A View on The Emotional Resonance of Shared Native Languages within Multilingual “Communities of Practice”

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Abstract

Society is labeled as the knowledge society, information society, network society, risk society. Economy is also characterized as knowledge-based economy and the creative economy. Knowledge and the quality of knowledge production is as an important criteria for the comprehensive national strength, as a capacity of organizational development and a token of power. Researchers have been debating over and emphasizing the importance of innovation, creativity, knowledge production or continuous work-based learning for the current economy, where it is no doubt that knowledge is the key.

When speaking of knowledge, I suppose, the notion of learning should also be considered. One may often come across terms such as “knowledge sharing”, “knowledge acquisition”, “knowledge production”, “knowledge construction” and “knowledge creation”. If the above terms are linked up as an ongoing and continuous procedure of knowledge receiving, perception, negotiation, production and reproduction, individuals' learning is permeable throughout the whole procedure. Knowledge is not only the impetus for an individual to learn, but also the outcome of learning.

Social constructionist Wenger (1998) interprets the social theory of learning, where learning is as doing, as becoming, as experience and as belonging. Vygotsky notes “zone of proximal development”(Vygotsky 1978:86) emphasizing on the learning environment and learning context that learner is engaged in as well as the learning capacity that contributes and is produced by the continuous learning process (Matthews and Candy 1999). Marton and Ramsden (1988) suggest in accordance with the learning-in-context arguments that “the way individuals learn is a function of the way they perceive the learning task and the learning analysis environment” (Matthews and Candy 1999:51).

In this paper, the issue of emotional resonance of shared native language is looked upon in the context of multilingual communities of practice. The purpose of this study is to find out in a multilingual context: how the ERSNL negotiates the course of one's meaning making; how the ERSNL shapes one's engagement in the practice and one's relationship with others; how the ERSNL interacts with one's membership acquisition and self-identification.

The qualitative approach and the case study strategy are applied in the paper. On the account of understanding the linguistic and emotional issues studied, observation and interview methods are mainly used for collecting data.

Key Word: Emotional Resonance of Shared Native Languages, Social Theory of Learning, Communities of Practice
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1 INTRODUCTION

1.1 Background

With the international economy integration, more and more cross-culture collaborations and multilingual international organizations take place. The usage of a common working language in an organization surely comes to play an important role in the organization's practice. And more often, English is used as the official working language in international organizations, as it is considered as the lingua franca.

As a result, the fluency and proficiency of both spoken and written English (or other common working language) is usually considered as a criteria for international organizations' employees. However, in a multilingual organization, participants might have a shared mother tongue rather than English. In this thesis, I only look at multilingual organizations, where speaking a common working language is required.

Many corporations state that English or some other language as the only working language and is required to speak during working hours. But the quality of communicating in English has often been taken for granted. One probably considers that as far as there is a regulation for the common language usage, and employees are capable of speaking English, there should not be a language problem in a multilingual organization. Or even if one admits that there is a 'slight' problem, it is too trivial to put on the agenda.

1.2 Language and social theory of learning

An organization's learning ability has become a criteria for evaluating its potential for long-term development. Many perspectives of organizational learning have been looked at. According to 'The Blackwell Handbook of Organizational learning and Knowledge', disciplinary perspectives of organizational learning which includes psychological
From the social construction perspective, many studies have conducted under the notion of the “social theory of learning” (Wenger 1998: 12). As Wenger (1998) notes, the tradition intellectual context of social theory of learning are based on theories of social structure, theories of power, theories of situated experience, and theories of collectivity. He broadens the intellectual tradition with refined intersections – theories of power, theories of subjectivity, theories of meaning, and theories of collectivity. It is relevant to disciplines of anthropology, sociology, social psychology, philosophy, and organizational and educational theory and practice. Wenger (1998) sees it as being located at the intersection of intellectual traditions along two axes: theories of social structure and theories of situated experience; theories of practice and theories of identity. He formulates its components: practice (learning as doing), identity (learning as becoming), meaning (learning as experience), community (learning as belonging).

To Wenger, one's learning is by interacting with others and the world, and tuning relations with others and the world accordingly. And the “collective learning result in practice” is a property of what he calls “Communities of Practice” (COPs) (Wenger, 1998: 45). According to Wenger (2002), the constitution of a COP includes: a group of people, their shared concern, their shared problems or topics or goals. He explains that members of a COP improve their expertise in that subject area through mutual engagement with others.

Interpreting from the social construction perspective, I understand Wenger's social theory of learning as constructed by COP's collective knowledge, shared sense making and distributed understanding. It intersects with the psychological perspective of organizational learning, where one's emotions are indispensable.

In studies of COPs, researchers such as Wenger do notice the importance of language, by for example pointing out that it is an important artifact and is integrated in every process of
a COP's learning. To me, language is an essential tool for communicating and understanding between members from different native language background. That is why multilingual COPs in general have speaking English as an unspoken rule.

Researchers may not be interested in deeper investigation on how one's language skill can bring power and distinctive identification. For example, Wenger (1998) did mention that if one masters vocabularies about wine-tasting, he or she may identify himself or herself from others with pride. He argues that is because “our sense of ourselves includes the objects with which we identify because they furnish our practices” (Wenger, 1998: 70). However, his arguments fall short by only pointing out that language as an artifact matters how one goes to reify and participate. He even noticed one's proficiency in vocabularies brings pride when one discusses and communicates with others. Yet, it appears to me that the following happenings caused by the vocabulary master's proud emotion should also be looked at.

### 1.3 Language and emotional resonance

Consider it is an international wine-tasting study group. The whole wine-tasting course is in English. The wine-tasting vocabulary master apparently shows his pride by using a few expert vocabularies and express a lot of ideas. What do others think? In the discussion, would some members feel embarrassed that they do not understand his elegant wine vocabularies? Would others pretend that they agree with him but discuss their confusions in their native language? The instructor needs to know if something needs to be further explained. He or she might go on with other topics because everyone appears to agree with the “expert”.

Tieze, Cohen and Musson (2003) also suggested that one should understand organizations through language. There, they looked at the multilingual and multicultural issues in organizations. They argue that it is not always the case that by regulating the use of the same language leads to “communication convergence” (Tieze, Cohen and Musson, 2003: 101). They propose the suggestion that when people use English for purposes of
communication, they do not actually draw on the same “culture codes”, “meaning systems” and “behavioral rules” (Tieze, Cohen and Musson, 2003: 101). They show that using English as the 'international lingual franca' can cause misunderstandings and power issues in multilingual organizations. They do point out issues of using English in “intercultural encounters” (Tieze, Cohen and Musson, 2003: 101). They stress the issues of “ethnocentrism” and the power and conflict caused by it in international encounters. To them, language is a symbol from a cultural base.

A good example of language situation in multilingual organizations as Tieze, Cohen and Musson quoted is that in EU and UN, members may insist on their own native language in order to “assert their own cultural identities and standing” (Tieze, Cohen and Musson, 2003: 103). But shouldn't here be some more questions asked? What is the emotional momentum for one to practice his or her native language? And how does that course of action influence others?

For a deeper understanding of the emotional aspect and its relation with language, the psychological notion of “Emotional Resonance” (ER) is studied. “In popular usage the idea refers to the emotional resonance between two people, when, like strings tuned to the same frequency, each responds in perfect sympathy to the other and each reinforces the responses of the other” (Gauss, Edward, 1973: 85-89). Goleman, Boyatzis and McKee (2002) also note that “The human analog of synchronous vibration occurs when two people are on the same wavelength emotionally – when they feel 'in synch'. And true to the original meaning of resonance, that synchrony 'resounds,' prolonging the positive emotional pitch” (Goleman, Boyatzis and McKee, 2002: 20)

Here, the notion of 'emotional resonance of shared native language' (ERSNL) is derived from the ER theory. I define it as the link between targeted participants' emotional lives conferred individually by their shared native language and the emotional messages encoded in their mutual engagements.
Based on the interpretation, I understand the ERSNL intrinsically associates with individuals' knowledge, experience, and emotions tied with one's cultural and language background. Many physiological studies and linguistic studies show that one's emotion is highly consequential to the ones' language behavior. Cooper and Sawaf (1998: 184) explained it as: energy, information and influence. Housen and Pierrard argue that bilinguals generally report higher levels of emotional resonance in their dominant language (Housen, Pierrard, 2005: 539).

One's emotional resonance is the reflection to our meaning. Dewaele (2004) studies the emotional resonance of the first language. He suggests that the relationship between mother tongue use and the emotion is very complex one. To be more specific, he argues that “It seems clear that the first language retains very strong emotional connotation even if that language is not used regularly” (Dewaele, 2004: 84). Gonzalez (1976) and Harris, Ayçiçegi and Gleason (2003) as well report higher levels of emotional resonance in ones' dominant language. Rintell(1984), Graham, Hamblin and Feldstein (2001) argue that second language learners find it particularly difficult to judge the degree of emotional intensity of speech in the second language accurately (Housen, Pierrad, 2005:539). Tulle (2004: 148) states that the intensity of emotional resonance calibrate connections between personal lives and experiences and outer social world.

Drawing on above discussions, it can be argued that one's ERSNL is intense. It is an influential energy. It invokes and influences emotional resonance of those with the same native language background. But what is its connection with learning in a COP?

1.4 ERSNL and learning

The social construction theory of learning is the basis of this research. For me, learning as social construction is learning by doing. I draw from Jun and Sherwood's discussion (2006: 59): “Social construction is a learning process in which organizational members are engaged in a continued sharing of ideas and experiences so that they may acquire a better understanding of the views of others. In the social learning process, past and current events
are reinterpreted in light of participants' diverse values and beliefs. As an individual critically reflects on and interprets others' experiences and ideas, he or she may develop a new understanding of the world of others as well as 'create alternative systems of values and beliefs to counterpoise his or her own values and beliefs.”

In terms of ERSNL, learning here is looked at on an individual level. It is in accordance with Wenger's social theory of learning, where he does not only look at the collective learning, but also addresses the learning at the individual level. Individual learning is indeed an important factor for social theory of learning as it is about how one is perceiving and adjusting oneself to the learning environment and learning context. It is in relation with one's meaning making system, which is also constructed by various internal and external factors. For instance, Wenger discusses how an individual participant of a COP develop a unique identity, and how one identifies his or her membership. The notion of learning according to Wenger is “an issue of engaging in and contributing to the practices of their communities” (Wenger, 1998: 7). He uses the invisible “learning trajectories” to differentiate members learning states. To me, one's ability of learning and their willingness to engage in the practice of the COP decides one's learning state.

First of all, one's ability matters. In a multilingual COP, it can be restricted by one's knowledge in that specific field, his competence of speaking the common working language and the COP's language situation. For example, if one has only professional competence, but not interpersonal competence (say that is the common working language in the COP), one may find it hard to participate fully even with expert knowledge in this field. However, if someone speaks the same native language as him or her, will he then discuss more with that person? Will he then ask for help from that person to translate things for him?

Secondly, one's willingness to engage is also a crucial factor. Wenger (1998) did mention that only adopting without production being adopted can lead to the non-participation identity. Therefore, he emphasizes that “learning depends on our ability to contribute to the collective production of meaning because it is by this process that experience and competence pull each other” (Wenger 1998: 203). I do agree that if one's production
cannot be adopted by others, or one is only adopting others' productions, one would eventually develop the inability to learn in the COP. One may wonder here: Wasn't it for the common interest and goals one tries to engage in a COP? What is in the way for one to have meaningful production which can be adopted by others? What does that have to do with one's willingness to produce? Consider the following questions:

- Have you ever noticed a very knowledgeable colleague stops proposing ideas after his accent of speaking the common working language being joked at?
- Have you ever noticed that there are always those people speaking their native languages discussing issues rather than discussing with everyone else in the common working language?
- Have you yourself had some colleagues speaking the same mother tongue as you? Do you feel that you are subtly connected with each other? Is it much easier to build up a sense of trust? Would you rather to share your thoughts with them?
- Have you been embarrassed and unconfined of speaking the common working language?
- Have you ever had a very good idea blocked at your throat because there was one word you were not sure about in the common working language?

If you have above experience, you would know what I meant by unwilling to engage. It actually looks at individuals' emotions towards producing. In interactions, one seeks feedbacks as well as resonance with others for the mutual understanding and acceptance. If one cannot resonant others' emotions, one is neither sure about what he or she should say in response. Vice versa. If one is not getting resonated by others, he or she may not keep the topic. Or he or she may turn to others who also speak that native language, as they know they will be understood. And they will therefore be more confident for what they say. That is what I will discuss in later chapters - the authenticity of ERSNL.

One's relationship to his or her COP shapes and is shaped by one's emotions. For example, when one's production cannot be adopted by others, one may feel embarrassed, ashamed and unconfident. Eventually, one may get used to adopting others' productions. In this research, whether one's production will be adopted and whether one is able to produce is looked at from the participation and non-participation perspective.
By learning other researchers' study regarding emotional resonance of language, I find a strong scientific and theoretical standing ground supporting the further theoretical argument. Based on that, I will be able to eventually gain a better understanding and analyzing of our empirical data.

1.5 Purpose of this study

Based on the problem discussion, the purpose of this study is to find out how the ERSNL shapes and negotiates the individual learning process. By individual learning process, I mean the individual learning trajectory. To me, it is shaped by how one negotiates meaning with others, how one engages in the Community's practice, and how one identifies his or her membership. In order to reach the purpose of the study, I formulated following questions:

In a multilingual COP context:

- How does the ERSNL negotiate the course of one's meaning making?
- How does the ERSNL shape one's engagement in the practice and one's relationship with others?
- How does the ERSNL interact with one's membership acquisition and self-identification?
2 THE EMOTIONAL RESONANCE OF SHARED NATIVE LANGUAGE

In chapter two, I present my interpretation of the theoretical tool – ERSNL and individuals' learning in a COP. It is divided into different sessions. The ERSNL is looked at under the social theory of learning. In detail, the relation between ERSNL and the negotiated meaning, ERSNL and the three dimensions of practice (mutual engagement, the joint enterprise and shared repertoire), and the ERSNL and the learning trajectory. Here, I try to present the detailed theoretical framework, in order to obtain a deeper theoretical understanding. All in all, this chapter is the paving of the theoretical ground of the thesis.

2.1 The ERSNL under the social theory of learning

Based on the integrated, interconnected and mutually defining components of the social theory of learning, I see a clear structure supporting our theoretical investigations:

- The theoretical investigation starts with looking at the relationship between the ERSNL and the negotiated meaning. Wenger (1998) states that negotiated meaning is constituted by the process of reification and participation. He argues that they are complementary to each other and the course of their interplay forms a duality that is fundamental to the human experience of meaning and thus to the nature of practice.

- On the next stage, I exam the theoretical correlation of ERSNL to the three dimensions of practice: mutual engagement, a joint enterprise, a shared repertoire. According to Wenger (1998: 86), learning along these three dimensions is what produces practice as an emergent structure. In this multilingual context, participants are from different culture and language background. Therefore, in order to engage in the practice of the multilingual COP, participants localize the accountability and the usage of repertoire.

- Last but not least, I discuss the learning trajectory. I look at the role that ERSNL plays in participation and non-participation. To me, one's relationship with others and how one engages in the practice all shape one's learning trajectory and how one identifies his or her membership.

Since the primary focus is on learning as social participation, the interpretation regarding
the relationship between the ERSNL and individuals' learning in multilingual COPs is also based on the focus of social participation.

2.1.1 The ERSNL to the negotiated meaning

The role language playing throughout the process of meaning negotiation can be studied using Harre and Gillett's (1994: 160) argument that “vocabularies through which emotions are described and cataloged in particular cultures”. Panayiotou (2005:187) also based on that statement to argue that “raw experience must be filtered through a cultural meaning making system (Parrott & Harre, 1996: 2) before it is defined as an emotion”. I would like to adopt the premise that “every language contains its own 'naïve picture' of the world including its own emotionology (Stearns & Stearns, 1988)” (Panayiotou, 2005: 187).

Based on previous arguments and premises, it is assumed that language and culture are the ground supporting the defined emotion and reflected meaning. Thus, it can also be said that language, culture, emotion and meaning are four inseparable elements. ERSNL is thus reflective to how these elements interact with each other. It is posited that ERSNL interacts naturally and positively with the ongoing process of how meaning is made and negotiated.

To Wenger (1998), negotiated meaning is constructed by the duality and the interplay of reification and participation. First off, what are the interpretations of reification and participation under the social theory of learning? Wenger refers reification as the process that “we project our meanings into the world and then we perceive them as existing in the world, as having a reality of their own” (Wenger, 1998: 58). He suggests that reification is “the process of giving form to our experience into 'thingness’” (Wenger, 1998: 58), whereas, participation is “a process of taking part and also to the relationships with others that reflect this process. It suggests both action and connection” (Wenger, 1998: 55).

Participation refers to processes such as “doing, talking, thinking, feeling and belonging” (Wenger, 1998: 56). Wenger surely has noticed that the importance of language and
emotions by pointing out talking and feeling as important elements of participation. Yet, I think it lacks of in-depth analysis of the theoretical correlation between how one's participation is constructed by the usage of language and one's emotions. As reification is the process that conveys one's experience into congealed form (Wenger, 1998), it is interlinked with one's emotional experience and how one perceives the world emotionally. Barton and Tusting (2005: 40) suggest that “language is one of the principle means by which meaning is reified”. In a multilingual context, language should not only be looked as a mean but a set of variable means. One's choice of the language mean is dependent on one's knowledge, experience and emotions embodied in a specific form, such as: discourses, genres and styles.

I consider one's emotions such as fear or happiness can be caused and hinged to one's past, and present meanings. They may be evoked by mutual resonance and empathy. Here, the shared native language of some participants is looked at as a mean of resonatory. Literally, I understand that whether or not one can emotionally resonate others' emotions shape how one reify one's meanings and project oneself to the world, and reciprocally form the course of participation.

Based on social construction theory, I adopt the “discursive construction of social meaning” (Nancy J. Hirschmann, 2002). Hirschmann (2002: 81) notes that “language is not merely the medium through which meaning is communicated; it is constitutive of meaning itself”. Barton and Tusting (2005) debate that language is the center of meaning making in COP. LaFont and Medina (1999: 36) also suggest that “as a result of this reification of language, specific languages prejudice our experience through the world views that they provide”. It can be argued that one bases his or her judgments on how one is brought up, and how one is taught. In most cases, all information and knowledge one obtained from his or her childhood, youth, studying and working experience are in our mother tongue. It can be argued that one senses and judges the world in reference to one's native languages.

In general, language appears to be the most frequent and the most important artifact to
reification and participation. Various types of languages are as notes to music. One can not congeal his or her feelings into notes onto a piece of music sheet, if one does not know how to use correct symbols. They are also as different music instruments. Without the proper music instrument as a medium, one can neither introduce his or her feelings and meanings to audiences.

Then again, emotional resonance is a reciprocal process. An astonish piece composed by a great musician would not necessarily invoke all audiences' resonance. It might be for its style, or its rhythm does meet some audiences' taste. Here, different languages can be compared to various types of music. Every language has a unique pitch, speed, grammars and styles. One may love to listen to classical music, but not a big fan of the rock music style. It is get what the musician is trying to tell, and not to say putting oneself in the musician's story. Moreover, a certain type of culture molds the pattern of the music. That is why traditional types of music from different cultures can be rather distinctive and representative. Specific instruments are also required for the appropriate interpretation.

I draw the assumption of how emotional resonance is invoked by language on the analogy of various types of language and styles of music. As I have discussed in Chapter one, emotion embodies information, delivers emotive energy. When the musician does not receive the resonance of others, he or she may not want to continue to perform. Even he or she does, it may not be the soundest performance. The same logic can be applied to how one reacts on something others said.

It has been elicited about the role language plays in how one goes to resonant others' emotions in the above paragraph. As it is said, ERSNL can be seen as one's participation in others' conversations. Even as a listener, one also takes part and plays a role in a conversation. The listener receives the speaker's emotions as messages. It is a way of participating by listening and thusly playing a “role” in the speaker's narrative.

I suppose that ERSNL results in one's identification and understanding of other's situation,
feelings, and motivations. It is also the attribution of one's own feelings to a situation carried in others' stories. When the emotional resonance is produced reciprocally, it brings a shared world view, shared senses and similar embodied understandings. Participation is encouraged and its sustainability is supported under the interaction of ERSNL.

When it comes to practice in the common working language such as English, the language proficiency issue needs to be noticed. One's proficiency of the respective language may differ in spoken and written level. For example, it is often noticed that a none-native English speaking professor may have been writing many distinctive books, but his colloquial English may be comparably inferior. A strong accent can cause others' misunderstandings, and can then dispute the process of resonating.

Dewaele (2004) explains that the level of language proficiency influences the emotional word tokens. He points out that “words in the L2 seem to have less emotional resonance than their translation equivalents in the L1” (Dewaele, 2004: 132). He used the example that an L2 user of English may be much more likely to use the expression “I Love You” in their second language as “L2 learners and users may appropriate affective repertoires quite distinct from the ones they use in L1” (Dewaele, 2004: 149). I have discussed that one's emotional resonance has a strong connotation with ones' native language. It enables one's higher-level emotional intensity judgments towards reification.

I would appear the above assumption with a good example which is the usage of a Swedish word – 'tyst', which means quiet. Its meaning may be much stronger, more intensive, more unpleasant and even more offensive for Swedish native speakers than for foreigners who learn to speak Swedish as a second language. It can be explained as one's emotional intensiveness reaction on one's second language is not as sharp and powerful as one's judgment using their first language. The reason to that could also be the “cross-linguistic differences differences in emotion terms and affective repertoires offered by respective languages” (Dewaele, 2004: 149).

In a Swedish as common language multilingual COP, a participant who speaks Swedish as his or her second language might say 'tyst' when he actually only intend to call for others'
attention. 'Tyst' may sound much harsher and rude for participants speaking Swedish as mother tongue. Their interpretation of the delivered information may be exaggerative compared to the speaker's real intentions.

Barton and Tusting (2005: 39) suggest that as a form of participation, a conversation cannot take place without implying refication “drawing on words, linguistic structures and ways of using language”. The negotiation process of the meaning 'tyst' is shaped because the Swedish L2 user still applies the first linguistic structure and ways of using words when participating in Swedish. Swedish L1 participants may misinterpret the speaker's emotional signal. Misinterpretation may cause some unpleasant atmosphere aroused by negative emotions such as resentment. In turn, misinterpretation of meaning and perceived information and emotions may shape the ongoing process of meaning negotiation.

The term “emotional dissonance” helps to gain a deeper insight of this matter. Hartel, Ashkanasy and Zerbe (2006: 192) conceive “emotional dissonance” as “perceived emotional state representing the dissonance between felt emotion, and emotion that is perceived to be required and content that it arises from situational demands combined with individual differences”. Zebre (2000: 202) distinguishes two types of dissonance: (1) “the degree of mismatch between felt emotions and displayed emotions”; (2) “the mismatch between expressed emotions and local norms”. I would also like to employ Goleman, Boyatzis and Mckee's (2002: 21) interpretation of dissonance: “Dissonance, in its original musical sense, describes an unpleasant, harsh sound; in both musical and human terms, dissonance refers to a lack of harmony”.

Here, the emotional dissonance is studied as the opposite to emotional resonance. Whereas the attachment of emotional cues to the native language would most likely evoke the resonance, its absence in other languages may cause dissonance of emotions. I would thus place a high importance on how emotional resonance interacts with the process of the meaning making. At a more general level, it can be argued that the language and the cultural norms lie at the ground of ERSNL.
2.1.2 The ERSNL to the three dimensions of practice

Practice to Wenger (1998) is always social practice and connotes doing, but not just doing in and of itself. He sees it as doing in a historical and social context that gives structure and meaning to what we do. He asserts that the concept of practice includes both the explicit and the tacit; what is said and what is left unsaid; what is represented and what is assumed. With the view at the practice in the intersection of sociological emotion and the social construction theory of learning, Wenger's theory of practice to me is channeled by our emotions.

2.1.2.1 ERSNL to engagement and relationship

Wenger (1998: 73) explains that the characteristic of mutual engagement “as the source of coherence of a community”. Mutual engagement here is looked at in relation with the negotiation process of meaning which is the trade-off and interplay of reification and participation. Moreover, since this study is conducted at an individual learning level, mutual engagement is analyzed along with the individuals' course of engagement and relationship with other communities' participants.

To me, how individual engages in the practice tightly coheres his or her relationship with others. By that, I mean one's choice of with whom and through which way to engage in the COP's practice determines the development and maintenance of one's relationship with others. In the multilingual and multicultural context, the hypothesis is that the ERSNL does interact with the course of one's engagement, for example, the choice of interlocutor and the usage of linguistic repertoire and switchings between different linguistic codes. It may have some potential impact on participants' understandings, affirmations of their identities comparing to others through their engagement in the COP.
Language practice is surely entailed in the mutual engagement. The assumption is that in a multilingual setting participants' interactions embedded in their native language might constitute trust in their relationship and gap with others. That in turn might contribute or constrain the sustainable development of participants' relationships.

The focus of mutual engagement is in participants' interactions in inter-cultural encounters of the multilingual COP. According to Jun and Sherwood (2006: 61), “Because social construction is interactive and focuses on how people come to produce a sense of commonly shared identity, interaction involves all forms of communication, such as face-to-face dialog, interviews, commentaries, and formal expression of idea in speech, conversation, or writing.” They specially emphasize the essential role of dialogical communication to the process of social construction “participants engage responsively in expressing their ideas and listening to the views of others. Thus, for this investigation of participants' mutual engagement, the focus is on participants' dialogical communication and their emotional responses to engagements.

The development of common working language legitimacy is developed as a must and as a necessity due to the mutual engagement. For example, many multilingual COP may have a 'regulated' common working language (could just be unwritten rules). Wenger (1998) notes that participants' identities are articulated with one another, but they do not fuse. I believe the legitimacy of common working language is more likely to give rise to the homogenization of multilingual COPs. However, practically many mutual engagements are carried out in other languages rather than the common working language. It may construct the diversity of the multilingual COP.

The subtle relevance between emotional resonance and participants' relationships in a multilingual COP is analyzed here with the Plutchik's model of emotions by Turner (2000) presented in the book “The Sociology of Emotions”. When people are mutually resonanted, they feel accepted, they feel confirmed, and they may even feel a sense a enjoyment by making themselves understood, or by understanding other people. The other way around, if one's expectations for others' confirmation fail to meet in an engagement,
one may feel the fear to continue engaging in the same way. In a multilingual context, one situation could be that one's English presentation caused a lot of confusion to other COP's members. Rather, when one discusses the same issue in his mother tongue, one was understood, and appreciated for his ideas, that may bring him a sense of acceptance and happiness. Turner (2000) says that the emotion of joy and acceptance brings love and friendliness, which lies in the primary emotions. He also points out that the combination of fear and expectancy produces the anxiety emotions. I thereby infer that the mutual resonance brings forth friendly and positive emotional energy. But the fear of expectation in a certain style of engagement failing to be confirmed would cause one's anxiety.

It is not hard to understand, hence, why some participants speak their native language when a common working language is regulated. I would additionally assert that emotional resonance is a mutual and reflexive process. If one is sure that his emotions would be resonated with a certain type of people, for example, people who share the same mother tongue in a multilingual context, he is probably more likely to continue engaging in that relationship. And vice versa.

I must specify here in general that there are a lot of language factors can influence participants relationship in a multilingual COP. Different languages are embedded in its unique cultural root. Even if some languages are from the same root, they have all been developed locally in a region or a country. It represents a certain way of living, a certain cultural, the change of history, and the development of the economy. Language itself is developed for mutual understanding of this group of people. Therefore, in a multilingual COP, participants sharing the same language would already have embedded mutual understandings. That is why it is much easier for them to construct mutual trusts, mutual resonance, maintain their mutual relationships. For example, because of the trust by sharing the same native language, participants can discuss rumors, and like, dislike emotions without others understood. That is why even though a common working language might be regulated, by using participants' native language may better the performance of the engagement.
I suppose that the ESRNL shapes the joint enterprise, as it is intrinsic and profound sense of participants from different language background. Wenger (1998) asserts that the joint enterprise is negotiated and intrinsic. Looking at it in the context of a multilingual COP, it allows the diversity and cultivating the homogeneity. It is negotiated communally and collectively by participants' response and understandings to their situations. Thus, it is intrinsically shaped by our empathy and resonance to others' engagement and our own situation. To me, the joint enterprise of a multilingual COP not only enables partiality where for example a common working language is an unspoken rule, but also allows diversity where individual's response to language situations vary.

I can see the regulated common working language as under the pervasive influence and requirement of the broader system (for example the whole organization). When participants have different native tongues, a common working language usage for sure supports the coordinated communications and interconnected understandings. Notwithstanding the usage of common working language, I assume that the ERSNL may also in some degree integrate their respective aspirations into the joint enterprise.

Wenger (1998: 82) suggests that the enterprise involves our impulses and emotions as much as it restricts them. In general sharing a joint enterprise may guide participants' to engage in the COP's practice in a certain way. However, because of the regulation of the common language, participants' emotions of using it may be usually ignored. Using one's native language is often considered as inappropriate or respectable to others.

In theory, it can be argued that even if common working language is mandated especially in formal occasions, individuals from different language background still produce and develop their own way of interpreting or pursuing the joint enterprise locally. The legitimacy of the common working language usage is as accountability for the need of mutual engagement. The mutual accountability may not be the same as written rules, and
policies. To me, the regime of accountability of working language is an integral and even regnant part of the practice as it to some or certain degree constrains the usage of other languages. Nevertheless, the regime of accountability of working language is reified and interpreted individually based on individuals' different language backgrounds.

As Tietze, Cohen and Musson (2003: 107) put it, “language constitutes one's meaning system”. One makes meaning of the world in reference to his or her meaning system formed by language and other symbols. The mutual accountability can be interpreted according to Wenger (1998) as responsibilities in respect of a better working life for others. A common working language is certainly a necessary tool for a better working life for multilingual participants.

However, would all the participants enforce themselves to speak the common working language in any situations in order to make it easier for others to work? People may tend to localize the interpretation based on their cultural background. For example, a Japanese or a Chinese participant may follow the rule more strictly as a “using English” accountability to them is more than respect to others, but also disciplines to themselves. The reason to that is the strict Chinese and Japanese grammars which supports their orderly nature of their culture.

I borrow the idea of the emotional culture of a society from Gordon (1989) that “in the vocabularies denoting emotions, the beliefs that people hold about emotions, and the rules about how people should feel as well as when and how emotions should be expressed. For every emotion, members of a society learn the vocabulary (words for emotions), beliefs about emotions (e.g., happiness should be freely expressed, whereas anger should be tempered), and norms about emotions (we should feel sad at a funeral and happy at a party) (cited by Turner and Stets, 2005: 31). Code-switching as a communication strategy answers why participants would still speak their mother tongue, while the common working language is legitimated.
Yet, in a COP, the accountability of “speaking the common language” may also be localized by individuals as speaking the language that makes things work and make the working life easy for others. For the same purpose, however, it depends on the actual situation to decide which language to use. ERSNL does not necessarily determine the choice of language.

2.1.2.3 **ERSNL and the shared repertoire**

Wenger (1998) argues that the third characteristic of practice as a source of community coherence is the development of a shared repertoire. To me, the central part of mutual engagement is interaction. And language is an irreducible component of shared repertoire. However, in a multilingual context, the language repertoire is much more complicated as participants' first languages may also be used besides the common working language. Though the latter is certainly the legitimated shared repertoire for the multilingual workforce.

The “linguistic repertoire” applied in a multilingual community is the focus speaking of the shared repertoire. I adopt the concept “linguistic repertoire” from Gumperz. Gumperz (1964:137) describes that as “the totality of linguistic forms regularly employed in the course of socially significant interaction”. In a multilingual community, all sorts of languages are considered as the linguistic repertoire of the community. While the common working language is the shared linguistic repertoire constructing the homogeneity of the community, individuals' linguistic repertoire range determines its heterogeneity nature.

I see languages used in a multilingual COP as the certain way or styles of doing things. By language usage, I do not only mean what language to speak, but also which language to write with or maybe even what language to think. It can even be the style of talking, for example, one may keeps the accent and speed of his native language when speaking another language. I assume the usage of other languages are channeled by or even driven by the emotional resonance. Dachler and Hosking(1995), Gergre(1994), Somers(1994) had
idea that the identification to elaborate that our emotional resonance construct the
collective identity with the co-producing of other participants. In terms of language, that is,
how one goes to identify his or her state in the COP is closely related on how one feels
resonated by others. The hypothesis is set forth here that the mutual resonance can make
one feel highly valued, and paid attention to as an insider.

Even if all participants share the same mother tongue, according to Wenger's (1998)
mismatched interpretations or misunderstandings are unavoidable and indeed the problem
need to be solved. However, he also points out that it is the opportunity for new meaning
making. Yet, in a multilingual context, I would view that from the perspective of “comfort
zone”. Tietze, Cohen and Musson introduced this notion in accordance with “linguistic
relativity”. They explain that “Language is like a comfortable room that we know well.
Therefore, we can manoeuvre in it, find out jumpers and socks quickly and feel very much
in control. Leaving the comfort zone always implies a modicum of initial disorientation,
confusion and discomfort, but it may also lead to rich discovery” (Tietze, Cohen and
Musson, 2003: 94). It can thus be posited that using the common working language which
is not the one's native language as a repertoire can cause bad quality or even
malfunctioning. It may be for one is not confident of how to express feelings right.
However, by discussing one's ideas in another language can give the chance to re-think
things differently.

The shared language repertoire is developed to overcome existing cultural barriers in a
multilingual COP. However, the usage of common working language may not always be
sufficient enough to display or render the emotional cues required for resonating.
Therefore, the medley of language usage obtains the coherence of meaning through the
overtime pursuing of the shared enterprise. That is, the coexistence of linguistic repertoire
may aid the better self-understanding and sense making referring to the joint enterprise in
the multilingual context. It shapes and is also shaped by the over time mutual engagement
and pursing of the joint enterprise. Therefore, I assume that in a multilingual environment,
participants' mother tongues should all be considered as important repertoire. They may
enable or inhibit engagement, support or neglect mutual relationship, allow or prevent
pursuit of joint enterprise, assist or restrain the negotiated meaning. It is far more complicated than, saying participants can adapt themselves autonomously to be in tune with the emergent multilingual situation.

2.1.2.4 Code switching and language choice

It is often noticed that multilingual participants may choose consciously or subconsciously to use a language or switch to some other languages in conversations. The notion of cross-linguistic code switching can explain the phenomenon. Brown and Levinson (1987: 110) note that “The phenomenon of code-switching involves any switch from one language or dialect to another in communities where the linguistic repertoire includes two or more such codes”. Duranti (2001: 238) also defines code switching as “the use of two or more languages in one speech exchange by bi- or multilingual speakers”.

As Pavlenko concludes, three sets of factors influence one's language choice and emotional expression: “(a) individual: speaker's multicompetence, in particular language dominance and levels of proficiency in respective language; age and context of acquisition of particular language; and perceived emotionality of respective languages; (b) contextual: individual and interactional goals; interlocutor's linguistic competence; emotionality of the languages as perceived by the interlocutor; perceived language prestige and authority; and (c) linguistic: cross-linguistic differences in emotion terms and affective offered by respective languages” (Pavlenko, 2005: 149).

The emotional momentum aspect of code-switching is applied here for a better understanding of the course of interaction between ERSNL and individual choice of linguistic repertoire. A number of studies have been conducted looking at the relation between cross-lingual code switching and emotions.

For example, Dewaele (2005) conducted a research on expression of emotion by second
language users. The analysis is on the sociolinguistic level, as he views the choice of language “for the expression of anger in social interaction” (Dewaele 2005: 123). In general, his research findings show that “a language learned, or habitually used, in an authentic context may acquire a stronger emotional resonance than languages learned in the classroom only” (Dewaele 2005: 148).

As this research is also at sociolinguistics level, I found some of Dewaele's (2005: 149) research findings are supportive to the hypotheses of the relation of ERSNL and language choice: “(1) early socialization usually happens in the L1 (s) means that a multilingual will develop rich and varied memories with strong emotional connotations in that language; (2) extroverts were found to use colloquial words and emotion words more frequently than introverts in the LX (Dewaele, 2004d; Dewaele & Pavlenko, 2002); (3) introverts may be less willing to risk loss of face by using an inappropriate anger repertoire; (4) the expression of anger covers a wide range of speech acts, which vary according to the home culture: yelling can be acceptable for the expression of anger in Southern Europe, but it is taboo in Asia; (5) having to focus on vocabulary and grammar, L2 users may ignore paralinguistic variables, such as intonation and prosody, to express their anger. This mismatch between the verbal content and the non-verbal aspects may not be decoded actually.”

The range of individuals' linguistic repertoire and the multilingual context offer the flexibility for utilization code-switching strategy. The hypothesis is that one's subconscious seeking of the emotional resonance with others acts as the emotional momentum for the implementation of code-switching strategy. Code-switching strategy is shown when for example a Chinese participant switches to speak Chinese during an English conversation with a group of multilingual interlocutors (among whom some are also native-Chinese speakers). The reason for switching to speak Chinese may be for asking other Chinese speakers' help for translation or an explanation, or affirmation for something unascertained.
2.1.3 The ERSNL to learning trajectory

To me, the learning trajectory in a multilingual COP is not only connected with one's history, one's current practice, one's future presence, but also in connotation with one's emotional resonance of shared native language.

What would participants feel about the emergent language situation caused by the arrival of a foreign newcomer? Would it change the relationships among participants in the community of practice? Wenger (1998) has argued that a rich history of mutual engagement can yield an opportunity to negotiate. Yet, if the multilingual condition is not taken into considerations, the negotiation process may be hard to achieve. If participants are not comfortable with the new language situations in the COP, for instance, if they do not want to communicate with the new comers, how would the opportunity of negotiate to yield?

According to Wenger (1998: 154), on one hand, our identity forms the learning trajectory; on the other hand, identities are defined with respect to the interaction of multiple convergent and divergent trajectories – peripheral trajectories, inbound trajectories, insider trajectories and boundary trajectories, outbound trajectories.

I understand the outbound trajectory as a negotiated path which leads participants way out from their COP. It involves more development of new relationships, and pursing new meaning than development of existing membership and positions in their current COP. To me, it suggests that some participants on the outbound trajectories are seeking their way out of the COP for new meaning and enterprise. For this research purpose is at the current learning situation, I will not endeavor to understand or exam the participants' emotional resonance on the outbound trajectory. Moreover, as the boundary trajectories mainly deal with participants' identities and values across boundaries, it is neither the emphasis of this research.
Instead, the intention here is to understand and analyze participants' learning condition on the peripheral trajectories that may lead one's way into the community, inbound trajectories and insider trajectories in an multilingual environment.

Wenger (1998: 154) says “trajectory” suggests a continuous motion that has momentum of its own in addition to other influences. However, ERSNL can be a critical factor interacts of the trajectory momentum. On one hand, it may contribute to the trajectory and offer special access to both newcomers and old timers. Say, there are only two participants share the same native language in a multilingual COP, one is a powerful oldtimer with the expertise, the other is a newcomer. It is possible that the newcomer would have the advantage for the emotional resonance embedded in the their mother tongue. It hypothetically enables him to obtain a closer relationship with the knowledgeable oldtimer. It is also possible that the newcomer is the only foreign language speaker. Lack of the ERSNL may bring obstacles into his learning trajectory.

Additionally, it may even determine the 'choice' of learning trajectory. By choice, I do not mean that participants can foresee or plan what learning trajectory to take, but it is decided and shaped according to a certain social context as well as individual emotional resonance.

Indeed, by discussing the trajectory, I intend to obtain a profound sense of how the ERSNL influences individuals' perspective on their participation and self-identification of their membership. It is evolved with the development of one's experience, knowledge in one's native language. It is coherent with one's history and learning coin his or her mother tongue. It is subliminal, continuous, intrinsic and negotiated. It is indispensable and ingrained for our conscious understanding of the world. Theoretically, when locating it in the social context of multilingual COP, it is not only inner-related, but may also be consequential and even critical to the its performance.
3 RESEARCH METHODOLOGY

In this chapter, I present the research methodology and detailed methods and strategies. First of all, overall approach is showed. In detail, I later on present the research relationship choice, my selection of site and participant. In the data collection session, I explain the research strategy. There I will explain the reason for choosing exploratory study and apply case study strategy, where interviews and observations are carried out. Methods for analyzing collected data is also presented. Last but not least, I present the validity and reliability of this thesis.

3.1 Overall research approach

At a broad view, the goal of the thesis is to understand, analyze and may eventually draw interpretations about a general type of phenomenon. This research looks at the informal situation in a real-life context. Specifically, it looks at whether the ERSNL affects the performance of a multilingual COP. I obtained theoretical understanding of COP and social theory of learning from Wenger and other researchers' theories. Surprisingly, the situation has rarely been looked at. I know little about the actual happenings in a multilingual COP at the ERSNL aspect. My personal experiences in similar situations is too weak to support the arguments. It is critical for me to have participants' (in a multilingual COP) perspectives to understand their emotions and behaviors and the interaction with their relationship with others and their trajectory of learning.

For qualitative studies, context matters (Cathering Marshall, Gretchen B. Rossman, 2006, p.53). This research studies a specific setting. Since the focus is on participants' behaviors, and which I believe, are significantly influenced by the occasion. Qualitative approach allows and supports to collect qualitative data that assist to understand participants' thoughts, emotions, values. I thus conduct the study in settings where “complexity
operates over time and data on the multiple versions can be collected" (Cathering Marshall, Gretchen B. Rossman, 2006, p.53). Therefore the qualitative approach is appropriate for this study.

3.2 The research relationship choice

In this part, I will explain the relationship I create or establish with participants in this study. In this case study, I structure the anticipated research strategy to be case study, and research methods to be qualitative observation and interviewing. According to Maxwell in the book “Qualitative Research Design”, that research relationship are conceptualized as “negotiation entry” (e.g, Marshall & Rossman, 1999, p.82) and that the process of negotiating requires ongoing negotiating and renegotiating. I am the researcher for participants, not having any other public or private role involved with the observed group. Since I do not participate in the actual work of the group observed, it is problematic for me to build trust with participants, and to understand the observed project. However, it substantially reduces the risk of bias and distortion of the data. Being observer of the project chosen, I do not carry any prejudgments, but observation results.

3.3 Selection of site and participants

Since this research is a qualitative research, I select sites and participants by using a strategy called “purposeful selection” (Light et al., 1990, p. 53). Maxwell argued that “this is a strategy in which particular settings, persons, or activities are selected deliberately in order to provide information that cannot be gotten from other choices” (Maxwell, 2004, p.88). The strategy choice here is for that the studying of a particular situation - the ERSNL in multilingual COP, which has rarely been studied or even paid attention to. Therefore, this study is exploratory study. Moreover, as the ERSNL cannot be measured by quantitative methods, it requires qualitative study.
Purposeful selection is a qualitative strategy. It helps me sample the representatives of the settings, participants and activities. Referring to the previous argument about our study situation, I decide to select three multilingual COP due to our purpose of revealing how it is influenced by ERSNL. Participants all speak English either as their mother tongue or as their second language. And some participants share the same native language. Additionally, all three COPs are rather small. As a result, it allows me to be more focused on possible problems. For example, I have had more time on studying individuals' behaviors; and think more from participants' perspective that how I would react on a question.

I choose to observe one medical research community of practice; interview one participant from the IT group and one from the biology research COP. It is essential for the study that our participants can be open about their perception and feeling about their project and towards other community members. It requires participants to trust me. While at the same time, a lot of time to build the trust is needed. Besides the time consuming fact, there are a lot of problems in the observation and interviewing process. For example, I need permission to enter the medical research center. So I have to discuss with participants about when it is best time for me to go there. Sometimes, the observation plan has to be canceled because of unpredictable experiments.

3.4 Data collection

Data here is collected through a combination of qualitative research methods such as interviewing and observation. Further down, I will elicit and present our strategy and methods in more detail.

3.4.1 Why do I use case study strategy

“In general, case studies are the preferred strategy when the investigator has little control
over events, and when focus is on a contemporary phenomenon within real-life context” (Robert, K, Yin, 2002, P.1). Based on the design and the purpose of our research, studies and investigations are done in a real COP in the present. A case study method is most appropriate. Hence, I decided to make a case study.

### 3.4.2 Why is exploratory case study for this thesis?

I attempt to learn the affects of the ERSNL in a multilingual COP. As noted previously, this study looks at a field which has rarely been looked at. Moreover, I did not have so much knowledge about the research problem before. So obviously, it is an exploratory study.

Rober. K. Yin argued in the book “Application of Case Study” that “in this type of study, field work and data collection are undertaken prior to the final definition of study questions and hypotheses” (Rober. K. Yin, 2003, p.6). Exploratory case studies can be considered as a pilot study while there are many uncertainties about the real case. For example, I am not certain about how many new problems and what kind of problems I would find through observations; I do not have yet a list of questions to be asked in interviews. Again, as I have argued, this study is an exploratory study. Therefore, its nature is uncertain. Stake. R, has suggested in the book “The Art of Case Study”, that exploratory case studies can allow maximized understanding in a limited time. Due to the time limitation and uncertainties in this study, an exploratory case study is the most appropriate case study type for this study. It offers me the opportunity to be more focused instead of taking a large scale of research.

### 3.4.3 Observation and interviewing

I have argued that I used both observation and interviewing strategies. “Observation entails the systematic noting and recording of events, behaviors, and artifacts (objects) in the social setting chosen for study” (Catherine Marshall, Gretchen B. Rossman, 2006, p.98).
Maxwell argued that while the immediate result of observation is “description” (Joseph A. Maxwell, 2005, p.94), interviewing also gives a description of the content of the information from participants' perspectives. It can also help to gain description about events happened in the past. And on the other hand, he also argued that “observation can enable you to draw inferences about the perspective that you couldn't obtain by relying exclusively on interview data” (Joseph A. Maxwell, 2005, p.94).

Depending on the field of this study, I collect data by observing and interviewing. COPs are autonomous. It is impossible for me to find evidence to prove a COP through any formal document. Therefore, I approve a group in an organization is a COP through observations. The final purpose is to find out whether the ERSNL is an issue affecting the performance of the proved existing COP. That requires more data through observing meetings and other formal or informal interactions in the community.

I was able to reveal lots of interesting problems and details during observations. Yet, it was not quite enough. Again, this study looks at emotional cues embedded in conversations. Emotional cues and the reciprocal harmony cannot be read and analysed and interpreted in certain formulas, or based on written expressions. It is neither as visible and measurable as physical study, nor as descriptive as literature study. It is emotional and may be a bit psychological. Thus, interviewing individuals in connection with problems revealed in observations help me to have a better understanding of targeted problems from different angles.

I did not get permission to observe the other two COP, so I can only interview two participants from those two COPs. It is still sufficient even though I cannot observe them. I look at language issue in the other two COPs from the two participants' perspective of view. In other words, here I mostly focus on and examine the feelings of the two participants towards the issue of ERSNL, not on the performance of those COPs as a whole.
3.4.3.1 The observation strategy

Observations and interviews can be really intensive. They are time consuming. Whereas in this case, time and resources are limited. I choose a short-term observation approach. Referring to arguments in research relationship section, I only act as researchers in the groups chosen. It differs from other cases where researchers are involved in the observed group as employees, for example. In that case, it is more appropriate for them to carry an intensive, long-term involvement. In contrast, in this case, it is best if I could be focused and not involved in the project. Since the research objects are rather emotional, I specially need to be reliable through out the whole process.

Furthermore, in this case, at least two kinds of observations are carried. When I talk about observation types here, for the time and resource limitation, I only focus on the medical research COP.

The first kind is the observation for proving the chosen group is a COP. The second kind of observation is carried out substantially of the first one. And it provides data directly towards the research purpose. So for this case, an efficient and focused observation approach is more reasonable. Short term observation approach allows me to narrow the focus on specified categories of group behavior. Members of COPs can come and go. Wenger (1998) writes about that a new generation of members in the COP, and also all the components of practice are changing a lot. Thus, there is no good time and bad time to observe a COP and that short term observation is the best approach for this case. I put notes for the observations for further data analysis.
3.4.3.2 Interviewing Strategy

An interview is carried out after every observation (the second kind of observation in the case as I explained above). I also interviewed the two participants from the other two COPs. Through interviews with them, I obtained information proving the existence of COPs they belong to. I came across many problems in observations. For example, in the observed group, I noticed some participants behave differently based on the language he or she speaks. The explanation may be very important data for this study. I asked not only the person himself or herself, but also other participants how they react on those problems. What it is studied here is mostly for understanding emotions, so the best way for understanding the situation is to get answers from different participants and look at the problem from different angles. I did not get permission to observe the other two COP, so I could only interview two participants from those two COPs, which still offered some good very valuable materials. I look at language issues in the other two COPs from the two participants' point of view, rather than the performance of those COPs as a whole.

Four times observations were implemented. It was dependent on whether participants can be comfortable in the observation, whether they would act normally, and how many sufficient and valuable problems could be noticed and discovered. I believe that it is possible to find more interesting problems to the research and study. However, I have limited time and resources. So this research is mostly based on results from the four observations and the interviews. Interviews are summarized as field notes.

3.5 Data analysis

The initial steps in this case of analyzing data is reading notes from observations and interviews. Then I write down memos and notes of developed tentative opinions and suggestions about categories and relationships.
Maxwell (2004) listed three main groups for data analysis: “(1) memos; (2) categorizing strategies (such as coding and thematic analysis); (3) connecting strategies (such as narrative analysis)” (Maxwell, 2004, p.96). Memo strategy is used in this research.

First of all, the connecting strategy is more for this research, not the categorizing strategy. What I am trying to do is not to find out similarities and differences across settings or individuals. Conversely, this study is a matter of finding “the way events in a specific context are connected” (Maxwell, 2004, p.99). This research examines whether the ERSNL influences the performance of a multilingual COP. It is apparently different from to examine the similarities and differences between them.

Secondly, it is necessary to use the connecting step in analyzing different categories and themes. Connecting strategy “connects analysis attempts to understand the data in context, using various methods to identify the relationships among the different elements of the text” (Atkinson, 1992; Coffey & Aktinson, 1996; Mishler, 1986). Yet, it needs the complement of connecting steps between different categories.

“The connecting step is necessary for building theory, a primary goal of analysis. It cannot recover the contextual ties that were lost in the original categorizing analysis. A purely connecting analysis, on the other hand, is limited to understand particular individuals or situations, and cannot develop more general theory of what is going on. The two strategies need each other to provide a well-rounded account.” (Maxwell & Miller, n.d. Maxwell, 2004, p.99) Interpreting in this case, I attempt to find out different group members' different attitudes and behaviors in various language usage situations. If I only use connecting steps in analysis strategy, I could only be able to build a primary goal for the analysis to be collecting in three (for example) situations where some group members were talking in their mother tongue rather than the common working language.

However, I can not then recover the contextual ties, which are the causes of their behaviors and reactions that other group members have towards those three situations. Is using the
native language rather than the common language situation caused by fuses in other situations? Do other participants' reactions affect further activity process? On the other hand, using pure connecting strategies is appropriate here to exam connections, but may cause missing out particular individuals or situations. For example, what actually happened in the situation where group members would rather to speak their mother tongue? And what is the individual emotional reason of it.

Therefore, this research applies both strategies. First of all, a goal for analysis is built to be categories of three situations where some group members speak their mother tongue, and what the individual emotional contexts are. Consequently I find out how they are connected with other events. Substantially, I try to achieve a general theory from different angles of what is going on.

3.6 Validity and reliability of the research

Jane Ritchie and Jane Lewis (2003: 270) suggest that reliability means 'sustainable' and validity means 'well grounded' in their broadest conception. Since this research regarding a social science topic, and is conducted as a qualitative research, the criteria of validity and reliability differs from the validity and reliability criteria of quantitative researches.

3.6.1 Limitations of the research

First off, the emotional resonance of shared native language is in and of itself grounded in the social-science traditions. This research is therefore related to one's emotions, feelings and understandings. It is rather hard to fully interpret and analyze participants' behaviors and feelings based on interviews and observations.

Secondly, the time and resource of this research are limited. COPs are informal. They are changed and evolved overtime. As Wenger (1998) puts it, some COPs exist and develop over centuries; while others only exist for a short period. Also, the performance or the
learning situation of a COP is negotiated continuously. Therefore, when I want to draw the generalization in this research, I might face the most significant problem that I do not have enough time and access to various COPs. Empirical findings and later analysis are thus mainly based on the current happenings in chosen multilingual COPs. The generalization conclusions of this research are drawn from the analysis of the current empirical findings situated in the social theory of learning. I cannot foresee the future happenings. Only can I apply the present findings to understand the phenomenon as a whole.

Last but not least, I am a foreigner experiencing studying and working in Nordic Countries. Initially, when I look at the problem of the ERSNL in multilingual COPs, the foreigners' or the minorities' perspectives resonant mine strongly. I see it as a major bias threatens the validation of this qualitative research. Joseph Alex Maxwell (2005:108) claims that it is impossible in qualitative research to deal with subjectivity or bias by eliminating the researchers' theories, beliefs, and perceptual “lens”. He suggests that qualitative research is primarily concerned with understanding how my (as researchers) values and expectations influence the conduct and conclusions of the study and avoiding the negative consequences. Again, as this research is related to the ERSNL, my emotional resonance towards it may also be inevitable. Therefore, the research results possibly turn out to be a bit biased. In later session, I will in detail explain how I improve the validity of the research.

3.6.2 How do I improve validity

Jane Richie and Jane Lewis (2003: 274) restate that the primary 'validity' with qualitative research is whether one is actually reflecting the phenomenon under study as perceived by the study population. According to that statement, I run a checklist throughout the research in order to improve the validity of this thesis. I provide the checklist as following: (The checklist is based on checklist provided by Jane Ritchie, and Jane Lewis, 2003, Qualitative Research Practice.)

- Sample Coverage - This checkpoint looks at whether the sampling contains any
known bias, and whether they are qualified for the research purpose. I am from China – I have been working at multilingual organizations where English is used as the common language. Based on my experiences, it is natural that I understand better the situations of foreign workers. Therefore, I pick this case study choice from three different perspectives respectively presenting the: one typical context where the COP is constituted by a certain amount of participants sharing different kinds of native languages and requires (no matter formally or informally) a common working language; two extreme cases where the majority participants of multilingual COPs share the same native language, and very few participants speak other languages as mother tongue (they do not share the same native language either). Based on the sample coverage, I can analyze both the majority and minority language users perspective in those two extreme cases. Moreover, the typical case represents the most common situations. Empirical data collected from three contexts indicates the real-happenings and different participants' real feelings. Qualified samples for the research also must be multilingual COPs. As COPs are autonomous, I will try to analyse and show the chosen cases are qualified (that they are multilingual COPs) in the following chapter.

- Capture of The Phenomenon – Here I check the quality and the validity of the questions. As the interview strategy presented earlier, formal interviews are carried out after every observation, and informal interviews are through informal conversations. I propose questions regarding findings from observations. They are not abstract, but are based on what I saw and heard. Put it differently, questions are based on participants' behaviors or real-happenings in those multilingual COP. For example, I asked S(one participant) that “I notice that you were exchanging notes in Chinese with Y. Why did you prefer to share those kinds of notes with Y than with N?” I also asked Y and N their opinions towards it. As participants were usually aware of their and others' behaviors, it is much easier for them to answer a question and express their feelings and thoughts at the happenings and events than at theoretical or abstract questions.

- Identification or Labeling – I relate this point to the main focus of this study. It concerns whether the phenomenon in this research is identified in ways reflecting meanings assigned by participants. It is not only reflecting my subjective
interpretations. It is easy to confuse the identification of the research focus – the ERSNL to a broader concept – language. To me it is 'named' reflecting the way participants assign it. In other words, I see the phenomenon as a matter of the ERSNL influencing multilingual COPs, because participants sort and interpret it from their emotions and feelings rather than from a linguistic point of view.

- Interpretation – At this check point, I exam whether the collected internal evidence is sufficient and developed. I state that this study is a contemporary case study, as I contemporarily exam three cases. Henry E. Brady and David Collier (2004: 93) suggest that in contemporary qualitative research, internal evidence is routinely used to evaluate hypotheses about overall outcome of all studied cases. In this case study, I interpret the impact of the ERSNL to multilingual COPs through collected internal evidences from different angles of three different cases. Throughout the study, I try to obtain and evaluate sufficient evidence with the goal of interpreting the developed explanatory account: the ERSNL in multilingual COPs.

- Display - To me, the criteria “display” means to portray research findings in an way and obey the original true data. Jane Ritchie and Jane Lewis (2003) also suggest to provide readers with clear and open analytic constructions.

### 3.6.3 How do I improve reliability

Jane Ritchie and Jane Lewis (2003: 272) suggest questions surrounding the appropriate design and conduct of the research are crucial in order to ensure the reliability of a qualitative research. As limitations and negative lens of the research I have presented earlier, I do not say here that I can ensure the reliability of this research. Rather, I also use a checklist to improve the reliability:

- First of all, I check whether the selection of the cases are without bias and are representative and comprehensive. As a matter of fact, this check point is in accordance with the 'sample coverage' check point for validity. However, in this context, while the 'sample coverage' mainly looks at whether the selected cases are qualified as multilingual COPs, the checkpoint here addresses the importance of the
internal checks on the quality of the data collected from the selected cases. Even though I did not ascertain any non-response or attrition within the sample, there are issues influencing the reliability or quality of collected data. For example, for Chinese is my mother tongue, the emotional resonance of Chinese supports more intensive understanding of a Chinese-speaking participant's behavior. Nonetheless, I may not be able to resonate a German-speaking participant's responses regarding his or her usage of German rather than the common working language.

- Secondly, I check the consistency of the fieldwork. Two ways of interviewing are combined: interviewing after a session of observation; face-to-face informal interview. The former interview method enables the consistency of the questions, which allow respondents sufficient opportunity to share their immediate experience and feelings with me. The latter interview method allows respondents to be more relaxed. Thus, it allows the respondents to cover wider and deeper thoughts.
4 CASE STUDY THEMES

In this chapter, I will explain why there are three different case study themes or environment settings based on both theoretical argument and chosen cases. Further on, I tried to show that they all multilingual COPs, in order to assist further analyses and examinations.

4.1 Environment settings

It is first and for most to analyze three COPs for a sound interpretation of individuals' learning. Even though multilingual COPs may be considered as a phenomenon, language usage situation differs from contexts to contexts, from settings to settings, and from themes to themes. The ERSNL is profoundly individualized and localized, and is continuous negotiated and shaped by the social context – more specifically the multilingual COP participant is involved.

I have already discussed earlier that for improving the validity and reliability of the research, multiple assessments from different angels and contexts are critical. Therefore, I conducted this research under three different multilingual COPs contexts or themes: an IT multilingual COP; a medical research multilingual COP; a biological research multilingual COP. In this research, I see the language usage is not only shaped by the language context but also by the community's practice. For example, one's practice in a COP which is responsible for marketing or sales may entail many social interactions. However, if it is a COP with technicians, less face-to-face communications may be involved. In some firms, technicians can even work from home. It may already be sufficient enough to interact online for the purpose and requirement of their practice. Thus, face-to-face interactions may not always be required.

In the context of the medical research multilingual COP, participants have to deal with
many individual and corporate experiments tasks for reaching the mutual result. Scientific experiments are unpredictable, and require full concentration and enormous amount of time. Therefore, during experiments, researchers may not need to interact in the form of conversations. However, in formal seminars, meetings, and during informal discussions, lunch hours, they need to interact in many ways of language. The intention for studying and assessing three different themes or contexts is to identify the different situations. Besides, multi cases allow me to analyze the influence of the ERSNL based on the meaning assigned by studied participants.

The three selected themes are different in their practices as well as the amount of speakers with the same native language. For instance, both the IT multilingual COP and the biology research multilingual COP only have one foreign speaker. I look at these two patterns from the majority and minority participants (from language perspective) respectively. In that case, I can improve the reliability of the research by avoiding certain bias I have as a foreign student. The medical research multilingual COP is a more typical context. In this context, I observe four participants, where each two participants share the same mother tongue. In common, all three multilingual COPs use English as a common working language.

There are potential problems with the complexity, unpredictability and duality of data. Therefore, further research needs to be conducted in order to exam the topic or relevant field. Referring to the sample coverage checkpoint for validity, in the following session, analysis of internal evidence is presented to approve that three chosen contexts are qualified of being multilingual COPs. Only when I try to improve the reliability and validity of the sample selection and coverage, can I build a solid foundation for the data collection and analyzing.
4.2 Community of practice arguments

One may debate that if some participants always engage in the practice using their shared native language rather than the common language, should they be considered as forming a COP? The answer to me is no. Wenger (1998: 126) define speakers from the same native language background form a “constellation of practices”. He argues that they are much broader, but offers a particular way as related. Therefore, speakers of a language in a multilingual COP do not from a specific COP, but belong to the same language constellation. And even though they speak their mother tongue often, the intention is still learning to pursue the joint enterprise of the COP. However, with the impact of ERSNL, their native language offers them a different approach to be engaged in the multilingual COP.

Wenger (1998: 45) presents that “over time, this collective learning results in practices that reflect both the pursuit of the enterprises and the attendant social relations. These practices are thus the poverty of a kind of community created over time by the sustained pursuit of a shared enterprise. It makes sense, therefore, to call these kinds of communities communities of practice”. All three themes have shared enterprise, shared negotiated identity and meaning and common practice. I will analyze in detail that they all meet the criteria for being multilingual COPs.

The medical research group is an informal COP of the whole medical research center of the university. I say it is a multilingual COP because participants have:

- share enterprise - Researches are gathered informally in this community for a common interest. They have developed overtime common research goals and overall collaborative research plans.

- shared practices – Formally, they have common researches and seminars to discuss new research goals and achievements. Informally, the working space and relaxed lunch hour are as shared repertoire enabling their mutual engagement regarding their shared enterprise and negotiated meaning.
shared identity – Researchers developed their shared identity over time. As it is the only group conducting experiments with frogs as objects, group members are called by other researchers in the research center as the frog group. (They are sometimes called the Chinese research group, because of the two Chinese-speaking researchers. Therefore, the German-speaking researcher often jokes to me that: “Other outside researchers became surprised when they found out that I am actually German.” That might be another angle looking at the relationship between language and a COP's identity to outsiders. I will not analyze it here, but it might be an interesting point for further research.)

As I did not have access and time to observe the other two multilingual communities of practice, but only the access to interview some of their participants. Therefore, the internal evidence for approving they are multilingual COP is from the interviews and my interpretations.

The IT group is an emergent multilingual COP for:

- shared enterprise – The IT group participants are not the only technicians of the organization. However, those participants are working in the similar field of the organization's software maintenance and development. Overtime, they are more willing to corporate with each other and evolve shared understandings.

- shared practice – As I have mentioned above, participants of this IT group focus their work, among others, on the software maintenance and development.

- shared identity - Even though there are other technicians in the organization rather than the IT group's participants, their shared identity is seen more as the software developers.

I bring in the concept emergent multilingual COPs here. The IT group was not multilingual before they received the new foreign participant. The newcomer is a native English speaker, while the oldtimers are all Swedish speaking. Wenger (1998: 96) states that learning in a COP is a source to the social emergent structure which is open and continuously developed and reproduced. The learning pattern is embedded in the new multilingual context. It is developed and shaped in accordance with the emergent language situation. The IT group is an emergent multilingual COP.
The biology research group is a multilingual COP for:

- shared enterprise – According to the interviewee, he often collaborates with other four colleagues for the similar research interest.
- shared practice – They engage in the common practice for pursuing their common research goals.
- shared identity – According to the interviewee, the main enterprise of the organization is biological development. However, he feels he and the other four fellows are distinctively identified from others because of their specific research area.

4.3 Presentation of informants

- J is a 27-year-old Finnish programmer speaking Swedish as his mother tongue. He also learned Finnish as a second language, for it is the official language of Finland. He has learned English since elementary school and always liked to watch English movies and TV shows. He speaks English with his wife at home. By talking to him, I notice his English is really fluent. He does not either have much Swedish accent while he speaks English. J completed his undergraduate study in Finland. It was a Swedish program, so only Swedish is mostly required for learning and cooperating with other classmates. Therefore, for both working and studying, J is still more used to speaking Swedish.

- S is a researcher from Malaysia. She has learned English since Junior high school, however, she did not speak it daily before she came abroad. Chinese is her native language. She also speaks Malay fluently which is the official language of Malaysia. Therefore, her mandarin is not one hundred percent standard Mandarin, but with her special accent. She speaks English with quite a strong accent, and it does not flow. I also noticed that she seems to be rather unconfident when she speaks English. However, when she speaks Chinese, she speaks much clearer and with much more confidence. Unlike when she speaks English, she talks more about
her emotions and deeper thoughts in Chinese. S has been living abroad now for two years.

- Y is also a native Chinese speaking. She is from Beijing, China. Therefore, she speaks the more standard Mandarin comparing to S. For me, her English sounds much more fluent compared to S. Also, since she has been working longest with the supervisor, she is considered by S and N as the one who is more experienced with the project.

- N has rather competent English. Yet, by her accent, one can still tell that she is a native German speaking. She is a 26-year-old German researcher. She joined the project a bit earlier than S and a bit later than Y. N only studied in Germany before. But she did cooperate with international students before she studied abroad. Therefore, she is more used to the multilingual situation.

- F is a 30-year-old Canadian researcher, speaking English as his mother tongue. He completed his education in Canada. Before working in Sweden, he also worked in Denmark for two years. He has now been working in the Swedish organization for a year. F is the only foreign speaking participant of the organization. Therefore, he is currently trying to learn Swedish. He feels learning Swedish is a way of showing respect to others. He also wants to understand what others are saying in Swedish.
5 ANALYSIS

In this chapter, the analysis is displayed with a clear structure. It is along with the theoretical path presented in chapter: the interaction between ERSNL and meaning negotiation, the interaction between ERSNL and one's practice, and the interaction between ERSNL and one's learning trajectory. To me, how one's meaning is negotiated and how one engages in the practice are all interrelated with one's learning.

5.1 Interaction between ERSNL and meaning negotiation

It has been discussed that the interplay between participation and reification is the key to the negotiation of meaning. One's bodily interaction with others can be seen as a mean or a channel through which participation and reification take place. Data for the negotiated meaning analysis is thus focusing on informants' views and emotions towards interactions, means of participation and forms of reification in the multilingual environment.

Earlier, I assumed that the type of practice content may require the implementation of a certain interaction medium to a distinctive degree from others. Like Daft and Langel (1984) proposed, interaction mediums such as face-to-face, telephone, written personal, written formal, and numerical formal are for meeting the needs of meaning interpretation. Krogh and Ross (1996) base on Trevino's (1987: 557) proposition that “meaning must be created and negotiated as individuals look to others for cues and feedback to help interpret the message” to argue that face-to-face interaction is the richest medium as it enables immediate feedbacks and offers multiple cues.

The implementation of language is an elemental factor for the face-to-face interactions. Comparing to other kinds of tools or artifacts for reification, face-to-face interactions are more efficient for workers to project their ideas into words and share with other workers. It
directly contributes to the negotiation of meaning. Wenger (1998: 64) explains that “we discuss what we read in order to compare and enrich our interpretations.” Formal and informal face-to-face interactions in a COP are important forms of participation integrating tacit knowledge sharing. Hypothetically, how ERSNL shapes the process of negotiated meaning.

5.1.1 Analysis of language to the negotiation of meaning

As mentioned earlier, the reason for choosing to study three different case is for the hypothesis that the usage of language may vary based on the main practice of the COP. Therefore, it is important to how language is used accordingly with the practices in different contexts.

J explained his opinion regarding interaction how and through what medium the interaction in his group comes about:

*We sit really close in a circle, because our boss wants to encourage technicians of this group to have more and better interactions. We may get one piece of a project. Then we can easily sit together and discuss it. However, sometimes we also need to focus on the piece individually in order to cope with others' tempo. And you know, we are programmers. We do not need to talk our way through our work. And most of our programmers are quite shy and quiet. Sometimes, it is sufficient enough to discuss with other fellows on Skype. I guess most of us feel it is more efficient in that case. Otherwise, we talk a lot during lunch breaks, meetings, and some other after-work events.*

J addressed the issue that the nature of programming requires both individual programming and team collaboration. Besides talking, chatting on Skype which can be categorized to the “written personal” medium is also an efficient way for J to reify and bodily negotiate his meaning with others. J discusses with other team mates his thoughts of a project and “talk” or “write” out a solution to a problem can be a good example of the process of meaning
negotiation. No matter talking or writing, language is still the most significant artifact supporting the practice of the programming community.

Y and S also mentioned both individual and collaborative experiments are all for their collective final aim. Therefore, discussions and meetings are always needed. However, they do not use any online chatting tools like the case above. Unlike the previous described community, individuals in the medical community have both separate office, separate and shared laboratory. Therefore, the negotiation of meaning takes place mostly during discussions, meetings, collaborative experiments and other informal occasions. It can be concluded that the most direct and immediate interaction medium for meaning interpretation and negotiation of this community is face-to-face interaction. Colloquial is the most used style for reification. Of course, report and document are also the main means of reification.

For example, during team experiments for injecting spawns to frogs, I noticed that S, Y and N planned the whole injection procedure. Y also explained and demonstrated in Chinese to S some important details that need to be noticed, such as the appropriate way of holding the frog. Such delicate experiments highly demand concentration as well as well designed, planned, accordant and detailed procedure. Thus, it is through discussing the documented standard procedure and demonstrations that meaning is negotiated. From reading an English document to group discussion (in Chinese for example) and to adjusted new details, the importance of language to the negotiation of meaning is again showed.

When I asked about how often F talks (face-to-face communication) with his co-workers, F mentioned that sometimes he might need to spend a whole day writing a report in his office and presented his report later on. In this context, the usage of language in speaking form as well as written form are both frequently used.

Based on above data, it can thus be argued that language to the negotiation of meaning is irreplaceable in all three contexts. However, there is no exact data distinguishing the exact
frequency of the usage of speaking and writing form of language.

### 5.1.2 Analysis of ERSNL to the meaning negotiation

According to J, Swedish was the only language for him to communicate with his team mates before M came to the community. The official language situation has changed since M started working with the company. M's interest was also on the programming projects J and some other participants on. I would see him as being on the process of acquiring the membership of “legitimate peripheral participant”. It will be discussed in later sessions. J himself used English in both speaking and writing with M. However, he also mentioned to me that:

> Before M (the newcomer) came, our boss (leader of the IT department) told us that, from now on, we need to try to speak as much English as possible in the office, especially when M is around.

The boss' command of English usage has “the statement” function at the organizational level. It can be a typical strategy used by the management to formally regulate the language usage of the organization. A written statement of an organization can create a reification of something that does or should pervade the organization in order to gain the better the organizational communication. Yet, as COP is autonomous and rather informal, the language situation may not always be in accordance with the regulation. The following data may be able to show how ERSNL interacts with meaning negotiation in multilingual context.

J recalled his reactions and some conversation he had with his colleagues regarding the new language situation:

> I have talked with some technicians during lunch and we all feel a little awkward about the situation. We have always been speaking Swedish with each other, no matter when we work, have meeting, or have lunch. I do understand that our boss.
is trying to help M to get more involved into the work. Also, I think it is also a good way of showing respect to some one that is new to the Swedish language and working environment. However, the boss' requests came too much of a sudden. Most of us are not used to speaking English to work. We discuss issues in Swedish. We quip in Swedish. Some of my colleagues find it rather difficult to keep thinking that they need to translate things into English.

J's description presents his and other Swedish COP members' emotions towards the new common working language situation. He addressed that the kind of discussion is usually between him and other participants in Swedish. Key words such as “awkward”, “difficult” present his as well as other community members' emotions. The intention for J to discuss in Swedish with other participants is for hoping for others' understanding of how he feels about the situation. Swedish as his and other participants' native language does the precise reification of how he thinks and feels about the situation. He told me some examples further explaining the new language situation:

First M was not around, I joked with others in Swedish. Then he came, I had to immediately switch to speak English to M. But then the funny topic we had before was interrupted. Sometimes I was talking with M about something in English. As far as M is away, I need immediately slip back to speak Swedish with each other. Honestly, it is really weird to speak English with other Swedish colleague especially when M is not around.

J used another word “weird” to highlight his general emotions towards the emergent multilingual situation. Jokes among Swedish participants are grounded in Swedish culture, formed in the Swedish language, and constructed as a result of their collected meaning through practice of the community. J calls them “inside jokes”, because they are reflections of the programming COP's unique practice and programmers' distinctive identity compared to other COPs in the organization. Those Swedish inside jokes are thus rather difficult for the foreign newcomer M to understand and they may also untranslatable. For example, J mentioned that it did not sound funny anymore when a Swedish knock knock quip was translated into English:

(He waited for my reaction. I gave a shrug of my shoulders, looking confused.)

That was exactly the reaction of M. Of course, the joke did not make any sense in English. Other Swedish participants did understand the joke and thought it was funny. However, once I translated it into English, they had a look showing “what?”.

Then M also told a knock knock joke that they used to tell in South Africa: “Knock, knock. Who is there? Grandma. Which grandma? Knock grandma.” I noticed other Swedish colleagues just had the same face like me showing “what?”. We could just make a wide guess that it might be because one should not open door for a grandma. I did not bother to dig down to ask more about it.

The meaning negotiation process through joke telling in both Swedish and English seem be disturbed. J felt “weird” and “not funny” to translate it into English, because for him and others the translated version were detached from the actual meaning. The translating procedure can be seen as a new reification in a new linguistic coding form. M's joke was originally in English and was thus attached to the original meaning. In both cases, lack of shared native language and culture embedded in that language system is the reason to why happy emotions are not evoked among participants. The missing interaction of ERSNL leads to limitation to one's participation. For example, J did not “bother” to ask for the explanation of the joke. To me, it is the absence of ERSNL as the direct cause of hindering the ongoing interplay of participation and reification.

N told me that:

Some times the German supervisor joked in German with me, but I do not feel comfortable with that. Since we had the rule that every one should just speak English in this medical research center. But of course, when it is just the supervisor and me discussing issues, we talk in German. It is much easier for us to understand
As jokes are most of the time in connection with positive emotions, such as happy. When one does not find a story teller's joke funny, which means that one cannot resonant the story teller's happy emotions. Translation may cause the loss of emotional cues in that joke and result in dissonance. That can be the reason to the disturbance of meaning negotiation like when J chose not to translate what he was joking with Swedish participants into English.

Of course, not only some jokes, but also other types of conversation carrying negative emotions are untranslatable. In one seminar of the medical research COP, I notice S and Y wrote down notes which were complaints about the German supervisor's bad presenting skill. Their resonance encoded in Chinese fixed the pattern of their reification (it turned out to be in Chinese, but not in English). The reading is in and of itself our social participation. S and Y embody their interpretations and understandings shaped by the emotional resonance to Chinese in the interplaying of participation (reading notes, sharing thoughts) and reification (writing notes in Chinese).

I have explained earlier that one may judge the insensitivity of words in one's native language very well. One may not ascertain with the insensitivity of a word usage in other languages. That is why S and Y are confident that they can understand each other well in Chinese. I interpret that the intensive sympathy and resonance determines at some level of when and how to use our native language in a multilingual environment. I found that notes made in Chinese are their thoughts and emotions towards someone or something. To me, it suggests that the emotional resonance of S and Y's shared native language – Chinese influence the articulation of their emotions as well as the form they articulate them.

J also stressed the importance of chatting on Skype. Conversations through Skype are usually rather informal. They could be concerning work, about recent news, rumours, or jokes. Conversations through Skype require both participation and reification, while
language artifact is in written form. Online chatting tool like Skype enables participants to chat in Swedish with each other. Moreover, since using Skype as an interaction tool usually only concerns interaction between two individuals. They can easily choose whom and in which language to talk to.

In multilingual context, an individual's choice of reification form demonstrates how ERSNL interacts with the negotiation of meaning. For example, chatting in Swedish on Skype is a significant part for J to communicate with others. One can argue that it is for the nature of programming practice that J needs to spend many hours in front to computer. Yet, the ERSNL should be seen as a factor shape the pattern of participation and reification. J feels easy and comfortable to discuss in Swedish with his Swedish colleague. No matter complaints, rumors or comments on recent news, comparing to translate everything into English, chatting in Swedish support J and the interlocutor to understand each others' feelings and emotions towards topics, and thus encourage more discussions.

Some meanings in one's mother tongue do not exactly match the translation in another language, as it is embedded in a certain linguistic and logic system, and as a reflection of a given culture and society. For example, in Chinese, proverbs reflects histories or classical fairytale. It may already be sufficient for one to express himself or herself with a four word proverb, but it may take a long sentence or even the whole story to explain the proverb in another language. A proverb in one's mother tongue invokes strong resonance to others' emotions, as well assures the precision of our understanding and its intensiveness.

5.2 ERSNL to the three dimensions of practice

Along with Wenger's three dimensions of practice, I draw the analysis on the following aspects: (1) ERSNL to one's relationship with others; (2) ERSNL to the joint enterprise; (3) ERSNL to the shared repertoire.
5.2.1 **ERSNL to one's engagement and relationship with others**

From Holstein and Gubrium constructionists' point of view, “through mutual engagement we learn from and about each other, and our linguistic and cultural resources expand. Therefore, we are not culturally, linguistically, or ethnically isolated from one another...” (Holstein and Gubrium, 2007, 37) From social construction perspective of view, I see mutual engagement as the hinge between individuals of a community. It supports participants' self-identification of membership and constructs their connection with each other. That is why mutual engagement coded in participants' mother tongue is important for the building of their sense of belonging and affirmation about who they are from others' responses.

Notably, all informants have mentioned that during lunch breaks, they usually eat together with colleagues who are also working on the same project. In common, they all showed that they feel rather relaxed and happy about every lunch break. According to informants F and J, it was nice to have a little chat with other close team-workers during lunch breaks. However, unlike the other two communities, participants in the medical research COP may not always have stable lunch hour as individual experiments might be quite unpredictable. Participants could not take breaks during an on-going experiment. During observations at the medical research COP, I noticed that S, Y and N always tried to have lunch together. It can thus be inferred that lunch breaks are one of those important occasions encourage individuals to be engaged and involved. Such informal occasions are also vital to participants' relationship construction.

Like J mentioned:

> Sometimes we sit together and jokes about things in after-work activities. Normally, it is a time for us to relax and communicate with our colleagues. During working hours, we mostly discuss issues about our work. Only after-work activities can give us the most relaxing environment for socializing with our colleagues and
Y and S also told me that:

_We can have lunch for around 40 minutes. And that is always the best time for us. The supervisor has lunch with other supervisors. They do not eat together with us. You know we do not always enjoy spending time with our supervisors. During lunch hour, we can have some time to talk about our gossips or for example disagreements we have with the supervisor. We can also be relaxed and tell jokes. If the supervisor is around, we cannot feel free and joke about things._

I would say that since occasions such as a lunch break are most relaxing, participants would have more possibility to choose for example about what, with whom and in which language to talk. One's choice of the language and the interlocutor are thus the true reflection of one's engagement and relationship with others under the interaction of ERSNL.

In the medical research COP, participants mostly bring home-made food to work. S and Y sometimes actually share food. What kind of food they make, how they made it, which ingredients they put have always been interesting topics for them. Since traditional Chinese ingredients may be mostly seen and used in China, they may not be ascertain with the exact English translation to the name of the ingredient.

There was one scene:

_S and Y were talking to N about what ingredients they put in their food to make the special taste. However, there was one ingredient they could not translate into English. Therefore they slipped back into speaking Chinese. Thus the conversation in English regarding the choice of ingredients was interrupted._

This scene from two perspectives showing how ERSNL interacts with one's engagement. S
and Y tried to figure out the correct English translation for a Chinese ingredient. The conversation continued like this in Chinese:

S: Gou qi ying wen zen me shuo? (How to say gou qi in English?) (She asked Y looking confused. N sat next to them, still tried to be engaged in the conversation.)

Y: Hao xiang ying wen li ye gou ji ba. Wo ye bu tai qing chu. (It is probably still gou qi in English. I am not quite sure either.) (Y also looked confused. N just continued to eat her food.)

S: Bu guo ta men you shi ye zhi jie yong zhong wen de ming zi. Dai hui er cha yi xia ba. (But some times they also directly adapt the Chinese name. I will check it out later.) (The conversation about the ingredient actually ends here. They did not go on to explain in English to N what gou qi is.)

Y's uncertainty about the translation was shown in the word “ba”. “Ba” is a typical interjection in Chinese. Combined with “hao xiang” (probably), Y expressed her emotions that she was unconfident about that answer. Thus, S agreed with Y with a guess. Additionally, she said she would check the English translation out later. “Ba” appeared again in the end of that sentence. However, its function there was to assure Y that S did not either know the answer. Moreover, S expressed that Y did not have the responsibility for it, so she should not worry. Since I am also native Chinese speaking, the short conversation for me embodies many emotional cues. From expecting an answer, to feeling uncertain, to agreed inauthenticity, to comforting and assuring, it presented an emotional resonating procedure. But to N, who did not have any Chinese knowledge, above sentences neither had meaningful information nor any emotional cues.

It was their shared native language Chinese offered S and Y with subtle emotional cues and encouraged them to be engaged in the conversation. It is the premise for provoking our ERSNL. Resonated emotions also encourage participants to engage through the shared native language. It may also inhibit their interactions with other participants who do not speak that language as mother tongue.
Sharing lunch is just a clip presenting the relationship between S and Y. Even though S and N were roommates and Y worked with N three years longer than with S, it seemed to me that S and Y were much closer to each other. The reason might be their similar experiences and situations as they are both Chinese speaking researchers with the same research goals and working abroad in the same team. However, among all those factors, their shared native language is the conjunction among all the elements, which constructs their emotional resonance.

S mentioned, lunch break is always a good occasion to complain about the supervisor. Two scenes called my attention:

S complained to Y in Chinese that: “Wo zhen de hen yu men, hen bu man. Wo cong ta li de dao de bang zhu zhen de hen shao.” (“I am unhappy and discontent. German supervisor was not helpful enough.”)

Y showed her understanding her by saying: “Dui a. Ta yi zhi yi lai dou shi zhe yang dui wo men de.” (“I think so too. He has always been treating us like this.”)

S also complained about the German supervisor to N. She said: “I really feel I am not learning much. He (the supervisor) has not given me any detailed guidance with the project.” N answered “He is quite ok to me though. He is a typical German Doctoral supervisor. I think he is just too focused on this project and eagle for getting the result, and forgot detailed supervision.” S looked at Y, did not continue the conversation.

Unhappy does not exactly match the meaning of “yu men”. Translations I found in the dictionary are such as unhappy and gloomy. Unhappy presents more negative emotions than “yu men” does. Gloomy does have the gray, low and depressed feeling which “yu men” connotes, but it describes the outlook or the atmosphere of a situation or an environment. However, apparently, when she described in Chinese, she did not directly state any emotional cues as she did in the Chinese one. It indicates that S felt more appropriate and confident to let out her emotions in Chinese with Y. By using the exclamation “A”, Y evinced that she totally understood what S means and she also has
same complaints. By using “Wo Men”, Y implied that she was also at the same situation as S. Y's answer is the emotional responding to S' worries and discontentedness. N's reaction on S' complaints presents the dissonance side of emotions. By arguing that for her “He is a typical German Doctoral supervisor”, N clarified her stand that the way he supervises was appropriate in accordance with the German academic criteria. Since S did not directly express her “yu men” emotions but simply complained to N, N's reaction was only her actual standpoint rather than feedback of emotions.

It may be inferred that Y could resonant S's “yu men” and worries not only for she has experienced the supervision of a Chinese professor, but also for their shared meaning making system embedded in Chinese speaking culture. The Chinese speaking culture to a large extent follows a Chinese scholar called Kong Zi. He talked about how the relationship between teachers and students should be. For instance, he suggested that a teacher should be amiable and accessible and should encourage and believe in students to develop their specialty. Teachers in China are often compared with burning candles, for they are really dedicated of teaching students academic knowledge and meaning of life. Therefore, S and Y share the same image and expectations about their supervisor. The discourse of “teacher” or “supervisor” to S and Y is based on their understanding in Chinese. It provided S with the appropriate turns of emotional expressions. She could hence share her emotions with Y. The difficulty of finding the proper English vocabularies and turns of expressions matching the Chinese emotional meaning discouraged S to reveal her emotions to N.

As Y used “wo men” (us) in Chinese many times instead of “us” in English, it denoted their common identity built on the Chinese speaking culture, the Chinese language and the embedded reciprocal emotional resonance. It supported S and Y to feel confident, open and comfortable to share their thoughts and emotions. Lack of the emotional resonance may make one feel outside, just like F said: “I feel excluded when they spoke Swedish”.

Particularly, when there are others sharing the same native language, one is inclined to reify his or her understandings and emotions into vocabularies in the native language.
Words reified in the native language is seen as the norm of accuracy. One may tend to refer to those norms to translate meaning to another language. Just like when I wanted to explain what “yu men” was, I would first of all consult its actual connotation in Chinese and then try to match it with those some English translations.

Individuals with shared native language may be inclined to feel more self-authentic with the accuracy of reification and participation embodied in that language. Also, for they can assure the authenticity of reifications in their mother tongue, self-doubt for the correctness and effectiveness of a word usage and worries for possible misunderstandings (has only been applied for studying purpose before) may be potentially increased.

Wenger (1998: 76) argues that “even in one COP, individuals are still developing their unique ideas through their distinguished practice, which are further integrated and defined into the course of engagement”. I see the mutual ERSNL shapes individuals' identities in a community. Also because of the unique and shared identity, individuals developed a sustained relationship. Claudia Hammond (2008) also explains why it's so important to feel like we're in with the in crowd for the reason that: “The need to feel a sense of belonging is a powerful aspect of human behavior. Just being part of a group causes us to act in a certain way.”

According to Wenger (1998: 76), the sustainable mutual engagement connects participants' social categories and tighten the interpersonal relationship of a COP. To me, individuals' meaningful engagements assist the maintenance of participants' interpersonal relationship, which is always subtle, especially in a tight node as a multilingual COP. It is a connecting point of participants' overlapping identities, common practice and goals. Whether or not one could resonate others' emotions is the key to whether one's engagement is meaningful. In a multilingual context, participants' different linguistic backgrounds determine the diversified linguistic nature, the incompatible and paradoxical coexistence. Yet, the ERSNL suggests the mutual support, peaceful coexistence, and interpersonal allegiance of participants with the same native language. With a deeper and abstract explanation, it embraces participants' trusts to each other.
5.3 ERSNL to the joint enterprise

Notably, in common, both J and N felt guilty and irrespective speaking their native language while there were foreign participants around. J said:

*For other native Swedish speakers and me, it is more natural and relaxed if we can communicate in Swedish. But we might start worrying if it is the right word to use, whether a topic is appropriate or not. Some of our colleagues are not used to speak English. They could be quite talkative when they speak Swedish. However, when it comes to speak English, they do not seem confident anymore.*

J thought it was “natural to speak Swedish” for him and his Swedish colleagues. He and his colleagues concerned about the correct word or proper topic, not only because they might not be that confident of using English, but also for they were making allowance for the fact that M's culture and language background. N also used the word “uncomfortable” to describe her feeling towards joking in German with the supervisor with the presence of S and Y. For her, it was improper because of the unwritten rule of speaking English. Thus, I would attribute all the guilty and improper feeling to the joint enterprise.

In a multilingual COP, the joint enterprise requires the usage of common working language. According to Wenger (1998: 93), “Reification creates the points of focus around which people negotiate what matters”. The verbal or non-verbal requirement of common working language usage integrates to the reified joint enterprise, accountability is regarded as a reification. It has to some degree the power regulate or constrain the usage of language in a multilingual COP. Yet, the language usage is still under the negotiation of the ERSNL, rather than regulated only by the regulation.

J enjoyed to chat with Swedish participants on Skype for more efficient and accurate understandings. The other good thing of chatting on Skype as mentioned in earlier session is the free of guilt. He and other Swedish participants would naturally switch to speak Swedish when M is not around. S and Y told me that when only they two collaborate in experiments, they speak Chinese:
I asked both S and Y in Chinese whether they speak Chinese or English when they have experiment together.

S answered me in Chinese with a 'why not' look: “Dang ran shuo zhong wen la!” (“We of course speak Chinese!”)

Through “dang ran” (of course) and interjection “la”, she expressed her opinion that it is obviously right and proper to speak Chinese. From my point of view, her words represented a guilt free emotion.

In all three COPs, contexts for participants to speak their native language are rather similar. They are mostly situations with the presence of only some participants sharing the same native language. The guiltiness for them to speak their native language when there are foreign participants is caused by the accountability of “making the work easy for other”. Resonance in emotions and more accurate and efficient understanding are, among others, the driven for participants to speak their native language in such a guilt-free situation. It is just like S explained that: “The rule in the group is that we should all the time speak English. However, when I have experiment together with Y. We still speak Chinese. It is much easier for both of us, and we can communicate better and work much more efficiently.”

The regulations (written or unwritten) for the common working language is of course not through a legal structure, but rather a developed accountability for a multilingual COP. By formal context in a COP, I mean it is constrained by their mutual accountability for the joint enterprise. The ERSNL offers multilingual participants their distinguished value, certain attitudes. Participants' shared native language may embody their mutual engagement with the comfortability, convenience and accuracy with each other. Yet, it is still formed under the joint enterprise of the whole community or indigenously grounded in a wider industry system.

It has been discussed earlier, one is inclined to be more sensitive and delicate with words
and expressions in one's native language. Those fluid emotions sustains one's interactions with others. ERSNL is an emotion and an impulse provoked and involved under the interaction of the joint enterprise, which could be demonstrated by that participants negotiate and find their competent engagement dedicating to the pursuit of the joint enterprise. It thus engenders the need for the rule for the usage of common regulated working language. Meanwhile, ERSNL shapes the way one goes to reify it.

5.4 ERSNL to linguistic repertoire

Even though all participants in the medical research community of practice have good English for being researchers, like most other second language speakers, they all carry some accent from their mother tongue. S and Y told me that they understand each other better when they speak Chinese, while it is much harder for them to understand the other two German participants' accents.

_We really have to listen carefully, and pay attention all the time to listen to the supervisor. When he speaks, his voice gets lower and lower. He also has very strong German accent. Sometimes, it is quite hard to understand his words. And sometimes, we got easily lost in a conversation with him._

I actually had the same feeling towards the supervisor's accent. In a seminar I observed, I had to really concentrate in order to catch up with what he was saying. I thought he was rather nervous about the seminar, so I asked for comment from S and Y after the seminar.

_S slightly nodded her head, “Jiu shi a. Wo ye gao bu dong. Ta mei ci zuo 'presentation' de shi hou dou shi zhe yang. Ta biao xian de hen jin zhang de yang zi. Wo jue de ta shi que fa zi xin.” (“Exactly! I really do not understand. He is like this every time when he makes a presentation. It looked like he was nervous. I think he is lack of confidence.”)_

_Y smiled a little, “Ta shuo hua jiu shi yang de. Er qie wo jue de ta shuo hua...”_
dou shi bu dai gan qing de. Hai you ta mei ci dou shi yue shuo yue xiao sheng.”
(“He always speaks like this. And I feel there is no emotion in his words. It is so
typical that he speaks lower and lower all the time.”)

“Wo gang lai de shi hou ting ta shuo hua zhen de shi hen kun nan”, S added, “Suo
yi wo you shi you shen me bu dong dou hui wen Y. Yong zhong wen jie shi geng
rong yi dong.” (When I just got here, it was very difficult to understand him. So if I
have some question, I sometimes would prefer to ask Y. It is much easier to use
Chinese.)

From the above conversation, it appeared to me that S and Y built a mutual and tacit
understanding towards the way the supervisor spoke. They render their confusion in
Chinese for the interpretation of uncertain words as well as the resonated perplexity. The
need for the conformation and acceptance of emotions such as angers, jealous, prejudice,
antagonistic connections and fear may to some extent direct multilingual participants'
choices of linguistic repertoire.

Moreover, I infer based on the above conversation that one's resonance to the mother
tongue assures the one's authenticity of reification. That is, one is ascertain and confident
of how to project himself or herself into the world.

S was presenting her report from another seminar. There was a medical term in
English that she was not sure about. She first turned to Y and explained her idea in
Chinese and then interpreted to N and the supervisor in English.

S was alone discussing about an experiment proposal with the supervisor, there
was a few times they both had problem to interpret. It was interesting to see when
English was the one and the only linguistic repertoire S and the supervisor could
use in common. There was confusion about some medical terms the supervisor
knew about, but S did not. The supervisor first tried to explain that in English in
relation with some similar terms. S had a puzzled expression manifesting that she
did not fully understand. The supervisor chose to demonstrate by drawing a picture
on a board, where he marked some English terms at different positions of the drawing. And he then explained those terms one by one to S. The duration of the meeting was only planed for half an hour. S told me there was not even enough time for a number of issues on the agenda.

Drawing on the comparison of the two situations, it is not hard to find out the efficiency and accuracy possibly provided by switching between linguistic repertoires. Like many other researchers name it as the code-switching strategy. Yet, the implementation of the strategy is also under the interaction of the ERSNL. Choosing to quickly discuss in Chinese with Y in the seminar was because S expected Y to understand what she was asking directly. It was the tacit mutual understanding and reciprocal resonance built between them through their S' and Y's engagement in Chinese.

Normally, repertories of one's native language is the subliminal straight choice for reification of one's thoughts, feelings, and emotions into particular vocabularies. One often finds it inaccurate or inappropriate the reification is translated into other language. The accuracy and intensity one emotionally resonants through his or her mother tongue constructs one's self-confidence of using it, but also diffidence and hesitation of using another language.

In private, S and Y call their supervisor for “lao ban” rather than calling him by name. It is in reference to their tacit and collective opinions of the supervisor. Originally, “lao ban” means boss and is not a mean nickname. It is indeed with awe and dissatisfaction. “Lao ban” does not necessarily indicate that S and Y work for him. Rather it suggests their feeling of being displeased at the way he supervises them.

“Lao ban” is specialized in Chinese and embodies unspoken and resonated “awe” and discontent emotion agreed by implication between S and Y. Ran and Duimering's (2007) described how a communicator uses words to label an object and evoking images of
audiences based on their understanding of category prototypes. Based on that, I explain how multiple linguistic repertoire aid or hinder invoking participants' emotional resonance through responsive interaction.

For example, when a Chinese uses the word phoenix to refer to the legendary phoenix bird in Chinese eminent fairy tales. Chinese speaking audiences would directly get the image of a beautiful and powerful phoenix, which is also a symbol of the queen of ancient China. And they will resonant the speakers' emotions by mentioning the phoenix. But to audiences who are not native Chinese speaking or even do not know anything about Chinese culture and history, would probably only get an image of a phoenix colored by the audience's own culture, not to mention to obtain an empathy with the speaker. And if the Chinese participant does not know what phoenix is in English, he or she may first say 'feng huang' (phoenix in Chinese) to let Chinese listeners understand and try to explain what kind of bird it is to other listeners (which might be rather difficult to explain). In that case, Chinese listeners would easily sympathize to the speakers' emotions and thoughts, whereas other audiences may put wrong label on the 'feng huang' bird, and miss out information and the important emotional understanding of the conversation.

5.5 ERSNL to the learning trajectories

J: “It is a responsibility and a way of showing respect for me to speak English to M (the newcomer). And I am quite confident about speaking English. So I always try my to speak English to M and to others when he is around. Somehow, I become the one that M mostly talk to and work with.”

English for J is a second language not only for learning purpose but also for daily using. He speaks English at home with his wife. The emotional resonance J might obtain through speaking Swedish with other participants does not necessarily weaken his confidence in English accuracy. J may still refer to Swedish for the appropriateness while speaking English. Yet, as he is used to speak English daily, he has also the emotional resonance of
English at some level. Whereas other participants with learning purpose English are more deeply influenced by the emotional resonance of Swedish.

Over time, individuals may develop inside 'language'. By saying inside 'language', I mean words that are developed during the practice of the community. Those words are often meaningless but significant to participants in COP. Words 'created' through interactions, and shapes and is shaped by our ERSNL. It is again profoundly involved and indigenously integrated in the process of the evolvement of one's learning trajectory.

_J told me they often say a word among technicians - 'kamelåså'. It is really not a word. It is from a Norwegian comedy show about Danish language. Norwegians created this word just to joke about how hard it is to speak and understand Danish. J told me that every time when they talk something about Danish or there is Danish guests coming, they say 'kamelåså' to discuss the whole situation._

ERSNL connects individuals' experience and engenders their mutual relationship and sustained mutual engagement. The word is not a Swedish word, but the whole story and experience of participants connected with the word was encoded in Swedish. However, such situation might be unpleasant for M. Even though J said that he tried to explain the related story to M in English, neither M nor J would actually find the interpretation funny. That is why J prefers to talk those jokes in Swedish.

Marc Marschark (2005: 328) argues that “The trajectory from what Lave and Wenger (1991) call the process of 'legitimate peripheral participation' to central engagement as an 'old timer' within a community is the move from novice to expert within a particular situation. Learning is situated in that community and is, by definition, something that takes place with other members of that community. ... Lave and Wenger's emphasis on learning as 'collaborative production' which takes place as part of a range of activities and practices constitutes the background to their assertion that legitimate peripheral participation relates to a 'way of being in the social world, not a way of coming to know about it' and thus
denotes the process of moving from being a novice to an expert. Language is central to it in that 'language is part of practice, and it is in practice that people learn' (Lave and Wenger, 1991: 85); and 'For newcomers ... the purpose is not to learn from talk as a substitute for legitimate peripheral participation; it is to talk as a key to legitimate peripheral participation' (Lave and Wenger, 1991, p.109). This is, as it were, a reference to the process of talking one's way in to the expertise of a community.”

Just as Lave and Wenger argued, newcomers need to 'talk' their ways to become a expertise of a community. But in the example of J's COP, the newcomer M has no way to talk himself to become a full-participant. I thus claim that the ERSNL at some level guides who the newcomer turn to, and decides the newcomer's trajectories of becoming a full-participant of the COP. If the newcomer is also a Swedish speaking, he would of course have much more choices.

Although Swedish speakers are required to speak English when M is around, ever now and then they lapse into speaking Swedish for telling inside quips. As Swedish was the dominant linguistic repertoire, it is rather hard for M to understand all the inside jokes and words or to understand the history of the community. Thus M may find it easier to find his or her own trajectory (in English). For example, according to J, M seems to prefer to talk to J. J thinks that it is not only for he speaks English fluently, but also he is willing to speak English with M.

J mentioned to me that he may be able to answer M's questions in some specialized areas of programming. J is specialized in Java programming which deals with the system maintenance. However, M sometimes discuss issues in the field of Java Script. Thus M should talk to the right person who has that tacit knowledge. However, they may not be confident and comfortable to speak English or cannot explain his tacit knowledge in English really well. Also, J said sometime other Swedish colleagues may also need to learn from M. They rather to send J to learn it because they are not comfortable to speak English. J grumbled, “I am not the one who needs to know that! After all, I have to explain to them what I have talked with M.” “But I do not always understand M's humor either”, J continued, “Also,
his knowledge field to me is quite new. I once sat next to him for two hours and felt really confused. He says all the time 'oh my word'. I really do not understand what he is commenting on. Is he laughing at me because I misunderstood something?"

M loses knowledge he really needs to learn for sustaining and developing his legitimate membership. And therefore, I say that M's learning trajectory to the IT multilingual COP is more like a peripheral trajectory than an inbound one. The lack of emotional resonance of Swedish may block him out of the gate of becoming a potential full participant. Nevertheless, even though J is more confident in speaking English and had more opportunity to gain new knowledge, he could not fully share emotional resonance with M through English.

F mentioned to me many times that he felt excluded. The emotional resonance of Swedish discourages Swedish participants from speaking English with F. He cannot either emotionally resonant Swedish as other participants do. It thus limits his participation in Swedish, and his mutual engagement with others. F may not be considered as a newcomer, but definitely not a full participant of the COP.

Wenger (1998: 69) mentions that non-participation as institutional relation, where it is as compromise, as strategy, as cover and as well as practice. Here the non-participation of a participant may be seen as one's compromise to others' language choice and a strategy and cover of one's uncertainty of the content in the fashion of the chosen language. Gadner and Wager (2004) explained that “When several languages are used in interaction, some participants may find themselves left out due to their inability to speak the language used. This is not necessarily a deliberate exclusion of any participant – although it certainly can be – but may be merely a by-product of other participants' choice to speak a language that they may be able to use better” (Rod Gardner, Johannes Wagner, 2004, p.40).


5.5.1 The power issue

By the power issue, I mean the advantages a participant gets and conflicts between participants caused by the ERSNL. To me, power issues caused by the ERSNL are closely linked with one's learning trajectory.

J is not happy because his colleagues want to pass the buck of speaking English to him, but also behaving weird to him sometimes. “Once I was speaking English to everyone because M was around. When M left, I was still speaking English. One colleague thought it was weird that I continued to talk in English when M was not there. And he actually told me I should stop showing off”.

Claudia Hammond (2007) said that 'Just being part of a group causes us to act in a certain way'. The ERSNL constructs whether one feels the belongingness to a group through the language one speaks. It makes one feel powerful about using that language as being part of a bigger existence, for there are always that group of people can sympathize one's emotions. In the meantime, it is in and of itself exclusive to other languages. It brings pride as well as jealousy.

I understand J's colleagues' behavior as that the missing of emotional resonance because of the shift in the language usage made him feel powerless. The thing about being part of a group sharing the ERSNL is the subtle group feeling of confidence, acknowledgment and trust of talking and doing in that language.

F also told me that: I usually talk to those two or three participants who are good at English. They seem to be more confident, open and willing to speak English with me. It is thus easier for me to communicate with them. I feel those who are confident in English do not want to socialize with me. And therefore I somehow feel excluded and do not want to socialize with them either I have problems to understand Swedish even though I am taking Swedish course. So I can only speak
English with other colleagues. Meetings are carried out mostly in English when I am there. However, I found out as far as I am gone, they are back to speak Swedish again. I understand there is no need to speak English if they do not need to make me understand. But I still feel very unpleasant and outside.

F felt excluded, which can also be seen as he did not feel powerful under certain circumstances while others speak Swedish. Since he could not resonant others' emotions when they speak Swedish, he could not stop worrying what others talk about. He also felt powerless for his relationship with some participants are restricted for the absence of reciprocal emotional resonance.

When I asked how participants' relationships are with the supervisor, S told me that “The supervisor always give us so much pressure. He squeezes all our time and energy. We feel he does not care about our feelings. He is just using us for his own researches.” However, when I interviewed N, she said to me that “when I negotiate with the supervisor, we speak German with each other. I feel he respects me more because he does not have any language advantage over me”.

That also can be reasoned as that their mutual emotional resonance in German supports N's better understanding and provides a more equal power relation with the German supervisor. I see it gives her power and assisting her learning trajectory as a full-time participant. N is considered from S and Y's perspective as better at negotiating and discussing things with the German supervisor. That is to me the power she has for developing her full participation learning trajectories. N did confirm with me that when she negotiated things in German with the supervisor, she felt being treated more respectfully.

In the negotiation meeting I observed, I noticed there were many times S wanted to start negotiating about the proposed research time plan. However, the German supervisor just directly interrupted her with a decisive plan. But I think it might be for S requested for the time plan discussion rather polite and indirectly. For example, she started the topic with “what time plan you think I should have for the
two experiments”. But when N negotiated with the supervisor for some experiment's facilities, she used English but with a rather straight German style “I want to have …”, instead of “would it be ok if we order …”

In my opinion, the style difference in requesting is caused rooted in different cultures and linguistic repertoires. S from the Chinese speaking culture is used to more indirect way of requesting in negotiations, whereas N from the German speaking culture prefers a more direct approach. The intrinsic ways of thinking shape how they express themselves even using other languages. By using the inquiring tone, S actually followed the Chinese way of showing respect. By giving the request directly, N showed that she was very sure about what she wanted. Since the supervisor is familiar with the German style of expressing, he does not get offended by how N makes requests, but understands N's emotion that she is in need of those equipments.

I think the supervisor misunderstood S as she did not know how to plan the schedule for the experiment. Therefore, he advised her indisputably. But as I understood, what S wanted was a negotiation about the schedule. It was just more polite to start with asking the supervisor's opinion. S told me that she often felt upset and disrespected for she did not have enough chance to negotiate what she wanted. I suggest that even though they all use English, but various styles of English expression does not recall the reciprocal resonance between them. Meaning negotiation between S and the supervisor is important for S' learning in the community for the supervisor is the one with the most knowledge. Misunderstanding and misinterpretation of emotional cues caused by dissonance interact with S' learning process.

Many researchers and scholars have claimed that the language usage is the cause of different power relations. I address here the ERSNL is the director behind the scene for participants to use their mother tongue in a multilingual COP. If using the common working language is for following the script of play, which is a must and is for the necessity, then using one's native language is as following one's inner momentum, is an impulse and a caprice caused by the ERSNL.
6 CONCLUSIONS

In this chapter, I present the conclusions of this research. I first of all present the interpretation of the research findings. Secondly, I want to call the awareness through this study.

6.1 ERSNL negotiates the course of one's meaning making

In common, S, Y, N, J all learned English for studying purpose, not for daily working or living purpose. By way of contrast, N and J were in contact with English much earlier than S and Y. In Europe, English is one of the dominate languages in main stream media. N and J learned English not only in academic context, but also in more daily life context through watching TV, reading comic books and so on. In China and Malaysia, however, English is more like a second language one must acquire as an academic subject. S and Y learned English mostly for the purpose to do further research. It appeared to me that the N and J had better English proficiency than S and Y. Yet, they all showed some level of concern about their grammar and their choice of vocabulary. The natural flow of their emotional signals may be interfered by the process of searching for the correct grammar and vocabulary.

Formal and informal social contexts integrate everyday work. Hence, I suggest that if participants have only been using the common working language (typically English) for learning purpose, the common working language does not have the power to evoke their emotional resonance. Conversely, if there are participants sharing the same native language, their emotional resonance is intensely provoked through the practice in that language.

The nature of the different forms of practices in all three contexts shape different ways of
language usage. For example, in the IT COP, participants could discuss issues by using online chatting tools. In that way, native Swedish speaking old-timers could easily avoid using English with the newcomer. In the medical research COP, many discussions on a piece of written procedure may often become valuable for the conduction of experimentation. Discussing in Chinese regarding the written experiment procedure (in English) is specially favored by S and Y for the efficiency in understanding. In the first case, written form is to advantage of the ERSNL of Swedish speaking old-timers, whereas the oral form seems more handy to S and Y.

To me, if the rule of using a common working language such as English is seen as a reified accountability. It surely becomes an integral and significant part of the practice in a multilingual COP. Giving an illustration of this idea, the emergent regulation of “speaking English” in the IT COP indicates the shaped accountability. It is for providing legitimacy to the new comer, and is in line with the COP's emergent practice. Still, the abstract but intrinsic ERSNL shapes informally the accountability and negotiated joint enterprise, as it embodies participants' specialized sensitivities, dedicated and refined perception to negotiate the accuracy or appropriateness of things they say, ideas they express, practice they engage, and the enterprise they pursue. It could be shown by how, for instance, S and Y switch to speak Chinese while they are not sure about the usage of a word or when certain personal thoughts are discussed.

Ones' ERSNL can be evoked by hearing other participants speaking a language natively, by reading reification of that language in such as books, documents, by hearing the other participants' accents, and even by topics discussed in the working language which is concerning experiences and past associations in ones' native language. The way of utterance shapes the choice of repertoires and the how one goes to identify their membership in a multilingual COP. The style of language can be seen as the way how one pronounces words, the different orders they emphasizes things, their tones of expressing emotions etc. It is so profoundly rooted in one's culture background and meaning making system that one may still carry it using other languages. In fact, they are all as messages and symbols encoded in the targeted participants' mutual engagement.
6.2 ERSNL and one's relationship with others

In all, I suggest that the ERSNL shapes one's engagement and relationship with others in a multilingual COP, which may cause contemporaneous power issues. Participants from different language backgrounds in a multilingual COP can have their own repertoire reflecting their social identities connecting with the world. They are all members of a multilingual COP with continuously shaped and distinctive identities. The role of the ERSNL here is indeed a process that integrates in the process resonating choosing, and implementing of shared repertoire and in the process of shaping, negotiating, reshaping, and identifying who we are, what we do, and what we contribute to. It is a resource of self-identification by connecting with others. It shapes our emotions and forms our “distinction, pride and identity”. The ERSNL N gets when the German supervisor tells a joke is a resource to her German distinctive identity. And that emotional resonance makes her confident with style she goes about telling jokes.

I understand there is a two-way interaction between language and identity. On one hand, identity constructs language, for language is a culture capital (or a linguistic capital). Ronald Wardhaugh (2006) interprets the accent issue of identity. He quoted Saville-Troike's and Bolinger's (1996: 357) idea that “Individuals may belong to several speech communities (which may be discrete or overlapping), just as they may participate in a variety of social setting. Which one or ones individuals orient themselves to at any given moment – which set of social and communicative rules they use – is part of the strategy of communication. To understand this phenomenon, one must recognize that each member of a community has a repertoire of social identities and that each identity in a given context is associated with a number of appropriate verbal and nonverbal forms of expression.”

Milroy and Milroy (1985) argue that only when people opt for status rather than solidarity will they choose the standardized or high-prestige form of the language. In their research in inner-city Belfast, it was quite rare for a person in those working class groups to prefer status to solidarity. In other words, the cultural capital of a language constructs identity, as well as social network. Edwards (1995: 126) further points out that “to the extend to which
languages remains as a valued symbolic feature of group life, it may yet contribute to the maintenance of boundaries (of identity).”

For example, English may create a sense of identity among the ones who can master it. One can say that people who is a master of a language can create a sense of the identity. Language also constructs social network. On the other hand, identity constructs language. For example, in China, educations and main dominant official communications are carried out in Mandarin, while there are many local dialects. Mandarin works as an artifact that constructs all the Chinese citizens identity to be Chinese. Since there are many local dialects, mandarin can unite the homogeneity.

From the linguistic point of view, the practice that many non-native speakers of English blend the vocabulary, syntax and intonation of their languages into English will pose a threat to the future of English. From the identity point of view, however, mixing codes in using English is a good example of how identity constructs language. The range of linguistic repertoires contributes to the diversity of individuals' engagement. Shared native language inter-connects participants with the same native language reflecting the history and experience they share. Even though for entailing the homogeneity of the mutual engagement, the usage a common working language is evolved and required during the interaction of multilingual participants. It also unavoidably involves the learning of diversity. An participant's emotions are linked to his or her past experience. One's experience is developed by his or her present engagement in the multilingual COP and potentially become one's competence. One's emotions distinguishes one's own style or the way of engagement. For example, one's emotions motivate participants to speak their native language (different from the common working language), which integrates to the diversity as well as partiality of the mutual engagement.

Sarah Banks (2003: 44) mentioned that unlike formal organizations governed through legal structures and responsibilities, COPs are much more informal, coordinating their arrangements and activities through relationships, local customers and ad hoc voluntary associations. She emphasizes lines of accountability of a formal organization operate
through an hierarchical framework of job titles and well defined department responsibilities, while COPs function through interaction between individuals with acquaintance or recognized associations at some level. According to Sarah Banls, the flow of emotions through community networks depends on participants' experiences of each other's behavior, their values, attitudes and past associations. Their shaped mutual engagements contribute to their mutual loyalty, shared commitments and trust. Their interactions are also based on antagonistic connections, reflecting prejudices, dislike, jealousy and fear.

As the mutual engagement and the joint enterprise do not totally entail homogeneity, they enable participants to make distinctions between reified standards and their own competent engagement as response to pursue the joint enterprise. In a multilingual case, participants own competent engagement can be defined as the accuracy and efficiency they contribute to the complexity of mutual engagement by using their native language.

Wenger (1998: 82) said that an enterprise is as a resource of coordination, of sense-making, of mutual engagement, like rhythm to music. I would claim that ERSNL shapes the way one defines the joint enterprise, the mutual accountability and thus directs how one engages in the practice, and how one works in tune with others.

I infer that the regulation of a common working language usage does not necessarily solve all the communication problem. Accent is an unavoidable issue. One's accent while speaking a foreign language is influenced by their mother tongue. The way they speak a foreign language presents the general information of who they are and where they are from. One's native language constructs his or her identity. In fact, one's accent and style of speaking another language are also shaped and present his or her native language and identity. For example, many German speakers speak English with German accent; many Chinese speakers speak English with Chinese accent.

In all, I draw the conclusion that on one hand, speaking mother tongue informally can improve relationship between participants (who share the same mother tongue); on the
other hand, speaking mother tongue may cause information loss during the ongoing learning process.

6.3 ERSNL interacts with one's learning

I posit that multilingual COPs as discursive arenas of international organization are important to the organizational learning. By understanding how the ERSNL interacts with individuals' learning in a multilingual COP, I advocate the humanization view of international organizations' learning process.

Drawing on how ERSNL interacts with one's meaning making and one's relationship with others, I conclude that one individual's learning is shaped by whether there is reciprocal ERSNL with others, which is also inter-related with how one negotiates meaning with others and what one's relationship is with others. In other words, I suggest that efficient and accurate meaning negotiation and sustainable relationship development with resonated emotions interact positively with how one learns.

I suggest that since participants may carry accent when they speak the common working language as a foreign language, potential misleading in meaning negotiation and emotion misunderstandings may occur. However, communicating in participants' mother tongue may instead support one's learning. For example, if participants could interpret their meaning in their mother tongue to make themselves understood, they can then further interpret their ideas to other participants.

One is often aware of the importance of language for learning. As Peter Reason, Hilary Bradbury mentioned (2006: 133) that “the term language is used here both literally and figuratively to represent a set of values, knowledge, terminology and procedures through which members of the community frame practice problems and connect them to a range of acceptable solutions.”

Joan Kelly Hall(2002: 95) also talked about language as a primary tool for learning. He thinks that language is the primary means of communication and the principle tool for
thinking. Thus, it offers learners opportunity for communicative activities. Jenny Leach and Bob Moon (1999:28-30) stressed the relationship between language usage and newcomers' learning. For them, in a COP, there is such didactic format as in a classroom teaching, and no special discourse for one to become a full participant. They emphasize that observation about language has implications for decision making of what and how newcomers learn.

Interviews with J gave me a big wake-up call. I have somehow always paid less attention to the ERSNL of the majority language speaking participants in a multilingual COP. Maybe that is the reason why the boss made the requirement without considering Swedish speakers' feelings. J has already adapted a certain style or a way he interacts with others using the Swedish repertoire. However, the emergent language context neither erases his engagement history with others.

Newcomers always appear to be the ones in the spotlight and the ones that are concerned by researchers and scholars. Many authors have been debating upon how a newcomer finds his or her trajectories into becoming a full-participant of the COP. I suggest that when newcomers try to find the trajectory to become a full-member of a community, old-timers also need to find a trajectory to adjust the new practice brought or caused by the newcomer. Thus, one must also study and pay attention to the emotional resonance of oldtimers' shared native language. As the negotiated meaning is related to the past, developed by the present, and embracing the future, the ERSNL to Swedish speaking participants cannot be cut off by the development of negotiated meaning, or by the redundant rising of the new accountability of speaking English.

I would suggest besides learning as doing, learning as becoming, leaning as experience and learning as belonging, a new notion which is “learning as resonating” should be placed into the components of the social theory of learning. ERSNL is subtle but consequential. Just the feeling of being resonated emotionally and being accepted by a group of similar people can contribute to one's self-confidence. And vice verse. No one wants to be an outsider. One can not say that being a member of a COP already constructs the insider identity. I
would instead argue that in a multilingual COP, the border of “participation” and “non-participation” can be drawn by the usage of language and the strong emotional resonance energy. Feeling like an outsider and unable to participate would push one to stay in his or her comfort zone, which is also constructed by one's solid language and culture background. It may cause, for example, one not to participate in the engagement, or one deliberately exclude foreign language speakers in a COP in order to feel included in a “special” group of the COP.

The interaction of ERSNL is significant to individuals' learning in a multilingual COP. Unwillingness for the person with tacit knowledge to share or misinterpret of meaning may have negative interaction with an individual's learning. Thus, it is important for one to resonant others' emotions in order to correctly interpret their meaning and develop a sustainable relationship. Hence, “learning as resonating” should be looked at how one develops the resonance with others through their mutual engagement.

Fineman (2003) states that not only is emotion a learning “product” in many personal and organizational displays, it also lies at the heart of the building of trust, competencies and the political and moral order of the enterprise. It may be easy to regulate what software to use and what programming language to apply, but may not be appropriate and easy to regulate the language usage in a multilingual COP under both formal and informal context. During observations and interviews, I have received a lot of complaints about the language situation from polyglots. I wonder why it has not caused any attention from researchers. I hope that this research can be a guide and catch more attention from other researchers, and as well as multilingual organizations.

Setting regulation without considering participants' feelings would cause many problems between participants. To me, the ERSNL is intrinsically and profoundly rooted in the social-science tradition and human nature. I must stress the importance and value of the understanding of human nature to the studying of organizational issues. I see a lot studies only looking at how to cultivate and manage COPs from the frame and management of an organization. In contrast, I suggest that no matter it is a small unit – a COP or a giant cross-
culture organization, they are all social gatherings of people.
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