Cognitive Considerations cont.

- Human cognition develops rapidly throughout the first sixteen years of life and less rapidly thereafter.

- Some cognitive changes are critical; others are more gradual and difficult to detect.
Jean Piaget (1972, 1955, 1969) outlined the course of intellectual development in a child through various stages:

- **Sensorimotor stage** [birth to 2]
- **Preoperational stage** [ages 2 to 7]
- **Operational stage** [ages 7 to 16]
  - **Concrete operational stage** [ages 7 to 11]
  - **Formal operational stage** [ages 11 to 16]

*To understand each stage, please visit the video links on my website*
It has been observed that children do learn second languages well without the benefit-or hindrance-of formal operational thought.

So, does this capacity of formal, abstract thought have a facilitating or inhibiting effect on language acquisition in adults?

According to Piaget’s outline, a critical stage for a consideration of the effects of age on SLA appears to occur at puberty (age 11 in his model).

It is here that a person becomes capable of abstraction, of formal thinking which exceeds concrete experience and direct perception.

Cognitively, then, a strong argument can be made for a critical period of language acquisition by connecting language acquisition and the concrete/formal stage transition.
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Cognitively, then, a strong argument can be made for a critical period of language acquisition by connecting language acquisition and the concrete/formal stage transition.

Singleton and Ryan (2004) offer a number of objections to connecting Piagetian stages of development with critical period arguments:

- Vagueness
- Lack of empirical data
Ausubel (1964) further supported this consideration by stating that adults may in fact benefit from certain grammatical explanations and deductive thinking that would be pointless for a child. The benefits of such explanations however, depends on the suitability and efficiency of the explanation, the teacher, the context, and other pedagogical variables.

Young children are generally not "aware" that they are acquiring a language. nor are they aware of societal values and attitudes to one language or another. It is said that "a watched pot never boils"; is it possible that a language learner who is too consciously aware of what he or she is doing will have difficulty in learning the second language? Do you agree?
You may be tempted to answer that question affirmatively, but there is both logical and anecdotal counterevidence.

- Logically, a superior intellect should facilitate highly complex intellectual activities
- Anecdotal evidence shows that some adults who have been successful language learners have been very much aware of the process they were going through, even to the point of utilizing self-made model and other fabricated linguistic devices to facilitate the learning process.

So, if mature cognition holds back successful SLA, clearly some intervening variables allow some persons to be very successful second language learners after puberty.

These variables may in most cases lie outside the cognitive domain entirely, perhaps more centrally in affective-or emotional-domain.
Cognitive Considerations cont.

Lateralization:

- The lateralization hypothesis may provide another key to cognitive differences between child and adult language acquisition.
- As the child matures into adulthood, the left hemisphere (which controls the analytical and intellectual functions) becomes more dominant than the right hemisphere (which controls the emotional functions).
- It is possible that the dominance of the left hemisphere contributes to a tendency to overanalyze and to be too intellectually centered on the task of second language learning.

Brain maturation

Overanalyzing (dominance of the left hemisphere caused by lateralization)

More difficult SLA

The Critical Period √
Cognitive Considerations cont.

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Equilibration:

Another construct that should be considered in examining the cognitive domain is the Piagetian notion of equilibration.

- Equilibration is defined as “progressive interior organization of knowledge in a stepwise fashion”

- Cognition develops as a process of moving from the states of doubt and uncertainty (disequilibrium) to stages of resolution and certainty (equilibrium) and then back to further doubt that is also resolved. And so the cycle continues.

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Cognitive Considerations cont.

Piaget (1970) claimed

- that conceptual development is a process of progressively moving from states of disequilibrium to equilibrium

- and that periods of disequilibrium mark almost all cognitive development up through age 14 or 15, when formal operations finally are firmly organized and equilibrium is reached.
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<th>Cognitive Considerations cont.</th>
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<tbody>
<tr>
<td>17</td>
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<tr>
<td>□ It is believed that disequilibrium may provide significant motivation for language acquisition: language interacts with cognition to achieve equilibrium.</td>
</tr>
<tr>
<td>□ Perhaps until that state of final equilibrium is reached, the child is cognitively ready and eager to acquire the language necessary for achieving the cognitive equilibrium of adulthood.</td>
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<tr>
<td>□ That same child was, until that time, decreasingly tolerant of cognitive ambiguities</td>
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<tbody>
<tr>
<td>18</td>
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<tr>
<td>□ Children are amazingly indifferent to contradictions, but intellectual growth produces an awareness of ambiguities about them and heightens the need for resolution.</td>
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<tr>
<td>□ Perhaps a general intolerance of contradictions produces an acute awareness of the enormous complexities of acquiring an additional language,</td>
</tr>
<tr>
<td>□ and perhaps around the age of 14 or 15, the prospect of learning a second language becomes overwhelming, thus discouraging the learner from proceeding a step at a time as a younger child would do.</td>
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Rote and meaningful learning:

The final consideration in the cognitive domain is the distinction that Ausubel made between rote and meaningful learning.

- Ausubel noted that people of all ages have little need for rote, mechanistic learning that is not related to existing knowledge and experience.
- Rather, most items are acquired by meaningful learning, by relating new items and experiences to knowledge that exists in the cognitive framework.
- It is a myth to say that children are good rote learners, that they make good use of meaningless repetition and mimicking.
Rote and meaningful learning:

- Adults have developed even greater concentration and so have greater ability for rote learning, but they usually use rote learning only for short-term memory or for somewhat artificial purposes.

- So, foreign language classrooms should not become the locus of excessive rote activity: rote drills, pattern practice without context, rule recitation, and other activities that are not in the context of meaningful communication.

Affective Considerations

- Human beings are emotional creatures. So, it is logical to look at the affective (emotional) domain for some of the most significant answers to the problems of contrasting the differences between first and second language acquisition.

- Research on the affective domain in SLA has been mounting steadily for a number of decades.

- Linguists want to discover if, in the affective side of human behavior, there lies an explanation to the mysteries of language acquisition.
There are many factors that can be relevant to second language learning: empathy, self-esteem, extroversion, inhibition, imitation, anxiety, attitudes, etc.

We are only going to look briefly at three selected affective factors as they relate to the age and acquisition issue:

- Egocentricity
- Attitude
- Peer pressure

Egocentricity:

- Small babies at first do not even distinguish a separation between themselves and the world around them.
- Very young children are highly egocentric.
- As children grow older they become more aware of themselves, more self-conscious as they seek both to define and to understand their self-identity.
- Preadolescence children develop an acute consciousness of themselves as separate and identifiable entities but ones which, in their still-wavering insecurity, need protecting. They therefore develop inhibitions about this self-identity, fearing to expose too much self-doubt.
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<tbody>
<tr>
<td><strong>Egocentricity:</strong></td>
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<tr>
<td>□ At puberty these inhibitions are heightened in the trauma of undergoing critical physical, cognitive, and emotional changes.</td>
</tr>
<tr>
<td>□ Adolescents must acquire a totally new physical, cognitive, and emotional identity.</td>
</tr>
<tr>
<td>□ Their egos are affected not only in how they understand themselves but also in how they reach out beyond themselves, how they relate to others socially, and how they use the communicative process to bring on affective equilibrium.</td>
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<tr>
<td><strong>Egocentricity:</strong></td>
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<tr>
<td>□ Several decades ago, Alexander Guiora, a researcher in the study of personality variables in second language learning, proposed what he called the 'language ego' to account for the identity a person develops in reference to the language he or she speaks.</td>
</tr>
<tr>
<td>□ For any monolingual person, the language ego involves the interaction of the native language and ego development.</td>
</tr>
<tr>
<td>□ One's self-identity is inextricably bound up with one's language, for it is in the communicative process that such identities are confirmed, shaped, and reshaped.</td>
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Egocentricity:

- Guiora suggested that the language ego may account for the difficulties that adults have in learning a second language.
- The child’s ego is dynamic and growing and flexible through the age of puberty.
- A new language at this stage does not pose a substantial "threat" or inhibition to the ego, and adaptation is made relatively easily as long as there are no contradicting sociocultural factors such as, a damaging attitude toward a language or language group at a young age.

Then the simultaneous physical, emotional, and cognitive changes of puberty give rise to a defensive mechanism in which the language ego becomes protective and defensive.

The language ego clings to the security of the native language to protect the fragile ego of the young adult.

The language ego, which has now become part of self-identity, is threatened, and thus a context develops in which you must be willing to make a fool of yourself in the trial-and-error struggle of speaking and understanding a foreign language.
Egocentricity:

- Younger children are less frightened because they are less aware of language *forms*, and the possibility of making mistakes in those forms does not concern them greatly.

- So, it is no wonder, then, that the acquisition of a new language ego is an enormous undertaking not only for young adolescents but also for an adult
  - who has grown comfortable and secure in his or her own identity
  - and who possesses inhibitions that serve as a wall of defensive protection around the ego.

- Making the leap to a new or second identity is no simple matter; it can be successful only when one musters the necessary ego strength to overcome inhibitions.
Egocentricity:

- It is possible that the successful adult language learner is someone who can bridge this affective gap.
- Some of the seeds of success might have been sown early in life.
  - *e.g.* In a bilingual setting, if a child has already learned one second language in childhood, then affectively, learning a 3rd language as an adult might represent much less of a threat.
  - Or such seeds may simply have arisen out of whatever combination of nature and nurture makes for the development of a strong ego.

Egocentricity:

- In looking at SLA in children, it is important to distinguish younger and older children.
- *Preadolescent children of 9 or 10,* for example, are beginning to develop inhibitions, and it is conceivable that children of this age have a good deal of affective conflicts to overcome as they attempt to learn a second language.
- This could account for difficulties that older *pre-pubescent children* encounter in acquiring a second language.
Egocentricity:

- Adult vs. child comparisons are of course highly relevant.
- We know from both observational and research evidence that mature adults manifest a number of inhibitions.
- These inhibitions appear in modern language classes where the learner’s attempts to speak in the foreign language are often filled with embarrassment.
- The same inhibition can also be found in the "natural" setting (a non-classroom setting, such as a learner living in a foreign culture), although in such instances there is the likelihood that the necessity to communicate overrides the inhibitions.

Attitude:

- Another affectively related variable that deserves mentioning is the role of attitudes in language learning.
- Based on studies, it seems clear that negative attitudes can affect success in learning a language.
- Very young children, who are not developed enough cognitively to possess "attitudes" toward races, cultures, ethnic groups, classes of people, and languages, may be less affected than adults.
Affective Considerations cont.

Attitude:

- As children reach school age, they also begin to acquire certain attitudes toward types and stereotypes of people.

- Most of these attitudes are "taught," consciously or unconsciously, by parents, other adults, and peers.

- The learning of negative attitudes toward the people who speak the second language or toward the second language itself has been shown to affect the success of language learning in persons from school age on up.

Affective Considerations cont.

Peer Pressure:

- Peer pressure is a particularly important variable in considering child-adult comparisons.

- The peer pressure children encounter in language learning is quite unlike what the adult experiences.

- Children usually have strong constraints upon them to conform. They are told they had better "be like the rest of the kids."

- Such peer pressure extends to language.
Affective Considerations cont.

Peer Pressure:

- Adults experience some peer pressure, but of a different kind.
- Adults tend to tolerate linguistic differences more than children, and therefore errors in speech are more easily excused.
- If adults can understand a second language speaker, for example, they will usually provide positive cognitive and affective feedback, a level of tolerance that might encourage some adult learners to "get by."
- Children are harsher critics of one another’s actions and words and may thus provide a necessary and sufficient degree of mutual pressure to learn the second language.

Thank you

Enjoy the Spring Break