Contexts for language learning

• Are second language learners like very young children acquiring their first language?

• No, they are different.

• In what way?

Learner's characteristics

The environment
Contexts for language learning

- A young child learning a 1st language
- A child learning a 2nd in day care
- Adolescents taking a foreign language class in their own country
- An adult immigrant with limited education working in a 2nd language environment
Another language

- All 2nd language learners, regardless of age, have already acquired at least one language.

- This prior knowledge may be:
  - **Advantage**: They have an idea of how languages work
  - **Disadvantage**: This can lead learners to make incorrect guesses about how the 2nd language works, and this may result in errors that 1st language learners would not make
Learner characteristics

Cognitive maturity and metalinguistic awareness

• Very young language learners begin acquiring their 1st language without the cognitive maturity or metalinguistic awareness that older 2nd language learners have.

• Cognitive maturity and metalinguistic awareness allow older learners to solve problems and engage in discussions about language.

• Some researchers have suggested that the use of these cognitive skills can actually interfere with language acquisition.
Learner characteristics

Anxiety about speaking

• Most child learners are willing to try to use the language—even when their proficiency is quite limited.

• Many adults and adolescents find it stressful when they are unable to express themselves clearly and correctly.
Learning conditions

Freedom to be silent

• Younger learners, in an informal 2nd language-learning environment, are usually allowed to be silent until they are ready to speak.

• Older learners are often forced to speak
  • to meet the requirements of a classroom
  • or to carry out everyday tasks such as shopping, medical visits, or job interviews.
Learning conditions

**Ample time**

- Young children in informal settings are usually exposed to the 2nd language for many hours every day.

- Older learners, especially students in language classrooms, are more likely to receive only limited exposure to the second language.

- Classroom learners not only spend less time in contact with the language, they also tend to be exposed to a far smaller range of discourse types.
Learning conditions

Corrective feedback

• In 2nd language learning outside of classrooms, errors that do not interfere with meaning are usually overlooked.

• Most people would feel they are being impolite if they interrupted and corrected someone who was trying to have a conversation with them.

• So, errors of grammar and pronunciation may not be remarked on.

• However, the wrong word choice may receive comment from a puzzled interlocutor.
Learning conditions

Corrective feedback

• If the second language speaker used inappropriate language, interlocutors may feel uncomfortable (not knowing whether the speaker intended to be rude or simply made a mistake)

• The only place where feedback on error is typically present with high frequency is the language classroom.
Learning conditions

Modified input

• One condition that appears to be common to learners of all ages—though perhaps not in equal quality or quantity—is exposure to modified or adapted input.

• This adjusted speech style is called *child-directed speech* in first language acquisition.

• It is called sometimes been called *foreigner talk* or *teacher talk* in certain contexts of second language acquisition.
Learning conditions

A general theory of SLA needs to account for language acquisition by learners with a variety of characteristics in a variety of contexts.
Behaviourism

Behaviourist theory explained learning in terms of:

- imitation
- practice
- reinforcement (or feedback on success),
- habit formation

Much of the early research within behaviourist theory was done with laboratory animals, but the learning process was hypothesized to be the same for humans.
Second language applications: Mimicry and memorization

- Behaviourism had a powerful influence on 2nd & foreign language teaching

- **Where?** in North America,

- **Time:** Between 1940s & 1970s

- **Proponents:** Nelson Brooks (1960) & Robert Lado (1964)

- Developed **AUDIOLINGUAL** teaching materials
Second language applications: Mimicry and memorization

- Classroom activities emphasized mimicry and memorization
- Students learned dialogues and sentence patterns by heart
- Because language development was viewed as the formation of habits, it was assumed
  - that a person learning a 2nd language would start off with the habits formed in the 1st language
  - and that these habits would interfere with the new ones needed for the 2nd language
- Thus, behaviourism was often linked to the CONTRASTIVE ANALYSIS HYPOTHESIS (CAH)
Second language applications: Mimicry and memorization

- What is CONTRASTIVE ANALYSIS HYPOTHESIS (CAH)?
  - It is a hypothesis that was developed by structural linguists in Europe and North America.
  - According to the CAH,

1st language = target language ➔ learners should acquire TARGET LANGUAGE structures with ease

1st language ≠ target language ➔ learners should have difficulty
Second language applications: Mimicry and memorization

Is it true?

Researchers have found that learners do not make all the errors predicted by the CAH.

• Many of their errors are not predictable on the basis of their first language

• Adult second language learners produce sentences that sound more like a child's

• Many of their sentences would be ungrammatical if translated into their first language

• some characteristics of the simple structures they use are very similar across learners from a variety of backgrounds, even if their first languages are different from each other and different from the target language.
Second language applications: Mimicry and memorization

• In Chapter 4, we will see evidence that second language learners draw on what they already know.

• However, they are sometimes reluctant to transfer certain first language patterns, even when the translation equivalent is correct.

• First language influence may become clearer as more is learned about the second language, leading learners to see similarities that they had not noticed at an earlier stage.

• All this suggests that the influence of the learner's first language may not simply be a matter of the transfer of habits

• **Transfer**: The influence of a learner's first language in the second language.

  • Also called 'interference'.

  • The term 'first language influence' is now preferred by many researchers.
Second language applications: Mimicry and memorization

• By the 1970s, many researchers were convinced that behaviourism and the contrastive analysis hypothesis were inadequate explanations for SLA.

• Some of these criticisms arose as a result of the growing influence of innatist views of language acquisition.
The innatist perspective: Universal Grammar

• The rejection of behaviourism as an explanation for first language acquisition was partly triggered by Chomsky's critique of it.

• Chomsky argued that innate knowledge of the principles of UG allows all children to acquire the language of their environment during a critical period of their development.

• Chomsky did not make specific claims about the implications of his theory for SLA.

• However, Lydia White (2003a) and other linguists have argued that UG offers the best perspective from which to understand SLA.

• Others argue that, although UG is a good framework for understanding first language acquisition, it is not a good explanation for SLA, especially by learners who have passed the critical period.
The innatist perspective: Universal Grammar

- Researchers who study SLA from a UG perspective are usually interested in the language competence of advanced learners (their complex knowledge of grammar) - rather than in the simple language of beginning learners.

- They are interested in whether the competence that underlies the performance resembles the competence underlying the language performance of native speakers.

- Thus, their investigations often involve Grammaticality Judgment not only observation of speaking.

- By using such methods, they hope to gain insight into what learners actually know about the language rather than how they happen to use it in a given situation.
Second language applications: Krashen's 'monitor model''

- One model of SLA that was influenced by Chomsky's theory of first language acquisition was Stephen Krashen's (1982) **Monitor Model**.

- He first described it in the early 1970s, at a time when there was growing dissatisfaction with language teaching methods based on behaviourism.
Second language applications: Krashen's 'monitor model'

Krashen described his model in terms of five hypotheses.

1. The acquisition-learning hypothesis
2. The monitor hypothesis
3. The natural order hypothesis
4. The input hypothesis
5. The affective filter hypothesis
The acquisition-learning hypothesis

He contrasts these two terms.

- We 'acquire' as we are exposed to samples of the second language we understand in much the same way that children pick up their first language-with no conscious attention to language form.

- We 'learn' on the other hand through conscious attention to form and rule learning.
The monitor hypothesis

• The acquired system initiates a speaker's utterances and is responsible for spontaneous language use.

• The learned system acts as an editor or 'monitor', making minor changes and polishing what the acquired system has produced.

• Such monitoring takes place only when the speaker/writer
  • has plenty of time,
  • is concerned about producing correct language,
  • and has learned the relevant rules.
The natural order hypothesis

- It was based on the finding that, as in first language acquisition, second language acquisition unfolds in predictable sequences.
- The language features that are easiest to state (and thus to learn) are not necessarily the first to be acquired.
  - e.g. The rule for adding an -s to third person singular verbs in the present tense is easy to state, but even some advanced second language speakers fail to apply it in spontaneous conversation.
The input hypothesis

Acquisition occurs when one is exposed to language that is comprehensible and that contains $i + 1$.

• The '$i$' represents the level of language already acquired

• The '+1' is a metaphor for language (words, grammatical forms, aspects of pronunciation) that is just a step beyond that level.
The affective filter hypothesis

• The fact that some people who are exposed to large quantities of comprehensible input do not necessarily acquire a language successfully is accounted for by Krashen's affective filter hypothesis.

• The 'affective filter' is a metaphorical barrier that prevents learners from acquiring language even when appropriate input is available.
The acquisition-learning hypothesis

- 'Affect' refers to feelings, motives, needs, attitudes, and emotional states.

- A learner who is tense, anxious, or bored may 'filter out' input, making it unavailable for acquisition.
Second language applications: Krashen's 'monitor model'

- Both psychologists and linguists challenged Krashen's model.

- In spite of criticism and debate, Krashen's ideas were very influential during a period when second language teaching was in transition from approaches that emphasized learning rules or memorizing dialogues to approaches that emphasized using language with a focus on meaning.
Second language applications: Krashen's 'monitor model'

- Since then, COMMUNICATIVE LANGUAGE TEACHING, including IMMERSION and CONTENT-BASED INSTRUCTION, has been widely implemented.

- Classroom research has confirmed that students can make a great deal of progress through exposure to comprehensible input without direct instruction.

- However, studies have also shown that students may reach a point from which they fail to make further progress on some features of the second language unless they also have access to guided instruction.
Current psychological theories: The cognitivist/developmental perspective

• Since the 1990s, psychological theories have become increasingly central to research in SLA.
Cognitive psychologists working in an information-processing model see SLA as the building up of knowledge that can eventually be called on automatically for speaking and understanding.

Norman Segalowitz (2003) and others have suggested that learners have to **pay attention** at first to any aspect of the language that they are trying to understand or produce.

'Pay attention' = using cognitive resources to process information.
Information processing

- Can we pay attention to everything?

- There is a limit to how much information a learner can pay attention to.

- Thus, learners at the earliest stages will use most of their resources to understand the main words in a message.

- At these stages, they may not notice the grammatical morphemes attached to words, especially those that do not substantially affect meaning.

- Gradually, through experience and practice, information that was new becomes easier to process, and learners become able to access it quickly and even automatically.

- This frees them to pay attention to other aspects of the language that, in turn, gradually become automatic.
For proficient speakers, choosing words, pronouncing them, and stringing them together with the appropriate grammatical markers is essentially automatic.

When proficient listeners hear a familiar word, they cannot help but understand it.

Such automatic responses do not use up the kind of resources needed for processing new information.

Thus,

- proficient language users can give their full attention to the overall meaning of a text or conversation,
- whereas learners use more of their attention on processing the meaning of individual words.

This helps to explain why second language readers need more time to understand a text, even if they eventually do fully comprehend it (Favreau and Segalowitz 1983).

The information processing model suggests that there is a limit to the amount of focused mental activity we can engage in at one time.
Information processing

- The 'practice' needed for the development of automaticity is not limited to the production of language.
- Exposure to, and comprehension of, a language feature may also be counted as practice.
- In information processing, practice involves cognitive effort from the learner. However, it can occur below the level of awareness.
Many researchers have investigated SLA as 'skill learning'.

They suggest that most learning, including language learning, starts with:

- **Declarative Knowledge**
- **Practice**
- **Procedural Knowledge**
Information processing

- **Declarative Knowledge** (knowledge *that*): Information that we have and know we have.

- **Procedural Knowledge** (knowledge *how*): Knowledge that underlies fluent or automatic performance.

- The hypothesis is that, through practice, declarative knowledge may become procedural knowledge.
Information processing

• Indeed, once skills become proceduralized and automatized, thinking about the declarative knowledge while trying to perform the skill actually disrupts the smooth performance of it.

• In SLA, the path from declarative to procedural knowledge is sometimes associated with the kind of learning that takes place in a classroom, where rule learning is followed by practice.

• With enough practice, procedural knowledge surpasses the declarative knowledge, which, in time, may be forgotten.

• For this reason, fluent speakers may not even realize that they once possessed the declarative knowledge that set the process in motion.
Another concept from psychology offers insight into how learners store and retrieve language.

According to 'transfer appropriate processing', information is best retrieved in situations that are similar to those in which it was acquired.

This is because when we learn something our memories also record something about the context in which it was learned and even about the way we learned it, for example, by reading or hearing it.

The hypothesis seems to offer a logical way of explaining a widely observed phenomenon in second language learning: knowledge that is acquired mainly in rule learning or drill activities may be easier to access on tests that resemble the learning activities than in communicative situations.

On the other hand, if, during learning, the learner's cognitive resources are completely occupied with a focus on meaning in communicative activities, retrieval of specific language features such as grammatical markers or word order on a test of those features may be more difficult.
Connectionism

• Connectionists, unlike innatists, see no need to hypothesize the existence of a neurological module dedicated exclusively to language acquisition.

• Like most cognitive psychologists, connectionists attribute greater importance to the role of the environment than to any specific innate knowledge in the learner, arguing that what is innate is simply the ability to learn, not any specifically linguistic principles.

• Connectionists also attribute less importance to the kind of declarative knowledge that characterizes some theories of skill learning.

• As Nick Ellis (2002) explains, the emphasis is on the frequency with which learners encounter specific linguistic features in the input and the frequency with which features occur together.
Connectionism

- Connectionists argue that learners gradually build up their knowledge of language through exposure to the thousands of instances of linguistic features.

- After hearing language features in specific situational or linguistic contexts over and over again, learners develop a stronger and stronger network of 'connections' between these elements.

- Eventually, the presence of one situational or linguistic element will activate the other(s) in the learner's mind.

- For example, learners might get subject-verb agreement correct, not because they know a rule but because they have heard examples such as 'I say' and 'he says' so often that each subject pronoun activates the correct verb form.

- Connections like these
  - may be very strong because the elements have occurred together very frequently
  - or they may be relatively weaker because there have been fewer opportunities to experience them together.
Connectionism

• Evidence for the connectionist view comes from the observation that much of the language we use in ordinary conversation is predictable.
  
  • ايوه بس لونه شوي....

• As suggested by Nick Ellis (2003, 2005) and others:
  
  • language is at least partly learned in chunks larger than single words
  
  • and not all sentences or phrases are put together one word at a time.
The competition model

- The competition model is closely related to the connectionist perspective.

- It is also based on the hypothesis that language acquisition occurs without the necessity of a learner's focused attention or the need for any innate brain module that is specifically for language.

- It can be described as an explanation for language acquisition that takes into account not only language form but also language meaning and language use.

- The competition model is proposed as an explanation for both first and second language acquisition.

- Through exposure to thousands of examples of language associated with particular meanings, learners come to understand how to use the 'cues' with which a language signals specific functions.
  - For example, the relationship between words in a sentence may be signaled by word order, grammatical markers, and the animacy of the nouns in the sentence.
The competition model

- Most languages make use of multiple cues, but they differ in the primacy of each.

- This becomes clear in a situation where the meaning of a sentence is not immediately obvious. (box push boy)

- What helps you figure out the meaning?

- English uses word order as the most common indicator of the relationships between sentence components.

- Most English sentences have the order Subject-Verb-Object (SVO).

- Two- and three-year old English speaking children use cues of animacy and their knowledge of the way things work in the world to interpret odd sentences.

- Thus, if they hear such a string of words, they will act it out by making a boy doll push a tiny box, focusing on the fact that the 'boy' is the natural agent of action in this situation.

- However, the SVO pattern is so strong in English that, before they are four years old, children will give an SVO interpretation to such strings of words. They will ignore the fact that boxes don't normally move on their own, and carefully demonstrate how the box pushes the boy.

- Word order patterns are stronger than animacy cues at this point.
The competition model

• The box **was pushed by** the boy' may be interpreted as 'The box pushed the boy.'

• At this age, they may attribute the SVO relationship to sentences in the passive voice.

• That late only later do they learn to pay attention to the grammatical markers that distinguish the active voice sentence from the passive word order.
The competition model

- Other languages, for example, Spanish and Italian, have more flexible word order.

- Speakers of these languages, even as adults, rely more on grammatical markers or on the animacy of nouns to understand how sentence elements are related.

- When English speakers are learning these languages, they may have difficulty suppressing their tendency to rely on word order as the basis for interpretation.

- For example, an English speaking learner of Italian may find it confusing to hear sentences such as 'il giocattolo guarda il bambino' (the toy is looking at the boy).

- An Italian speaker, accustomed to more flexible word order focuses on the animacy of the two nouns and concludes that the most reasonable interpretation is that the boy is looking at the toy.

- According to the competition model, SLA requires that learners learn the relative importance of the different cues appropriate in the language they are learning.
Second language applications: interacting, noticing & processing

- A number of hypotheses, theories, and models for explaining SLA have been inspired by the cognitive/developmental perspective.
The interaction hypothesis


- These researchers have studied the ways in which speakers modify their speech and interaction patterns in order to help learners participate in a conversation or understand some information.
The interaction hypothesis

- **Michael Long (1983)** agreed with Krashen that comprehensible input is necessary for language acquisition.

- However, he focused more on the question of how input could be made comprehensible.
He argued that MODIFIED INTERACTION is the necessary mechanism for making language comprehensible.

That is, what learners need is not necessarily simplification of the linguistic forms but rather an opportunity to interact with other speakers, working together to reach mutual comprehension.

Through these interactions, interlocutors figure out what they need to do to keep the conversation going and make the input comprehensible.

According to Long, there are no cases of beginner-level learners acquiring a second language from native-speaker talk that has not been modified in some way.
The interaction hypothesis

- In the original (1983) formulation of the Interaction Hypothesis, Long inferred that modified interaction is necessary for language acquisition, summarizing the relationship as follows:

1. Interactional modification makes input comprehensible.
2. Comprehensible input promotes acquisition.
3. Therefore, interactional modification promotes acquisition.
The interaction hypothesis

- Modified interaction does not always involve linguistic simplification.
- It may also include elaboration, slower speech rate, gesture or providing additional contextual cues.
Some examples of these conversational modifications are:

1. **Comprehension checks**: efforts by the native speaker to ensure that the learner has understood
   - e.g. The bus leaves at 6:30. Do you understand?

2. **Clarification requests**: efforts by the learner to get the native speaker to clarify something that has not been understood
   - e.g. Could you repeat please?
   - These requests from the learner lead to further modifications by the native speaker.

3. **Self-repetition or paraphrase**: the native speaker repeats his or her sentence either partially or entirely
   - e.g. She got lost on her way home from school. She was walking home from school. She got lost
The interaction hypothesis

- Research has shown that conversational adjustments can aid comprehension.

- Modification that takes place during interaction leads to better understanding than linguistic simplification or modification that is planned in advance.

- While some recent research has shown that specific kinds of interaction behaviours aid learning in terms of immediate production, more research is needed on how access to modified interaction affects SLA in the long term.
The interaction hypothesis

- In Long's (1996) revised version of the Interaction Hypothesis, more emphasis is placed on the importance of corrective feedback during interaction.

- When communication is difficult, interlocutors must 'negotiate for meaning', and this negotiation is seen as the opportunity for language development.
The interaction hypothesis

- **Merrill Swain (1985)** extended this thinking when she proposed *the comprehensible output hypothesis*.

- She observed that it is when learners must produce language that their interlocutor can understand that they are most likely to see the limits of their second language ability and the need to find better ways to express their meaning.

- The demands of producing comprehensible output, she hypothesized, 'push' learners ahead in their development.
Richard Schmidt (1990, 2001) proposed the 'noticing hypothesis', suggesting that nothing is learned unless it has been noticed.

Noticing does not itself result in acquisition, but it is the essential starting point.
Schmidt's original proposal of the noticing hypothesis came from his own experience as a learner of Portuguese.

After months of taking classes, living in Brazil, and keeping a diary, he began to realize that certain features of language that had been present in the environment for the whole time began to enter his own second language system only when he had noticed them, either because they were brought to his attention in class or because some other experience made them notable.

Drawing on psychological learning theories, Schmidt hypothesized that second language learners could not begin to acquire a language feature until they had become aware of it in the input.
The noticing hypothesis

• The question of whether learners must be aware that they are 'noticing' something in the input is the object of considerable debate.

  • According to information processing theories, anything that uses up our mental 'processing space', even if we are not aware of it or attending to it 'on purpose', can contribute to learning.

  • From the connectionist perspective, the likelihood of acquisition is best predicted by the frequency with which something is available for processing, not by the learner's awareness of something in the input.
The noticing hypothesis

Several researchers have found ways to track learners' attention as they engage in second language interaction or activity.

- **Alison Mackey, Susan Gass, and Kim McDonough (2000)** have described techniques, for example, having learners see and hear themselves in videotaped interactions, to explore what they were thinking as they participated in conversations.

- **Ron Leow (1997)** developed crossword puzzles that learners had to solve while speaking aloud.

- **Merrill Swain and Sharon Lapkin (1998)** recorded learners in pair work and kept track of the language features they mentioned.

These research designs cannot tell us if learners noticed things they did not mention.

However, they do make it possible to identify some things that learners showed they were aware of and to compare these to performance on measures of their language knowledge.
Processability theory

- Jurgen Meisel, Harald Clahsen, and Manfred Pienemann (1981) studied the acquisition of German by a group of adult migrant workers who had little or no second language instruction.

- They analyzed large samples of their speech and described the details of developmental sequences in their production of simple and complex sentences.

**Findings and Conclusions:**

- They concluded that the sequence of development for features of syntax and morphology was affected by how easy these were to process.

- Ease of processing was found to depend to a large extent on the position of those features in a sentence.
  - Features that typically occurred at the beginning or end of a sentence were easier to process than those that were in the middle.

- All learners acquired the features in the same sequence, even though they progressed at different rates.

- Some language features did not seem to be affected by these constraints and were used by learners who were at different developmental stages. These were referred to as 'variational' features.
The sociocultural perspective

- Vygotsky's theory assumes that cognitive development, including language development, arises as a result of social interactions.

- Learning is thought to occur when an individual interacts with an interlocutor within his or her **zone of proximal development (ZPD)**.
The sociocultural perspective

• Is the Vygotsky's ZPD the same as Krashen's i+1?

• William Dunn and James Lantolf (1998) answered this question:

• They argued that it is not possible to compare the two concepts because they depend on very different ideas about how development occurs.

The ZPD is a metaphorical location in which learners co-construct knowledge in collaboration with an interlocutor.

The emphasis in ZPD is on development and how learners co-construct knowledge based on their interaction with their interlocutor.

In Krashen's i+1, the input comes from outside the learner.

The emphasis is on the comprehensibility of input that includes language structures that are just beyond the learner's current developmental level.
Second language applications: Learning by talking

• Extending Vygotskyan theory to SLA, many researchers were interested in showing how second language learners acquire language when they collaborate and interact with other speakers.

• Traditionally, the ZPD has been understood to involve an expert and a novice.

• However, recent work has broadened the term to include novice/novice or learner/learner interlocutors.

The aim of these studies was to determine how second language learners co-construct linguistic knowledge while engaging in production tasks (i.e. speaking and writing) that simultaneously draw their attention to form and meaning.

In Communication task B in Chapter 5, learners were testing hypotheses about the correct forms to use, discussing them together and deciding what forms were best to express their meaning.

Swain (2000) considers collaborative dialogues such as these as the context where language use and language learning can co-occur.

- It is language use mediating language learning.
- It is cognitive activity and it is social activity.
Thank you