation of the conceptual framework is also included in Chapter two. Chapter three discusses the methodology, rationale for qualitative research and the importance of phenomenology in relation to this study. The results from this study are presented in Chapter four in the form of a conversation between all participants including myself and three guests who will be introduced at the end of Chapter three. Chapter five analyses and discusses the findings outlined in Chapter four from the perspective of an observer who sits quietly in Chapter four but emerges as a vocal and multi-lingual slam poet in the final chapter. All letters, data collection instruments, participant responses and summaries are located in the appendices.

CHAPTER TWO

REVIEW OF LITERATURE

This chapter will provide an overview of relevant literature pertaining to the use of gesture in the second language classroom. The first section of this review offers an historical perspective on language teaching and education in British Columbia. This is intended to situate the gesture approach among its methodological predecessors and to provide a deep understanding of the comparison between traditional and current teaching trends. Gesture will then be explored in-depth by focussing on the works of key language scholars, and a detailed definition of the term "gesture" will be presented in relation to current and landmark studies. Finally this review will include an overview of dynamic systems theory and phenomenology in relation to embodiment and second-language education.

Historic Overview of Language Teaching in BC

Language teaching in Canada has a long and controversial history (see McLeod, 1968, for a detailed overview). The tension between English and French has been at the centre of the issues surrounding language learning, and the questions of whether, how much, when and in what manner a second language should be taught are still felt today. In the early part of the twentieth century the traditional methodology, or Grammar Translation Method, was the preferred and prescribed method of instruction. The focus of this methodology was on the written word, with classes conducted almost entirely in the mother tongue, emphasis on grammar and isolated vocabulary with drills, translation exercises, and virtually no attention given to pronunciation or speaking (Brown, 2007, p.

16). The Grammar Translation Method is reflected clearly in the early years of the BC curriculum where the lack of communicative French is justified in this manner: "the teachers as a rule are not native to the foreign tongue. Naturally, therefore, greater success is to be expected in the knowledge of the written tongue than of the spoken" (BC Dept. of Education, 1914, p. 15). Unfortunately foreign language cannot be spoken with the "written tongue" and many educators and theorists cried out for change.

The traditional grammar-based methodology was met with vocal progressive challenges in the 1920's and 1930's, when a move toward more child-centred approaches could be felt in education and curricular design in general. In their 1925 Royal Commission, Putnam and Weir did not make specific mention of second language teaching, but they did speak out against the perception of parents toward practices at the foundation of the Grammar Translation Method: "If the teacher drills incessantly on the formal parts of grammar… he is, in [the parents'] opinion, a good teacher" (Putnam & Weir, 1925, p. 42). Putnam and Weir drew attention to the fact that what was considered "good teaching" in a traditional sense did very little for the development of the child. Others agreed, and the Interwar period witnessed a fundamental shift away from traditional methods:

> Thinkers outside the traditional educational circles noted how children learned languages and thought it wise to have learners try some of the children's strategies: heavy use of content and situation in order to grasp meaning, simplified forms used frequently and broadly… a shift away from the heavy emphasis traditionally placed on grammar. (Brown-Mitchell & Ellingson-Vidal, 2001, p. 28)

During the 1920's, the Direct Method was proposed as a more child-centred methodology, and was widely used in Europe and Canada. This method advocated classroom instruction in the target language only, teaching grammar inductively with an emphasis on speech and correct pronunciation (Richards & Rogers, 1986, p. 10). The Direct Method was seemingly too progressive for its time, and some argued it lacked a recognition of practical application in the classroom. In BC, as in other areas of Canada, the lack of bilingual teachers made this method virtually impossible to employ. This fact, along with the publication of the Coleman Report in 1929, which stated that "no single method could guarantee success in foreign language learning" (Coleman, p. 34), caused the Direct Method to fade away quickly in favour of a more text-oriented methodology known as The Reading Method.

In BC, the traditional methodologies of the Grammar Translation Method and the Reading Method were favoured by curriculum designers as late as 1940. At this time French was the only foreign language recommended by the Department of Education in BC, and it was only offered at the senior matriculation level. Teachers were directed to teach French in a specific, grammar intensive manner:

> The aim in French grammar should be to teach the students to apply the grammatical rules they have learned to the translating of sentences from English into French. The work in grammar is fully outlined in the text-book. As many exercises as possible in this book should be done by the students and should be corrected by the teacher. (BC Dept. of Education, 1940, p. 11)

Over the next three years there was a drastic shift away from the traditional methods. The Department of Education for BC advocated the teaching of Spanish for the first time in

1943. Although they were heading in the right direction, the curriculum guide, like those before, made no mention of developing skills for conversational Spanish. The final goal of such a program appears to be proficiency in reading as opposed to ability to communicate. All of this was about to change rather suddenly.

Sometimes it takes a catastrophic event to precipitate change, and so was the case with foreign language learning and World War II. In the words of Fries: "the naïve and conventional views of language have been so much in control that it has taken a world war, with its practical contacts with a dozen languages little heard of before, to provide an opportunity even to try materials and methods based upon our scientific knowledge and research" (1945, p. v). This shift toward a more scientific, research-based theorizing in second language acquisition emerged from basic necessity. As the war began there was a sudden and urgent need for military personnel who could translate and decipher foreign, strategic messages in a multitude of languages. Universities throughout the United States and Canada set up intensive language programs to meet this need, employing a new "fast-track" methodology involving "a native target language informant and a linguist" (Brown-Mitchell & Ellingson-Vidal, 2001, p. 29) known as the Army Method. This technique drew from the fields of psychology and behaviourism with a focus on repetitive drill, and employed "the idea that old native language habits needed to be replaced by new target language habits" (Brown-Mitchell & Ellingson-Vidal, 2001, p. 29). The Army Method placed a new importance on structural linguistics and behaviourism which grew into the Audiolingual Method (ALM), used in language institutes and schools world-wide. The ALM was "a rejection of its classical predecessor, the Grammar Translation Method, by diminishing if not obliterating the need for

metacognitive focus on the forms of language" (Brown, 2007, p. 18). The ALM, first proposed by Fries in 1945, borrowed aspects of the progressive Direct Method from the 1920's, along with elements of behaviourism:

> The oral approach – the basic drill, the repeated repetitions of the patterns produced by a native speaker of the foreign language – is the most economical way of thoroughly learning, for use even in reading, the structural methods of a language… One never seems to gain satisfactory control of language material by silent study and memorizing. (Fries, 1945, pp. 6-7)

Focus in this method was on mimicry drills, limited vocabulary, error-free pronunciation and virtually no explanation of grammar rules (Brown, 2007, p. 111). In addition the ALM echoed the sentiments of its predecessor the Direct Method by advocating initial exposure to foreign languages at an earlier age.

Audiolingualism made its way into many schools in the form of the audiolingual language lab and a renewed focus on speaking and listening. It also served to open the discussion and further research into the link between psychology, linguistics and language teaching methodology. As Stern points out, from 1950 on "language teaching became the subject of a more consistent and deliberate research effort" (1983, p. 54). The main criticism of the ALM was its lack of any focus on grammatical rules which, according to linguistic experts like Chomsky, made it overly simplified and utterly ineffective:

> Chomsky's ideas and examples showing that language is generative, infinitely creative on the basis of a limited set of rules, and that first language learning exhibited ample deviation from anything children had heard around them were

> persuasive enough that audiolingualism began to fade as his ideas spread. (Netten & Germaine, 2004, p. 278)

As criticism grew against ALM a shift could be felt in curriculum back toward traditional methods, but in 1957, when Chomsky's book *Syntactic Structures* was published, the curriculum designers in BC were not in tune with this shift back to basics, and had only just begun to embrace the theories of the ALM.

While the theorists struggled between auditory-based and grammar-based methods of language acquisition, school boards across Canada, influenced by the ALM, brought the issue of optimal learner age to the fore. In BC, the 1957 French curriculum guide begins:

> It is generally recognized that there is considerable value in providing the opportunity for children to begin the learning of a second language at an early age. .. Experience indicates that the growing interests of children in the world around them and their lack of self-consciousness at this age make it possible for them to achieve considerable success in understanding and speaking a new language. (BC Dept. of Education 1957, p. 1)

The 1957 guide was by far the most progressive to date. It called for the inclusion of culture in language instruction for the first time under the main objectives: "To enrich and extend the pupils' educational experiences through acquaintance with another language and another culture" (BC Dept. of Education 1957, p. 1). In addition, this guide viewed foreign language as part of the whole education experience: "For the first time French is viewed as a course to be taught as a programme, a valuable part of the total education of the child rather than an isolated course of study" (BC Dept. of Education

1957, p. 2), and recommended that teachers should link French to other subjects, home and community. Teachers were encouraged to "teach real French in a real situation" (BC Dept. of Education 1957, p. 2); a far cry from the Grammar Translation Method which was based around memorizing lists of useless vocabulary.

By the time the Chant Commission was written in 1960, the effects of Chomsky's book, and the negative backlash against the ALM, could be felt in relation to education in BC. For the first time a section of this Royal Commission was dedicated to "Languages Other Than English" (Province of BC, 1960, p. 314), and certain aspects of the ALM were upheld including recommendations to start foreign language instruction at an earlier age:

> We are informed that children are more receptive to foreign languages at an earlier age than that at which they are at present receiving them. We would, therefore, suggest that foreign languages be introduced earlier in our schools, particularly for those pupils who are capable of following the University programme. (Province of BC, 1960, p. 315)

However, the commission was not convinced that French, or any other foreign language, should be made mandatory at the Elementary level: "The evidence derived from certain language-teaching experiments that have been carried out in the early grades of the schools is not as yet sufficiently conclusive to warrant adding French as a subject in the primary grades" (Province of BC, 1960, p. 317). Information about these experiments is not given in the report, but the issue is raised time and again: "The paucity of evidence on the matter suggests that careful investigation is needed before any widespread changes are made in the curriculum to provide for the teaching of French in the elementary

schools" (Province of BC, 1960, p. 317). From a language perspective the Chant Report could be viewed as a reflection of the contradictory viewpoints of the theorists. On one hand the Report recognizes the importance of learning a foreign language:

> In these days of close international relationships, and rivalries when greater understanding between nations is so urgently needed, a much higher percentage of our high school graduates should be achieving competence in at least one foreign language. (Province of BC, 1960, p. 318)

On the other hand there was an underlying reluctance to embrace the program at an earlier stage until further research could prove the necessity of the shift.

In the 1960s and 1970s radical changes were in store in second language methodology. A new-found interest in second language acquisition and research "increased enormously, and it was not until then that research began to impinge in any truly significant way on policy issues and the method debate in second language education" (Stern, 1983, p. 55). The pendulum continued to swing between grammar and oral learning styles with new attention directed toward the benefits of language immersion or "home-school language switch" (Stern, 1983, p. 56), and the importance of infusing culture into second language learning. In her book *The Psychologist and the Foreign-Language Teacher*, published in 1964, Wilga Rivers speaks to the need for the inclusion of culture: "Ideally, the foreign language should be learned in as close association as practicable with the culture of the country where it is spoken, if its full "meaning" is to be plumbed to any depth" (p. 139). She also addressed the need of motivation for students:

> It cannot be assumed that the long-range goal of eventual conversational facility in a foreign language, or the immediate goal of being correct in an utterance, will of themselves be sufficient incentive, or be perceived as sufficiently rewarding, to carry a high-school student over months of tedious drill and meticulous sound-discrimination exercises. (Rivers, 1964, p. 58)

Rivers was one of the first to suggest finding a balance between the rivalling factions of grammar and oral methodology. She recognized the importance of linking language to culture, and using this link as a motivating factor to encourage oral and grammatical techniques with students. Rivers work laid the foundation for many of the methodologies to follow.

In the 1970s, 80s and 90s a new emphasis emerged for the necessity of authentic communication in the classroom. Educators and language researchers realized that traditional methods were ineffective in producing fluency among students, and several new methods made their way to classrooms. Total Physical Response (TPR) was developed by James Asher (1977), and relied heavily on student response to commands. No verbal response was necessary from the students, based on Asher's belief that "children, in their first language, appear to do a lot of listening before they speak, and that their listening is accompanied by physical responses" (Brown, 2007, p. 78). Although this method was effective at beginning levels it started to break down as learners became more advanced. Another method that drew on research into how students learn a first language was The Natural Approach, based on Krashen's work (1982) and developed by one of Krashen's associates Tracy Terrell (Krashen & Terrell, 1983). Krashen's various hypothesis of language acquisition, including The Input Hypothesis,

have been called "the most controversial theoretical perspectives in SLA in the last quarter of the twentieth century" (Brown, 2007, p. 294). Among Krashen's theories was the Natural Order Hypothesis (1985) which stated that students should acquire their second language based on a natural order of acquisition similar to that of their first language. In addition to Krashen's work, The Natural Approach drew on many of the theories employed in TPR, and also on the work of H. H. Stern (1970) which focussed attention on the importance of learning through imitation, practice, listening, speaking, and natural order. The Natural Approach placed students in everyday language situations, with the idea that authentic communication would develop in a natural manner. However, students often lacked the necessary tools to communicate, and teachers who used the TPR and Natural Approach methods were often frustrated by the lack of fluency. There was still work to be done in the various communicative approaches developed throughout the last quarter of the century, and it was Wendy Maxwell (2001) who made the critical link between fluency and gesture use in the classroom. Before we look at Maxwell's contribution to language learning it is important to take a step back and look at gesture research over this same time period.

Landmark Studies and Historic Overview of Gesture

Throughout the twentieth century language scholars voiced an understanding of the important link between language and gesture, and therefore it is not surprising that much has been written about the history of gesture and the origins of language (Armstrong, 1995, 1999; Bremmer & Roodenberg, 1993; Corballis, 2003; Kendon, 2004; Lieberman, 1975; McNeill, 1995). The common thread among these scholars is the

recognition of the importance of gesture as "an integral part of the act of producing an utterance" (Kendon, 2004, p. 5). Kendon, McNeill and others have written extensively on the link between gesture and thought. However, much less has been written in the area of gesture in relation to culture. In 1941, Efron wrote his seminal work entitled "Gesture, Race and Culture" that looked at gesture in direct relation to culture among Jewish and Italian immigrants in New York City. Efron's work "demonstrates that gestural repertoires are not innate but culturally transmitted and learned" (Gullberg, 2006, p. 109). This work paved the way for scholars of verbal behaviour (such as Birdwhistell, 1952) to "recognize that gestures are not accidental and may in fact convey the most important elements of a message" (Antes, 1996, p. 439). Starting in the 1960s, the study of gesture began to attract the attention of researchers and branched in a number of directions to include studies in linguistics, second-language acquisition, kinesics, cognitive and developmental psychology.

What is Gesture?

To begin it is important to note what gesture is, and what it is not. The field of gesture in relation to language "defines gestures as symbolic movements related to ongoing talk and to the expressive effort or intention (what you are trying to say)" (Gullberg, 2006, p. 104). This can certainly be linked to, but remains separate from, the field of non-verbal behaviour and communication which includes functional actions such as posture, self-regulators and proxemics. Also excluded in this review are some areas of gesture research that are not deemed relevant to the study of gesture in second language education such as pointing (see Kendon, 2004 and Kita, 2003). Several continuums have

been proposed in an attempt to classify the vast range of human gestures in relation to speech and meaning. Perhaps the best known, and certainly the most widely referenced of which is Kendon's continuum (2004) which classifies gestures from conventionalized on one end (emblems, sign language, mime), to personal movements on the other (individual hand movements usually for emphasis or clarity). This review will focus on conventionalized gestures, with emphasis on emblemic gestures created to increase cognitive retention in second language teaching. Another useful classification list comes from McNeill (1995), who sub-divided gesture into: beats (emphasis), deictics (pointing), iconics (pictures), metaphorics (abstract iconics), cohesives (linking concepts), and adaptors (self touching, e.g. preening). For the purposes of this review priority will be given to scholarly writing in the areas of metaphorics and iconics as these areas can be most closely related to the gesture approach in second language teaching.

Gesture and Learning

The most prolific writer in the area of gesture and educational research is Susan Goldin-Meadow. Along with her team of researchers, Goldin-Meadow has written the bulk of scholarly papers that focus on the relationship between gesture and learning (some examples of her work that relate directly to education: Goldin-Meadow, Kim & Singer, 1999; Goldin-Meadow, Alibali & Church, 1993; Goldin-Meadow 2000, 2003, 2004). Throughout Goldin-Meadow's research resonates the importance of gesture in relation to cognitive development, along with the need for further study in this area:

> Gesture may contribute indirectly to cognitive growth by communicating "silent" aspects of the learner's cognitive state to potential agents of change… it has the

> potential to be involved in innately driven as well as non-innately driven learning – that is, to be a *general* mechanism of cognitive growth. The time is ripe to begin looking beyond children's words to the secrets that, until now, have been locked in their hands. (2000, p. 237)

Of particular interest to Goldin-Meadow is gesture-speech mismatch, whereby the thoughts of the child (or teacher) do not correspond with the gesture given (see Goldin-Meadow, Alibali & Church, 1993). Studies have been done in this area with adult learners (Goodman, Church, & Schonert, 1991), teachers (Valenzo, Alibali & Klatzky, 2003), adolescents (Stone, Webb & Mahootian, 1991), elementary children (Church & Goldin-Meadow, 1986) and preschoolers (Morford & Goldin-Meadow, 1992; Valenzo, Alibali & Klatzky, 2003). This understanding of the link between gesture and cognition is what led Goldin-Meadow, and other gesture scholars, to explore the possibility of using gesture in the classroom to increase comprehension. In relation to the learning process in Mathematics, Goldin-Meadow states:

> Gesture used in conjunction with speech may present a more naturally unified picture to the student than a diagram [alone]…gesture can at times convey thoughts that the child does not express in speech and may, as a result, play a role in learning. (2004, p. 314)

The use of gesture in the classroom has been researched across academic disciplines, particularly in Math and Science, for example, counting (Graham, 1999), addition (Alibali & Goldin-Meadow, 1993), gears (Perry & Elder, 1997), physics (Roth & Lawless, 2002), control of variables (Stone, Webb, & Mahootian, 1991), symmetry (Valenzo, Alibali, & Klatzky, 2002), three-dimensional geometrical objects (Roth &

Thom, 2009), rate of change (Alibali, Bassok, Olseth, Syc, & Goldin-Meadow, 1999) and Social Studies (Neill & Caswell, 1993). However, it is surprising to note that very few experimental studies have been done in language classrooms, despite the knowledge that "we now perceive that the spontaneous use of gesture plays a significant role in natural learning processes, assisting the learner to grasp concepts, develop skills, and store new knowledge—including new language" (Orton, 2007, p. 15). There is, to date, only one published study on the relationship between co-speech gestures (movements done by the teacher as the students speak the word) and increase in fluency written by Kelly, McDevitt and Esch (2009). In their study of adult learners of Japanese, they found that co-speech gestures increased the ability of adults to learn and recall new Japanese vocabulary. Their results suggested that "the representational meaning of hand gestures that simultaneously accompany speech may imagistically index a newly learned word to an established concept, and this strengthened connection may help those words endure longer in memory" (p. 329). Kelly, McDevitt and Esch discussed the embodiment of language in their study: "co-speech gesture captures meaning in an embodied and non-arbitrary way – deepens the imagistic memory trace for a new word's meaning" (p. 330). Several studies in behavioural research have backed up this notion with the idea that humans may be optimally designed to use gesture to ground language to meaning (Barsalou, 2008; Bates & Dick, 2002; Kelly et al. 2002).

The few studies that have been done on gestures and language learning tend to focus on the propensity for L2 (second language) learners to gesture more in the second language than they do in their L1 (e.g., Sherman and Nicoladis, 2004; Yoshioka, 2005; Gullberg, 1998). The explanation generally accepted here is that learners use gesture to

compensate for missing information in the new language. The question that remains unasked, however, is what does this tell us about the importance of gesture in foreign language teaching? Kellerman (1992) looked at the inclusion of gesture into second language classes and reached a similar conclusion to Goldin-Meadows:

> Whether or not the information conveyed by body movements needs to be taught explicitly and systematically can only really be answered when we know how and to what extent L2 learners utilize kinesic behaviour in decoding speech, and research is clearly needed to determine this. (1992, p. 253)

The need for more research is echoed time and again in gesture-education texts by Goldin-Meadow: "much more work needs to be done before we fully understand the conditions under which gesture promotes learning" (2004, p. 319), Gullberg: "the SLA of gestural repertoires is a desperately under-researched area and questions regarding what, how, and when are wide-open to investigation" (2006, p. 111), Roth: "it is curious…that there exists very little educational research concerned with the role of gestures in learning and teaching" (2001, p. 365) and many others. It is not difficult to detect a collective frustration among gesture scholars concerning the lack of research in this area.

Phenomenology, Systems Theory and Embodiment

The term phenomenology was first coined by French philosopher Merleau-Ponty in the 1940s and 1950s. Merleau-Ponty drew attention to the idea of "our bodies as physical structures and as lived, experiential structures – in short, as both "outer" and "inner," biological and phenomenological" (Varela, 1991, p. xv). This new philosophy, further developed by Heidegger, prioritized human experience and first introduced the

idea of embodiment or cognitive mechanics. Since its origins phenomenology as a cognitive science and area of qualitative inquiry, has taken many turns by authors such as Foucalut, Derrida and Bourdieu, and more recently with leading systems theorists such as Varela, Maturana, Capra and others. The link of complexity and systems theory with phenomenology has allowed for new schools of thought to emerge, such as neurophenomenology, coined by Francisco Varela, which combines "conscious experience with the analysis of corresponding neural patterns and processes" and has been called "a true science of experience" (Capra, 2002, p. 45). In terms of language education it was traditionally believed that facts should be memorized in an orderly manner, then later matched "in a meaningful way with some real-world phenomena" (Barab, 1999, p. 352) keeping the learner separate from their environment and physicality and placing priority on separate parts. This Cartesian model started to break down, in cognitive science and education, allowing for a new paradigm to emerge. This new systemic or "holistic" way of thinking recognizes the importance of the whole, and involves seeing phenomenon in its entirety.

Dynamic systems theory, or "the view of living systems as self-organizing networks whose components are all interconnected and interdependent" (Capra, 1996, p. 112), can be used to further our understanding of second language learning. I believe that gesture is an integral component in the system of language acquisition, and that the self-organization of language concepts can only occur when the student is taught using all components:

> …a self-organizing model points to the importance of fully contextualized experience in which there is no artificial separation between the act of learning, of

> participation, and the context in which it arises. Said another way, it advocates for the necessity of experience in which the learner/participant interacts with the real world and learners are actively engaged as part of a dynamic system. (Barab et al. 1999, p. 352)

In other words, a deeper understanding of the second language emerges in the spaces in-between the various teaching methods and learning components (listening, speaking, reading, writing, gesturing etc.) with each component connecting to the others in a unique and important way. Students must experience and feel the language before they can speak fluently. If you teach students using traditional methods, where value is placed only on reading, writing and memorization then, from my experience, they will be able to recall using the same methods but in a more limited way. Students of traditional language classrooms will leave with some ability to read, write and recall the language, but may lack the most critical component – the ability to speak. In addition, I have found that students taught in this limited way lack the ability to manipulate the language, or deviate from a linear path. They have, essentially, failed to internalize the language and therefore fail to make critical connections that would allow them to use the language fluently. However, if the process is viewed in a systemic or holistic manner, valuing all of the interconnected parts (including gesture) then, when it comes time to recall and use the language students will be able to access the entire system, and that is how fluency is achieved. I firmly believe that holistic, systemic learning is the key to fluency, and that gesture is an integral part of this system.

Although all of the learning components are important, in my experience it is gesture, or the link between movement and cognition, that has been most notably

excluded from traditional second language teaching, and may, in fact, be the most critical component in terms of linking language to fluency. Other scholars have recognized this link, and over the last two decades a new focus has emerged in gesture research that proposes a deeper connection between gesture and cognition, or a living, embodied meaning. Some linguistic scholars point to the systemic nature of language acquisition as the key to understanding this link: "the movements speakers make with their hands as they talk are systematically related to the words they utter…gesture and speech should be viewed within a unified conceptual framework as aspects of a single underlying process" (McNeill, 1992, p. 23). McNeill's systemic views have been expanded upon recently by several researchers (for example Roth & Thom, 2009; Duncan, Cassell & Levy, 2007; Gullberg, 2006). Gullberg states: "speech-associated gestures [gestures made naturally when speaking] are the least language-like movements in their lack of convention, but they are, perhaps paradoxically, the most systemically related to language and speech" (p. 106); and adds "we need to deepen our understanding of the relationship between gestures, speech, and thought [and] to consider the multi-functional nature of gestures…sometimes they do many things simultaneously" (p. 117). In relation to education, this new understanding of gesture as a multi-functional component of language has raised some important questions for further study, especially in the area of embodied understanding. In their discussion on enaction and embodied cognition Varela, Thompson and Rosch postulate that "knowledge depends on being in a world that is inseparable from our bodies, our language, and our social history – in short, from our embodiment" (1991, p. 149). How does gesture, which Varela, Thompson and Rosch link to enaction, assist the language student to embody their understanding of the new

language? What does this mean for education, and the methods we use to teach? Roth and Thom state: "we suggest the possibility that optimal instruction is likely to occur when it draws on the existing capacities of mind *and* body to enhance the learning of students" (p. 354). If optimal instruction includes all aspects of mind and body, then it seems logical that using gesture in the second-language classroom should deepen student understanding.

Teaching Approaches and SLA

The earliest call for the incorporation of gesture in the second language classroom appears to be from Quinn-Allen in 1995, who wrote: "FL [foreign language] educators may be well advised to use emblematic gestures, when natural and appropriate, to elaborate the presentation of linguistic information" (p. 527). Quinn-Allen's advocacy for classroom gesture-use was echoed by Antes one year later in a paper about the value of kinesics in the language classroom:

> [The] intimate connection between verbal and non-verbal communication has not yet been exploited in the foreign language classroom. While more research is therefore necessary in this area, the role of gestures in producing language may prove significant for language learners, who can perhaps be aided in their endeavour by learning to gesticulate (in target language forms) that which they are attempting to verbalize. (p. 440)

In 1999, this call was answered by BC language teacher Wendy Maxwell, with the development of the gesture approach or AIM (Accelerative Integrated Method). The gesture approach uses an adaptation of sign language associated with the second language

being taught (originally intended for French, but now expanded to include Spanish). The teacher uses the sign, such as a hand to the ear, and associates the motion with the new word "escùcha" or "ecoute" and students repeat the word with the teacher, in a collective voice. Many language teachers understood, and previous studies had proven, that "second language learners naturally use gesture to orchestrate their attempts at mastery" (Orton, 2007, p. 16), but the gesture approach was the first teaching method that relied almost entirely on gesture to increase comprehension and retention in learners. There were other gesture-oriented teaching approaches designed during the same time period (for example the Narrative Format, or "Magic Teacher" designed at the University of Rome in 2004), but they were created for adult learners, and lacked the natural rhythm of the language inherent in the AIM gesture approach where: "chunking of the speech is natural and hence the whole phrase is rhythmically congruent in itself, i.e. kinesic and vocalic expression match" (Orton, 2007, p. 18), which may explain why so many teachers, especially those who value fluency, have incorporated gesture into their language teaching. But how can this language competency be measured? Certainly this is another interesting area of study worth noting, and it may be helpful to look at language competency organizers such as the communicative competency model developed by Canal and Swain (1980), or that of Bachman (1990) who draws on the former and simplifies this model by organizing language competence into two main areas: organizational competence and pragmatic competence. Organizational competence could certainly be linked to grammatical approaches of second language teaching, with emphasis on vocabulary, morphology, syntax, and textual competence whereas pragmatic competence ties in with communicative approaches (such as the gesture approach) with

an emphasis on illocutionary and sociolinguistic competence (Bachman, 1990). In the past, core French language teachers had a tendency to focus on organizational competence as a measure of success, and as a result students often left the program with little to no pragmatic competence or fluency in the language.

Before she developed the AIM gesture approach, Maxwell shared my frustration about the lack of fluency in core French programs: "I found myself increasingly dissatisfied with the approach of the programs available to core French teachers… I have discovered that many [language teachers] are struggling with a lack of motivation [and] minimal fluency" (Maxwell, 2001, p. 8). Maxwell used her own program as the focus of her Master's thesis, and created a study to look at the difference between fluency rates of students taught with traditional methods, and those taught with her gesture approach. Her study revealed a drastic difference in fluency rates between the two groups of students:

> The greatest difference between the control and AIM groups lay in their ability to invent a story spontaneously. Only three students from the comparison group attempted to participate in the creative storytelling activity. The average number of French words used …by this group was 18…The results obtained from the AIM group far exceeded those of the comparison group. All nine students in the AIM group were able to engage in storytelling to some degree in the L2, and the average number of French words used in the stories ranged from 78 to 1,500, the average being 534. (Maxwell, 2001, p. 34)

Following this study the program was embraced by language teachers across Canada, who marvelled at the increase in fluency rates of their students. Currently approximately 4500 schools across Canada are using the gesture method in core French classes (from

AIM language learning website). Maxwell's thesis (2001) focussed on the importance of incorporating drama, music and gesture into second-language classrooms. An article that lends strength to this argument is one by Quinn-Allen in 1995. This study, involving first year university students, was designed to test the rate of lexical recall among second language learners using emblematic gestures, and also to study retention rates over time. As with Maxwell's 2001 study, Quinn-Allen sought to discover the relationship between gesture and cognitive processing. Her study focussed on the importance of internalizing language to create a mental representation of the L2, and she found gesture to be the most efficient tool to bridge this gap: "gestures can facilitate the binding and mapping processes of internalization. The inclusion of gestures in the encoding environment provides an elaborated context, thus causing a greater depth of processing and more durable mental representation" (1995, p. 527). Quinn-Allen and Maxwell both understood the role of gesture in internalization, or deepening the student connection to a foreign language. This study adds to their findings by including the educators' point of view. We know that the gesture approach works to increase fluency, but what can our collective understanding of this process reveal about the nature of gesture itself? Is dynamic systems theory the binding force behind this phenomena? Are students achieving a more embodied second-language understanding through the inclusion of a physical experience?

CHAPTER THREE

METHODOLOGY

Introduction

As explained in Chapter One, the purpose of this study was to qualitatively explore the relationship between second language learning and gesture. As Denzin and Lincoln state, an effective qualitative researcher is one who works to "make sense of, or interpret, phenomena in terms of the meanings people bring to them" (2005, p. 3). With that in mind the purpose of this study was to explore the meaning that teachers bring to their own experiences with gesture and second language acquisition. As Bruner says "we organize our experience and our memory of human happenings mainly in the form of narrative – stories, excuses, myths, reasons for doing and not doing" (1991, p. 4). The narrative approach feels particularly well suited to a language environment where communication with others is the ultimate goal. This chapter will provide an overview of the methodology used in this study, rationale for use of qualitative methodology and an explanation of the use of phenomenological inquiry.

Methodology

Sample

The sample for this study was selected from a population of second language teachers selected for their expertise in the use of gesture in second-language teaching. Four female participants, all from British Columbia, were asked to participate in the study. All four participants had previous experience teaching with traditional, or

grammar-based methods and later switched to the gesture approach. The study was narrowed to include only second language educators in British Columbia who had experience working in both traditional and non-traditional language classrooms. In order to further narrow the scope of the study, data collection was delimited to four teachers with at least five years of teaching experience who experienced dissatisfaction with traditional methods and changed their teaching practice to include the use of gesture through the Accelerative Integrated Method (AIM). One of the four participants, Wendy Maxwell, was selected due to her expertise in the area of gesture and education and her extensive knowledge on the AIM gesture program which she created and continues to develop.

Overview of Participants

The First Participant: Wendy Maxwell

As stated above, Wendy Maxwell was selected as a study participant due to her expertise in the area of gesture and education. Maxwell taught French immersion and core French from 1984 to 2007. After teaching with traditional methods for years she became increasingly frustrated by the inability of students to speak French at the end of the year. One of the aspects of traditional language teaching that Maxwell found most frustrating was the lack of useful vocabulary being taught to students: "they were learning verbs for example that tended no to be the most high frequency, just because they were easy to conjugate." This led her to develop a new program using high frequency words, or as she called it *Pared Down Language*. During the development of the program from 1991 to 2007, Maxwell continued to teach and conduct action research

to improve her understanding of the program and the quality of the program itself. In 2004 Maxwell began to write the "gesture kits" which include resources for teachers and plays in French. She continues this work today, and has just recently added a Spanish language gesture kit to her extensive collection of resources for language teachers.

The Second Participant: Claire

Claire is the most experienced educator of the participants, having taught French for thirty years in the public school system, mostly at the secondary level. Claire's participation in the study brings a wealth of understanding about the traditional methods. Of all the participants Claire is the teacher who uses gesture the least in her classroom. She has chosen to include gesture into her teaching but combines the gesture approach with some traditional methods. Despite the fact that she does not teach entirely with gesture, Claire has noted a significant improvement in fluency rates, accent and pronunciation in her classes with the introduction of gesture. She recognizes gesture as an important tool for engaging the students or "providing a hook."

The Third Participant: Gabrielle

Gabrielle has had experience teaching French at elementary and secondary levels. After teaching in the traditional method for only one year she decided to make the shift to teach entirely with the gesture method. She was instrumental in having the gesture method brought in to her school and her school district, and remains involved with supporting new teachers in the program. She has been teaching for fifteen years and has recently moved out of the classroom and now teaches French in a private setting.

Gabrielle has taught French using gesture to students ranging from two years of age to grade 8. She is a passionate supporter of the program and states "I don't know how anyone could teach core French any other way."

The Fourth Participant: Dominique

Dominique has been teaching French for twelve years in both the public and private school systems in British Columbia, and one year in Québec. All of her teaching positions have included several grade levels ranging from Kindergarten to grade 8. Dominique switched her teaching practice early in her career to include gesture after she discovered that students were simply not speaking the language with traditional methods. She is a strong supporter of the gesture program and continues to teach and support other teachers learning the program today.

The Use of Interviews and the Evocation of the Real

The data for this study was collected through personal interviews with selected participants. Interview notes were then provided to the participants in order to confirm statements, clarify contributions or add new information. Participants were also asked to check contributions made in French, and the subsequent translations.

Interviews were conducted in May and June in 2010 in Victoria, and Bowen Island. During the months of July and August, participants confirmed and clarified their responses. The interviews themselves were semi-structured in nature, allowing additional questions and prompts to emerge. Throughout the interview process careful attention was given to what Barbour and Schostak (2005) refer to as "the evocation of the real" or

finding the heart of the interview through carefully considered, open-ended questions. The flexible nature of this type of interview allows the interviewer to capture unexpected issues and information which might otherwise be missed in a more rigid, question driven interview. I introduced myself to all participants as a fellow second-language educator, and an advocate of the gesture program. This may have helped to alleviate some tension and allowed the participants to recognize the equality of my social position (eliminating possible power structures) and my experiences may have helped their own understanding to shift into view. Schostak (2005) regards interviews as "the space between views, not the views themselves but… the very condition for critical reflective dialogue to emerge and be maintained… without falling into sterile, totalitarian monologue." As Barbour states: "We do not stand back and merely 'collect' their responses; we actively engage with them, often thinking on our feet as we invite them to explore with us the limitations they might place around their responses and how they would contextualize their views" (2005, p. 45). With this in mind I consciously engaged in dialogue with my participants in order to allow space for critical reflection for the participant and for myself.

Development of the Instruments

The interview schedule was developed after extensive reading in the area of gesture and second language acquisition (as outlined in Chapter Two). Main objectives of the study were then determined, and the interview questions were developed based on those objectives. The interview schedule was written with the intention of limiting the interview to a maximum of one hour. The participants selected were chosen based on their experience as second-language educators under a very specific set of criteria. All

participants had taught at both an elementary and secondary level using traditional language teaching methods (see definitions for clarification), and later chose to abandon this methodology in favour of the gesture approach. The criteria can be summarized as follows. All participants…

…are currently teaching, or have recently taught a second-language

…have at least five years of teaching experience

…have taught at the elementary and secondary levels

…started teaching with traditional methods and switched to the gesture method

…have noticed a drastic change in student comprehension with gesture use

Educators were selected as the participant group instead of students because of their ability to share stories and insights about the phenomena of gesture increasing fluency in relation to previous experiences teaching in a traditional manner. Students may have been able to share stories about experiencing the phenomena but without any basis of comparison they could not offer insights into the comparison of traditional and gesture approaches – an element that was at the very heart of the study.

Due to the specificity of the criteria the recruitment process was quite lengthy. Through word of mouth and contacts with other language teachers I was able to compile a list of teachers currently using gesture in my own and surrounding school districts. These teachers were contacted by e-mail and all who responded claimed that they had noticed an improvement in fluency and comprehension with the gesture program. A second recruitment e-mail (see Appendix) was sent to all teachers who met the above criteria. In addition recruitment e-mails were sent to two educators and well-known experts in the field of gesture, both of whom agreed to participate in the study.

The data for this study was collected by means of personal interviews with each of the four participants. The participants, schools and school districts have been kept anonymous through the use of pseudonyms, except for Wendy Maxwell who has agreed to be named in the study. There were two main reasons for revealing Maxwell's identity. First was the fact that all other participants mentioned Wendy Maxwell during their interviews as the creator of the program, and a source of inspiration and knowledge on the subject of gesture use in the classroom. Anyone reading the study with any background in second-language teaching would certainly see through a pseudonym and realize that the fourth participant, who speaks about creating the AIM program in the first person, is in fact Wendy Maxwell. Second was the need to give credit where credit is due. Maxwell is an expert in her field and her inclusion in this study added extensively to the richness of the dialogue and collective understandings that emerged. She deserves full credit for creating a program that allows students to achieve higher levels of fluency than ever before.

Interviews were based on an interview schedule (see Appendix) although some modifications were made to these questions as information emerged throughout conversations with participants (see Chapter Three). Once transcribed, the interview transcripts were e-mailed to each participant for review and approval. Corrections made by participants were mostly in the form of French grammar corrections, although two of the participants did choose to modify some of their responses to interview questions. These corrections were noted, changes were made, and the modified transcripts of participant interviews are included in this report and can be found in the appendix.

Rationale for Qualitative Methodology

Qualitative research fits well with the study of language and gesture by recognizing the importance of shared dialogue, and allowing space for narratives to sit side by side and create a new understanding. The goal of this study was to find the common ground based on experience of participants, not to quantify the results of using gesture in the classroom. Creswell (1994) states that qualitative study is an inquiry into a particular problem and must be based on a complete picture created by words and details. By sitting with the experiences of the participants, and letting the connections emerge a new understanding was formed, patterns were allowed to develop, and participants themselves gained new insights into the phenomenon of gesture.

Why Phenomenology?

Keeping in mind that "phenomenology is the study of lived, human phenomena within the everyday social contexts in which the phenomena occur from the perspective of those who experience them" (Titchen & Hobson, 2005, p. 121), in this study teachers were selected as participants (who have witnessed the methodological aspects of gesture first hand) as opposed to students (who experience the results but may not understand the educational implications) in the language classroom. Titchen and Hobson talk of a "fusion of horizons" that occurs during the direct approach of phenomenological inquiry (p. 127). That is to say researching and exploring what participants know through their experiences and blending this understanding with the researcher's own experiences. During the interviews I worked to consciously bracket my own beliefs and understandings at the beginning of the interview, then gradually reveal my experiences as

the interview progressed. The result was the creation of a new understanding shaped by the narratives and dialogue that we shared. After each interview I was able to return to my classroom, consider and apply new insights and techniques, and record the results in my research journal. Each interview was shaped by the understandings of the previous interview, and by my own experiences in the field.

Lyotard (1991) asks the question "why phenomenology? The term signifies a study of phenomena, that is to say, of that which appears to consciousness, that which is given. It seeks to explore this given – the thing itself which one perceives, of which one thinks and speaks" (p. 32). In this study the phenomenon being studied was not simply the use of gesture to increase fluency in the classroom, but rather the teachers' perceptions and understandings into why this has occurred. The "given" for all teachers in the study was the success of the program, the exploration of the given emerged over time. For the participants this understanding may have emerged by sharing their stories, and by fusing understanding through dialogue. As a participant in my own study I paid attention to the shifts in my own understanding over time, allowing myself to sit with the narratives and consider them deeply along-side each other.

Doing Justice to Phenomenological Data

My decision to locate the study in a direct-approach phenomenological research paradigm emerged from the need to position myself as a participant in my own study, and also to allow for a multiplicity of understanding into the phenomenon of gesture and language. As Roth and Thom point out "from a phenomenological perspective on knowing, however, conceptions and experiences cannot be theorized separately: sounds

and the words they realize are but an integral and inseparable aspect of the experienced world (Merleau-Ponty, 1964)" (p. 185). The experiences of the teachers in this study combine with my own experiences and with our mutual conceptions of gesture, language and fluency. After the collection of such a rich set of narratives and emergent understandings I was faced with the difficult task of representing my findings. In Merleau-Ponty's *Phenomenology of Perception* he states:

> The phenomenological world is not pure being, but the sense which is revealed where the paths of my various experiences intersect, and also where my own and other people's intersect and engage each other like gears. (1986, p. xx)

With this in mind I felt there was yet another level of understanding left to explore; another set of gears to engage. Instead of a static reporting of general themes I decided to continue the conversation and invite new perspectives into the mix, by including three guests. Two of the guests are systems theorists Francisco Varela and Fritjof Capra. Their contributions are based on their writing from a variety of sources, and the conversation of the participants is based on the interviews conducted for this study. Direct quotes from participants were used as much a possible with some inclusion of created dialogue to link ideas and themes and allow the conversation to flow. The third invited guest is actually me in disguise. I needed another participant to observe new ideas emerging from the conversation of all participants, including myself. This guest I call Paco, and he takes the form of a multi-lingual slam poet. From a phenomenological perspective Paco allows for a final unbracketing of all understanding into both the experience and the conceptions discussed throughout. The creativity of the slam poet genre allows the ideas to take shape in a variety of ways, staying true to the very process which we seek to understand. We do

not learn language by writing the language, we learn by speaking, moving, singing, playing and living in the language, just as Paco will do in the final chapter.

CHAPTER FOUR

FINDINGS

The Spaces in Between

The Cast

Host – researcher, French and Spanish teacher
Wendy Maxwell – educator, gesture expert, creator of the award-winning AIM gesture approach
Gabrielle – French teacher
Dominique – French teacher
Claire – French teacher
Fritjof Capra – physicist and systems theorist
Francisco Varela – biologist, neuroscientist and philosopher
Paco – slam poet (researcher's alter-ego)

ACT ONE – Sharing our Stories

Five women sit in a circle of comfortable chairs.

HOST: Hello and welcome to *The Spaces in Between*, where we explore connections that emerge through the sharing of experiences. Have you ever visited a foreign country where you didn't speak the language? How did you communicate your wishes and desires? How did you ask for the location of the nearest bathroom? Chances are you resorted to flapping your hands around trying to make sense of any little bits of the language you might have. That incessant hand flapping may have more importance in the world of second-language education than you ever thought possible. Today we are going to try to answer the question: *Can gesture help students learn a second language on a deeper level?* First we have four teachers joining us to share their stories about teaching a second language and switching from traditional teaching methods to teaching with

gesture. I have three special guests waiting in the wings who will be joining us for the second half of our show. They will be listening and reflecting on our conversation, then they will join us to discuss the phenomenon of gesture in relation to systems theory. Two of these off-stage guests are systems theory experts Francisco Varela and Fritjof Capra, and the third is a multi-lingual slam poet who will be entertaining us at the end of our show with a summary of all that emerges during our discussion. Welcome all, and thank-you for joining me here today. I would like to start with the basics to orient our audience and our off-stage experts. What is gesture?

DOMINIQUE: As you said in your introduction, when you're speaking to someone and you don't share the same language, people will actually just use gestures to try to communicate the messages and so when you are purposefully using gestures in your language teaching, I think it makes the students actually more aware of gestures themselves, and how you can actually use gestures as well to express meaning when you don't have the words and then the other person can provide the words you need. So gesture can be used to help you get to that level, but it can also be used as a strategy to maintain communication in the language.

HOST: So we gesture naturally to be understood, but how can that be used to our advantage in educating second-language learners? What does gesture look like in a language classroom?

WENDY: With the gesture approach, what we do is we try to provide a tool to help teachers from the moment students enter that classroom to use the second language exclusively and to do that by presenting the language word by word using a gesture to represent each word and grammatical component of the language as well as syntax - visually, auditorially, kiniesthetically, so it gets the students not only to quickly understand the meaning of every single word the teacher is saying but at the same time also producing every word as the teacher is using that word as they are gesturing it. They are required to speak exclusively in the language and they are given the tools to speak and practice exclusively using the language because the teacher is gesturing during whole class work. Students who are shy or not tending to be very participatory are always talking, so they are getting this intensive practice supported by their peers in the classroom as the teacher gestures. There comes a time at which for each student (and each student is different), they begin to feel comfortable enough to then start to use the language on their own.

HOST: Well, the one thing we all have in common is that we have made the switch from traditional language teaching to using the gesture approach in our classrooms. Personally I have been astonished by the improvement in fluency rates. So, what are the differences between traditional teaching methods and the gesture approach?

DOMINIQUE: The main difference I noticed is that the kids can actually speak the language [all laugh and nod in agreement]. When I first started teaching at the end of the year there were about three students who could actually speak to me, two of them were

ESL [English as a Second Language], and the rest of the students, their receptive skills were actually quite good. And the summer after I was at that school I was at the pool, and I met one of my students and had a ten minute conversation with me speaking entirely in French and her speaking entirely in English. So, from my particular experiences the biggest shift is that they can now respond to me in French.

HOST: So the shift in understanding for you was that before you made the change you would talk and they would listen and now you speak together?

DOMINIQUE: I was speaking to them so they learned how to listen, now I am gesturing what I want to say and not talking and so they are speaking for me, and because they are speaking for me they are learning how to speak. My classroom is much louder than it used to be, because they are either talking together with me or they are working in pairs or they are working in small groups so it is extremely loud at all times. If they are being surrounded by the language, and they are speaking the language and hearing the language then all of those words are there. And those are actually the most difficult to acquire words, but they are the most important words, and they are also what makes the language more interesting. When my students begin to write stories they will, without any prompting from me, put in alors [then], tout à coup [all of a sudden], that kind of thing, so it's not just a list of sentences, which I used to receive.

GABRIELLE: The AIM [Accelerative Integrated Method] classroom is definitely one that is very dynamic, one that is focussed on production of the language in written and

oral form, and kids are involved in the curriculum, they are part of the curriculum and the curriculum is not geared toward certain grammar points and themes, but stories and going in depth with story, and the main focus in the classroom is to give them the tools so that students could actually be fluent, or functional in French. So, yeah, I just find that when I taught in a traditional classroom it wasn't… I just couldn't get those types of results.

HOST: Do you remember how you felt the first time you saw the AIM in action?

GABRIELLE: Absolutely. The big introductory for me to change is that I just walked into an AIM classroom. In those thirty minutes I was definitely converted. I was excited by what I saw and at the time I was working in an independent school teaching secondary French, and I was pretty fresh out of university where the focus was authentic communication and what-not, but in my classes it certainly wasn't the case. I mean, I would have good intentions of parle français seulement [speak only in French], and I would turn my back and know well that in the next two minutes either I would speak English myself or the kids would, so there was no real incentive to speak only in French. Not only incentive, but I didn't know how to go about teaching them to really communicate authentically in the classroom. I just saw the results for myself. What I saw was amazing, and what I heard, never mind seeing, because the kids were out of the earshot of the teacher and they were actually communicating in French with each other without the teacher prompting them. They were writing stories, and these were grade two students and they had started in September with Wendy, and somebody was saying, "Est-ce que je peux avoir un crayon [can I have a pencil]? Je n'ai pas de gomme [I don't have

an eraser]." And I didn't even hear a word of English. Doing gestures, and just the notion of having kids speaking with you, it maximizes the production way more than in a traditional class where you go, "Who would like to answer that question or say that word?" My students, my former students in the more thematic approach, or traditional approach, I don't even know if they actually spoke French, like how many minutes they spoke French all year. It's embarrassing to actually time them.

HOST: Is it all roses and sunshine? Are there any negatives to the gesture approach?

CLAIRE: It takes a lot of energy. Huge, huge, huge energy! Especially when there is a subtle resistance to it and you are bringing them over to your side all the time so you really have to…. have commitment of course. And my friend Stacy said that she had some kids from the previous year and she had some new kids, so with the new kids she was committed to the all French approach, but with the old kids she had established a relationship so she wanted to keep that relationship going so she allowed them to make some comments in English and what she found is that they weren't making the same progress as the other kids so she had to change her rules.

HOST: It might be helpful for our audience to talk about the way things were done before the gesture approach – the way all of us taught early on in our teaching careers. The word "traditional" has come up a few times, but what does that means in terms of second-language teaching?

GABRIELLE: Traditional is very grammar oriented. I found that curriculum was driven by grammar points that are supposed to be introduced as well as vocabulary, mainly nouns, and according to themes. A traditional classroom, I find, is one in that French is not even spoken sometimes. It's quite silent. Kids are doing worksheets and they are not necessarily engaging authentically in French in the classroom because there were never the tools given to teachers to be able to get kids fluent in a core French class.

CLAIRE: Exactly! With the traditional method you present the grammar point and you write it up on the board, or you give a list of vocab. and you make a list and you do it that way, it's all rote memory versus gesture which is instinctive and in your body, the whole body learns it where as with the rote memory I call it "catch and release" because they memorize the information and as soon as the quiz is over they release it.

WENDY: Yes, and traditional methods… well traditional being most recently traditional, being the communicative approach. Historically traditional methods would have been the grammar-translation method or other approaches that are much more structured. It was very much analytical and grammatical. With the gesture approach instead of presenting the rule first then giving an example and having students practice it, we have the students practice the language, generate the pattern inductively - how does it feel, what sounds right - then come up with what I call 'targeted gesture language refinement review' where we target certain language patterns and heighten them and make them explicit for the students only at the time when we believe they have actually generated the pattern inductively anyway. Then later on, only at the very tail end do we present the rule.

Because it's not appropriate to present a rule when the student doesn't have the fluency into which to apply that rule.

HOST: Let's look briefly at some other approaches in second language teaching. What is your sense of the communicative approach? Was it effective?

WENDY: The communicative approach tended to focus on what Krashen set out to do and Stern did in the in the 80s whereby people wanted to move away from a grammar-based traditional approach, to move toward a more communicative, natural approach to language acquisition where students were working around themes and talked about personal interests, so there was the focus on oral communication skills primarily to get students talking because that was one thing that was just not happening in the traditional approaches.

HOST: Was the communicative approach successful in terms of achieving fluency?

WENDY: I would say no. The communicative approach tries to get students to communicate but unfortunately hasn't had much success because what has typically happened is that teachers and students have become very frustrated because they haven't been given the tools to actually communicate effectively and the scaffolding hasn't occurred in order to help students reach a level of fluency so they can actually engage in conversations around whatever the topic is. So that has been a major problem of the new

communicative approaches. The wish has been that they try to communicate but the communication just hasn't happened.

HOST: How frustrating was it to teach with traditional methods and have minimal fluency at the end of the year? Was that a motivator for change? I'm asking that question because from my own experience it was the frustration that drove me to desperately seek out new tools and led me to the gesture approach.

WENDY: I know I shared the same frustrations. I was very frustrated, moving from immersion to a core French situation where I was working with kids from supportive families who were academically very strong. Where in immersion my kids were speaking French after grade one, after six years or seven years of French every single day at 30 minutes a day the kids in core French were not speaking. What I decided to do was to figure out why they weren't learning. I looked at what the program was presenting me, and what was going on, and I realized that first and foremost the kids were not learning the vocabulary they needed to know. They were learning verbs, for example - verbs that tended not to be the most high frequency, simply because they were easy to conjugate. So the presentation of the verbs was based on conjugation which was not a very good way to choose verbs because students in a first language situation will always choose the verbs they need to communicate. Like 'want' or 'have to', or 'can', and so forth, and these words were just not taught, not even recommended to be taught in the curriculum guidelines in Ontario before about the third or fourth year of instruction which is totally ridiculous.

GABRIELLE: That is so true. I can completely relate. We had a textbook that took us from Kindergarten all the way to grade twelve, and you know, the strange thing about that was for eight years those kids weren't introduced to irregular verbs.

HOST: Like pouvoir [to be able to], vouloir [to want]....

GABRIELLE: Yeah, je veux, je peux, je dois, je sais, j'ai besoin de, even avoir and être [I want, I can, I must, I know, I need, even to have and to be]. I mean how could you ever have authentic communication when we don't introduce those right away.

WENDY: Exactly! In the thematic approaches that I was using they were very noun-centred. And if you don't have more verbs than nouns, or at least as many verbs as nouns that you're teaching, then again you've got a problem. If you've got a whole series of nouns that you've learned and you can't put them together into a sentence because you need the verbs then what's the point? Gesture allows us to teach those important verbs right away.

HOST: Here's one of the big questions of the day, and really at the heart of our discussion. Why is it that fluency rates improve with the use of gesture?

DOMINIQUE: I would say the main reason is that they speak all the time, but the second would be teacher expectation. Because before I started using this method I didn't think it

was possible for students to speak in French, and so in the classroom I allowed them to speak in English. And so when they are allowed to speak in English they get more practice speaking English. But in my classroom it's either you speak in French or you don't speak, and I find the older the students get the more they want to speak. Grade 8's will not be quiet. Grade 6's might, but grade 8's will not. Grade 1's for sure, no issue, and so they want to talk and so their choice is French or nothing and so they learn to speak.

GABRIELLE: I wouldn't know how to teach young kids if I didn't have this program. I don't know how you could ever get them fluent, or talking in French by showing them insects or something like that without verbs [all laugh and agree].

WENDY: Yes, it's just bizarre to think that you can teach a language without verbs.

HOST: And it seems to me that the gesture approach, by its very nature, lends itself to the instruction of verbs. We teach action with actions in a way that stays with them, not through the static action of conjugation, but by the dynamic action of moving our bodies with gesture. Is it safe to say that using gesture makes verbs more accessible, and easier to retain? Is the language learning experience more holistic?

GABRIELLE: AIM obviously has a major holistic approach and I think all of those components put together make for a really strong program, especially just if you look at that it touches on all the theories of multiple intelligences.

WENDY: Yes, yes. We talk about multiple intelligences - we have to try to meet the needs of students who learn in very different learning styles. So with the gestures, of course, because they provide a kinaesthetic, auditory, visual cues for the students, you are helping those learners with all those different learning styles learn much more effectively. So you are responding to the needs of all the students.

HOST: How does this tie in with the way in which our first language is learned?

GABRIELLE: We're not dissecting the verbs. We're not saying je marche, tu marches, il marche [I walk, you walk, he walks] and don't forget the "s" on the tu [you]. You know that's not how somebody learns a first language. So, I think that another success of AIM, or a huge reason why AIM is so successful is that it mirrors how language is naturally acquired. We don't just throw out any grammar at any time, everything is according to what naturally would come up when you actually speak. So, let's say like the infinitive. Well, je veux marche? Non, it's je veux marcher [I want walk? No, it's I want to walk]. But we teach that right away because that's something they are going to use in their speech and in their writing right away, so that's important. We teach things that come up naturally. And I think with AIM mirroring that type of learning, a combination of that and all the other elements it just makes for a really, really strong holistic program.

WENDY: Well, I think that if we look at other studies, for example Total Physical Response which aligns well with Krashen's Natural Approach, where we try to mimic

how a young child learns his or her first language, the child is given a lot of non-verbal cues in their first language acquisition and I think those are really essential to help build not only confidence, but also competency in the language because the more quickly you can actually associate the word with its meaning the better it is, first of all, for the initial comprehension of the word and for the eventual ability to produce the word. So by representing a word with a gesture you are immediately providing this visual cue for the students and by having them then physically act out the gesture. In Total Physical Response the child just responds without speaking. Total Physical Response is very effective because it mimics exactly what a child would have been asked to do as a youngster just beginning the language where the mother would say "Stand up, go over there, pick up your toy and put it in the box." The child who is non-verbal can't speak yet but is responding to the command. With the gestures we're taking it another step further. We're having the students speak and react physically in response to a command or word but at the same time we can also ask the students to *produce* the word. And I think that production in association with the actual kinaesthetic response, along with the visual support of the teacher and the verbal support of the teacher, all combined, truly helps to accelerate the acquisition of the language and that's why the gesture approach is so, so effective…even more-so than Total Physical Response.

HOST: I'm sure we have all had those amazing moments with gesture. I call them my "aha" moments. One comes to mind with exactly that scenario. I had a student in my class, John, he sort of hid behind his hair all of the time, and didn't want to speak any French, but he would do the gestures and sometimes mutter a little French. We were

gesturing through devant [in front], derriere [behind], en haut [above], en bas [below] all the location words. After gestures they were working on an activity and John had coloured a lovely picture of a garbage can with un crayon [a pencil] above, beside, below, to show location words, and at the end of the class I said, "John, où est ta feuille de papier [where is your sheet of paper – with gestures]? Je ne peux pas voir ta feuille de papier [I can't see your sheet of paper – with gestures]." He looked up at me and he wanted to tell me so badly that he couldn't find it. Another student had handed it in without him knowing and he was frantically looking around his desk. I could see the desire in his face, and he knew he had to tell me in French. After a long pause he said, "La.... feuille de papier [the sheet of paper]..." He did the action first then recalled the words, "N'est pas...." He paused here and did the action I had just taught for in front, "N'est pas... *devant* de moi [is not in front of me]." And I was like, "Oooh tout le monde, on doit écouter [everyone must listen]...ça c'est fantastique [that's fantastic]!!" And I was so excited because he had not only formed a complete sentence, but he had done it all on his own and he had used devant [in front] in a different way and completely from gesture recall.

GABRIELLE: That reminds me of one of my biggest "aha moments"... Back to my first year of teaching AIM, eight years ago, I was teaching four classes of grade 1, and four classes of grade 2, and I was doing "Trois Petits Cochons [three little pigs]" and it was just busy. I had like six classes a day, and I would go into the class, "Bonjour tout le monde [hello everyone]," and it was very French. I didn't speak English and we were making lots of progress and I remember it was just before the December holidays, and I

just thought that I would play a charades game with the students and I put a long sentence on the board. It was something that they had never seen, but I knew that they knew those words. But I put them in a totally different context and in sentences on the board and it took a good five to ten minutes to explain the whole game in French so that everyone understood, and as I'm ready to say, "Madame Cartier dit commence," you know, we're going to start, at that point Carl looked at his friend Grayson who he was teamed up with and he's very competitive, and he knew by looking at Grayson that, "Hmmm, I'm not sure if Grayson really understands how to play this game, I had better explain it to him." It didn't even occur to him to speak in English because that was just never tolerated in class, we only spoke French, and he said "Grayson quand Madame Cartier dit [when Madame says]…" and he stopped at dit, then he did the gesture. He raised his hand and he did the gesture for commence [start], like a person starting a race. As soon as he stopped he said, "Quand Madame Cartier dit…" and he was looking around, and I didn't say anything. And then as soon as he had the word commence he actually did the gesture at the same time. He said, "Quand Madame Ledoux dit commence, tu dis le mot et je fais les gestes [you say the word and I do the gesture]."

HOST: Wow! That's a long sentence for grade 2.

GABRIELLE: Yes. That was my first huge, long, spontaneous sentence. I mean I had been working pretty hard up until then, for the last couple, two or three months, and I looked at him and I went, "Carl, tu es fantastique [you are fantastic]!" And as soon as I raised my hands to do fantastique, everyone said it with me because they knew that's the

cue. Everybody is joining in and they said, "Tu es fantastique Carl!" And he looked at me and he said, "Je sais [I know]," and he was right back in the game.

WENDY: That's wonderful. From other stories that I hear from teachers, the ones that really make me feel best about what I've done to help students learn is those students who would not have had success without gesture. For example, where a young child was removed from a French classroom and because at that time he was just struggling and was frustrated and acting out and it just wasn't working, so his parents and the administration agreed he should be removed. Well, the following year the teacher brought the student back into the French class because she was starting this new program and she wanted to see – "well what the heck we will give this student another try." Well, that student ended up being one of the best students in French class! Actually, French was absolutely the best subject of all of his subjects and just to hear that success just gives me chills. I just think that it's absolutely wonderful to see students be successful.

HOST: Well, I think we would all agree that using gesture is critical in helping students attain the second language on a deeper level. Before I invite our systems theorists to join us are there any final comments?

DOMINIQUE: I would like to add a final thought on useful purpose. Because we are using gesture while everyone is speaking, instead of memorizing a list of words they are actually using the language for a useful purpose. They are saying it for meaning. The way that the brain learns is not by rote memorization, it's actually by using it to express

meaning and when you use it that way you learn better and you remember it better. When you learn it on the surface you just automatically forget it. When you actually have to use it then you understand it on a deeper level and you don't forget it. I do think with language that there's a certain level that you get to, and once you get to that level the language will basically stick with you for the rest of your life. You will always be able to do something in the language. And if you don't make it to that certain level then you might end up forgetting certain parts. In order to get to that level, you have to be able to think in the language and you have to use the language in many different ways.

HOST: Well said. Thank you to all of you for sharing your insights and experiences. We will take a short break and return with our off-stage guests.

ACT TWO

Our guests join in on the conversation

HOST: Welcome back, and welcome to our guests who have joined us from backstage. Our first guest is Fritjof Capra, physicist, systems theorist and the author of five international bestsellers including *The Tao of Physics*, *The Turning Point* and *The Web of Life*. An advocate for environmental awareness and sustainability, Dr. Capra gives seminars around the world, and continues his research at Schumacher College in England. Welcome [applause]. Our second guest unfortunately passed away in 2001, at the age of 54. A biologist, neuroscientist and philosopher Francisco Varela worked alongside Humberto Maturana to develop the theory of autopoiesis. In 1991 the book he co-

authored, *Embodied Mind,* laid the groundwork for an enactive perspective in cognitive science. In his final decade, he focused much of his energy on consciousness studies and the new field he labeled *neurophenomenology*. He is joining us here today by channelling through a Chilean medium Natcha, who was his housekeeper in Chile. Welcome Natcha and Francisco [applause]. Our final guest will continue to observe and create a series of thought-provoking poems which he will perform at the end of our show. Welcome to our slam poet Paco [applause].

Francisco and Fritjof… you have both been listening to our discussion about teaching a second language with gesture, and the increase in fluency this method has allowed, what are your thoughts about gesture and language in relation to systems theory?

CAPRA: Well one thing to consider is that "in systems science every structure is seen as the manifestation of underlying processes" (1996, p. 42). If we look at foreign language as a structure then what you have done with gesture is to ease the access into this structure by linking meaning to physical actions. We know that "the properties of the parts can be understood only from the dynamics of the whole. Ultimately there are no parts at all. What we call a part is merely a pattern in an inseparable web of relationships" (1991, p. 83). It sounds to me as if all of you have experienced a similar paradigm shift that we have experienced in physics and other sciences. "Whenever you delineate a part and separate it from the rest," as you did with traditional teaching methods, "you cut off some of the interconnection to the whole, physically or conceptually," (1991, p. 84) and as you discovered fluency could not be achieved.

VARELA: I find this gesture approach fascinating, and I agree with Francisco that it ties in very well with dynamic systems theory, and also by allowing the students to experience the language on a physical level. It brings to mind the work of French philosopher, Merleau-Ponty, who wrote that "we must see our bodies both as physical structures and as lived, experiential structures – in short, as both "outer" and "inner," biological and phenomenological. These two sides of embodiment are obviously not opposed. Instead, we continuously circulate back and forth between them" (1991, p. xv). It sounds to me that what you are describing is an embodiment of language.

HOST: Yes, and that word, embodiment, came up several times in our discussion. Can you elaborate?

VARELA: Well you see "embodiment entails the following … cognition upon the kinds of experience that come from having a body with various sensorimotor capacities; and individual sensorimotor capacities that are themselves embedded in a more encompassing biological and cultural context … sensory and motor processes, perception and action, are fundamentally inseparable in lived cognition, and not merely contingently linked as input/ output pairs" (1999, pp. 11-12).

HOST: Okay, you lost me there Francisco.

VARELA: Let me put it into an example that you can understand. Think about the woman that makes empanadas. When you see an empanadera, a woman who has been making empanadas all her life, working in the kitchen, she is working in a state of lived cognition. She has in effect embodied the knowledge of making empanadas to such a

point that her actions are fluid, the process is seamless. She has a bodily understanding of how to knead the dough, add the fillings, create the fire in the horno de barro, to pinch the edges as her grandmother taught her, but her understanding extends beyond the process to a deeper understanding of consequences. The peelings go to the compost to help the soil to grow more vegetables and so forth.

HOST: Essentially that is what we are trying to achieve with second-language teaching. A level of understanding that allows for fluidity of speech. Internalizing the language, embodying and feeling the language… when and how does a new word become part of them?

DOMINIQUE: Well, in my classes I will use the new word a lot with them, but it's not until they actually have to use it in their own speech, to communicate a message on their own, that they will make a link and that word will actually become part of them.

WENDY: Yes, I find it's only when students actually apply the language as they are learning it in spontaneous communication that they actually learn to become fluent. Research has shown that if you try to present a multi-modal approach where you are sort of 'bombarding' the brain with all kinds of information in a variety of different ways then the information is going to embed more deeply and more quickly. I always talk about students embedding the language, which in my mind is actually truly comprehending on a physical level what the language is all about. I think that traditional teaching doesn't actually provide any opportunity for students to embody – the term I use, I'm not actually familiar with embodiment - but the term I often use which aligns completely with what

you are talking about with embodiment, is embed. When they perform the gesture they are actually kinaesthetically embedding or receiving that embodiment of the language. Students must *feel* what sounds right.

CLAIRE: That's so true! With gesture the students have this kinaesthetic feeling of "I know this in my body." And we all know that they learn so much more because it is embedded in their brain somewhere, and even if you go away from the language for two or three years they come back and they've got it again. You can refresh it, well I did! I went away for two months and they didn't do any French at all and I came back and they picked it up again so quickly a bit of review and off they go again so… it's a huge part of the cognitive process I would say. It's linked to their intuition, and to their previous knowledge-base so I think maybe that's why because it touches on so many parts of who they already are. They become more able to make predictions about how the language is going to sound because they know the *sense* of the language more.

DOMINIQUE: I agree completely. I think Wendy's got it when she says they have to *feel* the language. With feeling it, you're associating the word directly with its meaning. In many other approaches they are associating the French word with what the English word is, and so when they want to speak French they think of what they want to say in English and then they translate it to the words and they say it. But using the gesture, you're associating the word with more of an image and so it has a more direct link, and so the students learn to think in French much faster and if you're not thinking in the language then you're not going to internalize it in the same way.

CAPRA: And don't forget about the chimpanzees! [All stare at Fritjof with confused expressions]

HOST: You mean our students?

CAPRA: In a way yes. Your students are like the chimpanzees. If we look back to the origins of language, and to the work of Roger Fouts, you can see quite clearly that "our hominid ancestors must have communicated with their hands. Over time, their gestural grammar would have become more and more complex, as the gestures themselves evolved from gross to more precise movements. Eventually the precise movements of their hands would have triggered precise movements of their tongues" (2002, p. 59). It stands to reason that if "language was originally embodied in gesture and evolved from gesture together with human consciousness" (2002, p. 60), then your students would benefit from a similar experiential journey. When Fouts transferred his sign language work from chimpanzees to autistic children he found that "the signing apparently triggered the capacity for speech. The skill of forming precise signs could be transferred to the skill of forming sounds because both are controlled by the same brain structures" (2002, p. 60). The gesture has led to an embodied understanding of meaning.

VARELA: Yes, that's what I was saying. They need to connect on all levels: cognitively, physically, even emotionally.

WENDY: Exactly! I think an important part of our human system, and our bodies, is an emotional response as well. And what I also try to do in every single aspect of the program and presentation of the language, is to try to engender an emotional response

from the students so that while they're simultaneously, kinesthetically responding and embedding the language, they are also enhancing that with the emotional response. So, for example, as much as possible whenever they are doing a gesture I try to associate with some type of appropriate emotional response. So you're going saute, saute [jump, jump – with gesture of two fingers jumping up and down on palm of hand], and you're raising your voice. Or when you say veut [want – with gesture of arms crossed on upper chest], you put an expression on your face of desire and say it with expression *VEUT* [want]. And, you know, whatever it might be, I try to make sure there is that emotional response, and I try to make sure that I give that emotional response.

CLAIRE: Yes, they do become more emotionally linked to the language with gesture. And it's just amazing that they can't think of the word in English sometimes and they can think of the word in French because they know it intuitively and they can't even find the English word. Like lou lou [wolf], from the play. They can't even find the English word because they know the visual, they know what the word is in French and they have linked it to an understanding on a deeper level. So, I think that it is kinaesthetically the whole body experience.

DOMINIQUE: That happens quite often. It's more with the younger students, but I will have students that associate the word with the gesture, and they might associate the word with a picture of the word, but they won't actually associate it with the English word. We had the fireman in one of our stories, it was le pompier, and it just was le pompier. And you would overhear them talking to their parents after school saying "And this is le

canard [the duck], and this is le pompier and this is whatever," and the mother would say, "But this is a fireman." And the kid would say, "No, his name is le pompier." They just linked it to meaning, which is a totally different level. Sometimes a student will ask me how do you say such-and-such in French because they are working on writing a story or something, and instead of telling them I will just do the gesture for it and they will say, "Ah, right," and so it's reminding them of what they already know.

GABRIELLE: Yes. I've had that happen as well, when you use the gesture to help them recall the word. Gesture definitely helps kids to recall a word more easily.

CAPRA: This reminds me of something my good friend Humberto Maturana once said. Humberto and I were discussing how language really does not occur in the brain, but rather emerges from a continual flow of coordinations of behaviour. Humberto said language occurs "in the flow of interactions and relations of living together" (2002, p. 54). All of us "exist in language and throughout our lifetime we continually weave the linguistic web in which we are embedded" (2002, p. 54), but this process cannot happen in isolation.

VARELA: Yes, yes, it is of course a social act, but I think what we are really talking about here is honouring life experience. Think about the way in which children learn to speak. As so many of you pointed out today. They "learn the vocabulary and grammar of their language not as reinforced, paired associates but as hypotheses about correct adult speech that develop with their cognitive capacities and experience" (Varela, Thompson & Rosch, 1991, p. 46). A young child will point to an object and form a sound to go with

the object, and what do we do? We correct, guide, and encourage the child to repeat in a recursive manner, and in this way develop the child's cognitive association between object and speech. You should encourage your students to reflect on their previous experience with language, and keep in mind that "reflection is not just on experience, but reflection *is* a form of experience itself" (Varela et al., 1991, p. 27). Like my abuela always said "la calle es la mejor escuela" the street is the best school – or as you would say in English experience is the best teacher.

HOST: So you are saying that the reason gesture is so successful is because it ties in with the original language experience of the student, and it facilitates the embodiment of language by linking cognitive understanding with bodily action thus allowing the student to access the systemic nature of language on a deeper level. Well, we have certainly had a rich and powerful discussion here today. A warm thank-you to all of our guests [applause]. And now for a special treat, I will turn it over to Paco, our wonderfully talented slam poet, who will entertain you with a rendition of his understanding of what has occurred today in the spaces in between. Over to you Paco.

CHAPTER FIVE

Paco's Performance

The first thread - the student

I walk in and sit down
French sucks!
There she is at the front of the class
Arms flapping, mouth yacking
My mind hacking up a fur ball of boredom
French sucks!
Now the conforming sheep herded around me
Gum sticking, spit ball flicking
And a clock incapable of ticking
They start to move their arms like her
French sucks!
No way, I say, not today
But there's nowhere to hide
I am caught in that have-to place
Where all grade 9's must dwell
My hell
French sucks!
Now she's waving one hand around
In a circle, palm down
Tout le monde
It's not dance class lady!
The sheep join in
Thirty arms circling - *tout le monde*
Twenty-nine
Not mine
French sucks!
And now the spotlight of non-conformity
Shines from her eyes and lands on me
No longer blending
Spotlit and upending
Avoid the office sending
I lift my arm

And do the stupid circle thing
Tout le monde
Now another move
Mixing batter maybe
Fait
I let my voice join in with the lemmings
Fait – what is that? doing?
Two fingers held up with one hand
An L with the other
Les
Yes, I can do it
I don't want to but I can
Now stringing them together and adding what?
Something above her head
Actions
Almost English
Not so bad
Everyone do the actions?
Tout le monde fait les actions
Yes, I can do it faster
Circle in the air – *tout le monde*
Mixing the batter – *fait*
Two fingers plus a finger L – *les*
Movement in the sky – *actions*
I can do it faster than the idiot sitting beside me
I've got this
Tout le monde fait les actions
I know how to say it
I know how to do it
I know what it means
Holy crap….. I'm speaking French!
She really needs to fix that clock.

The second thread - The teacher

7 de septiembre

Bienvenidos clase. Copy this into your cuaderno por favor (notebook, please). Yo tengo, tu tienes, el tiene.... I have, you have, he has... Now we will say it all together. Yo tengo, tu tienes, el tiene. Practice that at home. Memorize it well.
There will be a test.

They all want to speak Spanish... to feel the language formed in their own voice. They all think that Spanish is cool – by the end of the year they will all be fluent. How can I possibly fail in this Mecca of language learning, with this boundless supply of adolescent potential.

12 de noviembre

Hola clase. ¿Cómo estan todos hoy? Alguien tiene una pregunta? Oh, you don't understand what I'm saying? Well, here, let me write it for you on the board. We will break it down piece by piece. Alguien – anyone, tiene- have, una – a, pregunta – question
Add that to your vocabulary list clase. Study it well.
There will be a test.

I don't understand why they won't speak what I have taught them. I write it on the board, they copy it into their books, they repeat what I say, but when I ask them to have a conversation it's like they haven't learned anything. What am I doing wrong? How can I help them remember the words?

6 de diciembre

Hola clase. Another useful list of nouns for you today. Manzana. That means apple. Write it down. You want to say "I like the apple?" I'm sorry, that's an irregular verb. You will have to wait until grade 10 before we get to that. Only one irregular verb this year clase. Does everyone remember? Oh, you don't? Well, let's copy it down again. Yo tengo, tu tienes, el tiene....
Don't forget about the test.

I am so frustrated, I want to scream! They all scored well on the vocabulary test, and they can conjugate the verb tener, but there's a bad teacher ache in the pit of my stomach. I'm not giving them what they need. None of them can speak. How can I make them speak? What's the point of learning a language if you can't speak?

12 de enero

Hola clase. Tommy, welcome back from your trip to Mexico. Did you speak any Spanish? You understood some signs? That's wonderful. You tried to have a conversation? You couldn't remember anything? I don't understand.
We wrote it all off the board…
You all did so well on the test….
I taught it just the way I was supposed to….

I have failed. I am the worst teacher in the world, and I am going back to waitressing where my stupidity will only cause the occasional meal mix up and not affect the lives of thousands of children who will grow up with the ability to conjugate one verb in Spanish but will not be able to survive in a Latino country. I will walk into the principal's office and admit the truth – that I am a language teacher imposter capable of extracting but a single conjugated verb from the brains of my students. I must escape this pedagogical nightmare before any more damage can be done…

13 de enero

Dear Señora,

I noticed that you have a substitute teacher in today so I thought I would send you this e-mail to invite you to the language conference next week-end. You might want to try the gesture workshop – I've heard good things.

Your friend across the hall,

Madame K.

20 de febrero

Hola clase.

Hola Señora

Tommy, ¿cómo estás?

Muy bien gracias Señora ¿Cómo está usted?

Muy bien gracias. Hoy vamos a ver las obras artes de Frida Kahlo.

Me gustan los colores.

Me gustan los autorretratos.

No me gusta todo el sangre.

A mi, me gusta mucho el sangre.

Quiero ver más por favor.

25 de febrero

Dear Wendy Maxwell,

Thank-you for saving my class from perishing in a Latino country, for saving the service industry from a disgruntled employee and for saving me from a life without knowing the joy of hearing my students speak Spanish…

The third thread – The gesture

I'm just a tiny gesture
The one for the word *petit*
You use your thumb and your index finger
And you say it in a high voice, much higher than your normal voice
Like this
Petit

I'm much smaller than my opposite… my *contraire*
A massive, bellowing gesture, with arms held up above the head
Grand

You may think that, being so small, I have no power
You would be wrong
I am magic
I attach myself to meaning
How many little gestures can make that claim?
I reach into the brain and pull forth that tiny little word
Said in a tiny little voice
Whenever it is needed
With the thumb and finger so close together
Just so…
Petit

They will never forget me
I become part of them
They know my meaning without ever linking me to
That English word…
I am *petit*
And I am strong
And proud
And I will never die…

Weaving Fluency

A tapestry of language weaves
And not a single thread it leaves
Unravelled from the fluency
Collective thread congruency
That comes from physicality
Embodied new reality

Cor – a – zón
Three separate threads
Just parts of nothing
'Til they're said
With hands each cupped
To form a heart
And now a link
To something known
A physical reminder shown
Corazón, heart, Corazón

A fluency of thread on thread
Connecting in the weaver's head
To form a brilliant image on
A bilingual phenomenon
As each new thread is woven through
The loom revealing something new
Patterns weaving now repeating
Finding meaning so entreating

Now you can communicate
To show another love or hate
On another continent
You can express, your discontent
Or share a laugh, or share a meal
The meaning you can now reveal
And if the word is lost a while
You cup your hands and with a smile
The word returns… its part of you
Corazón no longer new

The weaver's hands with motion know
Sy-stem-i-ca-lly how to go
Experience the leading key
To this phenomenology

And here among the dialogue
Of praxis and the pedagogue
The single proof that makes it real
The final image now revealed
Dynamic, moving, ever-changing
Tapestry of re-arranging
Threads that add to threads before
Of speak and act and feel and more

An image now is clear and true
A picture of bilingual you.

The tapestry unveiled

A cluttered class of children
Passes by museum walls
A cacophony of stifled giggles
Squeaking shoes, and field trip joy
Teachers, parents, shuffle them along
And pause
Something new draws their attention away
From the seen before
A tapestry, warm and thick against the stark white
"Hands teaching language"
An eager child announces the title
And all stand wrapped in the silent moment
Where thought and opinion
Merge and form

The parents share a collective flickering
Back to their language classes
Copying, memorizing, never speaking
Desks in a row
This tapestry shows teacher and student
Working together
They sigh a collective "what if?"
And wonder if this tapestry
Could hold the answer to
Their children's fluency
They see hope…

The students gaze, heads to one side
Or the other
They view the scene in the *now*
They are the child wrapped in motion
Finding language
In their own physical knowing
New language swirling
Among the intricate threads around them
They see themselves…

A passer-by gazes above the group
And notes with fleeting certainty
That this tapestry is unique
In the Museum of Academia
It stands apart
Not an antiquated statue of rote and toil
But a dynamic glimpse of colour
Against the stark white
The passer-by sees beauty…

The teacher sees the work involved
And wonders of the warp and weft
The threads of philosophy
Anchored behind and supporting
The system beneath
Something in the design
Reaches out and touches on
A hidden knowing
A pedagogic truth
The teacher cannot deny the fluency
Of interlaced threads
The teacher sees!

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Appendices

Interview Schedule

1. What do you understand to be the differences between traditional methods of language teaching and the gesture approach?

2. What motivated you to make a change to the gesture methodology?

3. Have fluency rates improved in your class with the gesture approach? If so, why do you think that has happened?

4. What decisions have you made, or actions have you taken in order to facilitate a deeper understanding of second language in your classroom?

5. Do you think that systems theory can inform our understanding of language acquisition and gesture? [Provide here a brief discussion of systems theory]

6. What stories can you share about moments in your classes when students seem to have experienced language on a deeper level? [share my story here]

7. In your opinion as an experienced educator, what are the most important factors that help students to embody language, or experience it on a deeper level?

8. How do you think gesture is cognitively linked to language acquisition?

9. In your opinion, what are the most important elements in fostering a deep or internalized fluency among second language students?

XXXXXXXXXX
Superintendent, School District #XX
XXXXXXXXXX
XXXXXXX, BC, XXXXXXX

Dear XXXXXXXXXX,

I am currently a teacher in your district as well as a graduate student in the Department of Curriculum and Instruction at the University of Victoria. As part of the requirements for my Master of Arts degree, I am required to conduct research. I will be studying the relationship between gesture and second language acquisition in my study entitled: Gesture and Language as a System of Embodied Learning. This study would involve at least four foreign language teachers from your district and would require two one-hour interviews with each teacher.

This study will allow teachers the opportunity to reflect on their teaching methods and the use of gesture in their classrooms. This will lead to new insights and understandings about how students internalize foreign languages. In the busy world of secondary teaching there are very few opportunities to sit and reflect about our methodologies. It is my hope that this study will benefit society by increasing fluency rates among our students, and add to the state of knowledge about gesture and education in an area that has been previously overlooked by research.

The participation in this study is completely voluntary and participants may withdraw at any time. Data collected will remain confidential as well as the identity of the participants. In addition, the research site, XXXXXXXXXX School District, will remain unnamed in the report.

My five objectives are as follows and interview questions will be based on these objectives:

1. To gain insight into the relationship between gesture and second language learning at a deeper level.
2. To compare the fluency rates of students taught with traditional methods with those of students taught with the gesture approach.
3. To gain insight into the relationship between gesture and dynamic systems theory.
4. To achieve collective insights into the relationship between gesture and an embodied level of fluency in a second language.
5. To assist teachers of foreign languages in curriculum selection.

If you have any questions, please feel free to contact me at 250-881-7335 or through email at lkhaddon@uvic.ca, or through our district's First Class system. You may also contact my supervisor, Dr. Kathy Sanford, at 250-721-6570, or the Human Research Ethics Office at the University of Victoria (250-472-4545) or ethics@uvic.ca.

Thank you for your consideration and I hope to hear from you soon as I am eager to begin my research.

Sincerely,

Lori Haddon
Teacher/ Graduate Researcher

Lori Haddon
Victoria, BC

Recruitment letter for teachers

Gesture and Language as a System of Embodied Learning

Dear XXXXXXXX

You are invited to participate in a study that I am conducting about gesture and second language instruction. I am a middle school language teacher and a graduate student in the department of Curriculum and Instruction at the University of Victoria. As part of the requirements for my Master of Arts degree I am required to conduct research, and I would appreciate your consideration of helping me with this research.

The purpose of my study is to explore the relationship between gesture and deep, or embodied understanding in second language learning. You are being asked to participate in this study because you meet two important research criteria: you have been teaching at the secondary level for more that five years, and you have taught using both traditional and gesture methods. Most importantly, I feel your contributions to this report will be rich and comprehensive and provide excellent data on which I can base my findings.

If you agree to voluntarily participate in this research, your participation will include two semi-structured interviews of approximately one hour each, with approximately two months between the interviews. I will meet you at the location of your choice to conduct these interviews. The interviews will be audio-taped and a written transcript of my summations will be provided to you to correct or amend before the data is analyzed. Once this process is complete, the audio-taped transcript will be permanently erased. The data collected in this study will be kept in the strictest confidence, and your identity will be kept secret through the use of pseudonyms. Data analysis will include experiences from other participants and therefore you will not be easily identifiable in my final report. Please note that you should not feel obliged to participate based on professional affiliation with me.

If you are able to contribute to this study through two interviews, or if you would like more information about my study, please contact me by telephoning 250-881-7335 or emailing lkhaddon@uvic.ca or by using the XXXXXXXX system in our district. At the time of the interview, I will ask you to sign a participant consent form to confirm you understand the conditions of being a participant in this study.

Sincerely,

Lori Haddon

Lori Haddon
Victoria, BC

Participant Consent Form

Gesture and Language as a System of Embodied Learning

Dear xxxxxxxx,

You are invited to participate in a study that I am conducting in our district. I am a graduate student in the department of Curriculum and Instruction at the University of Victoria and you may contact me if you have further questions by telephoning 250-881-7335 or emailing lkhaddon@uvic.ca or by using the First Class system in our district.

As a graduate student, I am required to conduct research as part of the requirements for a Master of Arts degree in the faculty of Curriculum and Instruction. My research is being conducted under the supervision of Kathy Sanford. You may contact my supervisor at 250-721-6570 if you have any further questions.

The purpose of this study is to explore the relationship between gesture and second language learning. The plight of every language teacher is finding a way to make the second language relevant, engaging and deeply understood by their students. This task is especially challenging for the secondary teacher working with adolescents who are often self-conscious or apathetic about speaking a foreign language in front of their peers. While teachers and scholars of second language acquisition have long understood the importance of gesture, it has only recently gained attention as a pedagogic tool for increasing acquisition rates and fluency among students of all ages. The gesture approach (or Accelerative Integrated Method) has transformed language classrooms across Canada, by drastically improving fluency rates and second-language retention in both French and Spanish language instruction. Why is this method so effective? How does gesture help students to acquire a second language at a deeper level?

Scholars working in the area of gesture, language, and second language-acquisition (SLA) have focused their research on the relationship between gesture and cognition, but very little has been written on the use of gesture as a teaching tool, especially at the secondary level. Current trends in secondary language research point to dynamic systems theory (DST) as a theoretical foundation of language and language acquisition, including the embodied understanding facilitated by gesture. Could DST hold the key to the success of the gesture program in classrooms?

This study will allow teachers the opportunity to reflect on their teaching methods and the use of gesture in their classrooms. This will lead to new insights and understandings about how students internalize foreign languages. In the busy world of secondary teaching there are very few opportunities to sit and reflect about our methodologies. By sharing my own insights into gesture and embodiment of language learning in the second interview we will develop our collective understanding of the phenomena of gesture in relation to second language acquisition. This in turn will benefit society by increasing fluency rates among our students, and add to the state of knowledge about gesture and education in an area that has been previously overlooked by research.

You are being asked to participate in this study because you meet two important research criteria: you have been teaching at the secondary level for more that five years, and you have taught using both traditional and gesture methodology. Most importantly, I feel your contributions to this report will be rich and comprehensive and provide excellent data on which I can base my findings.

If you agree to voluntarily participate in this research, your participation will include two semi-structured interviews of approximately one hour each, with approximately two months between the interviews. I will meet you at the location of your choice to conduct these interviews. The interviews will be audio-taped and a written transcript of my summations will be provided to you to correct or amend before the data is analyzed. Once this process is complete, the audio-taped transcript will be permanently erased. The data collected in this study will be kept in the strictest confidence and the data will only be accessible by my supervisor and me.

There are no known or anticipated risks to you by participating in this research. Your identity will be kept secret through the use of pseudonyms and I will exclude the name of the school district in which we are employed. Data analysis will include experiences from other participants and therefore you will not be easily identifiable in my final report. I will also ensure that the identity of students (third parties) is protected through the use of pseudonyms in any classroom examples provided in the interview process

The potential benefits of your participation in this research include contributing to a virtually non-existent state of knowledge about gesture and second language teaching. My research, based on your experiences and observations in the classroom, will provide you with an opportunity to compare and contrast your beliefs with those of your colleagues. Research in the area of gesture and second-language acquisition is lacking, and this study will provide a much needed perspective to future educators or current educators, who are trying to choose the most effective methodology for their class.

To make sure that you continue to consent to participate in this research between the two interviews, I will contact you personally, and answer and questions or concerns that you may have at that time

Your participation in this research must be completely voluntary. If you do decide to participate, you may withdraw at any time without any consequences or any explanation. If you do withdraw from the study your data will be destroyed within 24 hours of such notice. Your confidentiality and the confidentiality of the data will be protected. Furthermore, employers will not have access to any of the data or information collected in this study.

In addition, you may verify the ethical approval of this study, or raise any concerns you might have, by contacting the Human Research Ethics Office at the University of Victoria (250-472-4545) or ethics@uvic.ca.

If you are able to contribute to this study through two interviews, please contact me by phone or email. At the time of the interview, I will ask you to sign the below consent to confirm you understand the conditions of being a participant in this study.

Your signature below indicates that you understand the above conditions of participation in this study and that you have had the opportunity to have your questions answered by the researcher.

_____	_____	_____
Name of Participant	*Signature*	*Date*

A copy of this consent will be left with you, and a copy will be taken by the researcher.