MODELS FOR EFL THEORY AND METHODOLOGY

DERIVED FROM AN SiR-BASED PILOT STUDY ON JAPANESE

COGNITIVE DEVELOPMENT

by

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ABSTRACT

Do Japanese students have age-related trends in their self-organization and self-understanding development? What role does the Japanese culture play on the cognitive development of Japanese students? What can be done to better assist the English language learning of Japanese students? To help answer these questions, a pilot study of the Self-in-Relationship (SiR) interview, developed at Harvard GSE to understand human cognitive development, was conducted in Japan.

The SiR interview has never been conducted in Japan, nor has it ever been directly connected to the Japanese EFL context. This dissertation documents the findings of this pioneering SiR-Japan pilot study, and offers new models for EFL theory and methodology derived from those findings.

DEDICATION

To my father

who taught me perseverance

yet passed away

without ever knowing of

my return to school

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CHAPTER 1. INTRODUCTION

This dissertation attempts to bridge Fischer's skill theory (1980) and dynamic structuralism (Fischer & Bidell, 2006) to TESOL (Teaching of English as a Second Language) in the Japanese context. As such, it documents and discusses a variety of findings from a pilot study examining how Japanese students construct self-concept in the context of social comparison using Fischer's skill theory framework and how these findings led to the design of theoretical and pedagogical models for Japanese EFL (English as a Foreign Language) classrooms.

As an impetus, this investigation of the self within the context of Japan was hoped to broaden academic understanding of the self-concept, which has been traditionally dominated by Western convictions. It was hoped that a better understanding of the Japanese self would lead to improved pedagogic theories that will scaffold into more dynamic teaching practices within Japanese schools and elsewhere. As a result, CREAME (Consciousness Raising, Emotion Analysis, Manipulation & Expression), an EFL pedagogy, has surfaced. CREAME and two pedagogic models (and variations of the models) shall be discussed following the details and results of the pilot study.

The pilot study that led to the design of CREAME is a semi-replication of research conducted in Korea (Kennedy, 1994) and Taiwan (Cheng, 1999) based on

Fischer's skills theory framework. The study analyzes the development of cognitive and emotional structures correlating to eight different psychosocial roles. The three interrelated central questions for this study are:

(1) Do Japanese students have age-related trends in their self-organization and self-understanding development?
(2) What role does the Japanese culture play on the cognitive development of Japanese students?
(3) What can be done to better assist the English language learning of Japanese students?

Unfortunately, most theories of the self in academic literature are based on studies conducted in Western settings and therefore it is imperative to conduct more empirical research in non-Western settings (Cheng, 1999). Japan has a culture that has been influenced by China and Korea, especially though the serene disciplines of Confucianism and Buddhism. However, although sometimes overlooked, Japan also has a dark, imperialistic side laced with centuries of bloodshed. It is hoped that the paradoxical nature of the Japanese culture shall provide a challenging testing ground for these theories from the West.

For this study, I investigated the research questions by using Self-in-Relationships (SiR) interview protocols (Kennedy, 1994; Cheng, 1999; Fischer, 2008a). SiR protocol incorporates social relationships to measure the development of the self-concept and the effects of *low-support* vs. *high support conditions* on the individual.

The *low support condition* is designed to elicit spontaneous answers about the self and relationships with others. The *high support condition*, immediately following the low support condition, presents the subject with strategically scaffolded questions about the self and relationships with others, and provides colorful charting tasks that grow from simple to complex.

Prior *high support* SiR results examined by age tend to show trends and help define neo-Piagetian type levels of cognitive development within particular age groups. It was hypothesized that Japanese subjects would also display stage-like trends in cognitive development in the high support condition, although it was unknown if the Japanese context would allow for the same *timing of emergence* of those stages.

This dissertation has six chapters. Chapter 2 presents the context for this study in Japan. Chapter 3 presents the research methods employed. Chapter 4 reveals the results of the study. Chapter 5 examines the age related trends found, the implied role of culture on cognitive development, and offers ideas for change in Japanese schools. It also introduces pedagogic models of language acquisition and the CREAME methodology. Shortcomings of the study and future ideas for the forthcoming full-scale study are discussed prior to concluding with Chapter 6. The Appendix provides the Japanese protocols, sample SiR data, the Japanese probes, selected translations of the transcripts from the interviews and a list of pedagogic activities that can be incorporated into CREAME.

CHAPTER 2. RESEARCH CONTEXT

I shall begin this chapter with an overview of the traditional Western theories of the *self*. I will then present research on the self in the Japanese context. Next, I will discuss how Fischer's theories can be applied to this research and how skill theory relates to the SiR interview protocols. Then, I will focus on how this relates to Second Language Acquisition (SLA) and English as a Foreign Language (EFL) pedagogy in the Japanese context.

2.1 Studies and effects of the self-concept in the West

How do we, as humans, arrive at the concept of the *self*? A current answer might be, "The concept of self is a *social* and *cognitive* construction" (Cheng, 1999). 'Modern' theories of self initiated with James (1890, 1892). James made the differentiation between the self as subject (I-self) and the self as object (Me-self). He also proposed a hierarchy within the Me-self: the *Material Self*, the *Social Self* and the *Spiritual Self*. James' work developed the modern concepts of *I vs. me* and the multidimensional perspectives of the content of the self. Later, theories of Symbolic Interactionism stemmed from Baldwin (1895), Cooley (1902), Mead (1934) and Blumer (1969).

In contrast with James, the Symbolic Interactionists looked outward and viewed the self as a *social* construction. Blumer went on to say that our own interpretations, arrived at through social interaction, continue to be [dynamically]

modified by what we happen to encounter (1969).

The late 1950s and the early 1960s saw the emergence of a *cognitive* revolution (Bruner, 1990; Brown, 2007). Since then, the self has been seen more as a cognitive construction that "functions through a set of mental representations creating a theory of self" (Cheng, 1999). Along with Vygotsky's (1978) and Leontiev's (1981) semiotic and psycholinguistic theories, cognitive-developmental theories such as Piaget's (1971, 1983) and Fischer's (1980) attempt to provide a framework to capture the true essence of human development. How do they differ?

Fischer's view is similar to, yet significantly different from, Piaget's. Fischer establishes levels of development similar to Piaget's, but stresses that those levels only signify the highest potential levels of achievement. This has proven to be a highly significant point. In reality, people seldom function at their full potential for sustained periods of time. The complexity of a test subject's response dynamically changes with the provided context and the quality of the prompt. In this way it is in line with Blumer. However, other theories, such as Piaget's and Vygotsky's, do not account for these variable dynamics, although Piaget did admit later in life that his original static views did not seem sufficient.

When a child is capable of significantly connecting two concepts together, the child will then be able to establish similarity and/or disparity between him/herself and others (e.g. I am big / She is small). Vygostsky noted that children process *differences* before similarities. At a higher level, a child is able to establish a concrete definition for attributes. For example, the four points, 'hardly ever talks', 'reads lots of books', 'has

few friends' and 'shy' can be combined to define the concept *introverted* or perhaps, *nerd* or *geek*. The understanding of these concepts affects his/her self-concept (Fischer, Hand, Watson, Van Parys, & Tucker, 1984). However, this does not mean that a subject will constantly and consistently make these establishments, much less consistently *verbalize* them simply for the sake of researchers. This point seems to have been at the crux of the confusion over human development and has innocently provided the fuel for debates for over a century.

2.1.1 Feelings and emotions

In everyday English, *feelings* and *emotions* are commonly described as being synonymous. However, in Educational Psychology, emotions are viewed as organizers that shape people's actions, thoughts and development (Fischer & Bidell, 2006; Immordino-Yang, 2008a, 2008b) and play a major role in "information acquisition and consolidation" (Tulving & Craik, 2000:471). However, emotions are generally not conscious.

At the conscious level we have *feelings*. Feelings are our conscious and *subjective interpretations* of our non-directly accessible emotions (Fischer, 2008b; Immordino-Yang, 2008b). Another term used for these interpretations is *affect* (OECD 2007:25).

> Evidence is now accumulating that our emotions do re-sculpt neural tissue. In situations of excessive stress or intense fear, social judgment and cognitive performance suffer through compromise to the neural processes of emotional regulation. Some stress is essential to meet challenges and can lead to better cognition and learning, but beyond a certain level it has the opposite effect (OCED, 2007:14).

Recent studies tell us that feelings and emotions can both have strong influence over a person. Generally speaking, a person who feels positive about a situation will produce more positive outcomes over a person in a similar context who feels negatively about the situation (Cheng, 1999). Bandura would certainly concur with this notion with his own theories of self–efficacy (1977 & 1997). However, because responses, feelings, and emotions dynamically change along with context, it should be noted that both short-term and long-term outcomes are also dynamically influenced by the immediate context and the society in which it resides. This notion has profound pedagogical implications. These implications shall be discussed in Chapter 5.

2.1.2 Summary

Current academia suggests that the self-concept is rooted in, and is dynamically affected by, social relationships. We frequently evaluate our *self* and evaluate each other consciously and unconsciously. These individual and collective evaluations and contexts affect our emotions, our own development, and the development of society. Understanding how these variables relate to each other dynamically may provide guidance for the development and implementation of more effective pedagogy for the classroom.

2.2 Self in Japan

The self and its construction is governed by the meaning and significance attached to the given cultural framework (Markus & Kitayama, 1994). Taylor (1989)

and Cheng (1999) stress that people coexist within their social frameworks and this is what helps them make sense of their own culture. The framework also teaches people how to behave within their culture. "(W)hat it means to be a self is defined by the framework through which an individual can judge what is good, valuable, and important" (Cheng, 1999). What can be said about the effects of American and Japanese cultures on cognitive development?

2.2.1 Disparity among cultures: America and Japan

There are *individualist* and *collectivist* cultures (Triandis, 1989). A slightly different classification system would say that there are *egocentric* and *sociocentric* cultures (Schweder & Bourne, 1984). American culture is typically claimed to be individualist and egocentric. In contrast, Japanese culture is typically known to be collectivist and sociocentric.

Markus and Kitayama (1991) discuss that there are independent and *inter*dependent conceptions of the self. The independent view focuses on the person's uniqueness while the interdependent view sees the self in relation to others. Again, the stereotypical American would identify with the former, and the stereotypical Japanese would identify with the latter.

Japanese tend to avoid self-praise and self-promotion in public. This has led to a fallacy that Japanese (and Asians in general) lack positive self-concepts (Cheng, 1999; Fischer, 2008b). Their positive self-concepts tend to be concealed, but are not necessarily missing. How much does this affect development? It seems clear that a

positive bias is a healthy and generally universal human trait (Fischer, 2008b) and that the degree of the social expression of the positive bias is merely culture dependent. How does concealment of the positive bias affect the individual? How does it affect the context? Alternatively, how does the context affect the concealment? This closely resembles a Whorfian debate. Fischer might say the results would be variable and that they would depend upon the quality of the provided contextual support.

Protocols for cognitive developmental research designed in the United States that do not take into account cultural differences, such as the ones discussed above, may provide erroneous data if blindly administered in Japan; Japanese subjects may be erroneously seen as being cognitively deficient. This may also lead to erroneous EFL classroom assessment. Kennedy (1994) and Cheng (1999), aware of such cultural pitfalls, conducted SiR research in Korea and Taiwan, respectively, and found that the Korean and Chinese subjects' responses in the contextual *high support condition* corresponded closely to their American counterparts, regardless of their Confucian influenced upbringings.

2.2.2 Ideological concerns

Japan is a country that shares ideologies and religions with Korea and China. However, each of these countries incorporates their own unique interpretation of them, and accordingly, each country has been affected by these ideologies and religions in varying ways.

Chinese Confucianism calls for respect of elders. Japanese *Neo*-Confucianism,

with its meshing of Japanese military code developed concurrently over the past several centuries of internal and external warfare, has traditionally *demanded* respect of subordinates, backed by genuine threats of corporal punishment. The deliberate implementation of Neo-Confucianism by the Tokugawa shogunate was successful in coalescing the war-ravaged Japan by enforcing a strict vertical social code known as filial piety. However, the price for this successful implementation was the emergence of isolationism and xenophobia.

Did traditional Neo-Confucianism pose a threat to English language learning and cultural acquisition in Japan? If so, how detrimental is it on *today's* students? *Teishu-kampaku* [亭主関白] (the notion that *the father has the blunt and absolute power* in the family) is historically well engrained in the Japanese society. Many other examples of traditional ideology remain in today's Japan. Hadley (1997: 494) notes:

> There is the classic expression: *Deru kugi wa utareru* (the nail which sticks up will be hammered), which is often told to middle school students as a warning not to become too individualistic or outstanding in any way so as to draw attention to oneself and away from the group. *Chinmoku wa kin* (silence is gold) values suppression of self-expression over speaking one's mind. *No aru taka wa tsume o kakusu* (skillful hawks hide their talons) is often said about people who modestly hide a great talent. Concepts such as *mono no aware* (the Japanese view of the transience and melancholy beauty in all life which is here today and gone tomorrow) are expressed in sayings such as *rakka eda ni kaerazu*, *hakyo futatabi terasazu*, meaning fallen blossoms do not return to branches; a broken mirror does not reflect again… Such metaphorical expressions are telling a very common fatalistic strain often heard in Japanese conversation: Life is often unfair, and there's nothing we can do about it.

This comparatively pessimistic, collectivist and interdependent ideology is

highly unlike prototypical “Go for the Gold!” pioneer-spirited, egocentric American beliefs. How deeply does this seemingly incorrigible ideological chasm affect the English language-learning environment in Japan?

2.2.3 Overcoming ideological boundaries

Can a truly American-minded EFL teacher *efficiently* teach a Japanese student who has been drilled with the notion *Deru kugi wa utareru* (the nail which sticks up will be hammered)? Can the ideological (and cultural) chasms be efficiently and effectively bridged? These questions are not entirely answerable from the SiR interview studies. However, as can be seen from the past studies, the contextual *high support condition* does appear to filter some of the ideological effects from the subjects’ thinking for the duration of the interview. A pedagogical method was designed with this specific solution to the predicament in mind. The method and theory behind it are discussed in Chapter 5.

2.2.4 Summary

Considering the cultural and ideological differences present in the East vs. West scenario, future research projects originating from the West should be designed with higher sensitivity to cultural and ideological differences than most currently do incorporate. Most Western-based studies on the Chinese self and the Japanese self, typically relying on (low/no support) questionnaires, fail to provide a trustworthy picture of the relationship of age, culture, cognition and emotion and how they affect

the creation of the self (Cheng, 1999). Implementation of a contextual *high support condition* in EFL classrooms in Japan may be beneficial in filtering out effects of Confucian ideology for the sake of better pedagogic research and better pedagogical development. This may be helpful in bridging the chasm, especially if the effects of Confucianism prove to be detrimental within the EFL context.

2.3 Fischer's skill theory

Fischer proposed a hierarchy of thirteen developmental levels broken into four tiers (1980) similar to Piaget's 'Four levels of development': (1) infancy, (2) preschool, (3) childhood, and (4) adolescence. Fischer's tiers, from bottom to the top are: reflexes, actions, representations, and abstractions. Each tier consists of four levels. The top level in each teach tier doubles as the first level of the next tier, therefore the total number of levels is thirteen (Fig 2.3a).

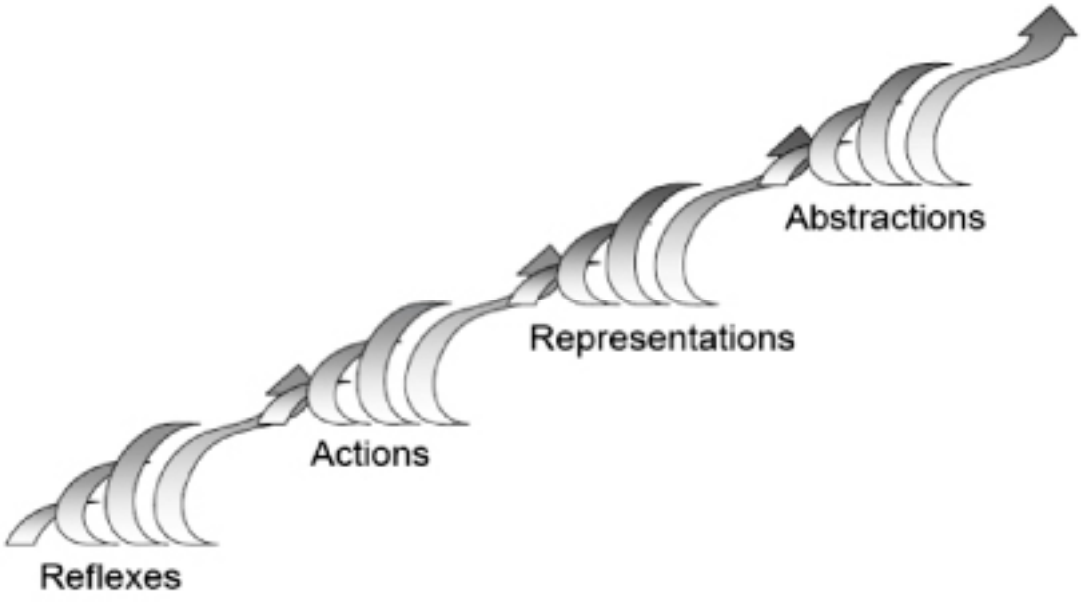
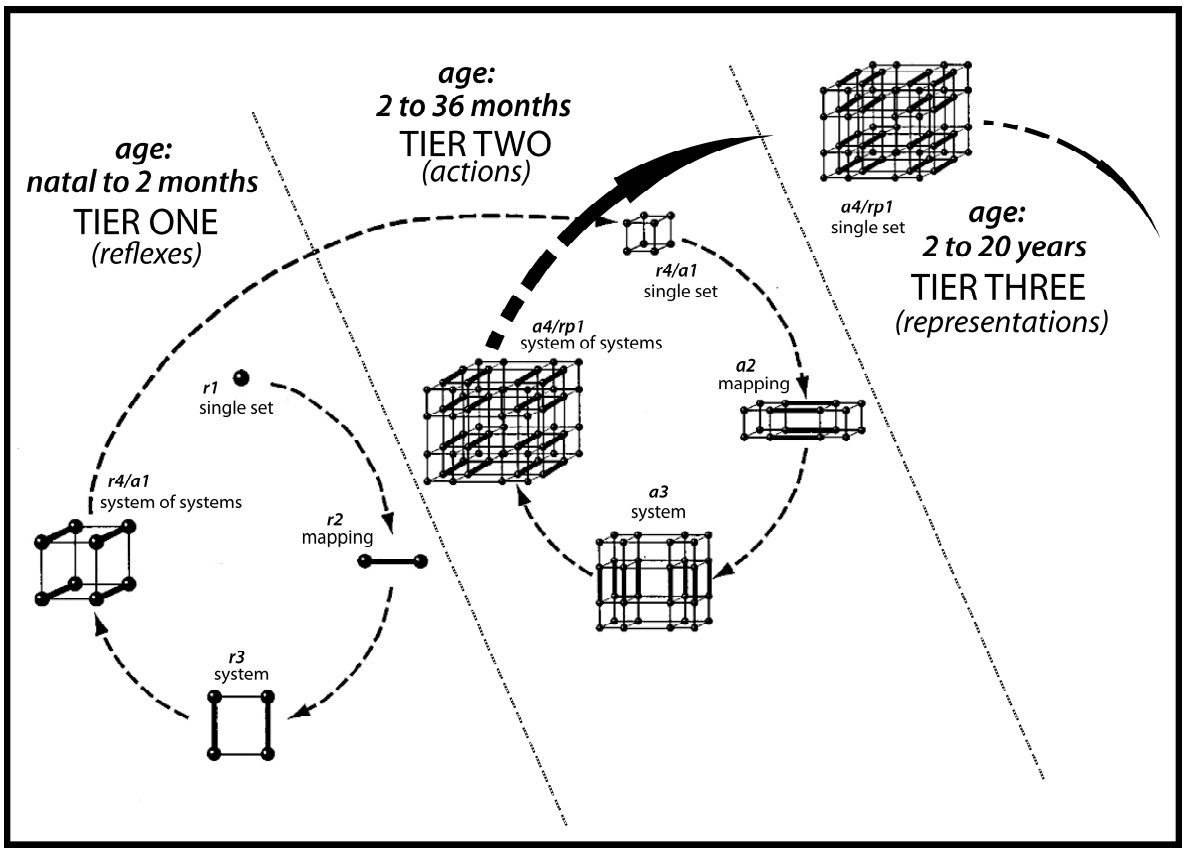


Fig. 2.3a. The 13 levels and 4 tiers of development in Fischer's Skill Theory (2008b).

Each tier represents an evolutionary series of potential skills. At the first level of any tier, the individual is able to manipulate only a *single set* within that tier. At the second level, the individual is capable of creating a *mapping* between two sets and identifying the relationship between the two sets. At the third level, the individual can coordinate several mappings to produce a *system of mappings*. At the fourth and final level, the individual is able to coordinate and relate systems to other systems, producing a *system of systems*. This *system of systems* is also the beginning of the next tier, where it is viewed as the first *set* within that tier, and the entire process follows the same pattern again (Fig. 2.3b).



Skill Level	*Optimal*	*Functional*
Rp 1 Single Representations	2 years	2 to 5 years
Rp 2 Representational Mappings	4	4 to 8
Rp 3 Representational Systems	6	7 to 12
Rp4/Ab1 Single Abstractions	10	12 to 20
Ab2 Abstract Mappings	15	17 to 30
Ab3 Abstract Systems	20	23 to 40 (or never)
Ab4/P Single Principles	25	30 to 45 (or never)

Fig. 2.3b. Emergences of skill level by age (adapted from Fischer, 2008b).

Single Representations (Rp1)

The subject can conceive a characteristic of an event, object or person independent of their own immediate perceptions and/or actions.

Representational Mappings (Rp2)

The subject can coordinate two or more single representations such as, "Mommy is tall" to "Sister is short."

Representational Systems (Rp3)

The subject can comprehend complicated concrete ideas and events by integrating several representations into a system – "My brother is two years older than me, but he is shorter and does not have as many friends as I do." (The complexities of age difference, height and number of friends are comprehended and expressed in a single sentence.)

System of Representational Systems/Single Abstractions (Rp4/Ab1)

This is the beginning of abstractions. Intangible concepts such as *unpopular* can be derived from concrete instances such as "Shouts a lot", "Not helpful at school", and "Walks home alone" by the subject.

Abstract Mappings (Ab2)

The subject can coordinate two or more single abstractions. Example: "Being *comfortable with your boyfriend* is a necessary condition for your *own self happiness*."

Abstract Systems (Ab3)

The subject can comprehend and coordinate groups of abstractions into complex relations with each other. Example: 'being able to integrate the concepts of freedom, conformity and social pressure into a general concept of responsible individuality' (Kennedy, 1994:186)

Single Principles (Ab4/P1)

The subject can provide a fully encompassing principle, similar in level to a psychologist's analysis of a client, or a postgraduate student's knowledge of their particular field in academia.

2.3.1 Variability and structural dynamism

As discussed earlier, studies based on hierarchal development such as skill theory must take into account possible variability in responses. There are significant gaps between *optimal* and *functional* performances (Fig. 2.3.1) that increase in size with age (Fischer & Bullock, 1984). However, few studies actually do take variability into

account. Studies that neglect to account for such dynamics cannot fully capture the reality of cognitive development.

Skill theory strongly suggests that contextual *high support* situations can yield *optimal* performance, but typical open-ended interviews, receiving spontaneous responses and/or computer based questionnaires which are deemed *low support*, usually only elicit *functional* performance. Since the optimal and the functional levels are both equally relevant in assessing the development of individuals, it is necessary for researchers to map the subjects' *developmental range* (Fischer, 2008b; Cheng, 1999), and assess accordingly. Additionally, Murphy & Post (2009) have found that the immediate context has a significant effect on lexical choices of test subjects, further complicating the issue of developmental assessment. For these reasons, not only does the existence of variability need to be assumed, "These kinds of variations need to be center stage and the focus of developmental analysis" (Fischer & Bidell, 2006:317).

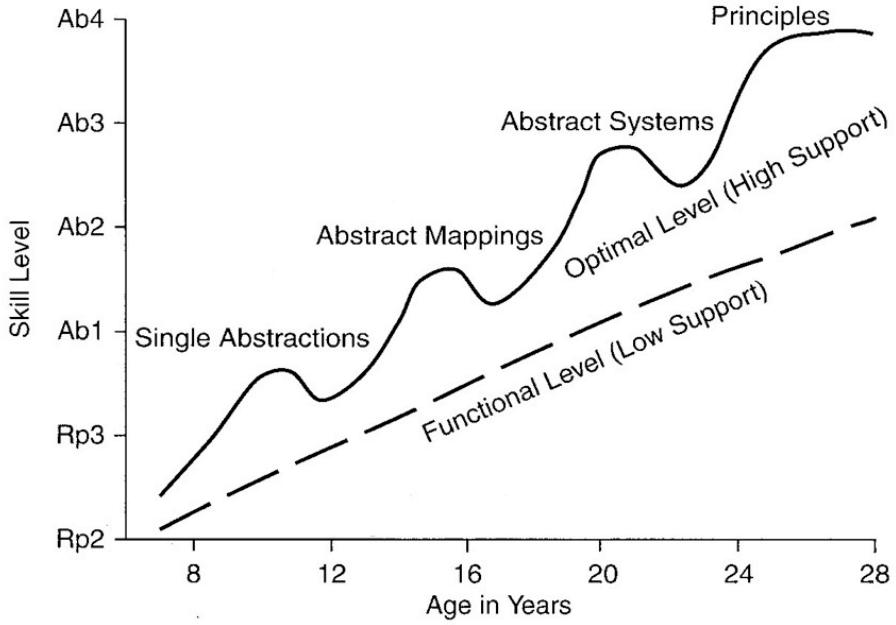


Fig. 2.3.1. Functional and Optimal levels gap widens with age (Fischer, 2008b).

Using skill theory, Kennedy (1994) adapted work done by Harter & Monsour (1992) and designed the protocols for the Self in Relationships (SiR) interview. Kennedy used SiR to research Korean students. In Korea, he found significant variability. Large gaps in performance were discovered between low support situations and high support situations. However, in the high support situations, the Korean students demonstrated stage-like changes at the predicted ages (Kennedy, 1994).

In Wang (1997), the SiR was used on Chinese adolescents. This study also showed a similar variability, as did with Cheng (1999) on Taiwanese students. Based on the indications found in these studies, I also suggest that variability is a reality and that the differentiation and labeling of optimal and functional levels is justified. Therefore, the protocols for variability have been implemented into this pilot study as well.

2.3.2 Summary

Fischer's skill theory is a *neo*-Piagetian theory of development. It has been in development since 1980 and has been tested outside the United States, namely, China, Taiwan, Korea, and now, Japan. Additionally, the recognition of low support vs. high support and functional vs. optimal levels of performance are significant features of the SiR interview and are core elements of dynamic structuralism.

How was the SiR interview implemented in Japan? How does it connect to the EFL context? Chapter 3 will provide details on the SiR-Japan protocols. Section 2.4 (below) and Chapter 5 secure Fischer's theories and the SiR research to the field of TESOL.

2.4 Connection to Second Language Acquisition (SLA) and TESOL

Although Fischer is classified as a neo-Piagetian in the realm of Educational Psychology, he is still relatively unknown in the field of SLA. In contrast, his long time colleague at Harvard, Gardner, is prominent in SLA and TESOL (Teaching of English as a Second Language) primarily for his development of Multiple Intelligences [MI] theory (1983).

Much like Gardner of today, Piaget was a prominent figure in Psychology, yet Piaget also played a large role in the development of modern SLA theory. Considering Piaget's strong connection to SLA, Fischer's work, which is a substantial improvement over Piaget's work, should prove to be well suited for integration into SLA research.

Brown (2007: 15, 99) maintains the three historic schools of thought in SLA: Behavioristic, Cognitive, and Constructivist. Although it is currently not considered in the SLA context, Fischer's skill theory should sit well within the SLA modes of thought, as does Piaget's and Vygotsky's. This dissertation marks a belated union of Fischer's theories and SLA and uses implications from Fischer's work to develop new pedagogic ideas for TESOL purposes.

2.4.1 Other EFL methodologies in Japan

Although the traditional Grammar-Translation [G/T] based English lessons are still prevalent in classrooms of Japan, are there pedagogic ideas emerging as potential replacements? Perhaps as a reactionary movement against G/T, Task Based

Learning [TBL] and Student Centered Learning are currently in vogue (Willis & Willis, 2009). Willis and Willis have been discussing, over the span of several decades, the importance of a shift away from teacher-centered and textbook-centered teaching and stress a stronger focus on individual learner needs.

Another avid proponent is PPP. Infamous, but ever popular in EFL/ESL textbooks, the *Presentation, Practice, Production* [PPP] method is openly condemned by many EFL researchers (Evans, 1999). Willis et al. (1996:46) note, "we cannot isolate a particular language form and 'present' it to learners in such a way that it becomes part of their communicative performance." Isolated blocks of knowledge do not simply synthesize into a useable understanding of a language via a few minutes of classroom practice of 'presented' forms. Yet, PPP prevails as the popular alternative to G/T. The pedagogy put forth later in this dissertation (Chapter 5) sides with Willis et al. (Task-Based Learning). It has been designed out of a similar opposition to G/T and PPP methodologies.

2.4.2 Learning vs. Understanding

Outside of the realm of TESOL in Japan, but core to Educational Psychology, is the research of Perkins, with concepts such as Teaching for Understanding [TfU], and Performance of Understanding [PoU] (1993). Similar to Willis and Willis, Perkins, a close colleague of Fischer and Gardner, also focuses on student development and needs. He makes the critical distinction of *learning* vs. *understanding*.

In Perkinsonian thought, *learning* refers to the level of academics where

students are prepared to recall or recite what they have memorized for a test or a test-like situation. Perkins' argument is that this level is mostly meaningless in the real world. On the other hand, *understanding* is the level of academics where the student is able to manipulate their acquired knowledge and practically apply it to the real world when necessary. The *demonstration* of such manipulation of knowledge is called a *Performance of Understanding* or a PoU. In the classroom, assessment of PoUs can/should replace traditional tests that only focus on shallower *learning*. PoUs play a significant role in the pedagogy that will be introduced later in this dissertation (Chapter 5).

2.4.3 Other issues

Three other issues in SLA of significance to this dissertation are:

A. Autonomy, awareness, and action

"...significant factor(s) accounting for acquisition" (Brown, 2007:292 & 130-132) How can the 3As be effectively implemented in the classroom? What is an effective balance of the 3As?

B. Whorfian Hypothesis (1956)

To what degree does language shape cognition? How does context and culture affect language? How restrictive is it?

C. Second culture acquisition

What is the real significance of culture in relation to SLA? What can be done in the classroom to foster a deeper appreciation and understanding of culture?

2.4.4 Synthesis

Several diverse areas of research have been discussed in the chapter. What can

be done to synthesize these diverse areas of research to the benefit of TESOL in Japan and elsewhere? Gonzalez proposed a theoretical *Multidimensional Model* (1999:113) depicting the overlapping relationship between cognition, language and culture in SLA. This model has become the foundation of the synthesis of these areas in academics that shall be discussed throughout the remainder this dissertation.

CHAPTER 3. RESEARCH METHODOLOGY

This chapter begins with the research sites and the criteria for selecting participants. I shall then introduce the measurement tools, the interview context, and the low vs. high support conditions used in the interview process.

3.1 Research sites and the participants

This research was conducted in Kitakyushu City and in Onga Town, on the island of Kyushu in Japan. Kitakyushu is a city of approximately one million people. Onga town is a town of 20,000 people, adjacent to Kitakyushu city.

This research is a pilot study for SiR-based research in Japan. It is the first to be directly connected to the Japanese EFL context. Nine volunteer subjects were recruited, ranging in age from 12 to 20. These ages were chosen because they span three developmental stages proposed in Fischer's skill theory.

Kennedy (1994) and Cheng (1999) both found slight gender related differences in their SiR research. To countermand any possible affects of gender differences within the small sample group, only female volunteers were selected for this study.

In an attempt to recruit 'typical' Japanese subjects for the study, the subjects recruited between 12 and 15 all attended local junior high schools; the subjects between 19 and 20 were all students at the University of Occupational and Environmental Health (UOEH) in Kitakyushu City. UOEH is a moderately competitive university.

3.2 Measurement and procedures

The SiR interview, as developed at the Harvard Graduate School of Education by Kennedy (1994), examines the differentiation of self while accounting for skill levels, development sequences and the affects of varying assessment conditions (Cheng, 1999). It allows subjects to discuss how they evaluate themselves and their relationships with relatives and friends (psychosocial roles), in a location and context that allows the subjects to ignore typical cultural impediments. The contextual support written into the SiR protocols created a condition that allowed the subjects to provide answers to the interview questions in higher detail than would normally be expected. Pedagogic implications stemming from this procedure are discussed in Chapter 5.

Being bilingual, I personally conducted each interview with the subjects in Japanese. Each interview lasted approximately 50 minutes. All of the interviews were digitally recorded and later transcribed for analysis (Samples of transcriptions can be found in Appendix D).

Each interview began with a brief greeting and brief explanation of the study. The subjects were asked to complete their demographics sheet (Appendix B). They were then told that the interview needed to be recorded, but would be kept strictly confidential. The subjects provided permission for the recorded interview and the recording commenced.

3.2.1 Low support condition

The low support condition is, in many ways, similar to typical conversation in an EFL classroom. It elicits spontaneous responses about the self and the self in relationship to others. First, the subjects were asked to describe themselves. They were then asked what they were like with their: mother, father, brother/sister, boyfriend, best friend, acquaintance, in school and what they considered to be their 'real me'.

Examples

"What are you like when you are with your *mother*?"

"What are you like when you are *in class*?"

The subjects were then asked if any of those traits seemed to positively match. They were then asked if any of those traits seemed contradictory, and to describe those contradictions (see Appendix B for the full Japanese protocol).

3.2.2 High support condition

The contextual high support condition, which was invariably conducted immediately after the low support condition, required the subjects to focus more intensely, provide more details and complete written tasks that were designed to elicit deeper thinking. The written tasks, using the SiR diagram (Appendix A), provided a visual and tactile map of the dynamic relations between the self-descriptions and the psychosocial roles discussed. The tasks enabled the subjects to construct a visual representation of themselves that was then probed and discussed in much greater detail than would have been possible in the low support condition.

Five points considered in the high support context:

1. age
2. psychosocial roles
3. emotional valences
4. degree of importance
5. skill level (cognitive complexity)

Six-step high support process

1. Ask the subjects the same psychosocial contextual questions as in the low support condition, but have them write their responses on paper.

2. Have the subjects provide emotional valences for the written responses.

Subjects were asked to write a '+', a '-' or a '+/-' next to each response, to show if they thought positively, negatively, or neutrally about their response; this was to provide emotional valence to their self in each psychosocial context.

3. Begin the SiR diagramming

Subjects were asked to transfer each of their responses to individual mini-gummed labels and then stick each individual response in the most appropriate region on the A2-sized (420 x 594 mm or 16.5 x 23.4 in) SiR diagram (see Appendix A). The SiR diagram provides three regions for response:

(1) *highly important*

(2) *somewhat important*

(3) *not important*.

Subjects were allowed to move their gummed labels around until they were satisfied with their results.

4. Group and title the responses

(A) Subjects were asked to group together the responses (gummed labels) that seemed eligible for grouping. However, they were not allowed to move responses out of their original region (a response in the 'highly important' region was not allowed to be relocated into the 'not important' region for the sake of grouping).

(B) Subjects were asked to draw a circle around all the groups that were found, and to provide a descriptive title for each of the groups.

(C) Subjects were asked to draw simple lines connecting responses and/or groups of responses that seemed similar in some way.

(D) Subjects were asked to draw arrow-headed lines connecting responses and/or groups of responses that seemed contradictory in some way.

5. Inquiry: The subjects were asked to discuss:

(A) Criteria for *importance region* selection

Subjects were asked how they decided where each response fit within the gradation from 'highly important' to 'not very important'.

(B) Feelings regarding their own contradictory responses

Subjects were asked how they felt about the apparent contradictions that surfaced, such as [*quiet* (with father)], yet [*talkative* (with mother)].

6. Respond to the probes for skill level assessment

Five probes were used to assess the level of development in the subjects (see Appendix C). The probes were modeled after Kennedy's (1994) and

Cheng's (1999) probe designs. The probes correspond to specific level in Fischer's skill theory: *Representational Systems, Single Abstractions, Abstract Mappings, Abstract Systems and Principle* (Table 3.2.2).

Table 3.2.2 The five probes used to help determine the emergence of skill levels

Probe for Representational Systems (Rp3)
Subjects are asked what they were like for a particular self-description. "Can you tell me what you are like when you feel [*happy* (with your mother)]?"
Probe for Single Abstractions (Rp4/Ab1)
In contrast to the Rp3 probe, this probe asks subjects to provide definitions. "Can you tell me what [*quiet* (when with your father)] means?"
Probe for Abstract Mappings (Ab2)
Subjects are asked to relate two single abstractions to each other. Only self-descriptions that were deemed related were chosen for the probing. "Can you tell me the relationship between [*quiet* (with father)] and [*talkative* (with mother)]? How are they related?"
Probe for Abstract System (Ab3)
Subjects were asked to discuss the relationship between entire groups of self-descriptions. Each group had already been titled by the subject. "Can you tell me how this group titled '*diligence*' relates to this group titled '*happiness*'?"
Probe for Principle (Ab4/P1)
The Ab4/P1 level is a level of development that normally only occurs after 25 years of age. The oldest subject was 20 years of age. Subjects were asked if they could look at their SiR diagram and extrapolate a comprehensive principle about themselves.

Each subject completed their own SiR diagram. The probes were provided to determine how well the subjects were able to coordinate responses regarding the relationships of the their own responses appearing on the gummy labels on the SiR diagram. Kennedy (1994) discussed that choosing areas that have already been deemed related and/or salient would provide better chances for the subject to respond the deepest, thus establishing the highest high support possible within the given context. Thus, only areas that subjects indicated as being related or appeared salient were probed for this study.

CHAPTER 4. RESULTS

Did the pilot study support the predictions? What implications are there for TESOL in Japan? SiR interview responses were analyzed by age, psychosocial role, emotional valence, self-importance and by skill level. The analysis provided information about valenced self-descriptions by role, positive bias, valence proportions (plus, minus and plus-minus *[positive, negative, and neutral]*), skill development sequence, and emergence ages of skill development. Analysis also uncovered the most positive, the most negative, and the most neutral psychosocial relationships per subject, and per group.

4.1 Attaining individual subject results

This section shall describe how the individual subject results were attained. The information shall be presented in this order: demographic data, *valence sum* data and pie chart, *psychosocial role vs. valence* chart with percentages, *valenced self-description by psychosocial role* bar graph, *psychosocial role valence* data chart, highest displayed skill level (Rp3, Rp4/Ab1, Ab2, Ab3, or Ab4) and a summary of the those results. Below are the details of the procedures.

Valence sum data and pie chart

Valence in this context refers to the subjective *feeling* (positive, negative or neutral) that the subject attaches to each discussed topic. Valence hits were totaled per

valence category (provided symbolically as plus, minus, and plus-minus by the subjects). Then, each valence category total was divided by the grand total of hits and multiplied by 100 to determine the percentage of hits per valence category. The results have been provided in pie chart form along with the numeric data.

Psychosocial role vs. valence chart with percentages

Each psychosocial role category's (mother, father, brother/sister, boyfriend, best friend, acquaintance, in class, and 'real me') hits were calculated individually by *valence* (plus, minus, or plus-minus). The hit percentages were calculated per psychosocial role category per valence category and recorded in the chart. Overall total hits and overall hit percentages have also been provided in two the far right columns.

Valenced self-description by psychosocial role bar graph

Each psychosocial role's hits were calculated per valence (plus, minus, and plus-minus) category. A bar graph was created by adding the hits per psychosocial role. The exact numbers have been tabulated in the *psychosocial role/valence data chart* below the bar graph.

4.2 One typical and one atypical result pattern

This subsection shall present one typical and one *atypical* set of data and summaries. The sections after that shall present the grouped results and the analysis of the grouped results.

Individual 'typical' results: *Ichigo*

Demographic data

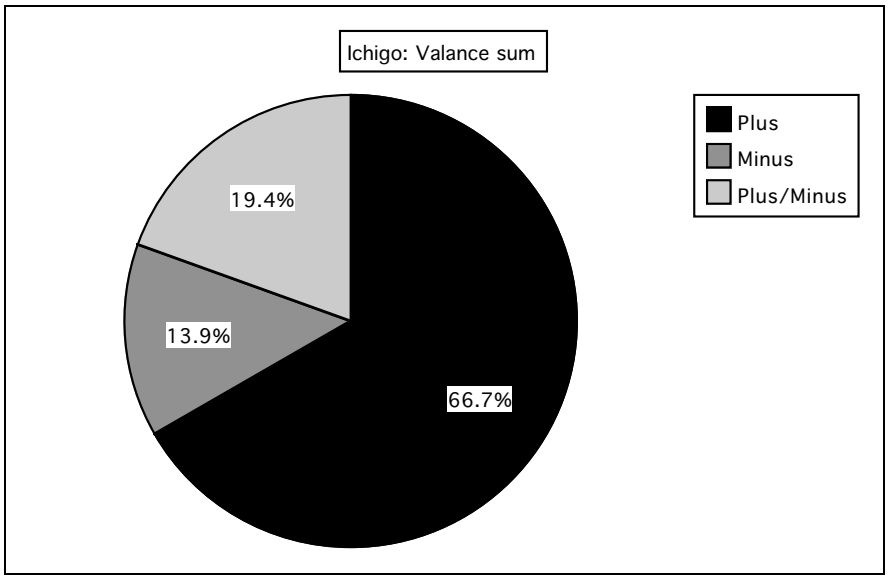
Nickname: *Ichigo*

Age: 19

Father: college graduate, 50 years old

Mother: junior college graduate, 45 years old

Siblings: 1 brother, 17 years old

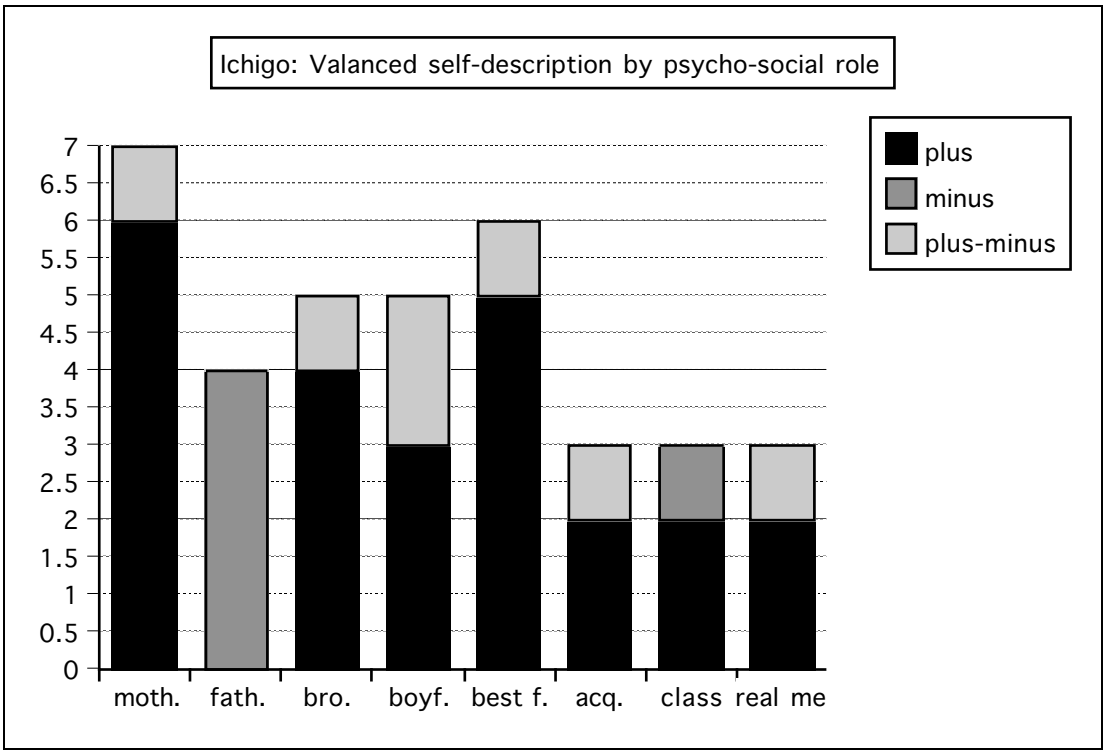


plus	%	minus	%	plus-minus	%	total responses
24	66.7	5	13.9	7	19.4	36.0

Fig. 4.2a. Valence sum data.

SUBJECT: *ichigo*	plus	%	minus	%	plus-minus	%	Total hits	Hit %
mother	6	86	0	0	1	14	7	19.4
father	0	0	4	100	0	0	4	11.1
brother/sister	4	80	0	0	1	20	5	13.9
boyfriend	3	60	0	0	2	40	5	13.9
best friend	5	83	0	0	1	17	6	16.7
acquaintance	2	67	0	0	1	33	3	8.3
in class	2	67	1	33	0	0	3	8.3
"real me"	2	67	0	0	1	33	3	8.3

Fig. 4.2b. Psychosocial role vs. valence chart with percentages.



	plus	minus	plus-minus
mother	6	0	1
father	0	4	0
brother/sister	4	0	1
boyfriend	3	0	2
best friend	5	0	1
acquaintance	2	0	1
in class	2	1	0
"real me"	2	0	1

Fig. 4.2c. Valenced self-description by psychosocial role data chart and color-coded bar graph.

Skill level test results:

Rp3: pass
Ab1: pass, linguistically questionable
Ab2: pass
Ab3: fail; two points per group are discussed, however, no concrete connection among them is established
P1: fail; not a principle

Summary

Based on past SiR findings and skill theory, *Ichigo* demonstrated typical growth for a nineteen year old. She showed a positively weighed valance sum (66.7%; Fig. 4.2a & 4.2b). The only negativity was found in her psychosocial role *father* (strongly) and, *in class* (Fig. 4.2c). In the low support condition, Ichigo's highest demonstrated skill level was at the first level of Abstractions (Ab1). In the high support condition, Ichigo's highest demonstrated skill level was Ab2, however, although she was given a pass mark on Ab1 in the high support condition, her response was linguistically questionable. There may have been a linguistic impediment. Ichigo seemed to have trouble with articulating an Ab1 level response. This linguistic impediment may have kept her from achieving level Ab3. More probing may have produced higher results. However, her results overall are representative of a typical response pattern. Her quoted criteria for *importance region* selection: "If it is like me or if it is unlike me. (*Like me* goes in the 'important' region while *unlike me* goes in the 'unimportant' region.)"

Individual 'atypical' results: *Morimori*

Demographic data

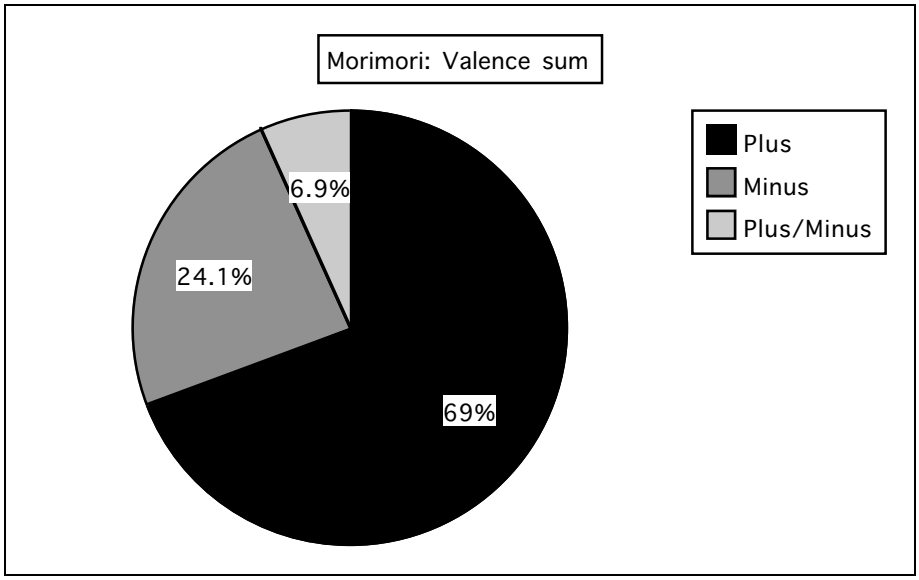
Nickname: Morimori

Age:19

Father: graduate school graduate, 50 years old

Mother: high school graduate, 44 years old

Siblings: 1 brother, 15 years old

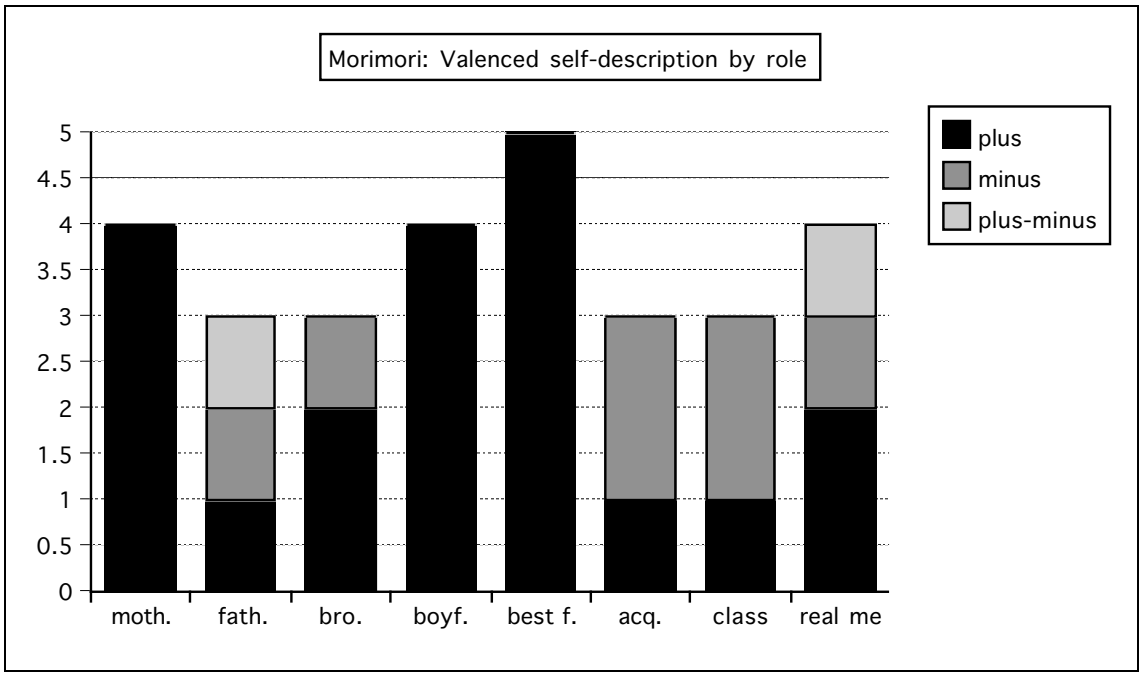


plus	%	minus	%	plus-minus	%	total responses
20	69.0	7	24.1	2	6.9	29.0

Fig. 4.2d. Valence sum data.

SUBJECT: *morimori*	plus	%	minus	%	plus-minus	%	Total hits	Hit %
mother	4	100	0	0	0	0	4	13.8
father	1	33	1	33	1	33	3	10.3
brother/sister	2	67	1	33	0	0	3	10.3
boyfriend	4	100	0	0	0	0	4	13.8
best friend	5	100	0	0	0	0	5	17.2
acquaintance	1	33	2	67	0	0	3	10.3
in class	1	33	2	67	0	0	3	10.3
"real me"	2	50	1	25	1	25	4	13.8

Fig. 4.2e. Psychosocial role vs. valence chart with percentages.



	plus	minus	plus-minus
mother	4	0	0
father	1	1	1
brother/sister	2	1	0
boyfriend	4	0	0
best friend	5	0	0
acquaintance	1	2	0
in class	1	2	0
"real me"	2	1	1

Fig. 4.2f. Valenced self-description by psychosocial role data chart and color-coded bar graph.

Skill level test results:

Rp3: pass
Ab1: fail; no definition supplied, Rp3 level response
Ab2: fail; no concrete connections are made
Ab3: fail; attempts to connect the two groups, no mention is made of the content of either group
P1: fail; not a principle

Summary

Based on past SiR findings and skill theory, *Morimori* demonstrated *atypical* growth for a nineteen year old. Morimori scored well below average; she demonstrated linguistic difficulties in the entire Abstractions (Ab) level range. She showed a positively weighed valence sum (69%) (Fig. 4.2d & Fig. 4.2e); this is typical. The strongest measure of negativity was found in the psychosocial role *acquaintance*, and, *in class* (Fig. 4.2f). Other negativity factors occurred with *father*, *brother/sister* and *'real me'*; this wide range of negativity is atypical. In the low support condition, Morimori's highest demonstrated skill level was Ab1. In the high support condition, Morimori's highest demonstrated skill level was at Rp3. Linguistic difficulties may have caused this highly atypical, and somewhat absurd, pattern. Morimori seemed to have trouble with articulating Ab level responses. More probing may have produced higher results. Criteria for *importance* regions: "I put the ones that I should not loose within me at the top, that order (laugh)."

4.3 Attaining grouped results

Were there actually stage-like trends in the development of the Japanese subjects? This section shall describe how the grouped results were attained, for the purpose of answering this question. Section 4.5 shall provide the attained results.

Sub-section 4.4.1 (Results, part I), presents data in the same order as was presented in 4.2. Sub-section 4.4.2 (Results, part II) presents newer types of grouped data in the following areas:

Age specific results

Responses by age data chart and bar graph

Response count deviance by age data chart and deviance graph

Skills Theory specific results

Emergence of skill levels by age graph

Highest skill level achieved per age group data and bar graph

Valence per psychosocial role specific results

'*Minus*' *(negativity) hits* data, bar graph and pie graph

'*Plus*' *(positivity) hits* data, bar graph and pie graph

'*Plus-minus*' *(neutral) hits* data, bar graph and pie graph

4.4 Summary of results

4.4.1 Results (I)

Demographic data

Number of subjects: 9

Ages: 12, 13, 15, 19, 19, 19, 19, 19, 20

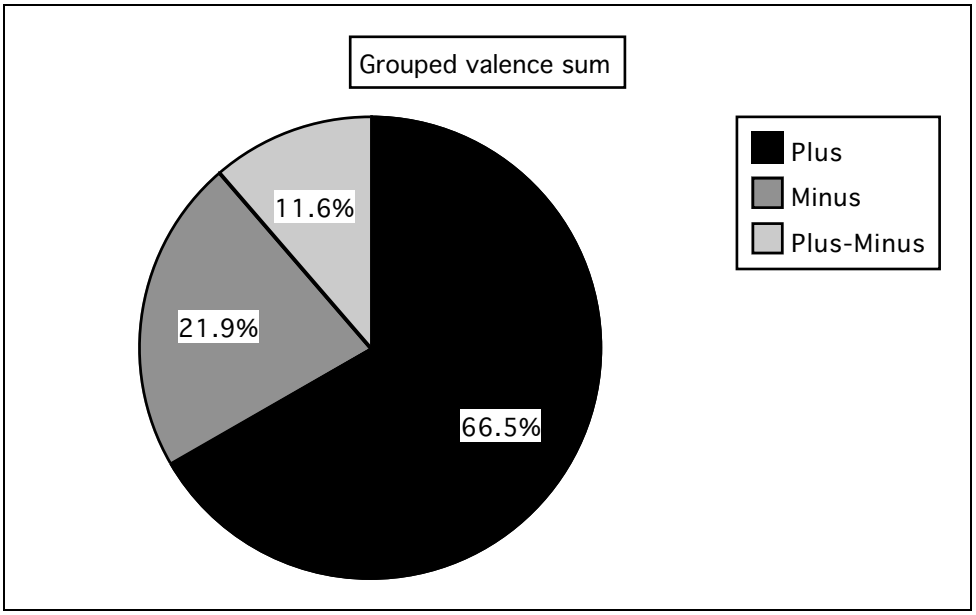
Fathers: 1 technical college graduate
7 college graduates
1 graduate school graduate
age range: 46 to 57
average age: 50

Mothers: 4 high school graduates
2 junior/nursing college graduates
3 college graduates
age range: 37 to 53
average age: 44.1

Brother/sisters:
Avg. 2.0 siblings per family

Summary

Subjects were volunteers from junior high school (age range 12 to 15) and from college (age range 19 to 20). The average father is a college graduate at age 50. The average mother is a high school graduate at age 44. Subjects averaged one sibling each.



plus	%	minus	%	plus-minus	%	total responses
167	66.5	55	21.9	29	11.6	251

Fig. 4.4.1a. Grouped valence sum data.

Grouped data	plus	%	minus	%	plus-minus	%	total	%
mother	32	84	3	8	3	8	38	15.3
father	14	47	12	40	4	13	30	12.0
brother/sister	27	82	5	15	1	3	33	13.3
boyfriend	28	82	3	9	3	9	34	13.7
best friend	32	91	1	3	2	6	35	14.1
acquaintance	8	38	8	38	5	24	21	8.4
in class	12	40	16	53	2	7	30	12.0
"real me"	12	43	7	25	9	32	28	11.2

Fig. 4.4.1b. Grouped psychosocial role vs. valence chart with percentages.

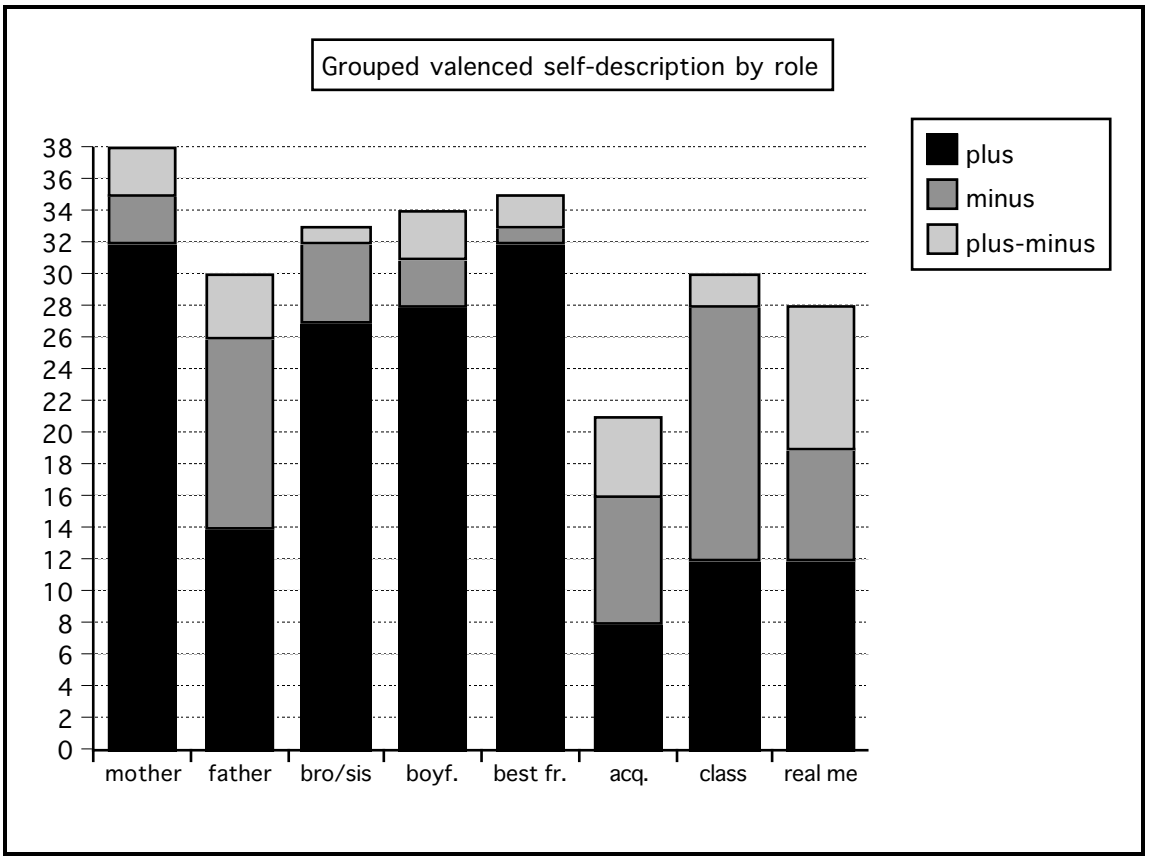


Fig. 4.4.1c. Valenced self-description by psychosocial role data chart and color-coded bar graph.

Summary

The grouped data demonstrated mostly typical growth for subjects between 12 and 20 years of age. The averaged valence sum showed a positively weighed sum (66.5%; Fig. 4.4.1a & 4.4.1b). Most negativity was found in the psychosocial role *in class* and, *father* (Fig. 4.4.1c). In the low support condition, the highest demonstrated skill level was Ab1. In the high support condition, the highest demonstrated skill level varied by age (discussed in next section).

4.4.2 Results (II)

I. Age specific results

Age does not seem to be a factor in the *number* of responses attainted. However age does seem to make a significant difference in the *dynamics* of the responses (Fig. 4.4.2f).

	I love		12	mac		13	potato		15	morimori		19	tomato		19
important	18	0	0	12	0	0	26	0	0	15	0	0	13	2	1
somewhat important	0	0	2	0	1	3	0	4	0	5	6	2	2	2	4
not important	0	5	0	0	2	0	0	6	0	0	1	0	0	4	0
(valence)	p	m	p-m	p	m	p-m	p	m	p-m	p	m	p-m	p	m	p-m

	ichigo		19	Maegami		19	ringo		19	karaage		20
important	21	0	7	10	1	2	16	0	0	9	0	0
somewhat important	3	1	0	10	2	2	0	3	1	6	0	2
not important	0	4	0	1	8	1	0	2	0	0	1	2
(valence)	p	m	p-m	p	m	p-m	p	m	p-m	p	m	p-m

Fig. 4.4.2a. Importance region hits prevalence per subject.

Between the ages of 12 and 15, each subject has only *one* area of response per importance, per valence area. It seems that subjects under 15 are not capable of, or not inclined to, mix emotional valence with different degrees of importance (only *one* emotional valence correlates with *one* particular degree of importance for subjects 15 or younger). In contrast, all subjects past the age of 15 were capable of producing responses that mixed various emotional valences with various importance levels. If proven to be true with a larger sample, this will have strong pedagogic implications for elementary and junior high school teachers in Japan.

II. Skill theory specific results

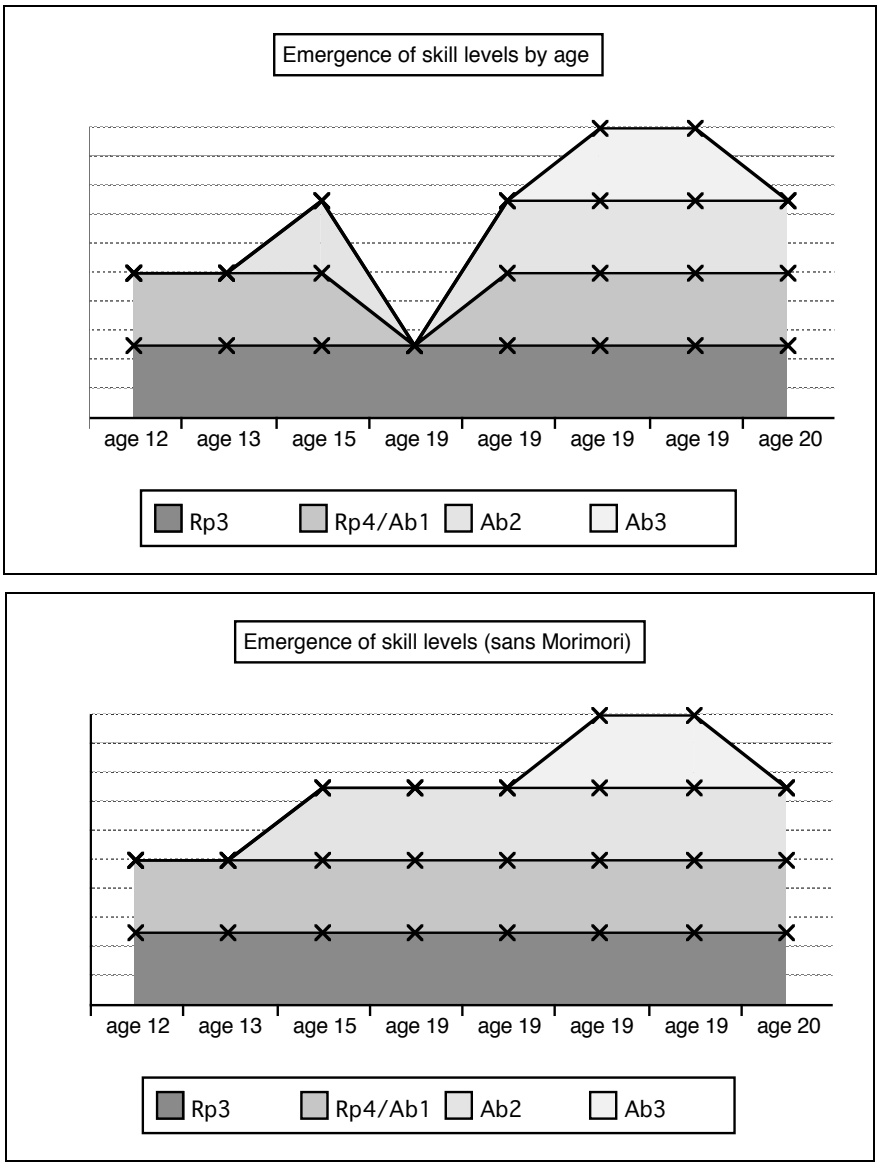


Fig. 4.4.2b. Emergence of skill levels by age graph (and corrected version).

Figure 4.4.2b (top) shows overall performance of the entire test group. The first decline in performance is due to the atypical data presented by *Morimori*. The corrected graph (Fig.4.4.2b, bottom), depicts a deletion of *Morimori*'s data from the sample and shows clear stage-like levels of performance almost identical to skill theory.

III. Valence per psychosocial role specific results

mother	father	brother/sister	boyfriend	best friend	acquaintance	in class	real me
3	12	5	3	1	8	16	7

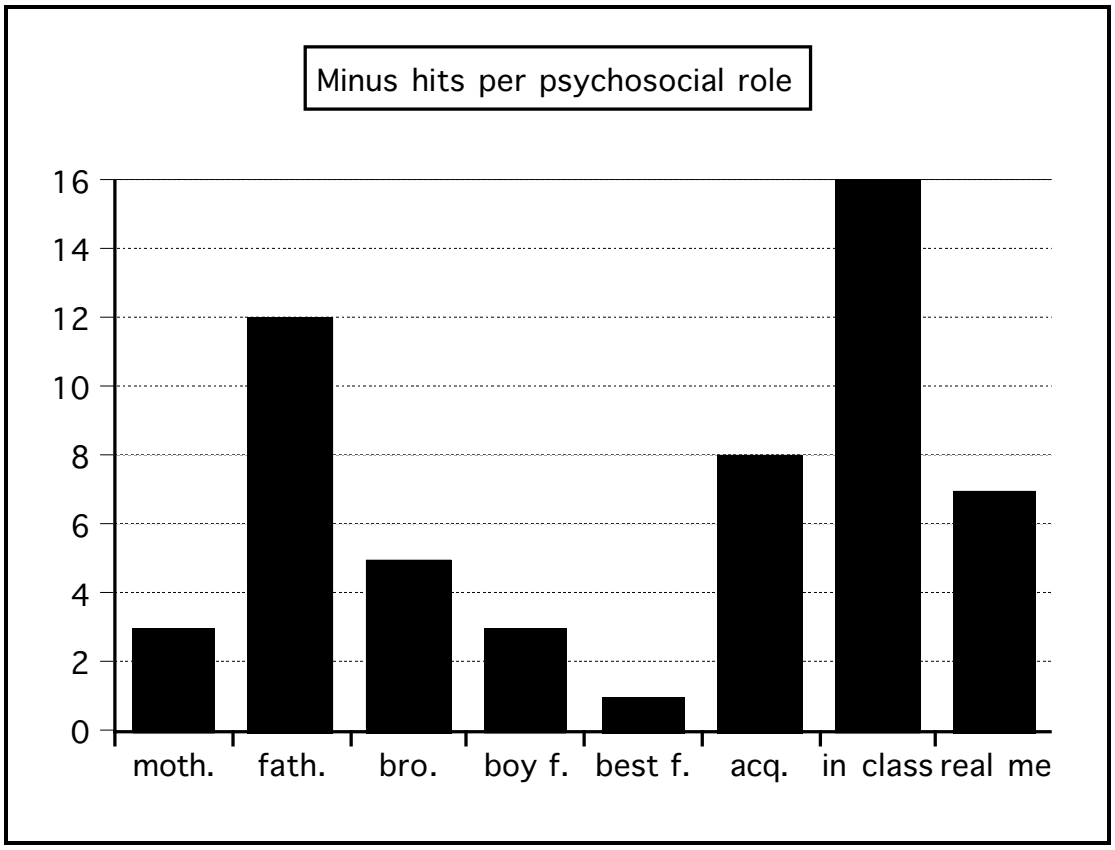


Fig. 4.4.2c. Minus hits per psychosocial role.

The highest negativity per psychosocial role (Fig. 4.4.2c) was found in: *in class* (29%), *father* (22%) and *acquaintance* (15%). *Real me* was a close fourth place.

mother	father	brother/sister	boyfriend	best friend	acquaintance	in class	real me
32	14	27	28	32	8	12	12

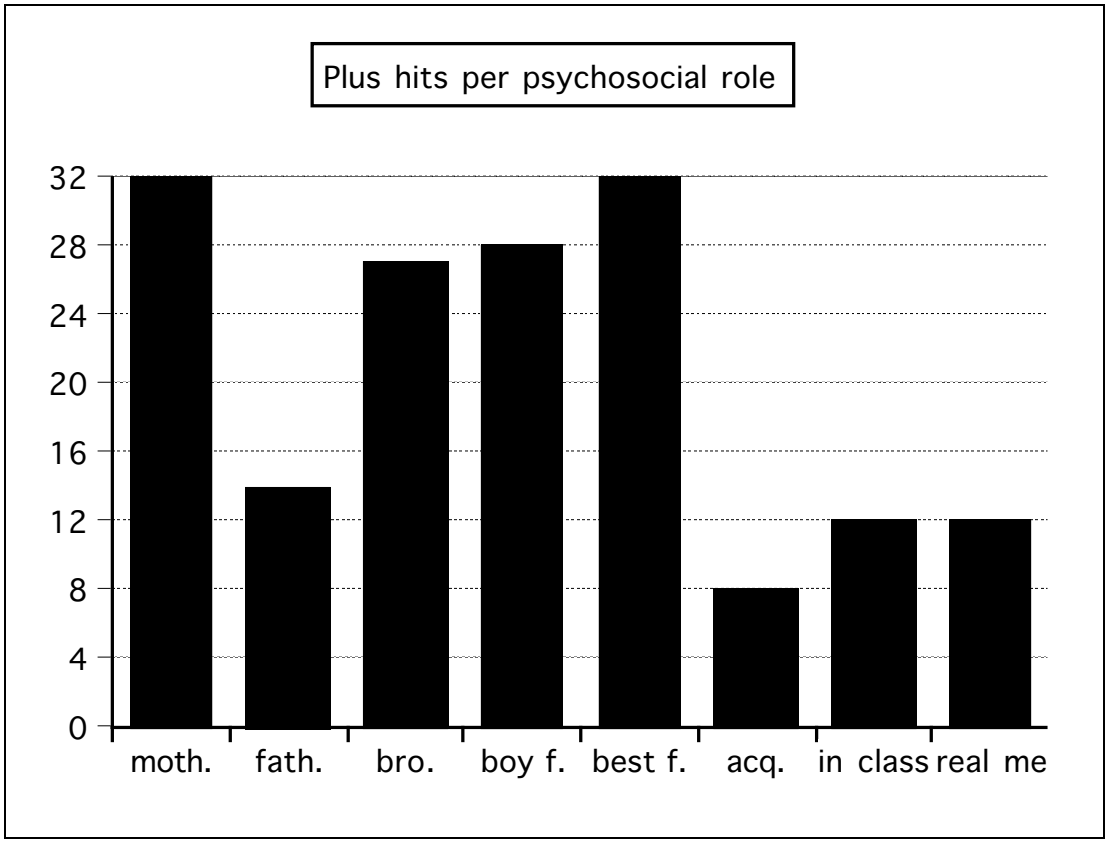


Fig. 4.4.2d. Plus hits per psychosocial role.

The 'plus' hits (Fig. 4.4.2d) were highest in the psychosocial roles of: *mother* (20%), *best friend* (19%), and *boyfriend* (17%). *Brother/sister* was a close fourth place (16%).

mother	father	brother/sister	boyfriend	best friend	acquaintance	in class	real me
3	4	1	3	2	5	2	9

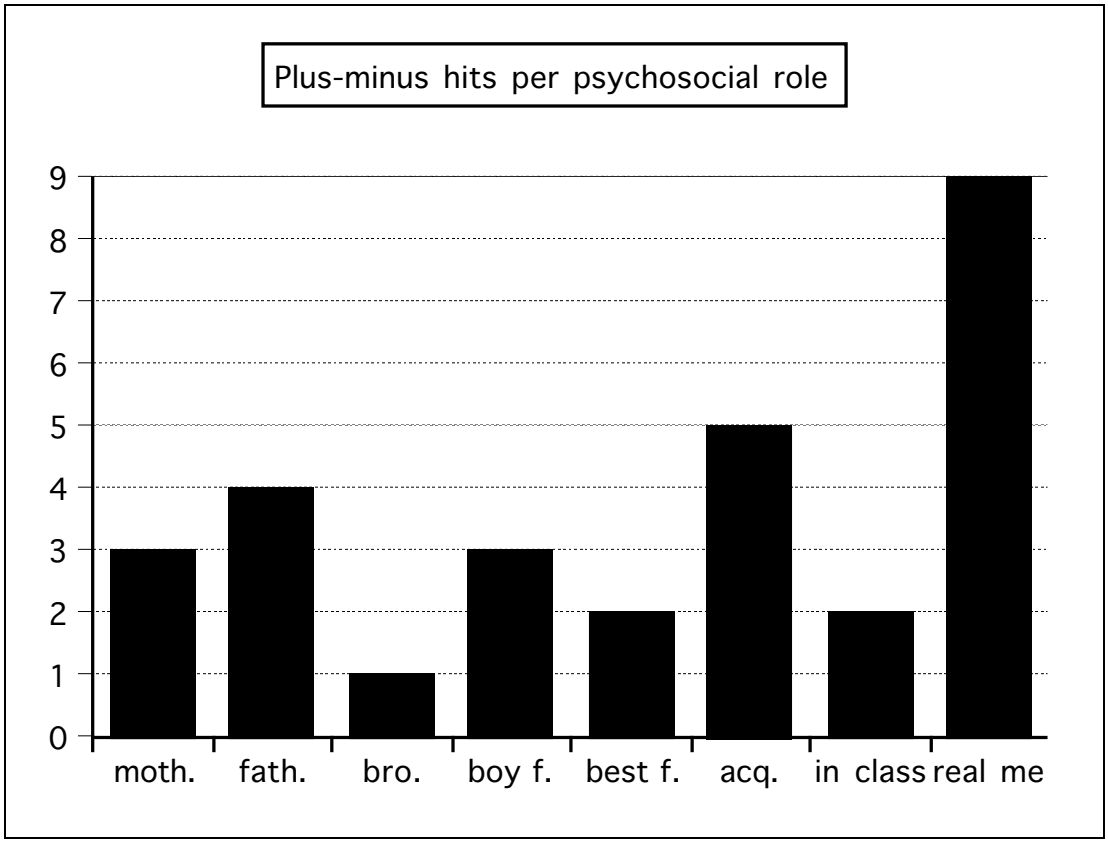


Fig. 4.4.2e. Plus-Minus hits per psychosocial role.

The 'plus-minus' hits (Fig. 4.4.2e) were highest in the psychosocial roles of: *real me* (31%), *acquaintance* (17%), and *father* (14%). *Real me* is exceptionally high. It is the highest in percentage than any other psychosocial role in *any* of the valence types.

CHAPTER 5. DISCUSSION

5.1 The three main questions

Three main questions were the impetus for this dissertation. Sections 5.2, 5.3, and 5.4, shall provide detailed responses to these three main questions respectively:

(1) Do Japanese students have age-related trends in their self-organization and self-understanding development?
(2) What role does the Japanese culture play on the cognitive development of Japanese students?
(3) What can be done to better assist the English language learning of Japanese students?

5.2 Do Japanese students have age-related trends in their self-organization and self-understanding development?

Nine randomly chosen volunteers were examined and compared with each other for this study, within the framework of Fischer's skill theory. Although this was a small sample, the responses under the high support condition of the SiR interview did demonstrate a sequence in the development of self-understanding between the ages of 12 and 20. The sequence of development displayed four levels of understanding that closely corresponded in sequence and timing with Fischer's skill theory (Fig. 2.3b).

Age 12

Subject *I love* (age 12) was the only subject at this age. She passed the Rp3 and Ab1 test, but clearly demonstrated difficulty in Ab2 level thinking. She was not able to conduct a discussion at that abstraction level. She responded to Ab2 level probes by

focusing on the actual lines that she drew on the diagram, and questioned *herself* about why she had drawn lines between concepts. Although this is only one sample at this age, this sample clearly demonstrates Ab1 level skills.

Age 13

Subject *Mac* (age 13) was the only subject at this age level. She passed the Rp3 and Ab1 test, but failed at the Ab2 level. Assessment of her Ab2 response was problematic. *Mac* used the simple and colloquial utterance …(*ku)tte,* […（く）って] as a connector between two sets of single abstractions. It is remotely possible that the subject used this utterance to signify a contradictory connection between the sets of abstractions because it can hold negative connotations in some contexts. Perhaps this was a mere young person's colloquialism and had no significant meaning in the Ab2 assessment context. It is not possible to scientifically determine the true significance given only this data. However, I found it necessary to make a decision and decided that, although she failed Ab2, the usage of …*(ku)tte* between two sets of single abstractions places her above *I love*. She therefore demonstrates *pre*-Ab2 level skills.

Age 15

Subject *Potato* (age 15) was the only subject at this age level. She passed the Rp3, Ab1, and Ab2 test. She was the youngest subject to pass the Ab2 test and showed stronger linguistic capabilities than *I love* and *Mac*. However, her demonstrated skill level was far from passing Ab3. It seems that there are increments of development

between the skill levels and, judging by her performance, *Potato* has just entered the Ab2 skill level.

Age 19 and 20

The 19-20 year age group was the main testing ground for skill theory in this pilot study. Subjects *Tomato, Ichigo, Maegami, Ringo, Morimori* (ages 19), and *Karaage* (age 20) belong to this age group. According to skill theory, the *optimal* age for Ab3 emergence is around 20 years of age.

Answer:

Although this study used a small sample (9 subjects), the results suggested stage-like levels of development around the ages presented in Fischer's skill theory. However, one subject, *Morimori*, offset the numbers and created an unbalanced graph (4.4.2b). But, with *Morimori*'s data eliminated from the count, the adjusted graph showed a remarkable similarity to skill theory levels.

Since the emergence ages and the emergence levels within the high support condition correlate well with skill theory, this pilot study, although non-conclusive because of the small sample size, implies that, not only do Japanese students have age-related trends in their self-organization and self-understanding, but they seem to appear at the *same ages* and at the same stages as prescribed by Fischer (1980, 2008b).

5.2.1 Pedagogic implications

What pedagogic implications are there? If skill theory holds true for Japan, the implications for syllabus and textbook writers for Japan are huge, with the contextual *high support condition* as a high priority for inclusion in pedagogic design. Also, it would seem that textbooks aimed at children and adolescents would benefit from differentiation not only by English level, but also by clearly focused *age grouping*.

5.3 What role does the Japanese culture play on the cognitive development of Japanese students?

To answer this question I have concentrated on three psychosocial roles that showed particularly interesting results: *father*, *mother* and *in class*. These psychosocial roles, as assessed by the subjects, are discussed below.

5.3.1 Father's role

What is the father's role in Neo-Confucian Japan? In the West, as the adage goes, 'Respect should be earned (not demanded)'. In stark contrast, as discussed earlier, the Japanese culture expects *teishu-kampaku* (亭主関白) of their husbands and fathers. Caustically to this historically assumed presumption, the interviews revealed that all of the subjects except for *Tomato* voiced negative feelings toward their fathers. Even with *Tomato's* atypical numbers added to the small pool, the psychosocial role *father* received the most negative hits of any human psychosocial role [40% negative hits] (Fig. 4.5.2c); alarmingly, subjects rated *father* more negatively than *acquaintance* [38%

negative hits]. Moreover, *father* received the least overall hit count of any family role, signifying that the subjects were the least interested in and/or felt awkward about discussing their relationship with their fathers. These findings have strong pedagogic implications for the TESOL in Japan (discussed below).

The most common word associations (provided by the subjects) with the *father* role were (1) *kibishi(厳しい)[severe],* (2) *majime（まじめ）[serious/strict],* and (3) *shaberanai（喋らない）[don't talk (to)]*. Contrary to Neo-Confucian dogma, from the interviews and the data, it appears that, from the subjects' perspective within the context of the SiR interview, the father is the least popular and the least respected member of the immediate family. Although this sample is too small to base strong claims on, if there actually is some degree of contempt for the father, as these results do imply, the negativity caused by this relationship may have a significantly negative impact on the growth of Japanese children.

If, in the forthcoming full-scale study, it actually is proven that Japanese students do have strong negative feelings toward their fathers, it may be wise to share this information with the TESOL community in Japan. Teachers aware of this aspect of the culture may make better pedagogic choices when instruction calls for discussion of the family.

5.3.2 Mother's Role

In contrast to *father*, *mother* scored the largest hit count out of any psychosocial role *and* received the most positive hits [84% positive hits] (Fig.4.4.2d).

Negative hits were only at 8%. *Mother*'s overall performance fared better than *best friend*, and was clearly the most popular of any of the psychosocial roles tested.

While having a highly positive relationship with a parent is typically considered healthy for the family, traditional Neo-Confucianism mandates that the father commands absolute power in the household. If the ill-respected father's words clash with the (contrarily) well-respected mother's words, will friction *not* occur in the household? If such friction does occur, this context certainly has the potential of affecting the development of the children.

How can the EFL teacher in Japan use this information? It may seem to be a simplistic trick, however, a stronger focus on the mother and less focus on the father may have the potential of keeping the students in more motivational states.

5.3.3 School's role

In class fared the worst of all psychosocial roles (Fig. 4.4.2c). The only two roles that had negative hits in the double-digit sums were *father* and *in class*. Moreover, *in class* had even less positive hits *and* less overall hits than *father,* firmly establishing it as the least popular psychosocial role in the test. The most common associations for *in class* were (1) *nemui (眠い)[sleepy],* (2) *majime（まじめ）[serious/strict],* and (3) *kitsui (きつい) [tiresome],* none of which convey positive nuances coming from the subjects, but show overlap with the *father* role.

Common ground between *father* and *in class* in Japan seems logical in this context. Both roles epitomize traditional Neo-Confucian filial piety; they both demand

respect on account of their superior position within the society. Unfortunately, while people in these roles seem to demand and expect respect, they do not seem to see a need to concurrently *earn* respect (the adage about earning respect is alien in Japan).

Answer:

Clearly, the two highest filial respect roles out of the eight roles studied had an inverse relationship with the actual amount of respect attained from the subjects. It is also clear that the *father* and the *in class* roles are the least popular psychosocial roles among the tested subjects. Is it possible that Neo-Confucian filial piety, that mandates (often unearned) respect to *father* and *in class* roles, may play a negative role in the cognitive development of Japanese students?

Leontiev, expander of Vygostsky's work and designer of Activity Theory and personality theories, had viewed such restrictive classroom settings as detrimental for students. Students must be given their own 'space' for individualistic growth (Robbins, 2003:87). This, unfortunately, is considered a luxury and not typically afforded in the Japanese classrooms. Moreover:

> Motivation is largely conditioned by self-assurance, self-esteem and by the benefits the individual may accrue in terms of a targeted behaviour or goal… The combination of motivation and self-esteem are essential to successful learning. In order to give these factors their rightful place within learning structures, the system of tutoring is gaining ground. It offers the learner personalised support and is better adapted to his/her needs. A more personal climate for learning serves to motivate learners but should not disregard the crucial role of social interactions in all modes of learning (OECD, 2007:27).

However, such personal space, personalized support, and positive social interactions for

the sake of raising motivation, and especially *self-esteem,* are simply not a significant part of the public school system in Japan.

When Japan was feudal and then a military empire (1200s-1800s; 1867-1945), and subordination of superiors meant physical harm or death, the vertical hierarchy based on Japanese filial piety kept subordinates such as children and students in their place. Respect was coordinated with and backed by terror. This is obviously at ends with ideas of raising intrinsic motivation and raising self-esteem in students.

The dogma of traditional Neo-Confucianism is still openly heard in modern Japan, although it is no longer coordinated with, or backed by, authentic terror. This seems to have somehow psychologically discounted the significance of *filial respect*. Adherence to the dogma now seems to only have *tatemae* [建前] (saving face/white lie) value. The filial system is being proven to be dysfunctional due to its modern inconsequential demeanor, while efforts to raise intrinsic motivation have yet to take its place.

5.3.4 Summary

The Japanese subjects studied displayed an inverse pattern of respect toward the two roles that have traditionally demanded the highest respect from the subjects. According to constructivist thinking, although it may be at least partially dysfunctional, filial piety must have a natural and perhaps substantial impact on the cognitive development of Japanese students because it is the very context in which Japanese students are being educated in.

According to Leontevian thinking, how much of this impact is detrimental? It seems logical to assume that the inverse pattern is a negative one, and therefore, although currently unquantifiable, it may have at least some negating effect on development. By Leontevian standards, the lack of individual growth space is also an obviously disadvantageous and potentially damaging point. Somewhat ironically, this point is historically deemed as a *positive* feature of Japanese schools. Perhaps a shift toward more individual space, less overbearing behavior, and a focus on raising self-esteem and natural motivation is being called for. This leads to the next question:

5.4 What can be done to better assist the learning of Japanese students?

5.4.1 Theoretical relationship: cognition, language, and culture

The three main questions of this dissertation all correlate to studies of cognition, language and culture. Perhaps because these areas are often discussed separately, and perhaps because they hold their own specific fields in academics, often there is no reason to simultaneously contemplate or dynamically synthesize all three areas into a single model. As discussed above (5.3), the Japanese culture appears to have the potential of effecting the development of Japanese students. Does this also affect their potential as English language learners? More importantly, what can be done to enhance their learning and understanding potential? To help answer these questions, this section proposes models for the synthesis of cognition, language and culture. This line of thought bridges directly into pedagogy proposed in Section 5.5

Gonzalez designed a theoretical *Multidimensional Model* depicting the

overlapping relationship between cognition, language and culture in the SLA context. I have revised and adapted her work into my *Tri-elemental Model of Second Language Development* (Fig. 5.4.1a). My DATC (Dynamic Area of Total Convergence) model and the pedagogic approach, *Teaching for the DATC* [TfDATC], emerged as a natural extension from the logic of Perkins' *Teaching for Understanding* [TfU] and from the Tri-elemental model.

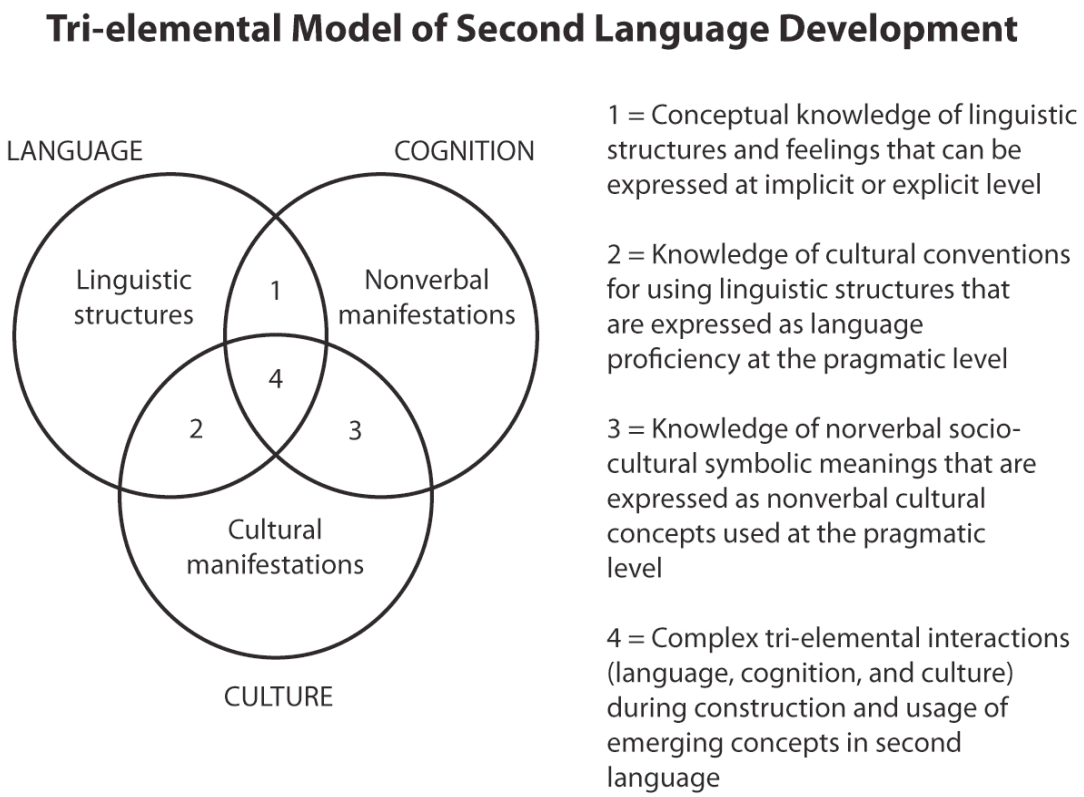


Fig. 5.4.1a. Tri-elemental Model of L2 development. [Revision and adaptation of Gonzalez (1999)]

The *Tri-elemental Model of Second Language Development* shows *linguistic structures* in the top left (Fig. 5.4.1a). Most of the surface area does not overlap with the cognition or culture areas, therefore depicting the reality of how and *why* L2 *linguistic structures* (language) can actually be studied without attention to cognitive and/or cultural issues. The same conclusions can be made about *nonverbal manifestations* (cognition) and *cultural manifestations* (culture); they all have more solo surface area than overlapping surface area. However, of more importance are the areas of overlap, especially area 4, deemed the *Dynamic Area of Total Convergence* [DATC].

The DATC is the theoretical area where dynamic tri-elemental interactions (of language, cognition, and culture) occur during the construction and usage of emerging concepts in language, be it L1 or L2. It is my view that the DATC expands dynamically

and naturally for children learning their first language, however, unless second language teachers are explicitly aware of the L2 DATC and are consciously aware of the benefits of teaching *for* the L2 DATC, their teaching may lack the components conductive of the deeper processing naturally induced by a *Teaching for the DATC* [TfDATC] approach.

TfDATC can and should elicit both top-down and bottom-up processing. Vygotsky stressed that:

> Successful education results from the convergence of the top-down approach with the bottom-up approach, where constant dialectical cross-referencing occurs. At this juncture, grammar, is its extended meaning, serves, metaphorically speaking, as the context point or bridge. Grammar is an area acquired via spontaneous concepts, yet must be enhanced via scientific concepts if intellectual maturity and mastery is to be reached. However, there must be a deeper un[sub]conscious component to this understanding, which is internalization. The interrelatedness of both spontaneous and scientific concepts is then the key to concept formation, which lies at the heart of internalization and ultimately self-regulation. (Robbins, 2003:83).

By *scientific concepts* Vygotsky means top-down. By *spontaneous concepts* Vygotsky means bottom-up and therefore he claims that the combination of processes from both directions is necessary for true language mastery.

Additionally, in line with Fischer's theories, the size of the DATC cannot be static by nature; it is constantly changing. It is a dynamic convergence area that grows larger if nurtured, especially if nurtured from all three sides, inside *and outside* of the classroom. However, the DATC can also diminish through neglect. Moreover, regardless of the DATC size, it is only in contextual high support and/or highly motivated states that learners will use their DATCs at the optimum level.

In skill theory, the DATC could be considered a domain of development. Within Fischer's framework, the DATC would not be considered to be a fixed *area*, but a growing domain that has interlinking memories of (1) linguistic structures, (2) non-verbal manifestations and (3) cultural manifestations (Figure 5.4.1b). Thus, the DATC is a useful conceptual model that allows SLA researchers to focus on those three largely affective areas, and for teachers to focus on designing TfDATC activities. But, by no means does it imply that there is a specific DATC area in the brain. Nor does it imply that the DATC has exclusive connections to the three areas discussed above.

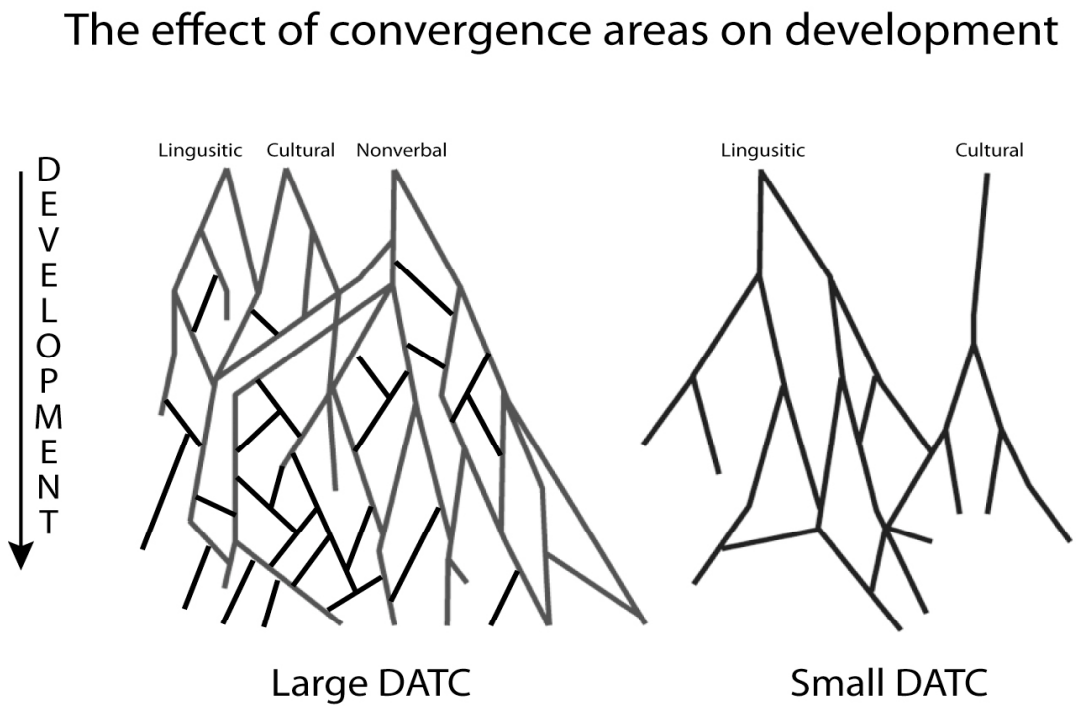


Fig. 5.4.1b. Comparison of varying DATC development. (adapted from Fischer 2008b)

Being a domain of development, the L2 DATC is only regulated by the specific context of the learner and the learner's beliefs. In other words, there are no

physical and/or biological barriers for bilingualism; if there is a barrier it is a contextual and/or a psychological one. It is my theory that most low achieving L2 learners (who show no signs of abnormal linguistic development in their L1) could be low achieving in L2 because their learning context does not facilitate a large enough DATC for them. Furthermore, as can be extrapolated from Figure 5.4.1b, continued focus on linguistic structures alone will *not* significantly change the convergence area of the DATC, therefore not enabling a strong and well-balanced command of the language.

In Japan, where public English language education is still strongly focused on Grammar-Translation type methodology, there is a lack of facilitative correlation of cultural and cognitive aspects relative to the English language. Theoretically, this would mean that the average Japanese learner's ATC is small to almost non-existent (Fig. 5.4.1c). Perhaps this explains why, after six to ten years of English language instruction in Japanese schools, most Japanese people still "can't use the language" (Willis and Willis, 2009:3).

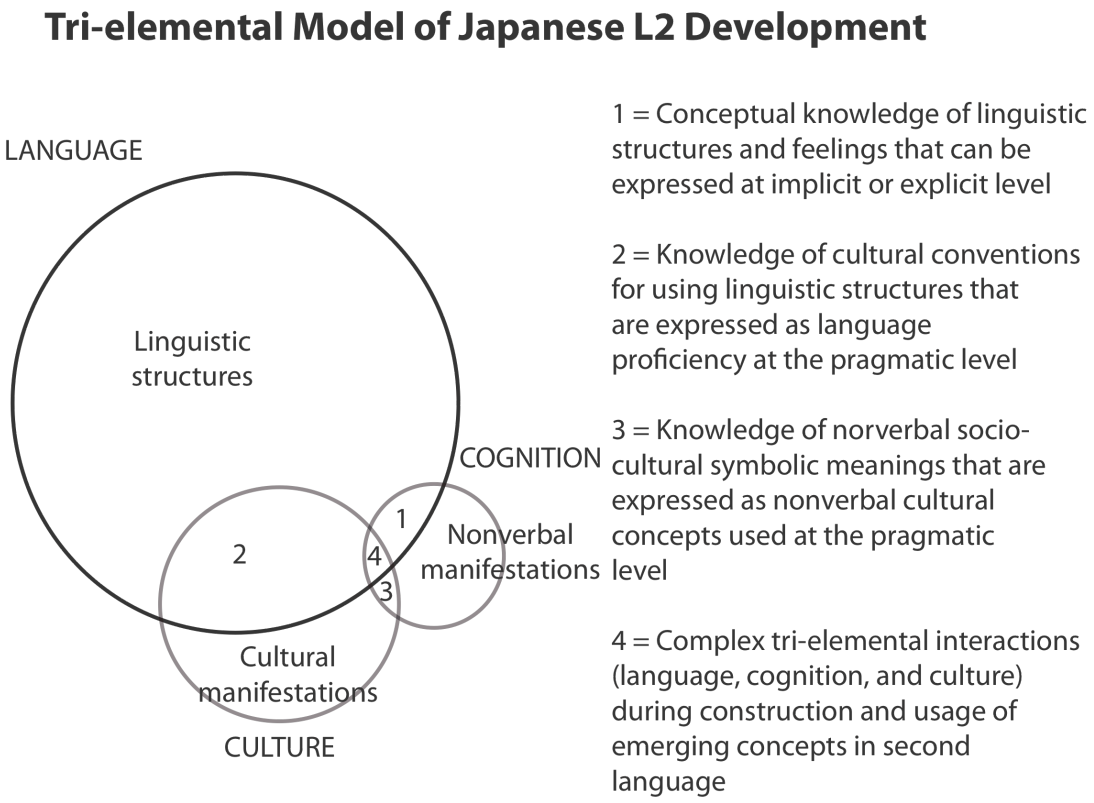


Fig. 5.4.1c. Model of typical Japanese L2 development.

At an education seminar held in Kyushu (2009), with the main participants being current or past Japanese public school teachers, this Tri-elemental model was discussed and twelve participants were asked to map what they thought to be an appropriate depiction of what they thought the typical Japanese person's L2 (English) development looked like within the Tri-elemental framework. Although it was a small sample, the drawings were almost unanimously similar to Figure 5.4.1c; the *linguistic structures* areas were clearly dominant, with the *cultural manifestations* and *nonverbal manifestations* areas consistently much smaller, creating a unanimously disproportionately sized DATC. The consensus: The imbalance is probably due to the strong focus on grammar-translation type teaching methods that are still the norm for

most Japanese public schools.

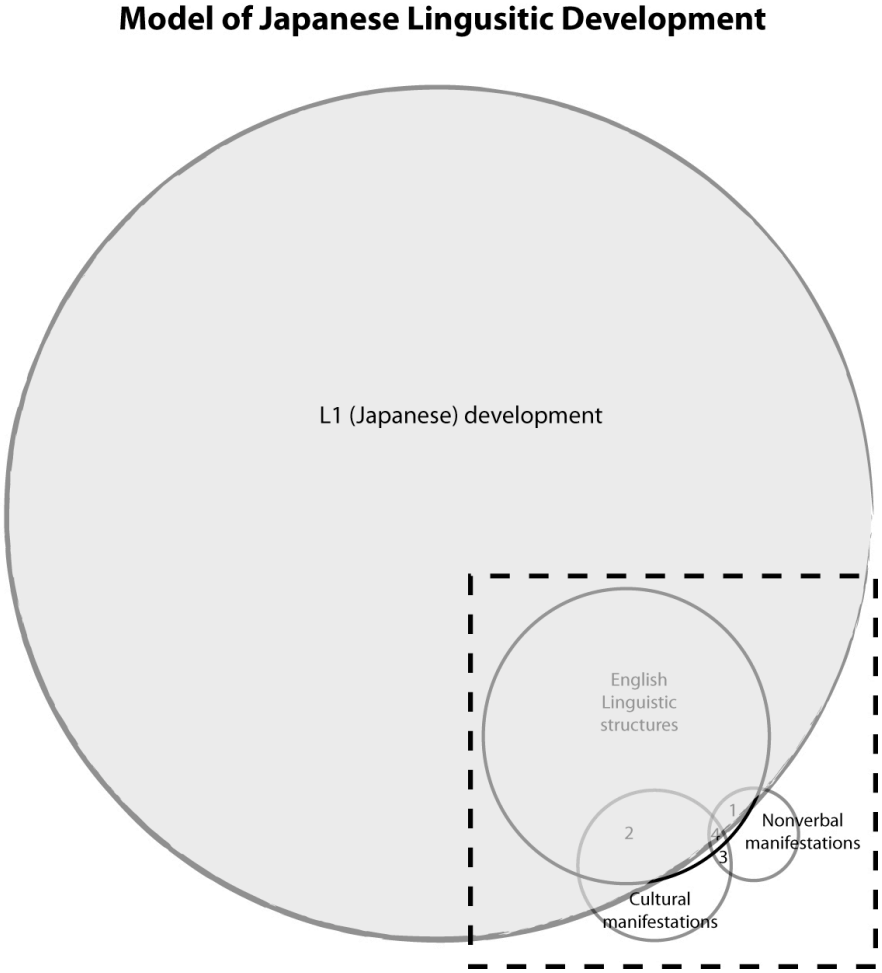


Fig. 5.4.1d. The theoretical intra-Japanese manifestation of English via G/T methodology.

As an extension of this logic, what could the affects of G/T methodology be on the L1? In theory, the affects could very well be like Fig. 5.4.1d. Because the L2 is mostly only learned through grammar and translation, the L2 may actually become a manifestation *within* L1 and not manifest as a separate language. This model can reasonably explain why and how so many 'Japanized' English loan words proliferate within the Japanese language, and also why the typical Japanese person attempting to speak English does so in a seemingly 'Japanese mode' and not in an authentic 'English

mode'. In short, this model attempts to display the affects of G/T methodology on Japanese people and why an authentic *English mode*, so to speak, may be non-existent in some Japanese people.

Since the majority of Japanese people learn English via G/T for at least six years, it seems reasonable to assume that 'G/T English' is a significant factor in the average Japanese person's linguistic idiosyncrasies. Considering the principle behind this *intra-Japanese* manifestation of English, perhaps intra-Japanese English acquisition is detrimental from a purely TESOL perspective because the L2 may not exist as it's own entity, as a real language, within the learner.

5.4.2 The L1 model

For comparison's sake, what does the model of pure Japanese L1 development look like? In the L1 context, all three areas typically converge naturally due to the L1 context (Fig. 5.4.2a). In contrast with the L2 development model, there is very little solo space. This is because it is rare that an L1 learner learns linguistic concepts without emotional and/or cultural content (nonverbal and cultural manifestations). It is "a difficult task to find truly neutral and cultureless words. Core words are full of cultural connotations, if not unique prototypical representations… prototypes are not only for individual mental models, but *also for the culture at large*." (Hadley, 1997:490). [*Emotional,* in this adjectival usage, is not limited to the specialized meaning, the unconscious state of *emotions*, as discussed earlier, but adjectivally refers

to the more common meaning inclusive of conscious *feelings*, which are defined as the *subjective interpretations* of the unconscious emotions.] The same pattern can be said about *cognition*, and about *culture* in the L1 context. It is conceivable that most learning in the L1 context will dynamically increase the L1 DATC size, and thus, the implication from this model is that the larger the DATC, the stronger the potential command of the L1 will become, but more importantly, the larger a DATC gets, the more potential it has of affecting an even stronger cascading effect on the learning process. In short, the more you know, the faster and deeper you will *continue* to learn if you remain in a facilitative context.

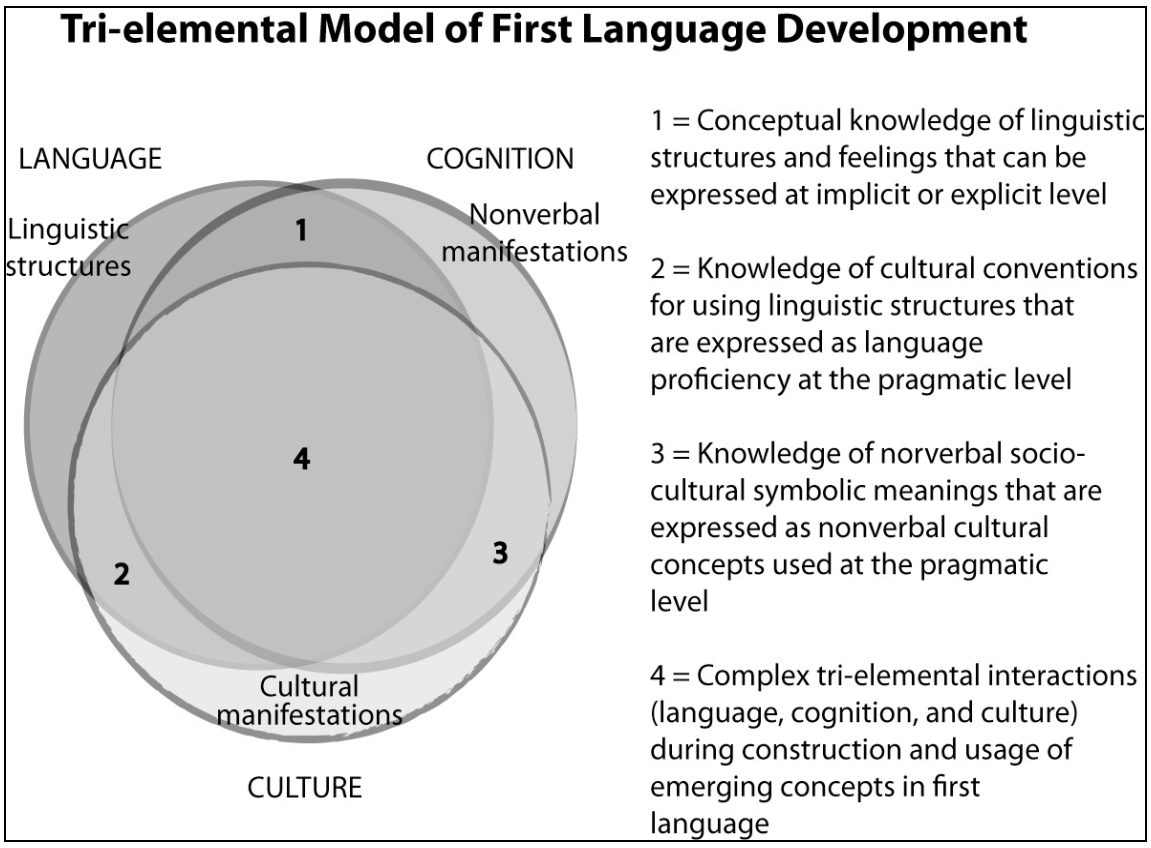


Fig. 5.4.2a. The DATC [area 4] is naturally large in the first language model.

5.4.3 Archetypes

Figure 5.4.3 (next page) displays what I put forth as three archetypical L2 models of Japanese learners. Archetype A is the typical Japanese learner after six years of English instruction in Japanese pubic schools. Archetype B is the avid learner that studies at an English language school, often watches movies and television in English, and has English-speaking friends. Archetype C is fully bilingual.

Tri-elemental Model: Three developmental archetypes

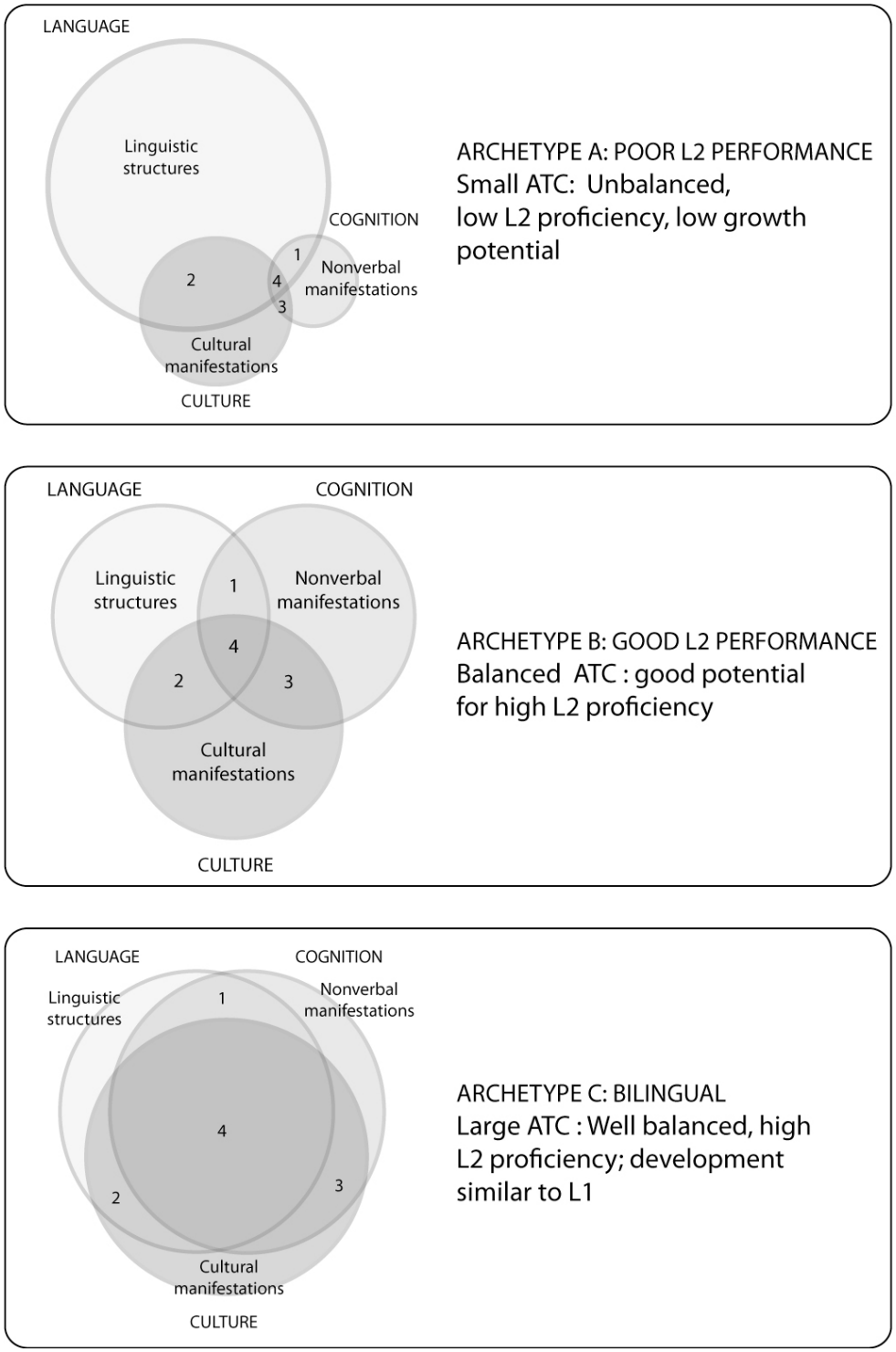


Fig. 5.4.3. Three archetypes of Japanese English learners.

Extrapolation from these models tells us that an L2 learner could strongly benefit from a pedagogic approach that incorporates activities designed to develop cognition, language and culture concurrently (if not equally); the better coverage of all three areas, the higher the potential is of developing a larger, serviceable DATC. The more dynamically serviceable the DATC, the more proficient the L2 becomes. Moreover, as discussed above, the larger and more balanced the DATC is, the smoother and faster the learning can become.

5.4.4 Summary

The *Tri-elemental pedagogic language acquisition* model emphasizes the necessity of a balanced development of three areas: linguistic structures, nonverbal manifestations, and cultural manifestations. More importantly, according to the DATC model and in line with Vygostky, DATC size and good proportional development should positively correlate with language proficiency and acquisition speed. Therefore, an effective TfDATC approach should provide a potent and duly efficient solution for EFL in Japan.

The next section shall discuss pedagogic ideas stemming from the synthesis of several of the theories discussed here and from administering the SiR interview.

5.5 Pedagogic ideas: CREAME, a TfDATC methodology

As discussed in Chapter 2 and directly above, and in an effort to combine Task Based Learning (TBL), Student Centered Learning, Teaching for Understanding

(TfU), Performance of Understanding (PoU), and the contextual high support condition in skill theory, with my own models, the Tri-elemental pedagogic language acquisition model and the DATC model, I have designed CREAME (Consciousness-Raising, Emotion Analysis, Manipulation and Expression).

CREAME is a pedagogic method that can be used in a variety of teaching contexts. Task-Based by design and in opposition of G/T methods, CREAME recognizes the founding role that *nonverbal manifestations* (such as unconscious emotions) also play in L2 acquisition ["Emotions and cognition are the two sides of the same coin" (Fischer & Bidell, 2006)], and the founding role that *cultural manifestations* play in L2 acquisition, and therefore undertakes the following goals:

1. Attempt to raise awareness in learners of their current emotions (via their own subjective deductions [feelings]) attached to *linguistic* concepts through paperwork, drawing, reflection and discussion.
2. Attempt to raise awareness in learners of their current emotions (via their own subjective deductions [feelings]) attached to *nonverbal* concepts through paperwork, drawing, reflection and discussion.
3. Attempt to raise awareness in learners of their current emotions (via their own subjective deductions [feelings]) attached to *cultural* concepts through paperwork, drawing, reflection and discussion.
4. Facilitate and assess PoU demonstrations. Have learners synthesize 1, 2, and 3 into coherent ideas that can be expressed in the L2, for pedagogic, yet authentic purposes.

CREAME is a seven-step pedagogic method (Fig. 5.5a) synthesizing elements from study at the Harvard Graduate School of Education and at the University of Birmingham: CELS. Below is a flowchart of the seven steps in the CREAME process.

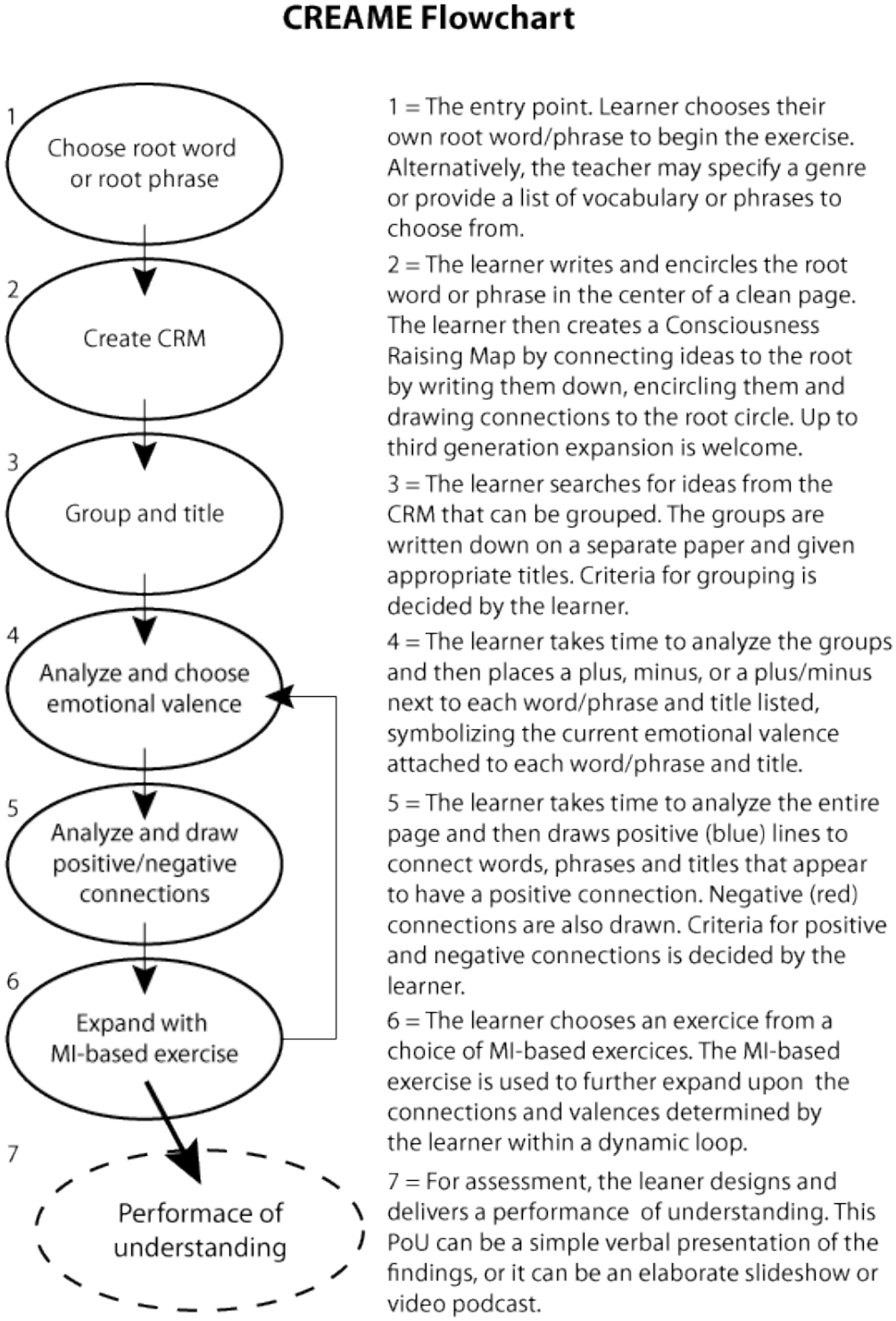


Fig. 5.5a. Seven step flowchart: CREAME.

CREAME incorporates ideas from the following areas:

Table 5.5. Synthesized elements in CREAME

	from Harvard GSE	from both	from BHAM:CELS
1. Choose root word	DI, TfU	student centered learning	autonomy
2. Create CRM	TfU	student centered learning	TBL, Depth of Processing Hypothesis, lexis,
3. Group and title	TfU, skill theory	grouping, student centered learning	TBL, lexis
4. Analyze and choose emotional valence	TfU, skill theory	emotions, student centered learning	TBL, Depth of Processing Hypothesis, lexis
5. Analyze and draw positive/negative connections	TfU, skill theory, emotions	emotions, student centered learning	TBL, Depth of Processing Hypothesis, lexis
6. Expand with choice MI	TfU, DI	MI, student centered learning	TBL, autonomy, lexis
7. Perform findings	PoU, TfU, DI	MI	TBL

DI: Differentiating Instruction, refined version of student centered learning (Hall, 2009)

Depth of Processing Hypothesis: The more elaborate the learning, the learning experience, the better it is learned (Watkins, 1983; Craik and Lockhart (1972))

Lexis/lexical items: “"... a neutral hold-all term which captures and, to some extent, helps to overcome the instabilities in the term word, especially when it becomes limited by orthography" (Carter, 1998:7)

CREAME is still in the developmental stages. It is currently being tested on university students and on adult English conversation learners. While the synthesis of these theories is complex (Table 5.5), the instructions are reasonably easy to implement. The instructions for CREAME are administered to learners on four laminated A4 cards. I shall explain the pedagogic steps and correlative theories per card below:

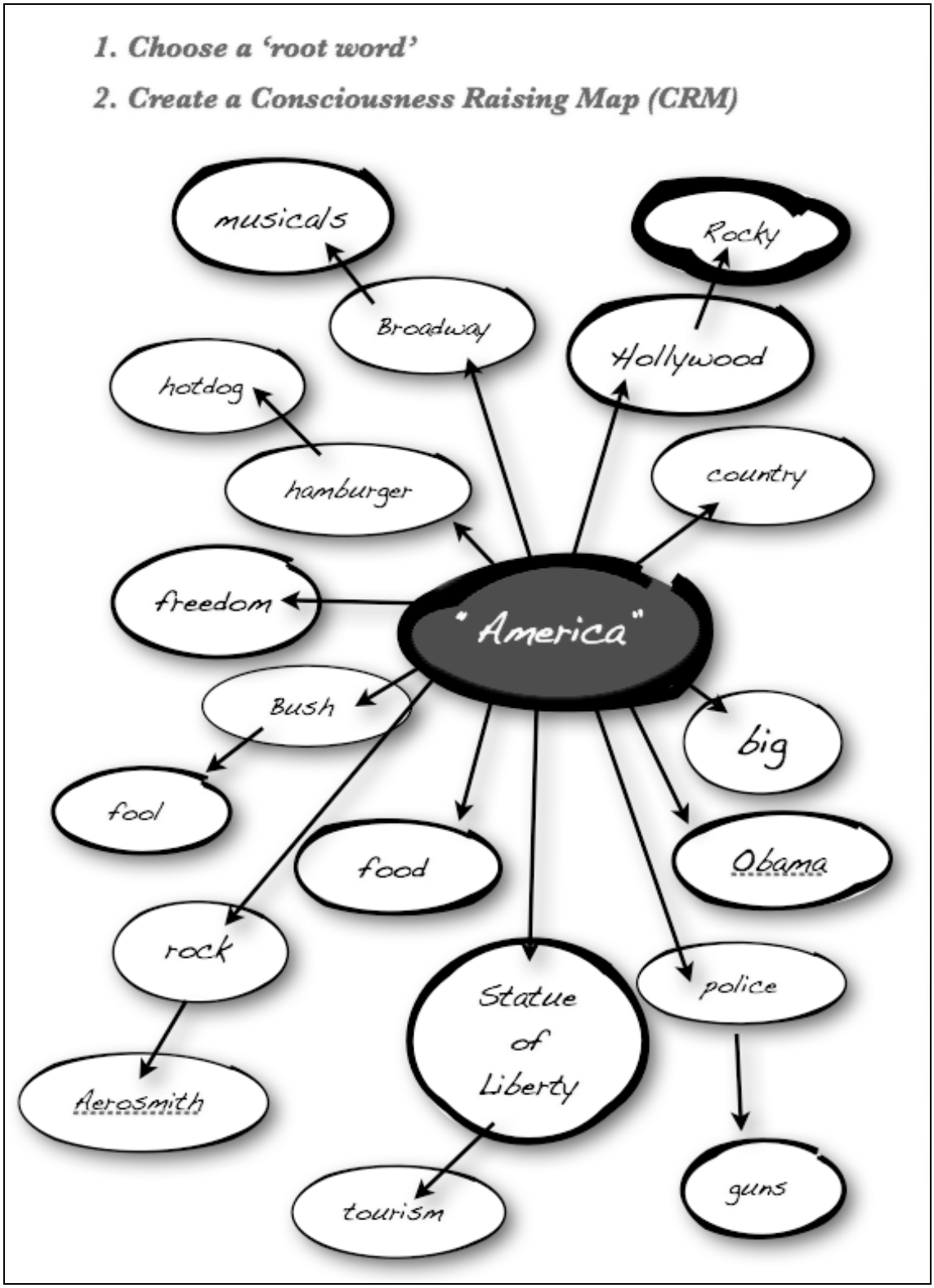


Fig. 5.5b. Card 1: Steps 1 and 2.

Card 1:

(1) Learners are asked to choose their own root word for a Consciousness Raising Map (CRM) and write it in the center of a blank page in their notebooks (Fig. 5.5b). This is the 'entry point' in Teaching for Understanding (TfU) theory. Because the learner is free to choose their own root word (entry point), this can be considered student-centered, and Differentiating Instruction (DI). With CREAME, teachers may want to let learners have total freedom of the root word choice at times, and/or may want to decide a basic theme or genre for the student/learner at other times, and reap the benefits of genre-based learning (Murphy, 2008; Swales, 1990).

(2) Learners are asked to create their CRM. The CRM simulates what can normally occur in the brain at the unconscious level, and bring those connections to the conscious level. The CRM allows the learner to discover connections that were not readily apparent in their consciousness. This is the beginning of the contextual high support condition (skill theory) and Task Based Learning (TBL).

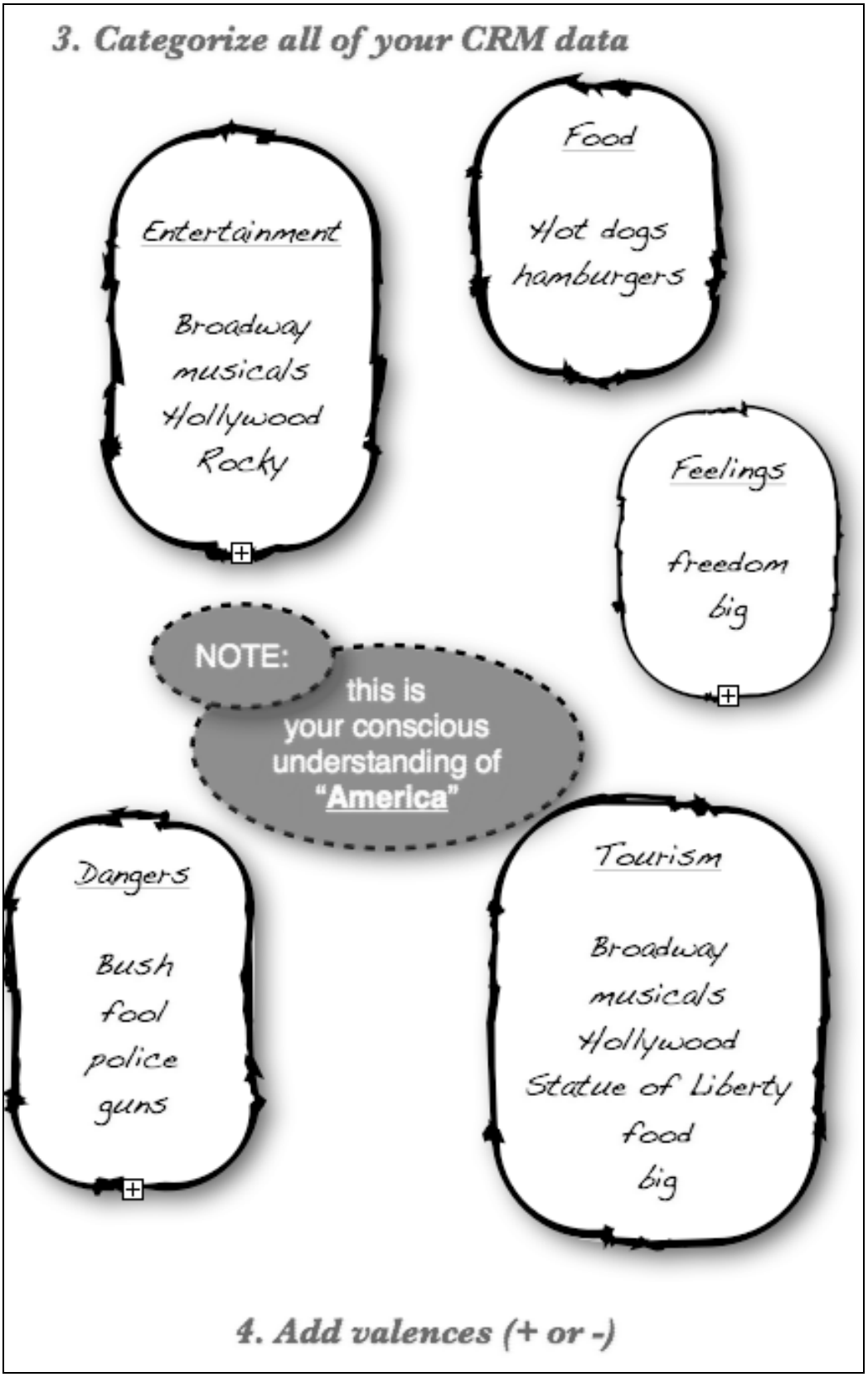


Fig. 5.5c. Card 2: Steps 3 and 4.

Card 2:

(3) Learners are asked to group their words/phrases and provide titles for each group (Fig.5.5c). This is identical to the SiR procedure, and is part of an advanced 'mind mapping' activity. By grouping the words/phrases, the learner is allowed to make unique associations that may never have occurred without this high support. Explanations of the benefits of such grouping can be found in general SLA theory (Ellis, 1985) and lexis/vocabulary theories (Schmitt & McCarthy, 1997).

(4) At this point, learners are asked to provide emotional valence to each word/phrase and group title on their page. This procedure marks another departure from typical 'mind map' activities. *Emotional valence* was consequential for the SiR interview and is also consequential in CREAME. *Depth of Processing* in SLA theory and theories on vocabulary strategies also reinforce the importance of emotional valence with word association (Schmitt & McCarthy, 1997).

The examination and understanding of visual manifestations of one's own feelings toward words and concepts seems to have a therapeutic value; the examination and understanding of visual manifestations of one's own feelings toward words and concepts should help reduce anxiety (or *tension* as used in the Leontiev framework [Robins, 2003:85]).

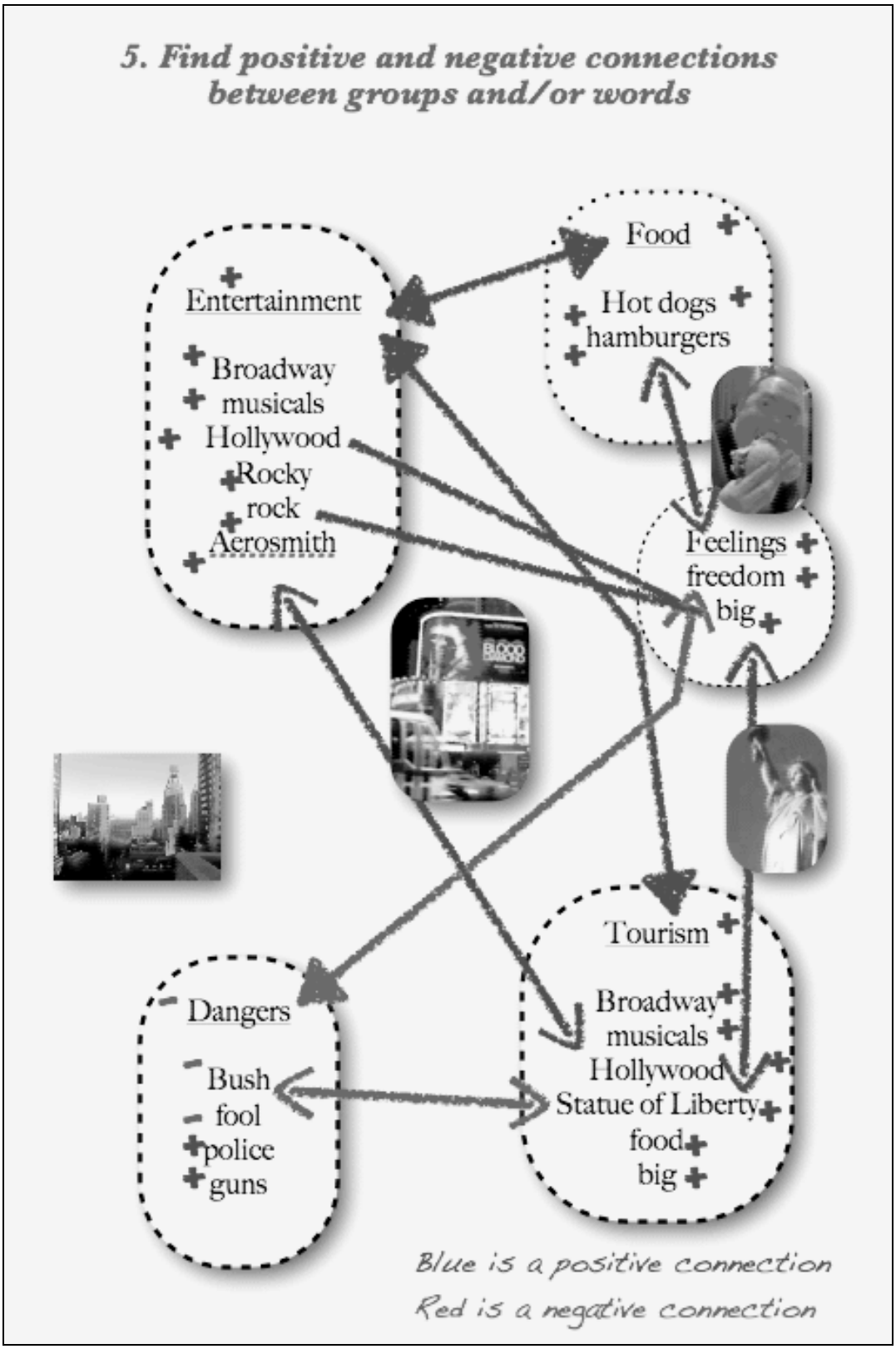


Fig. 5.5d. Card 3: Step 5

Card 3

(5) Learners are provided with red and blue crayons and then asked to draw positive and negative connections between their words/phrases and/or groups titles (Fig. 5.5d). This literally fosters 'outside of the box' thinking and creates new conscious pathways of thought. The tested students openly enjoyed this stage of discovery. This stage provides the *highest* high support to the learners. It is similar to the SiR procedure while maintaining 'student-centeredness'. The combination of the high support condition and the student-centeredness seemed to help facilitate a positive atmosphere strongly conductive of learning and Perkinsonian *understanding*.

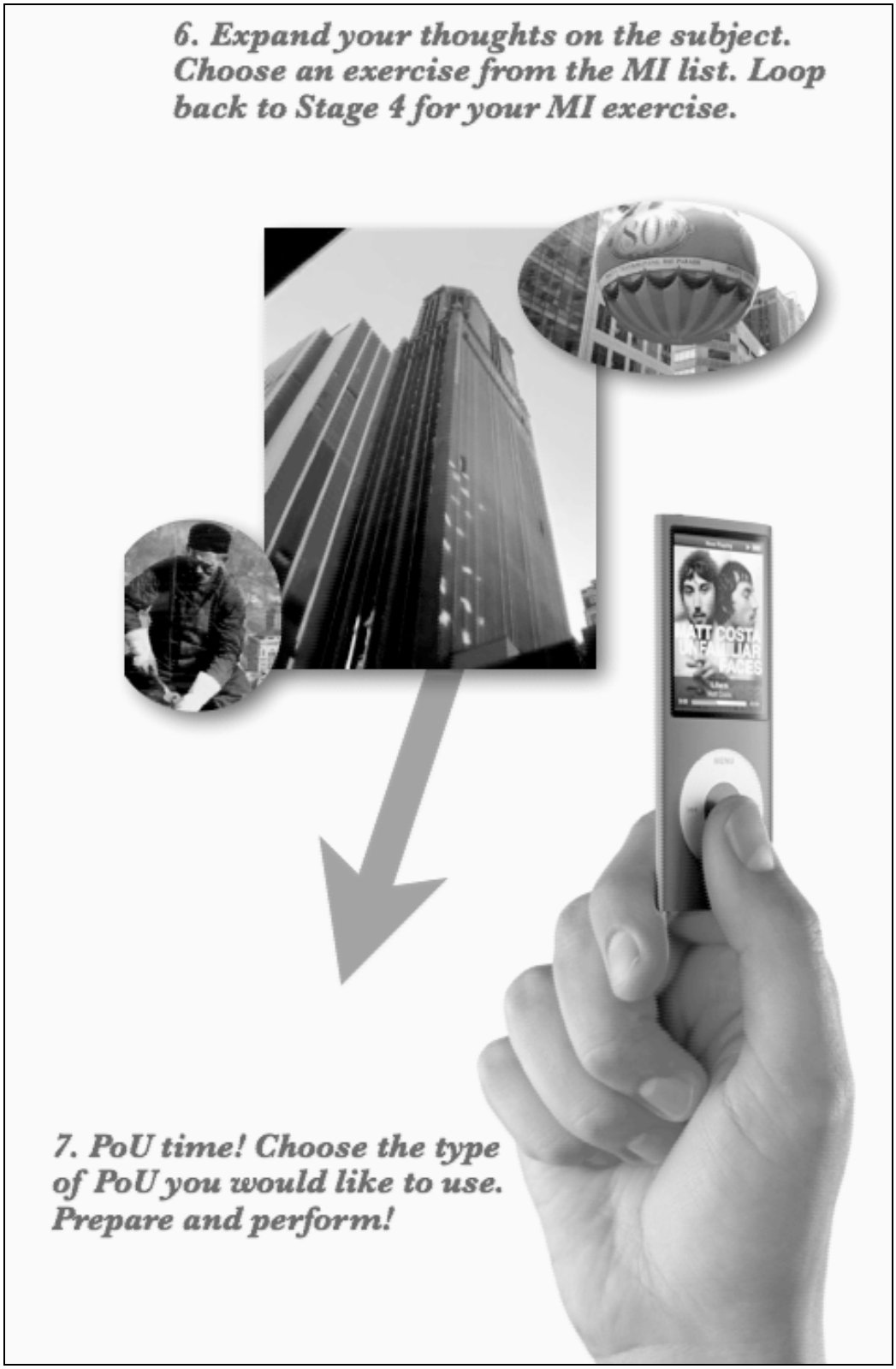


Fig. 5.5e. Card 4: Steps 6 and 7.

Card 4

(6) Learners are given reflection time and asked to choose from a list of MI-based activities (see Appendix E) for elaboration of their findings by returning to looping back to step four (Fig. 5.5e). Step six has been influenced by MI, DI and Widdowson's teacher-learner autonomy concept (1990: 189-191). Findings are mutually shared with their partners while they are in the looping process, creating a *dynamic loop* (Fig. 5.5a) that will hopefully further deepen their understanding.

(7) This is the final stage. It is their PoU stage. Learners are asked to present their discoveries in their choice presentation format. Classmates are encouraged to ask questions after the PoU. Because of the scaffolded design and the continued high support context, learners are hopefully in a state that allows them to function at their *optimal* levels and not their *functional* levels.

5.5.1 Variation possibilities

CREAME is applicable to many teaching contexts. Fig. 5.5.1 is an example of a *Lexis*-based variation. This variation is implemented at Stage 2. The learners are asked to create a *four sector* CRM. The criteria given for each the sectors are coordination, collocation, hyponymy, and synonymy. This small change significantly transforms the activity to a *lexis* awareness activity. This variation has proven to be particularly useful in writing classes. The final writing task can be added on after the discussion (as a Stage

8), or can simply be a replacement of Stage 7.

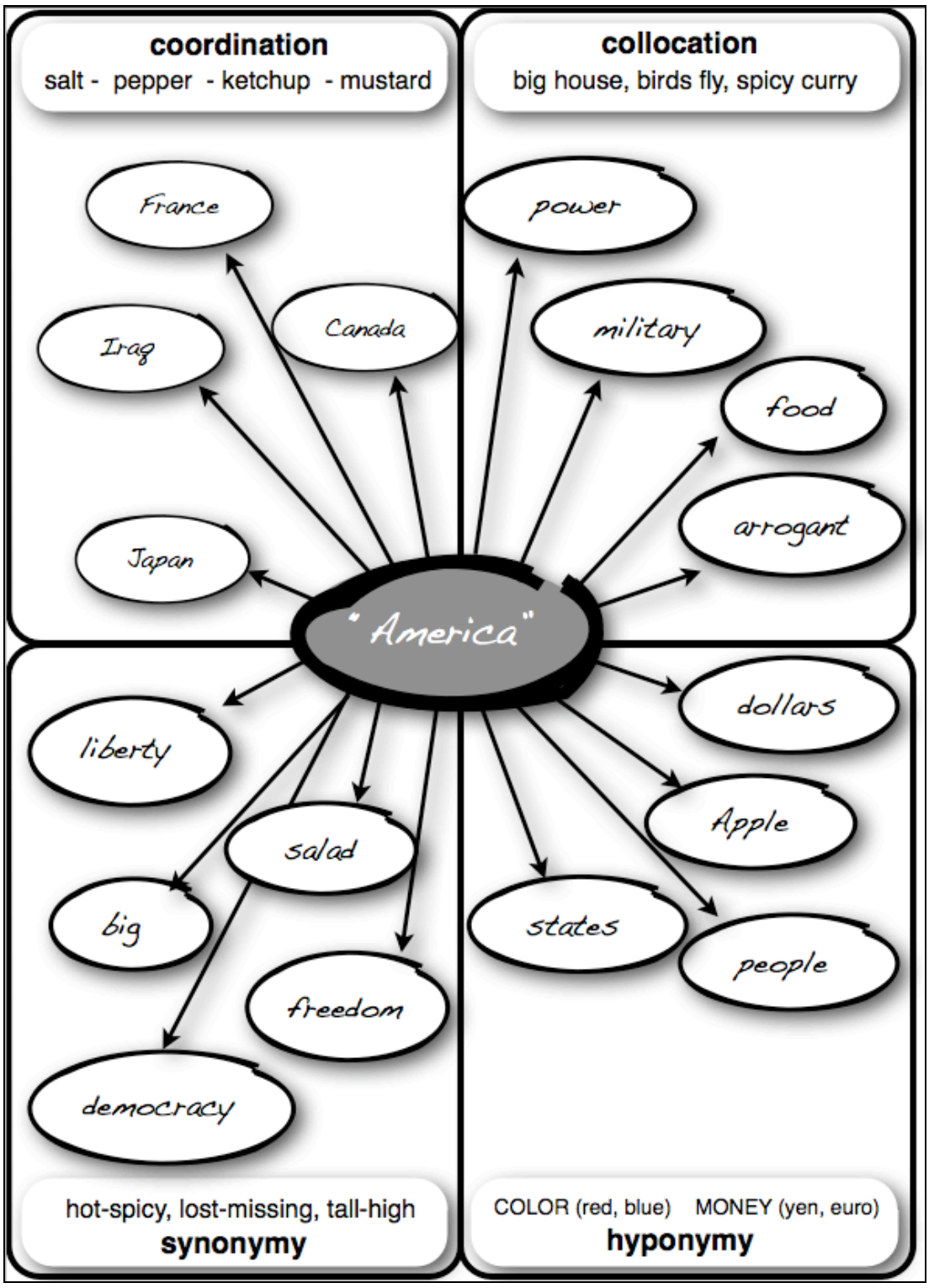


Fig. 5.5.1. A Lexis-based variation for Stage 2 implementation.

5.5.2 Summary

How does CREAME affect the L2 DATC and Perkinsonian *understanding*? By the time the learner has completed Stage 7, they have gone though a dynamic looping battery of preparation; they have gone though top-down and bottom-up processing, they have conceptualized and *manipulated* L2 lexis, they have analyzed and provided emotional valence to *every* word on their CRMs, they have gone through micro-therapy, they have taken the initiative, worked autonomously and have stayed student-centered, they have drawn with color, they have induced richer encoding, they have tapped in their MIs and they have probably realized a few new cultural connections while strengthening older ones. In short, they induced a dynamic loop to further deepen their understanding. Moreover, they have manipulated their knowledge for the final PoU and topped it off with a group Q&A session. Although CREAME is still in its developmental stages, CREAME seems to have potential for creating larger, dynamic and more evenly balanced DATCs in L2 learners than is possible with current G/T and PPP methodologies.

5.6 Limitations and the future

5.6.1 Limitations in the SiR interview process

The results of the SiR pilot study in Japan provided responses that were generally in line with the results from Korea, China and the US. However, it was

problematic in the following areas:

Low performance

Morimori demonstrated linguistic difficulties throughout the interview and displayed the most difficulty in the entire Ab (Abstractions) range of probes. The cause of this difficulty is unknown. Although variability must be accounted for, this was the only subject that performed out of line with the established levels in the contextual high support condition.

Unanswered questions: Can a *higher*, contextual high support condition be designed for subjects that demonstrate linguistic difficulties? If so, would its implementation be against established protocols? Perhaps more importantly, what protocols can be established to determine whether atypical difficulties are linguistic or purely cognitive difficulties?

High performance

Ringo and *Maegami* were the only subjects that passed the Ab3 test. However, this assessment was also problematic. Both *Ringo* and *Maegami* used a colloquial term, *kedo* [けど], to establish an opposing quality in the relationship between groups of abstractions. However, even though it is a shortened version of the proper term *keredomo* [けれども]) it is often considered 'too colloquial' and therefore improper in many Japanese occasions. *Kedo* roughly translates to *but* in English, with similar oppositional nuances, and there is a nuance of opposition in the subjects' usage,

however, *kedo* in this Japanese form is a rather weak connector to base assessment of the emergence of a system of abstractions on. Protocols must be established for the weighing of such grey area language usage.

(1) Regardless of the level given to *Ringo* and *Maegami* (Ab3 or '*pre*-Ab3'), They were the only two subjects that reached this level and they were both among the eldest in the sample. This shows that their performance level (be it labeled Ab3 or *pre*-Ab3) was only first achievable by subjects in this study in the 19-20 year age range. It will be interesting to see if this age related trend still holds true when 100 subjects are tested for the full-scale study.

(2) *Kedo* is not an uncommon negative connector in the Japanese language. It is foreseeable that future subjects may also choose to use *kedo* in their responses. Although it is too late for this current study, a list of Japanese connectors must be created and divided into two groups: (a) words that implicate strong cognitive connections and (b) words that implicate weak cognitive connections. Those findings must be negotiated into a newly designed Japanese version of SiR protocols.

5.6.2 Possible changes for the full-scale study

(1) A rubric could be designed based on the linguistic and translational grey areas that were found in the pilot study. Considering that the subjects will be of college age or younger, special attention should be placed on trendy colloquialisms.

(2) When a questionable word arises during the interview, the interviewer

perhaps should confirm the significance of the usage in real time, by directly questioning the subject. This could lessen the chances of data corruption.

5.6.3 CREAME and implementation

Long-term classroom testing of CREAME will be required to determine if the method is truly capable of raising L2 fluency. CREAME has been relatively popular among my own students in the short term. However, the implementation may eventually become tedious. It is also time consuming. A 'quick run' through all seven steps requires 60 to 90 minutes to complete. A thorough implementation can take double that time. Perhaps providing the first few steps as homework may be a more efficient solution in some contexts.

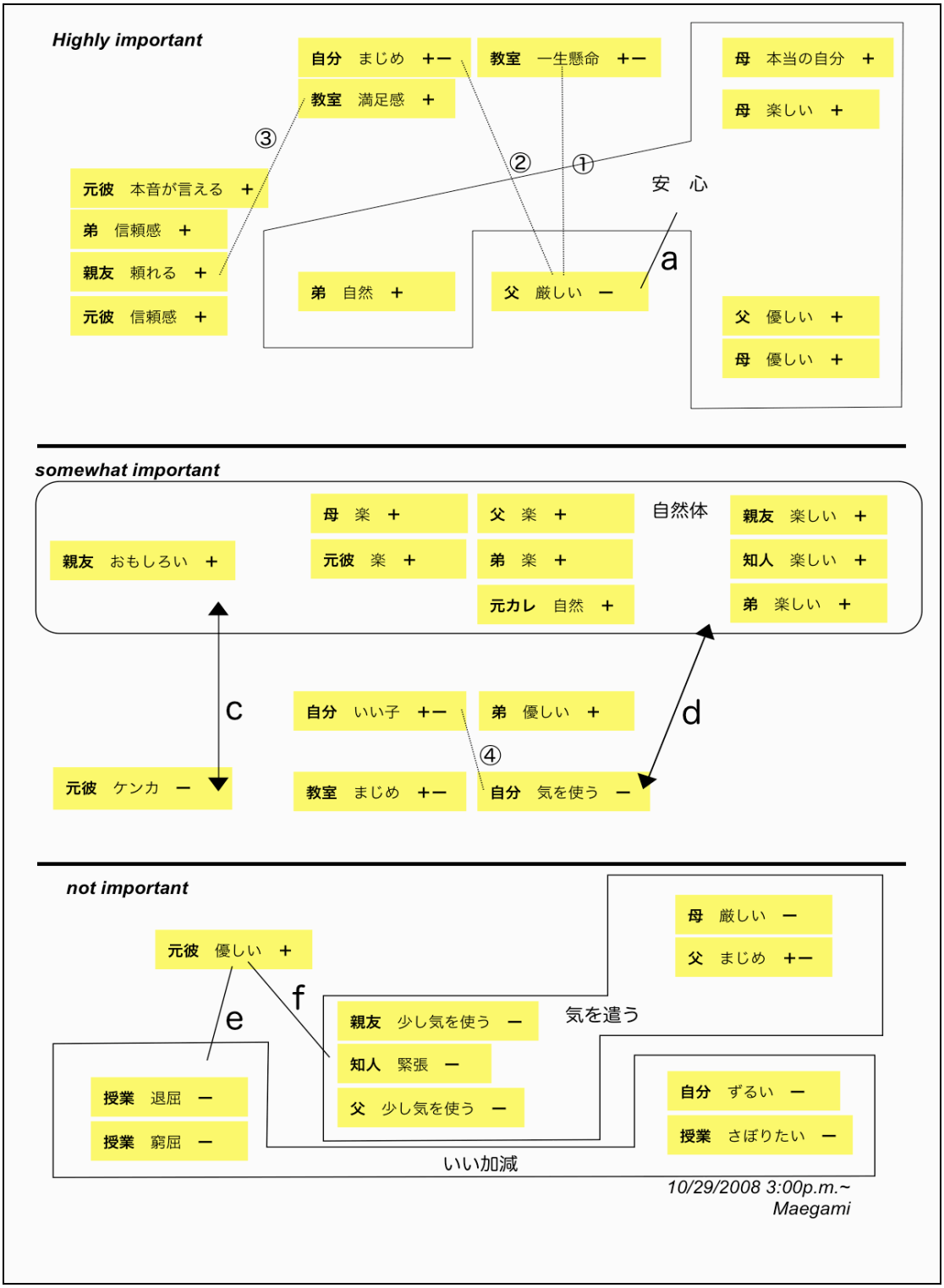
5.6.4 Other pedagogic uses of the models

The Tri-elemental model and the DATC model seem to effectively synthesize three major components in language acquisition. The models may work relatively well for learner training and teacher training, especially in the context of Japanese EFL where the majority of students (and teachers) have originally been trained to believe that focus on linguistic structures alone is sufficient for L2 mastery. Thus, the models can be implemented in both learner and teacher training contexts. The Model of Japanese Linguistic Development (p.60, Fig. 5.4.1.d) may be particularly effective while training learners to break free from constantly attempting translation during communication.

CHAPTER 6. CONCLUSION

This dissertation has attempted to bridge skill theory and dynamic structuralism to TESOL. As such, it has documented various findings of a pilot study of the SiR interview in Japan. It has uncovered possible trends in the cognitive development of Japanese students, questioned and discussed how, why and which aspects of the Japanese culture may be detrimental to the growth and education of Japanese students, and in light of this, has offered ideas for changes in Japanese schools in the TESOL context. It has offered three models for SLA training/research and introduced the pedagogic method CREAME. It is hoped that this study will be the catalyst for further investigation in these areas and eventually help bridge the chasm between the East and the West on more than just the level of pedagogical research.

Appendix A: *Sample SiR Diagram (SiR-Japan version, digitized)*



Appendix B: *SiR-Japan demographic and protocol sheet provided to the subjects*

インタビュー実施要綱

１.Introduction

2. デモグラフィックス Demographics

名前(ニックネーム)

性別

生年月日

学年

父親の年齢

最高学歴

母親の年齢

最高学歴

姉妹の数

姉妹の年齢

兄弟の数

兄弟の年齢

３. Small talk

４. Low Support condition

まず、あなた自身のことについて考えてみましょう！

あなたは自分がどんな人だと思いますか？「優しい」、「勤勉」などの様な単語で答えてください。単語は何個でもかまいません。（詳しく話させる）

では、あなたの家族はどうでしょうか？お母さんからはじめましょう。

あなたはお母さんと一緒にいる時、あなたはどのような感じでしょうか？「うれしい」とか「悲しい」などの単語で答えてください。 単語は何個でもかまいませんよ。

では、お父さんと一緒にいる時はどうでしょうか？

次に、姉妹（兄弟）の一人を選んでください。その姉妹（兄弟）と一緒にいる時はどうでしょうか？

彼氏／彼女と一緒にいるときの自分はどうでしょうか？（もし今、いないのであれば、昔の彼氏／彼女でもかまいません。また、「この人が彼氏／彼女だったらいいな」と思う人のこととを想像してもいいですよ。その人と一緒にいる時の自分はどのような感じでしょうか？）

それでは、親友の中から一人を選んでください。その人と一緒にいるときはどうでしょうか？

親友程ではない、知人的な友達の中から一人を選んでください。 その人と一緒にいるときはどうでしょうか？

あなたが教室で授業を受けている時、あなたはどのような感じでしょうか？

はい、では、ちょっと考えてみましょう。どんな時、どんな場所にいても存在する「本当の自分」はどんな人ですか？本当の自分はどんな人ですか？

自分のいろんな面の話をしてくれましたね。その中で似ている面、共通している面はありますか？

全く反対や矛盾している面はありますか？

５. High Support Condition (Sections 5-8)

今までは口答であなたのことを聞かせてもらいましたが、同じようなことを今度は紙に書いてくださいね。（紙と鉛筆を渡す）

多くの人は好きなことと、あまり好きではないことがありますよね。肯定的(プラス)な面、否定的(マイナス)な面、両方の面を考えて書いてくださいね。

肯定的なことと否定的なことそれぞれに具体的なことと抽象的なことをいれてみてください。

では、はじめましょう。正直に書いてくださいね！

1. お母さんからはじめましょう。まず、あなたがお母さんと一緒にいる時、あなたはどんな感じでしょうか？具体的な単語を書いてください。抽象的な単語も書いてください。（「嬉しい」「悲しい」など）

2. では、お父さんの時はどうでしょうか？　具体的に書いてください。抽象的にも書いてください。

3. あなたの姉妹（兄弟）の中から一人を選んでください。一緒にいる時あなたはどんな感じでしょうか。具体的に書いてください。抽象的にも書いてください。

4. 彼氏／彼女と一緒にいるときの自分はどうでしょうか？（もし今いないのであれば、昔の彼氏／彼女でもかまいませんし、「この人が彼氏／彼女だったらいいな」と思う人のこととを想像してもいいですよ。その人と一緒にいる時の自分はどのように感じていますか？）具体的に書いてください。抽象的にも書いてください。

5. それでは、親友の中から一人を選んでください。その人と一緒にいるときはどうでしょうか？具体的に書いてください。抽象的にも書いてください。

6. 知人程度の友達の中から一人を選んでください。 その人と一緒にいるときの自分はどうでしょうか？具体的に書いてください。抽象的にも書いてください。

7. あなたが教室で授業を受けている時、あなたはどのような感じでしょうか？具体的に書いてください。抽象的にも書いてください。

8.　さて、広い範囲の話をしましたね。どんな人といても、どんな場所でも、本当の自分ってどんな感じですか？本当の自分を具体的に書いてください。本当の自分を抽象的にも書いてください。

さて、今書いてもらったリストの項目をよく見てください。項目が肯定的(プラス)のことだと思えば、＋を、否定的(マイナス)なことだと思えばーをそれぞれの項目の横に書いてください。どちらともいえない、または両方の面がある場合は ＋ーを書いてください。

６. Self-Diagram Task

これで、あなたが様々な人と一緒にいる時の自分を考えることができました。それぞれの特徴同士がどのように関係しているかをみていきましょう。まずは、それぞれの単語を＋–付きでこのポストイットに移してくださいね。そして、的確にこの表に貼ってください。

この表に貼る前にその言葉が本当の自分とどう関係があるかをしっかり考えて場所を決めてください。あなたにとって、とても重要だと思えば上の方に。そんなに重要だと思わなければ、下の方に貼ってください。

このラベルに書いてある特徴が既に貼ってある特徴と似ている場合、隣に貼ってください。

７. Inquiry

すべてのラベルを貼り終えましたね。もう少し深く考えてみましょう。もう一度この表を見てみてください。ラベルのかたまりがいくつかありますよね。それぞれのラベルのかたまりをさらにグループ化できますか？　グループ化ができるものを丸で囲みましょう。このグループにふさわしいタイトルを付けてください。

もう一度表を見てみましょう。似ている面を考えてみましょう。すでに□で分けたグループ同士や、まだグループになっていないものでもかまいません、似ているところがあると思う物を線で結んでください。数字をふってください。

次に反意語をみつけてみましょう。グループや、まだグループになっていないものでもかまいません、反意語であれば線で結びましょう。アルファベットをふってください。

反意語のなかでも、特に対立、相反するものに矢じりを付けましょう。

８. 精査 Final questions

これで、表は完成しました。一緒に表を見ながら、いくつか質問をします。

(1)はじめに、あなたはどうやって、大事なものと大事ではないものを決めましたか？具体的な基準はありましたか？

(2)反意語を見てみましょう。対立、相反していると言ったものはありましたよね。なぜそう思ったかを説明してください。

(3)あなたの中で相反すると認識されたものはどのように感じますか？相反するものはそれぞれの人がそれぞれ違ったように感じます。イライラする人、ショックを受ける人、混乱する人… 逆に気にならない人もいます。あなたは、この相反するものをどう感じますか？

(4)反意語でも対立していないものもありますよね？なぜ対立していないのしょうか？説明をしてください。

Appendix C: *Probes for specific skill levels*

Level Rp3

では、_____を見てください。あなたが_____の時のことを説明してください。具体的にどんなことをするのかを教えてください。

Level Rp4/Ab1

あなたの_____はどう言う意味ですか？

Level Ab2

_____と_____の関係を説明することができますか？

Level Ab3

この二つのグループを考えてみましょう。_____と_____の関係を教えてください。

Level Ab4/P1

あなたが作成してこの表をあらためて見てみてください。何が見えますか？あなた自身を説明するような全面的な原理／原則が見えますか？

Appendix D. *Sample Transcript [translated]*

Karaage (age 20), high support condition

RP3 (親友：思いやる) passed

[best friend: be considerate of(sympathize with)]

えっと、親友は、高校のときの友達なんですけど、今は大学が別々で、ちょっと離れてて、毎日会えるとかいう訳ではないんですけど、やっぱり困っている時は、お互い連絡とか取り合って、んー、精神的な支えとなっているので....

何を説明するんでしたっけ？そういう風に困った時とか、相談が必要なときは、お互いメールとか電話とかで連絡を取り合って、精神的な支えになっています。

Well, about my best friend…, when we were in high school –we are not together at this university- so we are a bit separated and so we cannot meet everyday… but when we are troubled we get in touch with each other… provide psychological support.

What am I supposed to answer? Well, when we are troubled or when we need someone to talk to, we e-mail each other and get in touch and support each other psychologically.

Ab1(お母さん: 安らぐ) passed

[mother: calming/sets my mind at ease]

私の家族は４人家族なんですけど、お母さんがうーん.....。うーん..。お母さんの存在がすごく大きくて、これはお母さんが例えば、仕事とかで、家にいない時に初めて気づいたことなんですけど、うんと、お母さんは私の知らないところでも、いろいろなことに、家族関係のこととかもそうですし、家事とかもしてくれいるのもお母さんなので、いろんなことにお母さんが配慮してくれていて、すごく私は、お母さんといると安心できるので、うーん、心のオアシスのような感じを表しました。

There are four members in my family and about my mother... well…, She has a very big role… for example my mother… at work… I first realized this when I was away from home but, well, mother does things that I didn't realize… many things like family matters and house chores are done by mother so she cares for so many things… so I feel very calm and relaxed with my mother… hmm… I guess I meant that she is like an oasis for my heart.

Ab2 (親友；思いやる一本当の自分；思いやる)
[best friend: feel for] – [real men: feel for]
同じです。はい。
They are the same. Yes.

Ab2 (授業中：睡魔と戦う一　授業中：まじめ) passed
[in class: fight sleep] –[in class: serious]
えー、関係、関係。
うーん、同じとこに置いた理由でいいんですか？
関係の説明になっているかわからにんですけど、睡魔と戦うっていうのは、本来ならば、眠気におそわれること無く、授業を聴くべきことなんですけど、ども、どうしても、眠気というのは、襲って来て、それに抵抗しているっていうことが、抵抗している。抵抗していることもまじめの一つにはいる？　入ると思います。
What? Connection? Connection…
Hmm… you want to know why I put them together?
I don't know if this will explain the connection well but…, when I fight sleep (in class) I should be able to stay awake in the first place but, sometimes just get so sleepy –and I fight it, that is 'fighting sleep'. I believe the fact that I am 'fighting' is an example of my 'serious'ness. This is the connection.

Ab3(いやしG一わらいG)failed
[(healing/calming) group] – [(fun/laugh)group]
はい。え〜、とても似たようなグループで、うーん、笑う、人が笑うことの中には、癒しが入っていると思うし、うーん、私の中では、このグループは隣同士にあるようなイメージです。
Yes. Hmm… they are very similar groups and well, laugh, people's laughter includes healing I think… hmm… within me, I imagine these two groups as being on the same level.

Ab4/P1 failed
一言でいえば、私はこの周りの人たちにめぐまれているなと思いました。でも、自分にとって大事なものに入る項目が多くて、かけがえの無い人たちに囲まれているんだなって思いました。
In one word, I felt that I was lucky with my context. (But) I have so many important things in my life, I am surrounded by many irreplaceable people.

Appendix E: *MI-based activities for expansion*

Linguistic

Write a poem about the ideas.

Write a short passage about the ideas.

Logical/math

Make a puzzle using the words you came up with.

Spatial

Use blocks or other classroom objects to create similar ideas.

Bodily

Make a set of gestures that convey similar ideas.

Make a gesture game of the ideas.

Musical

Create a simple song about your ideas.

Intrapersonal

Meditate on the ideas. Take notes.

Interpersonal

Ask questions to others about your ideas. Take notes.

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