INTR 563:

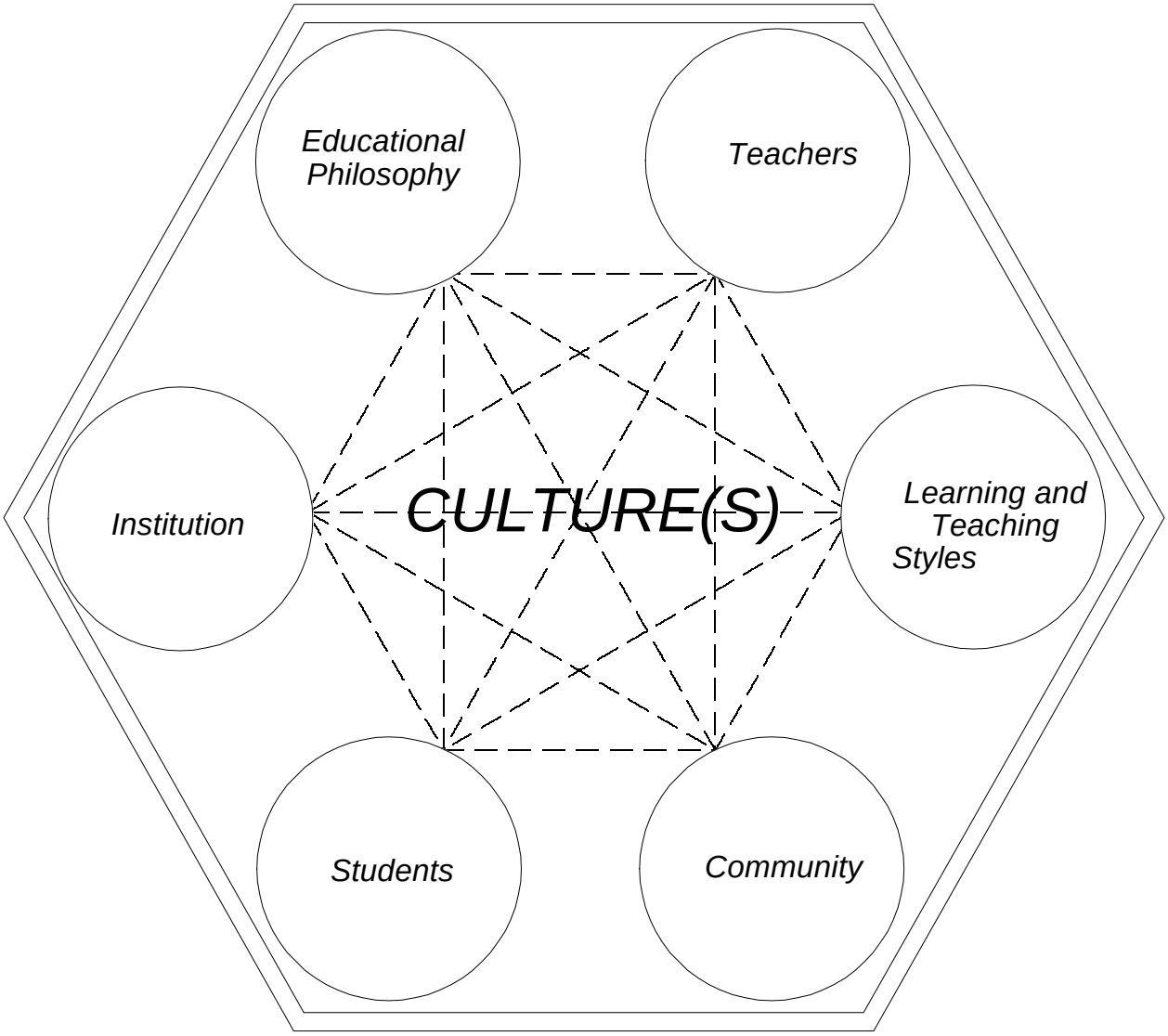
Cross-Cultural Teaching and Learning

Course Notes

A. Scott Moreau, **8** 1999

Cultural Values in the Learning Setting

1. What issues are involved in cross-cultural teaching and learning?



2. For discussion (the following tables are all from Hofstede, "Cultural Differences in

Teaching and Learning")

Impact of Individualism and Collectivism on Teaching/Learning

Collectivist Societies	Individualistic Societies
> Positive association in society with whatever is rooted in tradition	> Positive association in society with whatever is "new"
> The young should learn; adults cannot accept the student role	> One is never too old to learn; "permanent education"
> Students expect to learn how to do	> Students expect to learn how to learn
> Individual students will only speak up in class when called upon personally by the teacher	> Individual students will speak up in class in response to general invitation by the teacher
> Individuals will only speak up in small groups	
> Large classes split socially into smaller, cohesive subgroups based on particularized criteria (e.g., ethnic affiliation)	> Subgroupings in class vary from one situation to the next based on universal criteria (e.g., the task "at hand")
> Formal harmony in learning situations should be maintained at all times	> Confrontation in learning situations can be salutary; conflicts can be brought into the open
> Neither the teacher nor any student should ever be made to lose face	> Face-consciousness is weak
> Education is a way of gaining prestige in one's social environment and of joining a higher status group	> Education is a way of improving one's economic worth and self-respect based on ability and competence
> Diploma certificates are important and displayed on walls	> Diploma certificates have little symbolic value
> Acquiring certificates, even through illegal means (cheating, corruption) is more important than acquiring competence	> Acquiring competence is more important than acquiring certificates
> Teachers are expected to give preferential treatment to some students (e.g., based on ethnic affiliation or on recommendation by an influential person)	> Teachers are expected to be strictly impartial

Impact of Power Distance in Teaching and Learning

Small Power Distance	Large Power Distance

> Stress on impersonal "truth" which can in principle be obtained from any competent person	> Stress on personal "wisdom" which is transferred in the relationship with a particular teacher (guru)
> A teacher should respect the independence of his/her students	> A teacher merits the respect of his/her students
> Student-centered education (premium on initiative)	> Teacher-centered education (premium on order)
> Teacher expects students to initiate communication	> Students expect teacher to initiate communication
> Teacher expects students to find their own paths	> Students expect teacher to outline paths to follow
> Students may speak up spontaneously in class	> Students speak up in class only when invited by the teacher
> Students allowed to contradict or criticize teacher	> Teacher is never contradicted nor publicly criticized
> Effectiveness of learning related to amount of two-way communication in class	> Effectiveness of learning related to excellence of teacher
> Outside class, teachers are treated as equals	> Respect for teachers is also shown outside class
> In teacher/student conflicts, parents are expected to side with the student	> In teacher/student conflict, parents are expected to side with the teacher
> Younger teachers are more liked than older teachers	> Older teachers are more respected than younger teachers

Impact of Gender Role Separation in Teaching and Learning

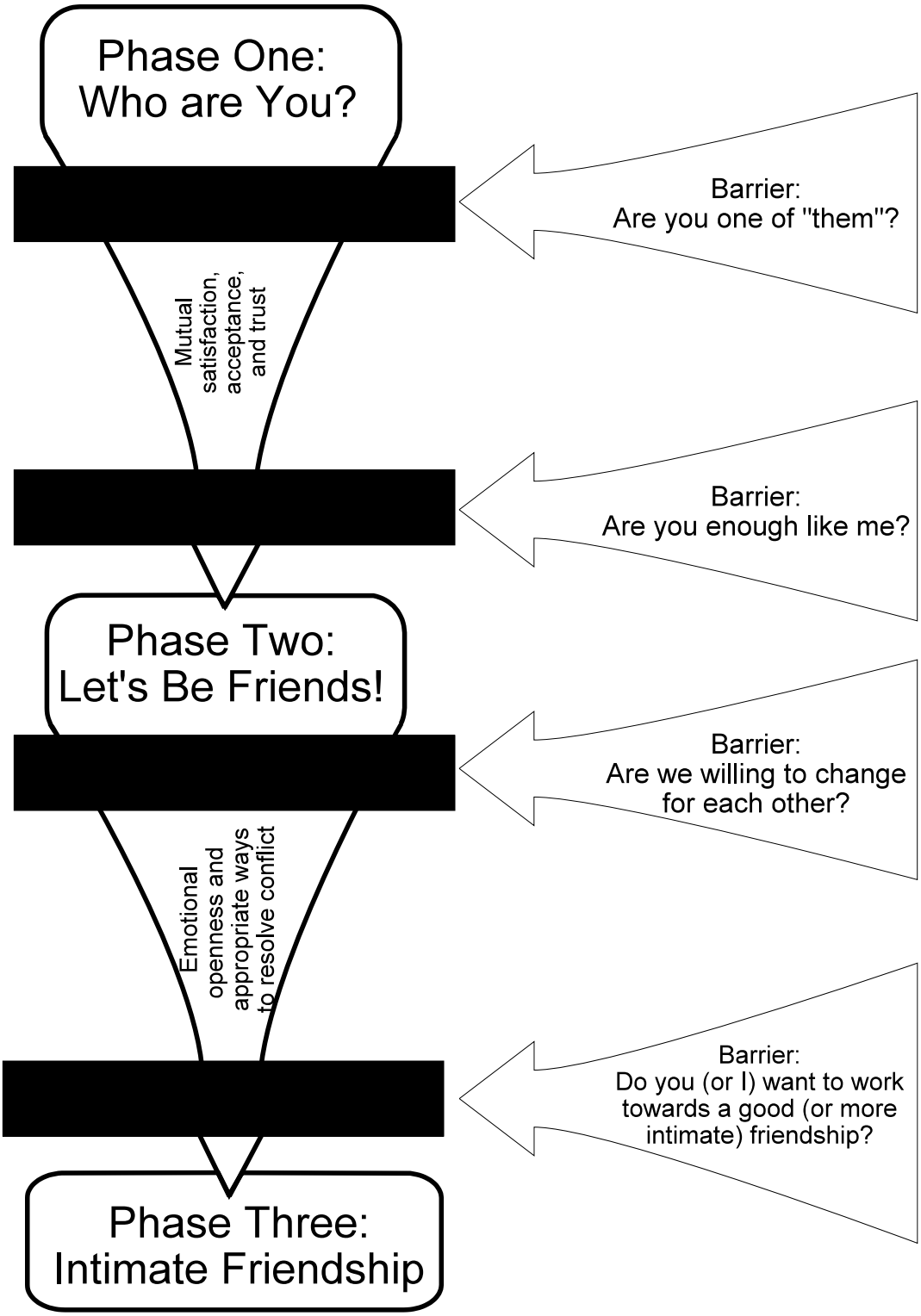
Small Gender Role Separation	Large Gender Role Separation
> Teachers avoid openly praising students	> Teachers openly praise good students
> Teachers use average student as the norm	> Teachers use best students as the norm
> System rewards students' social adaptation	> System rewards students' academic performance
> A student's failure in school is a relatively minor accident	> A student's failure in school is a severe blow to his/her self-image and may in extreme cases lead to suicide
> Students admire friendliness in teachers	> Students admire brilliance in teachers
> Students practice mutual solidarity	> Students compete with each other in class
> Students try to behave modestly	> Students try to make themselves visible
> Corporeal punishment severely rejected	> Corporeal punishment occasionally considered salutary
> Students choose academic subjects in view of intrinsic interest	> Students choose academic subjects in view of career opportunities
> Male students may choose traditionally feminine academic subjects	> Male students avoid traditionally feminine academic subjects

Impact of Uncertainty Avoidance in Teaching and Learning

Weak Uncertainty Avoidance	Strong Uncertainty Avoidance

> Students feel comfortable in unstructured learning situations; vague objectives, broad assignments, no timetables > Teachers are allowed to say "I don't know" > A good teacher used plain language > Students are rewarded for innovative approaches to problem solving > Teachers are expected to suppress emotions (and so are students) > Teachers interpret intellectual disagreement as a stimulating exercise > Teachers seek parents' ideas	> Students feel comfortable in structured learning situations; precise objectives, detailed assignments, strict timetables > Teachers are expected to have all the answers > A good teacher used academic language > Students are rewarded for accuracy in problem solving > Teachers are allowed to behave emotionally (and so are students) > Teachers interpret intellectual disagreement as personal disloyalty > Teachers consider themselves experts who cannot learn anything from lay parents--and parents agree

Cross-Cultural Relationships in Teaching/Learning
INTR 563: Cross-Cultural Teaching and Learning



Phase One: Initial Uncertainty

1. The approach-avoidance factor in intercultural relationships:

   a. J. H. Turner suggests seven basic needs shared by humans that motivate us to interact with others (from Gudykunst and Kim, Communicating with Strangers, p. 190):

      i. Our need for a sense of security as a human being
      ii. Our need for a sense of trust (this need involves issues of predictability; "I trust you will behave as I think you will")
      iii. Our need for a sense of group inclusion
      iv. Our need to avoid diffuse anxiety
      v. Our need for a sense of a common shared world
      vi. Our need for symbolic or material gratification
      vii. Our need to sustain our self-conception.

      Question: How do these proposed needs relate to the biblical perspective?

   b. Anxiety in developing relationships

      Though friendships are the means by which many of the above needs are met, we all share the experience of encountering anxiety when we enter into new relationships. One early goal of any relationship is to reduce that anxiety through developing shared communication patterns with the other. While this is moderately important when communicating with those of our own culture, it becomes very important in intercultural communication.

   Combining our need to develop relationships as foundational to our self-conception with our need to avoid uncertainty yields an approach-avoidance motivation. Thus, while we want to develop relationships with others in the intercultural setting, doing this results in greater uncertainty and anxiety for us, and we may tend to avoid them as a result.

2. In this phase of the relationship, we tend to base all of our judgments on our respective cultural maps. Since we have no personal history of relating to the potential friend, we base initial impressions on what we perceive to be his/her culture, ethnic identity, etc.

3. How do we reduce uncertainty, especially in the intercultural setting?

   Every culture have established its own general procedures for reducing uncertainty and anxiety in the process of friendship/relational development. That strategy is built on the culture's values and understanding of humanity.

   Consider, for example, what might be suggested as strategies for reducing uncertainty in cultures in Hofstede's work related values taxonomy:

Power Distance	Large	Small
	Determine your 'power relation' to the other Know the other's title, and use it appropriately.	Give the other's ideas equal weight to your own. Respect the other's freedom to make their own decisions.
Uncertainty Avoidance	High	Low
	Move to new levels in the relationship only when you are sure of your footing. A general schedule for the relationship is acceptable. Prepare to work hard at the relationship. Avoid disagreement.	Take risks in the relationship. Avoid rigid scheduling--be spontaneous. Allow disagreements as a source of creative energy in the relationship.
Individualism/ Collectivism	Individualist	Collectivist
	Communicate frequently; ask questions. Allow necessary time to develop the relationship. Mutual attraction is important. Give every person time for privacy. Allow for individual opinions.	Use leading statements rather than direct questions. Discover the background (including family). Sharing responsibility for decisions, actions, etc. with the friend is important. Privacy is not important; shared harmony is.
Masculine/ Feminine	Feminine	Masculine
	Develop warmth and intimacy based on mutual respect. Overt competition should be avoided. Personal fulfillment is important in the relationship. Freedom to share on personal matters is important.	Make sure the other is acceptable for your "place" in society before establishing a friendship. Some healthy competition is good for the relationship. Though we have friends, we should not completely depend on them.

4. To move from this phase to the next (friendly relations), you need to experience mutual satisfaction, acceptance, and basic trust. This can be accomplished through appropriate relational development strategies, which will vary from one intercultural setting to another.

Phase Two: Friendly Relations

1. During this phase, you will be able to co-exist at a certain level of comfort with the other person. However, if you desire to move on to a friendship, you must move beyond this. While you will still place a major reliance on cultural maps, you now have a history of relating in which you have discovered through individual observations who the other person is. As a result, your reliance on cultural maps lessens.

2. In order to move into a genuine friendship, you must continue the mutual satisfaction, acceptance, and trust built in the first phase of the relationship. In addition, you must now experience emotional sharing/openness and appropriate conflict resolution strategies.

3. One barrier to reaching the third phase of friendship is that of similarity. The more you are like someone, the less anxiety and uncertainty you will experience in developing an intimate relationship. Dodd has captured a means of explaining this through proposing the *homophily* principle (Dynamics, pp. 229-39; see also Gudykunst and Kim, Communicating with Strangers, pp. 197-99), which is the idea that we tend to share information with similar persons.

As could be expected, the more alike we are, the more readily information is received and the more frequently persuasion occurs. One proposed way to measure the amount of homophily is the Scale of Perceived Homophily (adapted from Dodd, Dynamics, p. 238; lower scores indicate similarity, higher dissimilarity):

Attitude Dimension		
Thinks like me	1 2 3 4 5 6 7	Does not think like me
Behaves like me	1 2 3 4 5 6 7	Does not behave like me
Similar to me	1 2 3 4 5 6 7	Different from me
Like me	1 2 3 4 5 6 7	Unlike me
Background Dimension		
From social class similar to mine	1 2 3 4 5 6 7	From social class different from mine
Economic situation like mine	1 2 3 4 5 6 7	Economic situation different from mine
Status like mine	1 2 3 4 5 6 7	Status different from mine
Background similar to mine	1 2 3 4 5 6 7	Background different from mine
Value Dimension		
Morals like mine	1 2 3 4 5 6 7	Morals unlike mine
Sexual attitudes like mine	1 2 3 4 5 6 7	Sexual attitudes unlike mine
Shares my values	1 2 3 4 5 6 7	Doesn't share my values
Treats people as I do	1 2 3 4 5 6 7	Doesn't treat people as I do
Appearance Dimension		
Looks similar to me	1 2 3 4 5 6 7	Looks different from me
Same size that I am	1 2 3 4 5 6 7	Different size than I am
Appearance like mine	1 2 3 4 5 6 7	Appearance unlike mine
Resembles me	1 2 3 4 5 6 7	Doesn't resemble me

Question: Dodd does not specifically deal with the bond that all Christians have, namely being in Christ. How does this enhance the possibility of significant friendships among cross-cultural Christians?

4. Another significant barrier is that of mutual accommodation.

5. A final barrier that may be mentioned is that of a conscious movement towards intimacy.

Phase Three: Intimacy/Friendship

1. Cultures define intimacy differently. It might be helpful for us to note some characteristics of American friendships (from Stewart and Bennett, American Cultural Patterns, pp. 100-3):

   a. People choose their friends based on spontaneity, mutual attraction, and warm personal

feelings. In contrast, Japanese friendship patterns involve obligation, duty, and ritualized interaction.

b. Relations with friends are kept separate from work or social obligations.

c. Friendships are formed in shared activities--doing things together. Our friendships form around the activities: we may have church friends, school friends, bowling friends, party friends, etc. Generally, keeping things compartmentalized allows for a large number of friendships, none of which is necessarily intimate (especially for American men).

2. Developing intimate friendships (or discipleship): Building **trust** (from Mayers, Christianity Confronts Culture, pp. 5-73):

a. The *prior question of trust* (PQT) is the question asked before all other questions:

> Is what I am doing, thinking or saying building or undermining trust?

b. *Developing the trust bond* calls attention to levels and stages of trust involvement, monitoring the relationship, and the transfer of trust.

c. The *acceptance of self* permits the person to accept himself as he is at any given moment, to understand his own strengths and weaknesses, and to be willing to live with them. This then prepares him to accept others, including God.

d. The *acceptance of the other* is the application of self-acceptance to others so that one can interact and accept them as fully responsible members of their own life-way.

e. *Mutual respect* involves balanced reciprocity in interpersonal relations, leaving both persons valid and intact. The following should be used as a check list to remind us of practices that confirm mutual respect (from pp. 67-8):

i. Acceptance of the limitation of living standards of each culture. As one gains knowledge of the limits of each living standard, one increasingly accepts positive aspects of each.

ii. Lack of criticism of negative aspects of each culture. Differences are not necessarily inferior. It is wise to examine the reasons why differences exist and to be sensitive to them.

iii. Ability to make comparisons between the cultures without accompanying negative implications. This is expressed in positive appreciation of the other culture along with one's own.

iv. Real contentment of lifestyle is experienced by each one residing there. This does not mean abandoning oneself or one's personality. One's security and satisfaction there is genuine.

v. Easy fluency with the language and idiom of each culture. Language is a living means of communication and takes time to master--especially the humor expressed in language.

vi. Control of righteous indignation involving practices considered wrong, until change comes about via converted members of the culture.

vii. Expression of humility within the context of either culture one is involved with, not flaunting one's own experience within the crosscultural setting.

viii. Ability to distinguish between personal tastes, historic backgrounds, and moral issues (absolutes).

ix. Understanding and practicing the ethical code within the other culture without strain and to the degree one's own conscience permits. When one's conscience does not permit, the ability to express this in ways that highlight the issue but do not alienate the person.

x. Understanding the basic means of communication in each culture and handling this effectively, irrespective of age, sex, status, etc.

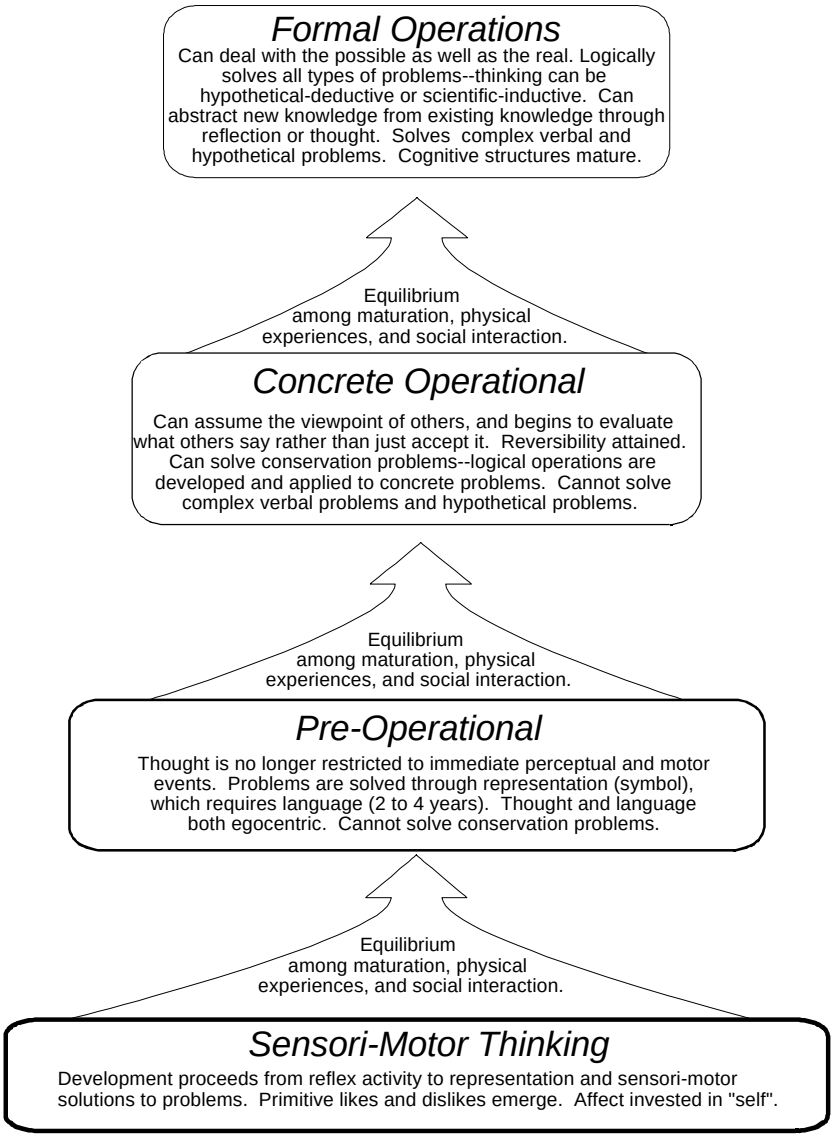
Cognition and Problem Solving

Although there is a characteristically human way to think, many animals, and maybe even other living beings, also have characteristic ways of thinking. And human thinking has elements in common with all other types of thinking. Nevertheless, it is also clear that human thinking has unique features and unique combinations of features. The way people think is part of the general theory of culture. All people are born with an innate knowledge of logical structure, which they use to produce different logical patterns in different linguistic and cultural settings. The logic found in college textbooks--Western logic--is one example of how people think. Other logical forms evolved outside western European culture; any anthropology of human reasoning must treat these forms as equal to European forms.

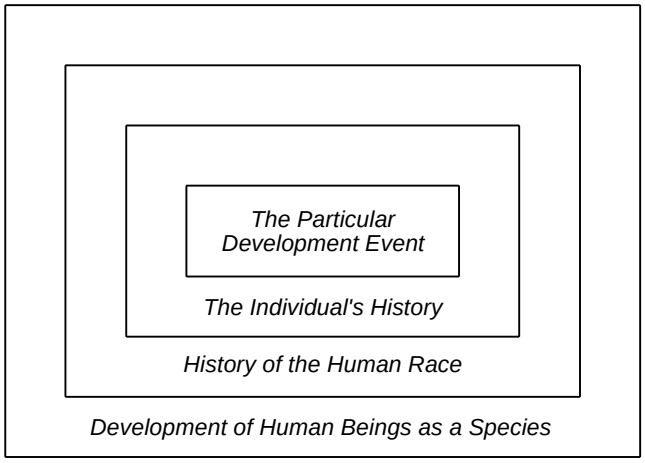
James Hamill, Ethno-Logic, 3

1. **Development:**

   a. Perhaps the most well-known developmental psychologist is Piaget, whose pioneering work is the foundation for many of the educational philosophies undergirding education in North America today. Piaget proposed a stage-process of cognitive development (see also the additional summary in the next section of notes):



b. A second important developmental psychologist is Vygotsky. He criticized Piaget's focus on the individual to the exclusion of the social environment in which the individual develops. His approach to development offers balance to Piaget's exclusion of the significance of the environmental factors in our growth as human beings. Sociohistorical psychologists following Vygotsky discuss four levels of mutually interacting development (see diagram). Several proposals of this approach in relation to formal schooling may be noted (Cole, "Cognitive Development and Schooling" 96-7):



i. On the level of the history of the human race:

(1) There is an intimate link between the development of schooling and the development of large urban centers engaged in trade and technologically sophisticated means of production.
(2) There is a special mediation means, writing, that is essential to the activity of schooling.
(3) The activity settings where schooling occurs are distinctive in that they are removed from contexts of practical activity, and the requisite skills that will become the means of later activity are the goal.
(4) There is a peculiar social structure to formal schooling in which a single adult interacts with many (often as many as 40 or 50, sometimes as many as 400) students at a time. Unlike most other settings for socialization, this adult is unlikely to have any familial ties to the learner, rendering the social relations relatively impersonal.
(5) There is a peculiar value system associated with schooling that sets the educated person above his or her peers and which, in secular versions of formal education . . . values change and discontinuity over tradition and community.
(6) Schooled people are more likely to organize objects on a taxonomic basis, putting objects of similar abstract category together. Unschooled people often use functional arrangements of things that are used together.

ii. On the individual level

(1) It is sensible to conclude that concrete operational thinking is not influenced by schooling; what is influenced is subjects' ability to understand the language and the presuppositions of the testing situation itself (p. 99)
(2) Formal operations are a universal achievement accompanying the change in social status from child to adult, but they will be manifest in specific

domains of dense practice (p. 99).

(3) Cultural variations in the outcome of logical thinking are primarily the result of differences in the supply of well-formed content-based schemata that are brought to the task, for example, differences in cognitive content, not the presence of generalized thinking skills in one group that are absent in the other (p. 100).

iii. On the level of the individual encounter:

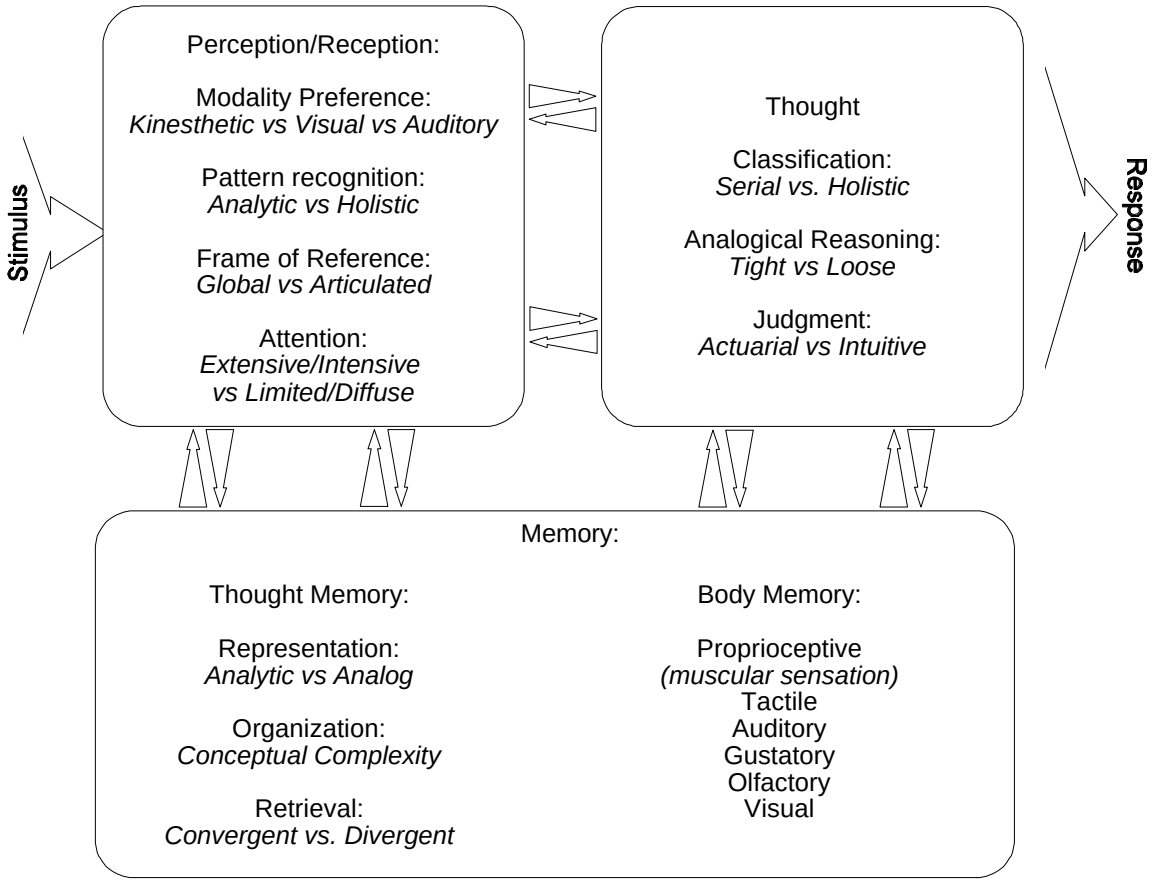
(1) Formal schooling uses a distinctive mediational means, written symbol systems.

(2) There is a specialized participant structure and form of discourse that goes on in school:

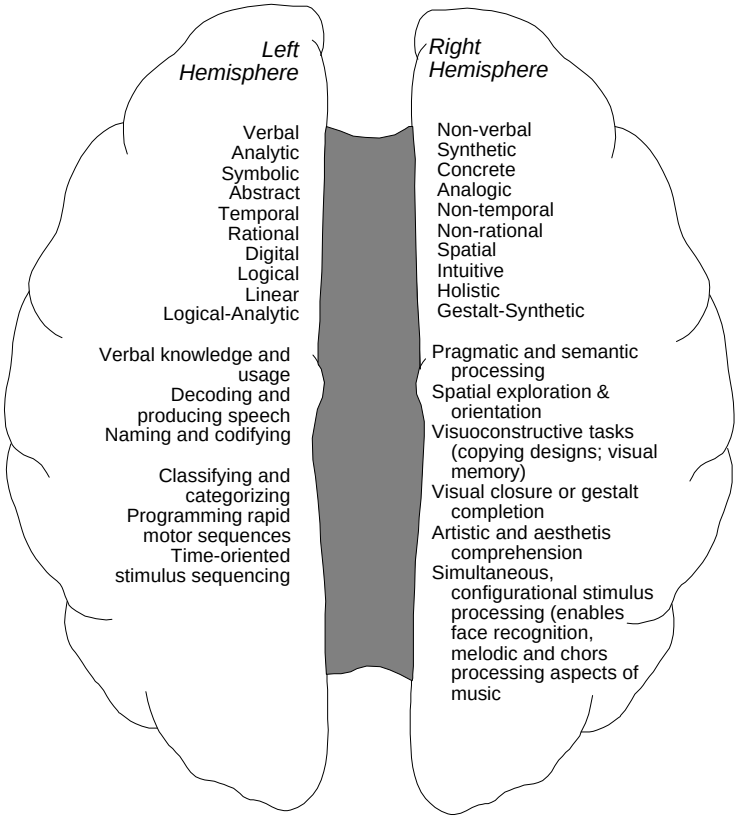
(a) Instructional discourse differs from other ways in which adults and children speak both in structure and content. The goals of this discourse are to give children information about content and feedback about their efforts while providing teachers with information about the students' progress (e.g., through the use of questions for which the teacher knows the answer but used as a teaching methodology).

(b) Instructional discourse also emphasizes linguistic form (at times even to the accuracy of the content).

2. Cognitive orientation: The total cognitive process may be mapped as follows (see also the additional chart "Relationships between Information-Processing Cognitive Styles):


Stimulus
Perception/Reception:
Modality Preference:
Kinesthetic vs Visual vs Auditory
Pattern recognition:
Analytic vs Holistic
Frame of Reference:
Global vs Articulated
Attention:
Extensive/Intensive
vs Limited/Diffuse
Thought
Classification:
Serial vs. Holistic
Analogical Reasoning:
Tight vs Loose
Judgment:
Actuarial vs Intuitive
Response
Memory:
Thought Memory:
Representation:
Analytic vs Analog
Organization:
Conceptual Complexity
Retrieval:
Convergent vs. Divergent
Body Memory:
Proprioceptive
(muscular sensation)
Tactile
Auditory
Gustatory
Olfactory
Visual

a. **Hemisphericity**: In the literature the following assignments have been suggested for hemispheric specialization (TenHouten, "Application of Dual Brain Theory"; Lieberman, "Ethnocognitivism and Problem Solving"; Campbell, "Cognitive Neuropsychology"):



When physical brain damage occurs, the results can include. . .

Left Hemisphere	Right Hemisphere
Articulatory errors	Difficulties in appropriate role modeling
Word sequencing problems	Poor peer relationships
Word and syntax comprehension problems	Awkwardness with adults
Low performance in subjects related to linguistic competency (reading, writing, math)	Difficulty with ideographic word recognition
	Poor hand-eye coordination
	Poor comprehension of what is not explicit
	Reasoning difficulties in seeing new relationships and analogies
	Difficulty with geometry
	Correct rise and fall of vocal intonation
	Poor spatial orientations

Does culture influence which side of the brain dominates? For example, it seems that low context cultures would rely more on activities of the left hemisphere, while high context cultures might rely more on those of the right hemisphere. The suggestion is that all people are capable of more than one kind of logical process ("hardware"), but that culture trains us with respect to which process we most

commonly use ("software").

i. Causality and inference: (left hemisphere dominance)

(1) The foundation of scientific method is causality and the ability to establish linear causal relationships. This has been developed as the mainstay of our scientific community as the only way to "really" think.

(2) Spiritual and concrete causality: depending on world view, causality may be viewed as mechanical or spiritual or some mix of the two.

ii. Logical reasoning

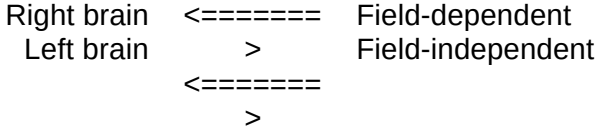
(1) Concrete (graphico-functional; right hemisphere)

(2) Abstract (hypothetico-deductive; left hemisphere)

b. Psychological differentiation: Experiments performed by Herman A. Witkin and others in the 1960s, 70s, and 80s (tilted room test, rotating room test, frame and rod test, and the various forms of the embedded figures test) support the idea of a spectrum of cognitive orientation based on the main referent of a person in processing data. Witkin reports,

We designate the tendency to rely on the self as a primary referent in information processing as a field-independent mode of functioning and the tendency to rely on external referents as a field-dependent mode of functioning. These tendencies find widespread expression in an individual's perceptual, intellectual, and social activities. (Witkin, "Socialization, Culture and Ecology", p. 359)

i. Locus of reference and hemisphericity: one may be tempted to make the following link:



Current research, however, indicates that locus of reference is more related to the ability to cross hemispheres and use the most appropriate to the task at hand. Generally, field-independence appears to indicate lateral differentiation (the ability to cross hemispheric orientation when necessary).

ii. Differences in the labels are a reflection of tendencies, not an indication of distinct types of human beings. With that in mind, the following chart shows some of the basic differences (Ibid., see also Bagley, "Cognitive Styles", p. 4):

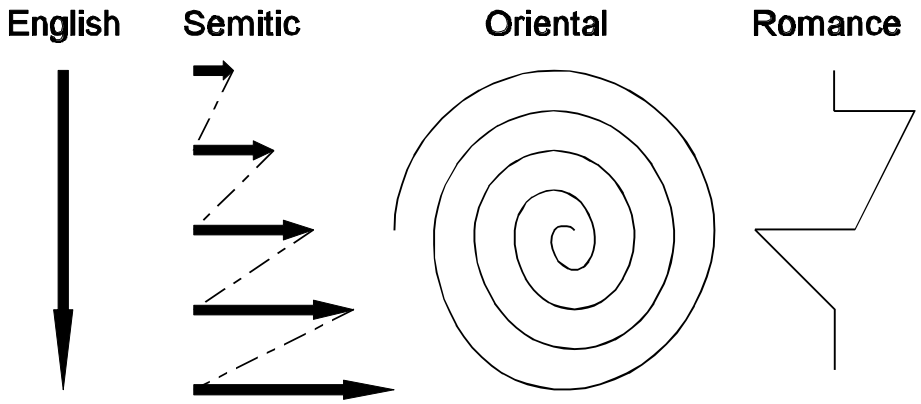
	Field-Dependent	Field-Independent
Cognitive	Adhere to the dominant properties of a field rather than restructure it.	Can act on symbolic representations (restructure them) when the task requires it (e.g., embedded figures test).
Social	Likely to be interpersonal in orientation; are competent in this area.	More likely to be impersonal in orientation; competency in cognitive restructuring skills.
	Pay selective attention to the social cues provided by others; look at faces more carefully; thus tend to be better at remembering faces; prefer situations in which they are involved with others; prefer being physically closer to those then interact with. Tend to be described as socially outgoing, want to help others, have concern for others, get along better with others.	More likely to be impersonal in orientation: can be relatively insensitive to social cues; prefer more solitary situations. Tend to be described as cold, concerned with ideas and principles rather than people. Tend to keep both physical and psychological distance.
Occupations	Prefer occupations that are social in content and require interpersonal skills for their conduct, but that do not emphasize cognitive restructuring skills.	Prefer abstract activities which they can pursue on their own.

iii. In what ways do factors in the environment and socialization give rise to differences in cognitive styles? The following chart gives some suggestions (adapted from Witkin and Berry, "Psychological Differentiation", p. 17 and Bensley, "Towards a Paradigm Shift", p. 180):

Antecedent Factors	Global	Articulated
Ecology	Environment requiring little restructuring skills, such as found among sedentary agriculturalists and pastoralists	Environment requiring high restructuring skills, such as found among migratory hunters and gatherers
Social pressure and authority	"Tight" social pressure and authority; polygamy and extended family structures often found	"Loose" social pressure and authority; monogamy and nuclear family structure often found
Socialization (how a mother raises her children)	Severe pressure to conform to culture (responsibility and obedience to religious, social, and political authorities emphasized), strong identification with the mother, absence of excessive discipline (though reasonable discipline was present), not much physical punishment from the father	Initiative and resourcefulness encouraged, high level of companionship with parents on an almost equal footing; gradually lessened family control on the child (especially by the mother), independence, self-reliance, and achievement emphasized
Educational style	Non (or little) formal education	Formal
Hofstede's Work-Related Values	Collectivist High power distance	Individualistic Small power distance
	Sex differences in cognitive style tend to be found when the culture is more on the masculine side of Hofstede's scale (in that case, males are more field-independent and females more field-dependent). In feminine cultures, there is not as much difference between the sexes (see Bagley, "Cognitive Styles", p. 6)	

c. Thought processes and logic flow:

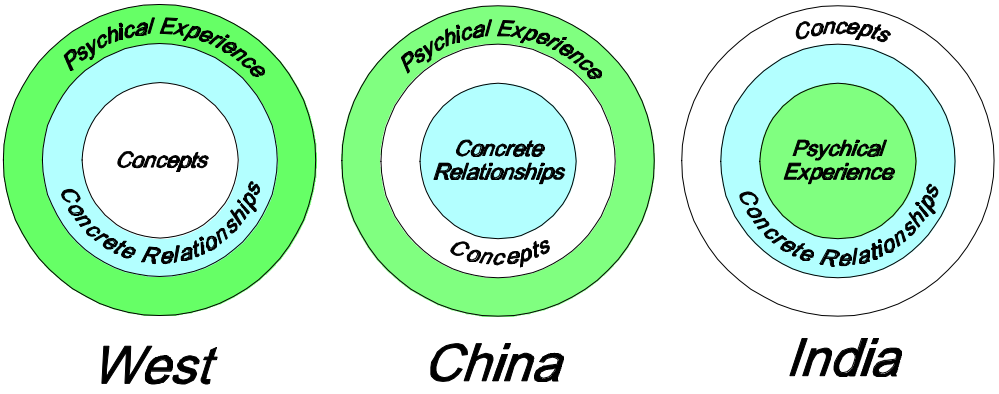
i. Kaplan proposes the following diagrammatic representation of the thought flow of various linguistic groups (Kaplan, "Cultural Thought Patterns", p. 15; as Singer notes, we must be careful not to think that everyone in the above cultures follows the same logic flow, or that all prose in these languages is constructed according to the above diagram (Singer, Intercultural Communication, p. 189):



ii. The foundation of conceptual strategies: David Hesselgrave proposes three strategies of thinking:

Conceptual:	Intuitional/Psychical Experience:	Concrete Relational:
Theoretical or postulational thinking	Knowledge coming from intuition and/or inner experience and vision	Reality is seen in terms of active emotional relationships present in a concrete situation

(1) Generally one style of thinking will predominate in a culture, but the other two will also be found. Hesselgrave suggests the following cultural tendencies:



(2) While these are generally seen, Individuals within the same culture may have different methods of thinking. In the West, for example, the following professions are possibly associated with a particular emphasis:

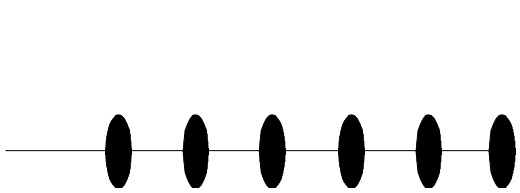
Artists and actors: concrete relational thinking Scientists, theologians, and philosophers: Conceptual thinking Mystics (and possibly inventors?): psychical or intuitional thinking

d. **Mindscapes**: Magorah Maruyama has developed a taxonomy of cognitive structures he calls mindscapes. He defines a mindscape as a structure of reasoning, cognition, perception, conceptualization, design, planning, and decision making that may vary from one individual, profession, culture, or social group to another. He identifies four mindscapes (see also the charts summarizing Maruyama's taxonomy):

H (Hierarchical)	I (Individualistic)	S Homeostatic	G Morphogenetic
The parts are subordinated to the whole. There is a best way for all individuals. Universal principles apply to all. Society consists of categories, super-categories, and subcategories, structures, superstructures, and infrastructures.	Society is merely an aggregate of individuals who think and act independently. Only individuals are real.	Society consists of heterogeneous individuals who interact to mutual advantage. Interactions maintain a harmonious pattern of heterogeneity or go in cycles. Interactions are nonhierarchical.	Heterogeneous individuals interact for mutual benefit. Nonhierarchical interactions generate new diversity, new patterns, and new harmony and seek new relations for mutual benefit.

3. Selected aspects of cognition which are related to cognitive style

a. Classification



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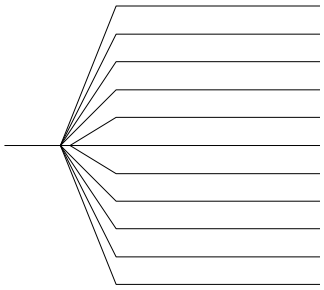
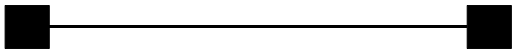


Serial or Focusing	*Holistic or Scanning*
Concentrate on one thing at a time until moving on to something else--leaving no loose ends	"Holistic, involving the attempt to eliminate whole concepts in one fell swoop by a form of what appears to be template matching" (Personality Types, 58-59)

b. Analogical Reasoning (using a known relationship to give you clues as to how to understand an unknown relationship):



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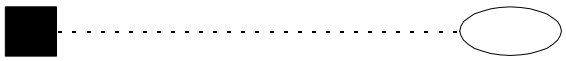
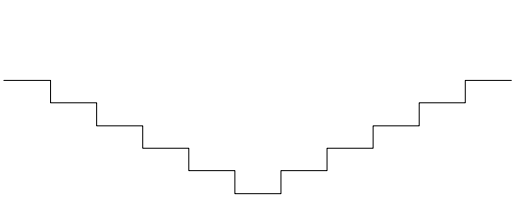


Tight, Literal	*Loose, Informal*
The base analogue is very close to, and shares many elements with, the target problem	An analogue between disparate elements in which the base and target problems share only essential attributes

c. Judgment



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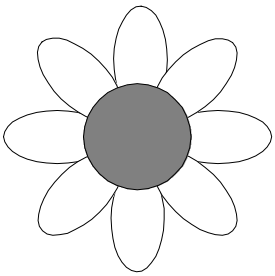


Logical
(or Actuarial)

Reference Point
(or Prototype or Intuitive)
Reasoning

d. **Categorizing:** Eleanor Rosch proposed an taxonomy of categorization based on prototypes ("Universals in Human Categorization"):

i. Categorization is our means of making order out of chaos, of "cutting up" the world by imposing a "discriminating grid" on it through which we view the things and events that take place around us. It is our method of reducing "the limitless variation--the uncertainty' of the world--to manageable proportions" (Ibid., p. 197).

ii. How do we "make" categories (such as "bird")? Two options have been proposed:

(1) **Digital categorization** (the standard thinking on categories): categories are arbitrary, logical conjunctions of criterial attributes which have clearcut boundaries and within which all instances possessing the criterial attributes have a full and equal degree of membership" (Ibid., p. 179).

(2) **Analog categorization** (two principles; Rosch's proposal):

(a) Categories are processed perceptually and linguistically in terms of the prototype *[the best examples of the category]* and distance from the prototype and that, other things being equal, stimulus spaces will tend to become organized and categories develop around potential prototypes. Categories in which perceptually salient, natural prototypes occur include:

(i) Color (Ibid., pp. 184-5)

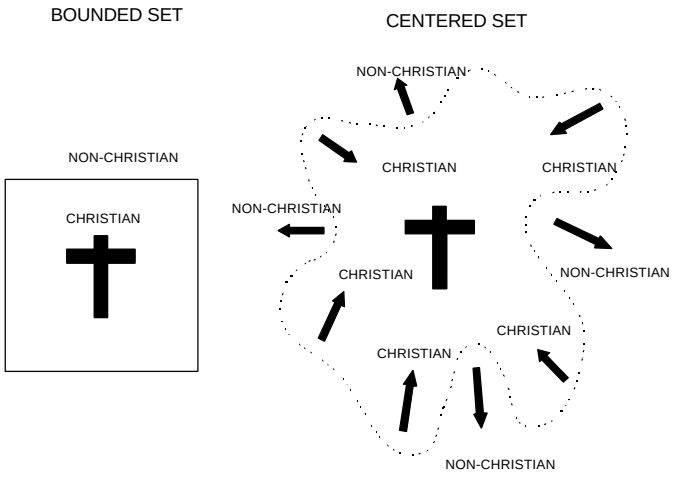
(ii) Form (Ibid., pp. 185-6; shape on pp. 199-201)

(iii) Facial expression (Ibid., p. 186), best seen in six

basic emotions of happiness, sadness, anger, fear, surprise, and disgust)

(b) Categories become organized so as to maximize the correlation of attributes (redundancy) and, hence, predictability within categories.

iii. The same idea can be found in discussion of bounded sets (digital categorization) and centered sets (analog categorization), which distinguish more on an activity framework rather than a static one (e.g., do we emphasize movement in the right direction or only the "correct" idea?; Hiebert, "Sets and Structures"; adapted from Hovey, Before All Else Fails, p. 85):



iv. Relevance of the discussion: If an analog method is the way in which we as humans develop categories, then there is a great potential in this for cross-cultural understanding and research.

(1) "In domains in which prototypes are biologically 'given,' *categories can be expected* to form around the salient prototypes and, thus, *to have elements of content as well as principles of formation which are universal*. Other semantic categories may have prototypes which are quite different cross-culturally." (Ibid., p. 196; emphasis mine)

(2) "Working in terms of prototypes enables the location and examination of domains where prototypes are perceptually or otherwise biologically determined and thus universal. Investigation of universal and culturally relative aspects of such domains can then be undertaken in proper relation to each other." (Ibid., pp. 201-2)

(3) "If categories 'really are' 'processed' in cognition largely in terms of

a shorthand prototype, then cross-cultural comparison of categories must proceed in these terms." (Ibid., p. 202)

(4) "Once it is conceded that prototypes are an important aspect of the formation and cognitive processing of categories, it becomes important to determine the principles by which prototypes are formed for categories when they are not biologically determined as such." (Ibid.)

(5) The categorization framework or a target culture will have an impact on decision-making, of potential usefulness to the missionary intercultural communicator. If Rosch is correct, this may open doors to greater understanding of ways to present Christ more relevantly within a new cultural context.

e. **Error**: Hamill proposes that an overlooked avenue of research into cross-cultural logic forms is that of error. For something to be declared an error in thought presupposes that there is a correct way of applying the culture's rules of logic. He notes:

> By their nature, errors can occur only when meaning contradicts knowledge. The fact that people make mistakes shows that they assign meanings to the events in their lives and that they compare those meanings to standards, values, and expectations in their minds. Error, like ungrammatical sentences or dirt, is therefore a window to the mind and a strong methodological tool for uncovering the basic knowledge systems that make up culture.
>
> Hamill, Ethno-Logic, p. 45

Consider how we teach our children our culture--we inevitably assume that they should do what is correct, and generally "teach" them by pointing out their errors. Hamill maintains that we learn culture by finding out more **what it is not** than by finding out **what it is**!

f. **Memory** (Segall, et al, Human Behavior in Global Perspective, 168-72; the hardware and software ideas are from Wagner, "Culture and Memory Development")?

i. Structure or "hardware" issues: short-term memory capacity and forgetting rate, are held to be universal. However, we must point out that memory and learning are not just in the head, and are not just related to abstract concepts! Edward Hall indicates that memory and learning may take place through at least nine channels (Hall, Beyond Culture, pp. 169-87):

(1) Spatial memory
(2) Verbal memory
(3) Numerical memory
(4) Visual memory (including thing such as color and imaging memory)
(5) Proprioceptive memory (muscular sensation)
(6) Auditory memory
(7) Gustatory memory

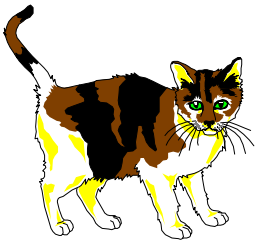
(8) Olfactory memory
(9) "Social" memory (see also the social context of learning, dealt with in Rogoff, Apprenticeship in Thinking)

ii. Control or "software" issues: memory management and strategies are culturally informed

(1) Representation

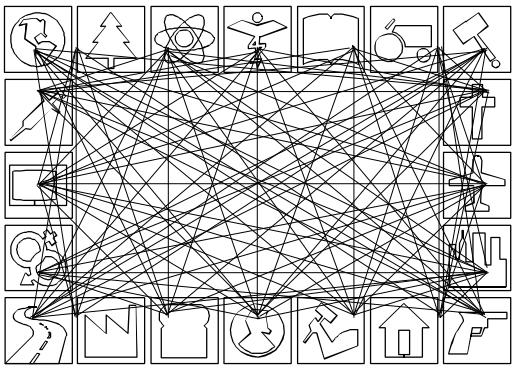
CAT

vs



Verbal/Analytic *Visual/Analog*

(2) Organization



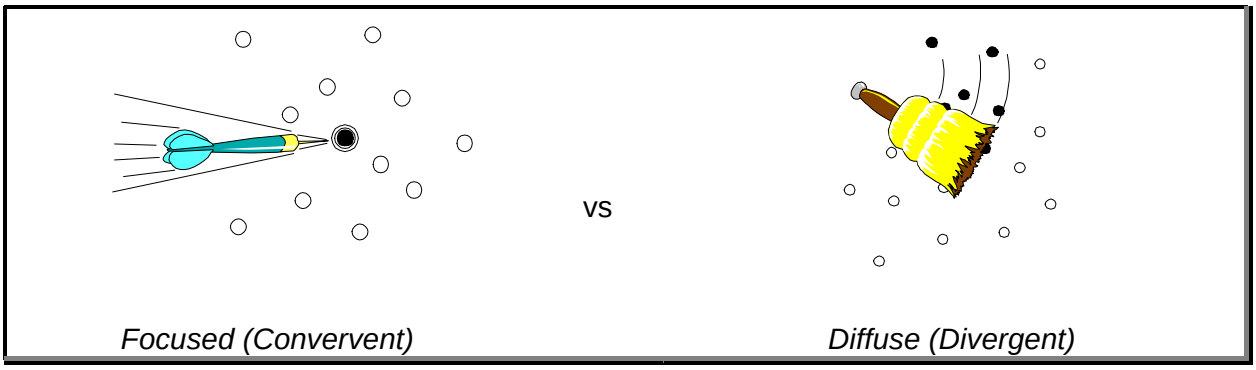
vs

Involves:
Conceptual Differentiation
(the extent to which a homogenous field is broken down into parts)
Conceptual Articulation or Category Breath
Hierarchic Integration
Conceptual Complexity

(3) Retrieval

(a) Automatic retrieval

(b) Intentional retrieval



(c) Memory and visualization techniques (e.g., Jerry Lucas)

Cognitive Development: Overview of Piaget

Piaget pioneered work in looking at the development of a child's ability to reason as the child grew and matured. Here we present a summary of his stages of cognitive development (developed from Wadsworth, *Piaget's Theory of Cognitive and Affective Development*, pp. 38-39 and 174-5)

Stage		Characteristics of the Stage	Major Changes of the Stage
Sensori-Motor Thinking	Period 1: Reflex (0 to 1 month)	Reflex activity only; no differentiation.	Development proceeds from reflex activity to representation and sensorimotor solutions to problems. Primitive likes and dislikes emerge. Affect invested in "self".
	Period 2: First Differentiation (1 to 4 months)	Hand-mouth coordination; differentiation via sucking reflex and grasping.	
	Period 3: Reproduction (4 to 8 months)	Hand-eye coordination; repeats unusual and/or interesting movements.	
	Period 4: Coordination of Sehemata (8 to 12 months)	Coordination of two schemata; application of known means to new problems; anticipation; object permanence attached.	
	Period 5: Experimentation (12 to 18 months)	Discovery of new means through experimentation--follows sequential displacements.	
	Period 6: Representation (18 to 24 months)	Internal representation; invention of new means through internal mental combinations.	
Preoperational (2 to 7 years)		Thought is no longer restricted to immediate perceptual and motor events. Problems are solved through representation--(symbol), which requires language development (2 to 4 years). Thought and language both egocentric. Cannot solve conservation problems.	Development proceeds from sensorimotor representation to prelogical thought and solutions to problems. True social behavior begins. Intentionality absent in moral reasoning.
Concrete Operational (7 to 11 years)		Can assume the viewpoint of others, and begins to evaluate what others say rather than just accept it. Reversibility attained. Can solve conservation problems--logical operations are developed and applied to concrete problems. Cannot solve complex verbal problems and hypothetical problems.	Development proceeds from prelogical thought to logical solutions to concrete problems. Development of the will and beginnings of autonomy appear. Intentionality is constructed.
Formal Operations (11 to 15 years)		Can deal with the possible as well as the real. Logically solves all types of problems--thinking can be hypothetical-deductive or scientific-inductive. Can abstract new knowledge from existing knowledge through reflection or thought. Solves complex verbal and hypothetical problems. Cognitive structures mature.	Development proceeds from logical solving of concrete problems to logical solving of all classes of problems. Emergence of idealistic feelings and personality formation. Adaptation to adult world begins.

a. According to Piaget, knowledge is a construction resulting from the child's actions. There are three kinds of knowledge:
   i. **Physical knowledge**: knowledge of the physical properties of objects and events: size, shape, color, weight, and so forth.
   ii. **Logical-mathematical knowledge**: knowledge derived (invented by the child) from thinking about experiences with objects and events.

iii. **Social-arbitrary knowledge:** knowledge developed by humankind. In includes knowledge of rules, laws, morals, values, ethics, and language systems. It is constructed by children from their actions on (interactions with) other people.

b. He notes four broad factors that are linked to development:

i. Maturation (the rate of unfolding of our inherited potential), which places broad constraints on our cognitive development potential.

ii. Physical experience, as each type of knowledge a child constructs requires him or her to interact with objects or people.

iii. Social interaction, which enables the child to form abstract concepts (such as timeliness, which is socially defined).

iv. A general progression of equilibrium, which is the process of coordinating the other three factors. *Equilibration* is the regulator that allows new experience to be successfully incorporated into schemata.

c. He proposes that advances from one stage to the next share certain characteristics:

i. *Activity* of the child is essential for development to the next stage.

ii. Each stage is characterized by qualitatively different reasoning. The reasoning of successive stages within a stage is always superior to the reasoning of previous stages or periods.

iii. Each stage or improvement in reasoning permeates a child's reasoning rather than affects reasoning about a particular event.

iv. Each new advance involves an integration and extension of knowledge and reasoning of the previous level into "new" knowledge. Structures, or schemata, are changed (through adaptation), but prior formulations are never destroyed or eliminated. What was previously known remains with some improvement in the quality of knowledge. Each new level of reasoning is a *transformation* of prior reasoning and as such is not totally *new;* rather , it is *improved*.

v. The stages of development are invariant. Formal reasoning cannot develop before concrete operations are developed. Concrete operations develop only after preoperational reasoning develops. Development always progresses from a less differentiated and less sophisticated level of reasoning to a more differentiated and more sophisticated level of reasoning.

vi. Each advance in reasoning is accompanied by egocentrism in the initial use of new reasoning. Preoperational children initially view their thoughts as necessarily correct. This egocentrism of thought diminishes gradually as children recognize that peers and others have ideas that conflict with their own. This raises doubts

about the certainty of their own ideas. Those with formal operations are initially egocentric in that they judge the correctness of thoughts against a criterion of logic of reasoning. This egocentrism gradually diminishes when (and if) the individuals implement their views in a real way--typically, by getting a job.

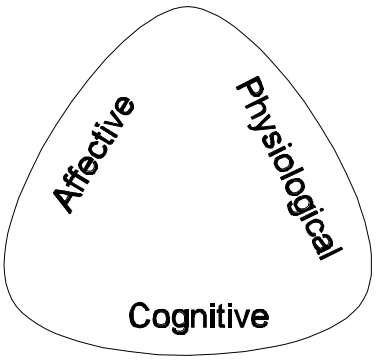
Learning Styles

Learning styles are characteristic cognitive, affective, and physiological behaviors that serve as relatively stable indicators of how learners perceive, interact with, and respond to the learning environment.

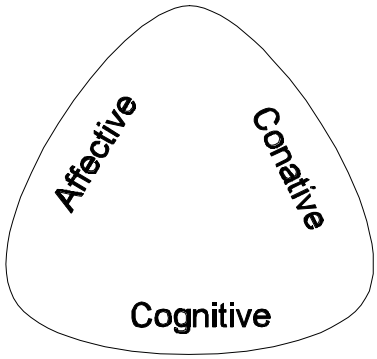
Keefe, "Learning Styles: An Overview"

1. The components of learning styles: two working models

James W. Keefe
("Learning Style: An Overview")



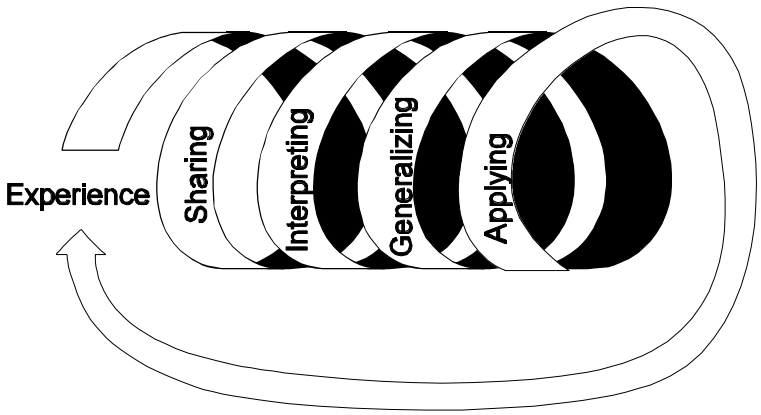
Alan Miller
(Personality Types)



Too often the focus has been purely on the cognitive, as if though there were no other components of learning. We have all had 'bad days', more often than not mediated by our bad moods rather than bad cognitive styles or abilities!

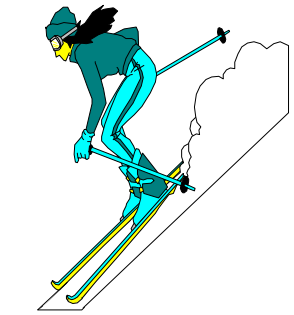
2. The sequence of learning

Following the work of Lewin, Dewey, and Piaget, many have noted that learning follows a cycle in which we move in a series of steps from experience something to understanding it to applying it in new experiences. This may be diagrammed (adapted from Gaw, "Processing Questions", p. 148; for a summary of six different models of experiential learning, see Palmer, "Learning Cycles").



3. Cognitive components of learning:

   a. Modality preferences:



Kinesthetic

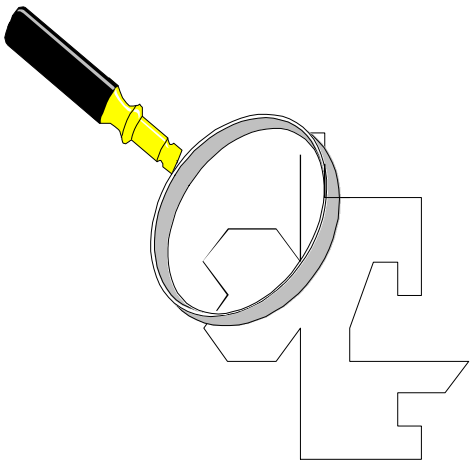
Visual

Auditory

N.B. In adults, all three function, but there is usually a preference for one channel over the others.

   b. Components of perception: a bird's eye view from Alan Miller

      i. Pattern recognition: the means by which things are identified



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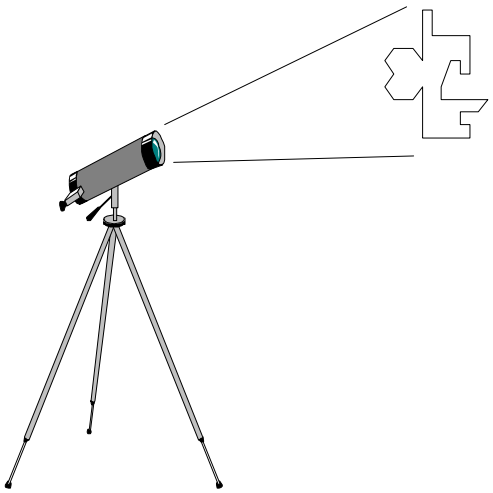


Feature Analysis

The process whereby stimuli are recognized in terms of their distinctive elementary features and the relationship between them (an analytic process).

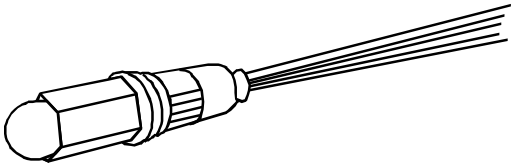
Prototype Matching

The comparison of whole stimuli with stored templates or mental copies of the object. Currently the discussion is whether this is matching of prototypes of examplars (both still concrete rather than abstract; see Schneider, "Social Cognition," 533-4)

N.B. It appears that everyone uses both types of pattern recognition, but we differ in our preference for, or skill in the use of, one or the other. Cooper's research (reported in Miller, Personality Types, 39) indicates that prototype matchers are more able to switch style than feature analysis matchers.

ii. Attentive components (the process whereby certain percepts are brought into conscious awareness and subjected to further consideration)

(1) *Scanning:* the extent to which people release one focus of attention and establish another



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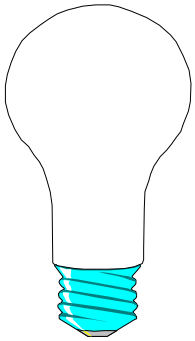


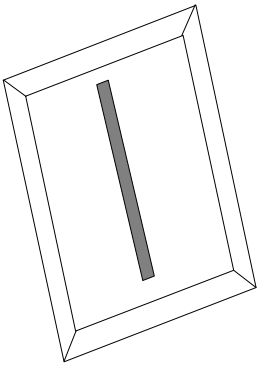
Extensive/Intensive

Some scan extensively (broadly) but with intensive focus (highly detailed--like a powerful flashlight that is waved around)

Limited/Diffuse

Some scan in only limited fashion on the broad parameters (global-gestalt)

(2) *Selective attention:* difference to which people establish and maintain a focus of attention despite the presence of distracting stimuli (discussed in the cognitive styles notes as psychological differentiation or field-independence vs. field independence):



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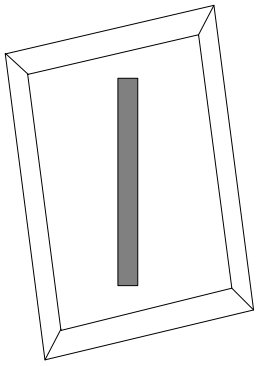


Field-Dependent	*Field-Independent*
Adhere to the dominant properties of a field rather than restructure it.	Can act on symbolic representations by restructuring them when the task requires it.

4. Affective elements in learning: In terms of style, Miller proposes one axis for consideration: *emotional stability-instability* or *affective intensity,* which recognizes the differences in the intensity of emotional reactions to life's events. Some live at a vivid level of intensity; others at a bland blend of life. This dimension is not as much linked to *what* emotions are experienced as it is to *how* those emotions are experienced and expressed. Weak uncertainty avoidance and collective high-context cultures generally allow lower levels of emotional expression, but that does not mean that all people feel the same as they show through their level of expression.

5. The *conative* dimension expresses the differences in motivation ("the differences in the things for which people strive"; Personality types, 107). It includes both drives (unconscious) and volitions (conscious) as well as desires and commitments. Two orientations of the conative dimension may be noted:

Objective Motivation	**Subjective** Motivation
The desire to assert our individuality, to separate ourselves from others and to curtail our dependence on them (autonomy, agency)	The urge to join with others in cooperative, intimate and, often, dependent relationships (surrender, communion)

There are three sub-dimensions (Personality Types, 114):

	Objective Motivation	**Subjective** Motivation
Behavioral (the actions associated with goal-directed behavior)	Power (seeking personal power: dominance; avoiding other's power: autonomy)	Love (seeking love: submission; giving love: nurturance)
Affective (the feelings that accompany such actions)	Emotional detachment	Emotional involvement (empathy)
Cognitive (the person's conception of the goals of life together with his/her plans for obtaining them)	Extraception (focus on behaviors and actions)	Intraception (focus on subjective experiences)

N.B. Note the correlations: objective with individualism and subjective with collectivism. Though not identical, there are many parallels which would influence a person's choice in these dimensions.

An Alternative Paradigm: Experiential Learning

> Learning is "*the process whereby knowledge is created through the transformation of experience.*"
> David Kolb, Experiential Learning, 38

1. Learning is a process that involves four types of skills which can be arranged on two axes of opposites. The first axis is that of *prehension*, "representing two different and opposed processes of grasping or taking hold of experience in the world--either through reliance on conceptual interpretation and symbolic representation, a process I will call *comprehension*, or through reliance on the tangible, felt qualities of immediate experience, what I will call *apprehension*." (Ibid., p. 41):

Concrete Experience	Abstract Conceptualization
An orientation toward concrete experience focuses on being involved in experiences and dealing with immediate human situations in a personal way. It emphasizes feeling as opposed to thinking; a concern with the uniqueness and complexity of present reality as opposed to theories and generalizations; an intuitive, 'artistic' approach as opposed to the systematic, scientific approach to problems. It involves the ability to become immersed easily in experiences and emotions, i.e., "letting go" so as to be dominated by whatever is immediate. It also involves the ability to relate to people empathetically and to understand things intuitively. A person growing in the CE skill will learn to be more in touch with his immediate emotions, and to relate to others in the realm of feelings. Growing in CE also suggests learning to appreciate the significance of aspects of life that cannot be grasped by pure logic.	An orientation towards abstract conceptualization focuses on using logic, ideas, and concepts. It emphasizes thinking as opposed to feeling; a concern with building general theories as opposed to intuitively understanding unique, specific areas; a scientific as opposed to an artistic approach to problems. It involves the ability to remove oneself from immediate experience and to be detached and analytical about people and circumstances. Growing in AC skills suggests developing the capacity to think not only of what is, but also of what might be. It also suggests developing the ability to see relationships among different experiences and thoughts, and to identify themes that help make sense out of them.

2. The second axis is that of *transformation*, "representing two ways of transforming that grasp or 'figurative representation' of experience--either through internal reflection, a process I will call *intention*, or active external manipulation of the external world, here called *extension*" (Ibid.):

Active Experimentation	Reflective Observation
An orientation towards AE focuses on actively influencing people and changing situations. It emphasizes practical applications as opposed to reflective understanding; a pragmatic concern with what works as opposed to what is absolute truth; an emphasis on doing as opposed to observing. It involves the ability to learn by doing or trying. It suggests knowing how to be pragmatic, i.e., understanding what really works, and therefore being able to solve problems. A person growing in AE skills will become more proficient in the application and implementation of ideas and concepts, as well as more comfortable in new kinds of activities and behaviors.	An orientation toward RO focuses on understanding the meaning of ideas and situations by carefully observing and impartially describing them. It emphasizes understanding as opposed to practical application; a concern with what is true or how things happen as opposed to what will work; an emphasis on reflection as opposed to action. It involves the ability to be impartial in gathering more information. The word observation in this sense suggests any means of collecting data (watching, listening, interacting, questions, reading, etc.). The RO skill suggests being able to view situations and people from many different sides, and to reflect impartially on information which has been gathered, i.e., without being prejudiced by similarities in previous experience. A person growing in the RO skill will increase in his ability to see beyond the obvious in people and situations.

   a. New knowledge, skills, or attitudes are achieved through confrontation among four

modes of experiential learning. Learners, if they are to be effective, need four different kinds of abilities--*concrete experience* abilities (CE), *reflective observation* abilities (RO), *abstract conceptualization* abilities (AC), and *active experimentation* (AE) abilities. That is, they must be able to involve themselves fully, openly, and without bias in new experiences (CE). They must be able to reflect on and observe their experiences from many perspectives (RO). They must be able to create concepts that integrate their observations into logically sound theories (AC), and they must be able to use these theories to make decisions and solve problems (AE). (Ibid., p. 30)

b. Combining the various types of learning, we can pose four types of knowledge along two opposing axes: [convergent and divergent] and [accommodative and assimilative]. Kolb notes that people, through their choices of experience, "program themselves to grasp reality through varying degrees of emphasis on apprehension or comprehension. Similarly, they program themselves to transform these prehensions via extension and/or intention." (Ibid., p. 64). At the same time, however, he also points out (Ibid., pp. 66-7), "Individual styles of learning are complex and not easily reducible into simple typologies--a point to bear in mind as we attempt to describe general patterns of individuality in learning. Perhaps the greatest contribution of cognitive-style research has been the documentation of the diversity and complexity of cognitive processes and their manifestation in behavior. Three important dimensions of diversity have been identified:

   i. Within any single theoretical dimension of cognitive functioning, it is possible to identify consistent subtypes. For example, it appears that the dimension of cognitive complexity/simplicity can be further divided into at least three distinct subtypes: the tendency to judge events with few variables vs. many; the tendency to make fine vs. gross distinctions on a given dimension; and the tendency to prefer order and structure vs. tolerance of ambiguity (Vannoy, 1965).

   ii. Cognitive functioning will vary among people as a function of the area of content it is focused on, the so-called cognitive domain. Thus, a person may be concrete in his interaction with people and abstract in his work (Stabel, 1973), or children will analyze and classify persons differently from nations (Signell, 1966).

   iii. Cultural experience plays a major role in the development and expression of cognitive functioning. Lessor (1976) has shown consistent differences in thinking style across American ethnic groups; Witkin (1976) has shown differences in global and abstract functioning in different functioning; and Bruner et al. (1966) have shown differences in the rate and direction of cognitive development across cultures. Although the evidence is not conclusive, it would appear that these cultural differences in cognition, in Michael Cole's words, 'reside more in the situations to which cognitive processes are applied than in the existence of a process in one cultural group and its absence in another" (1971; p. 233).

c. Noting the danger of oversimplification, we will here describe these two axes and also note how those who are so programmed will tend to learn:

Convergent Knowledge

When experience is grasped through comprehension and transformed through extension, the result is convergent knowledge. The person who relies on this method learns by abstract conceptualization and active experimentation. This person's greatest strength lies in the practical application of ideas. A person with this style seems to do best in situations such as conventional intelligence tests where there is a single correct answer or solution to a question or problem. This person's knowledge is organized in such a way that through hypothetical-deductive reasoning he/she can focus on specific problems. Research on this style of learning shows that convergers are relatively unemotional, preferring to deal with things rather than people. They tend to have narrow technical interests, and choose to specialize in the physical sciences. This learning style is characteristic of engineers.

Divergent Knowledge

Experience grasped through apprehension and transformed through intention results in what will be called divergent knowledge. The person who learns primarily by divergence has the opposite learning strengths of the converger. This person is best at concrete experience and reflective observation. This person's greatest strength lies in imaginative ability. This person excels in the ability to view concrete situations from many perspectives. We have labelled this style "diverger" because a person with this style performs better in situations that call for generation of ideas such as a "brainstorming" idea session. Research shows that divergers are interested in people and tend to be imaginative and emotional. They have broad cultural interests and tent to arts backgrounds. Counselors, organizational development specialists and personnel managers tend to be characterized by this learning style.

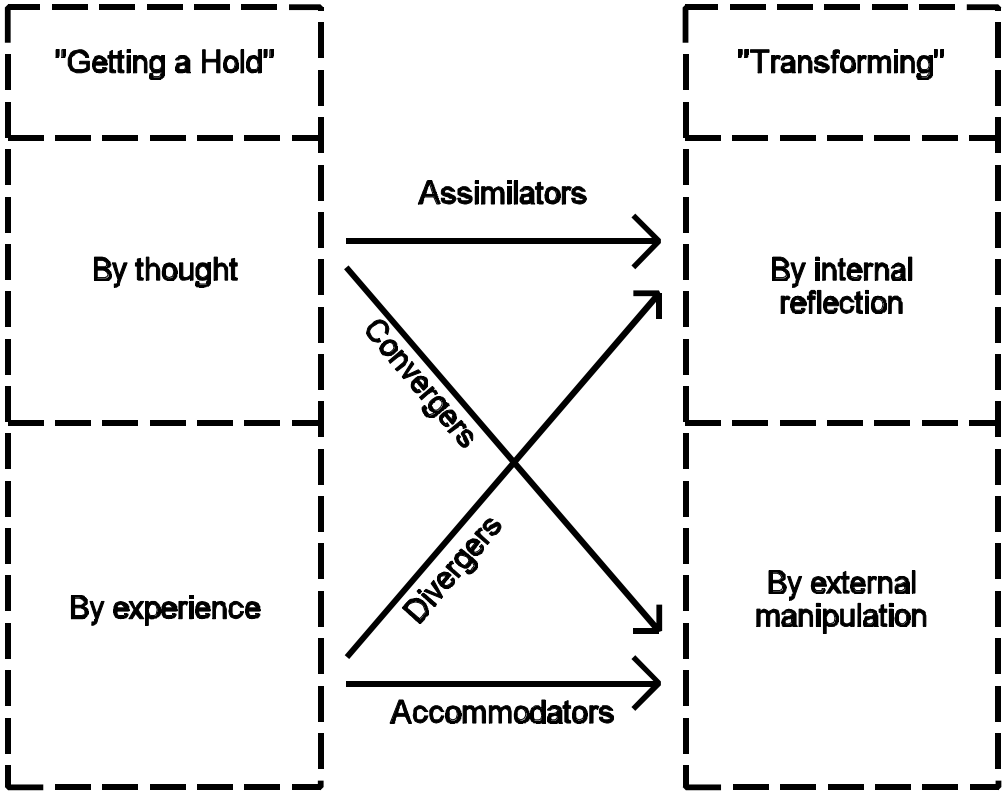
Assimilative Knowledge

Experience grasped through comprehension and transformed through intention results in assimilative knowledge. The person who learns primarily through assimilation dominates in the areas of abstract conceptualization and reflective observation. This person's greatest strength lies in the ability to create theoretical models. This person excels in inductive reasoning and in assimilating disparate observations into an integrated explanation. This person, like the converger, is less interested in people and more concerned with abstract concepts, but is less concerned with the practical use of theories. For this person it is more important that the theory be logically sound and precise; in a situation where a theory or plan does not fit the "facts," the assimilator would be likely to disregard or re-examine the facts. As a result, this learning style is more characteristic of the basic sciences and mathematics rather than applied sciences. In organizations this learning style is found most often in the research and planning departments.

Accommodative Knowledge

When experience is grasped by apprehension and transformed by extension, accommodative knowledge is the result. The person who learns through accommodation has the opposite learning strengths of the assimilator. This person is best at concrete experience and active experimentation. This greatest strength lies in doing things--in carrying out plans and experiments--and involving himself or herself in new experiences. This person tends to be more of a risk-taker than people with the other three learning styles. We have labelled this person "accommodator" because this person tends to excel in those situations where one must adapt oneself to specific immediate circumstances. In situations where a theory or plan does not fit the "facts," this person will discard the plan or theory. This person tends to solve problems in an intuitive trial and error manner, relying heavily on other people for analysis rather than his/her own analytic ability. The accommodator is at ease with people but is sometimes seen as impatient and "pushy." This person's educational background is often in technical or practical fields such as business. In organizations people with this learning style are found in "action-oriented" jobs often in marketing or sales.

i. A simplified form of Kolb's total model:



ii. The particular competencies of each learning style may also be noted:

CE

Accommodator	Diverger
Dealing with people Being personally involved Influencing and leading others Seeking and exploiting new opportunities Committing yourself to objectives	Being sensitive to people's feedback Being sensitive to values Listening with an open mind Gathering information Imagining implications of ambiguous situations
Converger	**Assimilator**
Create new ways of thinking and doing Experiment with new ideas Choosing the best solution Setting goals Making decisions	Organizing information Building conceptual models Testing theories and ideas Designing experiments Analyzing quantitative data

AE RO

AC

Learning Styles vs Learning Abilities

(from Miller, Personality Types, pp. 30-1)

Ability	Style
Content: What kind of information is being processed by what operation in what form.	*Manner:* The manner or mode or way in which information is processed.
Competence: How well a person is able to perform.	*Propensities:* Typical performances that are likely to be given in a particular disuation.
Unipolar: Range from low to high levels of a single skill	*Bipolar:* Contrasting qualitatively different types of cognition--the more you show of one kind, the less you will show of the other.
Specific: Abilities are specific to a given cognitive domain (e.g., The seven "intelligences" are linguistic, logical-mathematical, intrapersonal, spatial, musical, bodily-kinesthetic, and interpersonal). They are enabling variables which facilitate performance.	*General:* They are more general determining principles which control and utilize abilities and strategies.

Limitations Concerning Learning Styles

Cognitive psychologists have voiced concerns over learning styles presentations. Moran gives three recommendations ("What Can Learning Styles Research Learn from Cognitive Psychology?", 243-44):

1. We need more and better empirical evidence before we spin off grandiose theories that neatly categorize components of learning into simplistic schema (for example, the hemisphericity literature had been strongly criticized for lack of empirical base; see O'Boyle, "Hemispheric Laterality", 36-40).

2. Prior knowledge of the ideas being learned is an important, and all to often overlooked, factor in assessing differences in learning styles/strategies. The same person may use many completely different styles, depending on his/her prior knowledge of the area being learned.

3. Learning styles research could benefit from a closer look at metacognition ("our awareness and knowledge of our own mental processes")--just understanding how I learn can make me a better learner, and the surveys that ask about my learning style have already started me on that road by the very questions they ask!

4. One final question: to what extent can we control the perceiving process? In other words, do we perceive in top-down or bottom-up fashion--are we "masters of our ship" or "captives of our context"? (see Schneider, "Social Cognition," 535-6)

5. We must be careful to avoid trying to lock people into “learning-style jail” by giving them the idea that they are “stuck” with a particular learning style determined by a pen and pencil test devoid of a particular context.

Teaching and Learning

Principles Derived from Cognitive Theories

(From *The Teaching Professor*, 9:4 (April 1995): 3; a summary of Marilla D. Svinicki, "Practical Implications of Cognitive Theories" in *Teaching and Learning in the College Classroom* Neeham, Heights, MA: Ginn Press, 1994)

1. If information is to be learned, it must first be recognized as important.

2. During learning, learners act on information in ways that make it more meaningful.

3. Learners store information in long-term memory in an organized fashion related to their existing understanding of the world.

4. Learners continually check understanding, which results in refinement and revision of what is retained.

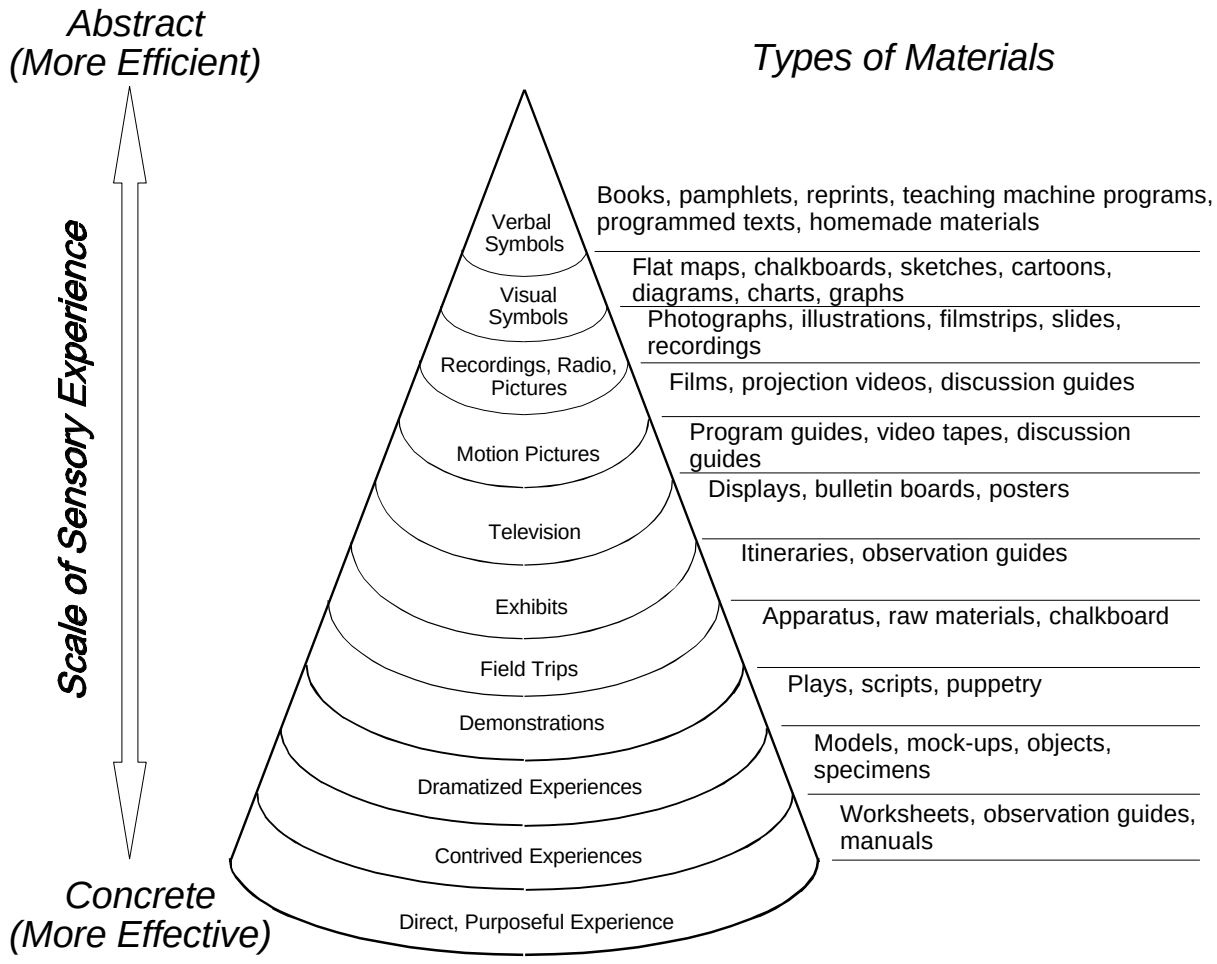
5. Transfer of learning to new contexts is not automatic, but results from exposure to multiple applications.

6. Learning is facilitated when learners are aware of their learning strategies and monitor their use.

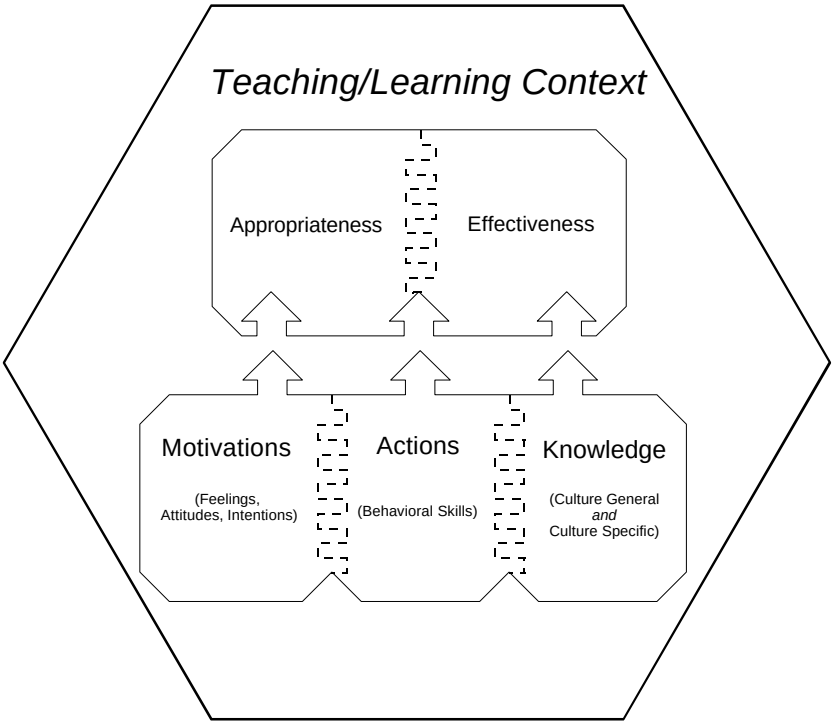
Varieties of Teaching Methods

(from McKinney, "Contextualizing Instruction")

The following working model (Edgar Dale's Cone of Experience) shows a scale of various teaching methods arranged from the most concrete (and therefore generally the most effective) to the most abstract (and generally the most efficient). It is intended to serve as a catalyst to thinking creatively about the teaching process and integrating appropriate methods into the designed intention of the teacher in a given learning environment.



A Model of Cross-Cultural Teaching Competence
(adapted from Lustig and Koester, Intercultural Competence)



1. Knowledge: Though a basic knowledge of cultures and cultural dynamics is important, it is not just what we know, but how well we are able to personalize and apply the knowledge we have in the intercultural setting that are important in determining our competency in intercultural communication.

    a. Culture general, including the components of all cultural maps such as world view, values, social structures, cognitive processes, decision-making strategies, contextuality and temporality, verbal and non-verbal communication codes and styles, and media

    b. Culture specific:

        i. What is the actual cultural map of the people among whom I am living?

        ii. What is my cultural map?

2. Motivations

    a. Feelings: the emotional or affective states I experience when communicating interculturally. How do I experience and express my emotion, and what role(s) do they play in my communication patterns?

    b. Personal character traits and attitudes: Flexibility, a non-judgmental attitude, the ability to tolerate ambiguity, a high cognitive complexity, etc., are all important. We should note, however, that Kealey's 1989 study indicates:

i. Established psychological self-report inventories **are not very useful** in predicting outcome overseas.

ii. However, the use of behaviorally anchored scales specifically developed for use in intercultural communication skills is supported.

For example, field-dependent people show a somewhat better chance of demonstrating competence in transferring technical skills (Kealey, "A Study of Cross-Cultural Effectiveness," p. 410)

c. **Intentions**: What guides the choices I make in developing strategies of communicating with strangers? What are the goals, plans, objectives, and desires through which I focus and direct my behavior? (E.g., stereotypes can short circuit other positive skills by reducing the number of choices and interpretations I may make of others' actions)

3. **Actions** (behavioral/social skills):

a. Considering behavioral or social skills, two things should be noted (Furnham and Bochner, Culture Shock, 201-3):

i. Cross-cultural learning can be like learning a new game where the game and its rules are known intimately to the host (who expects other people to already know them), and the guest must learn them

ii. ". . . the actual list of skills *[in any particular context]* will depend on the demographic characteristics of the clients (their age, sex, social class, culture of origin, and so forth); the new culture whose skills they will be learning; and on the purpose of their sojourn."

b. Social skills that are particularly important in intercultural communication include the following areas of culturally governed rules and conventions (adapted in part from discussion in Furnham and Bochner, "Social Difficulty in a Foreign Culture"; Furnham and Bochner, Culture Shock, 216; and Lustig and Koester, Intercultural Competence, 297-302):

Synchrony	Coordinating verbal and non-verbal behavior, encouraging the communication partner, giving appropriate feedback
Conversation	Appropriate speaker exchanges (timing, volume, clarity), topics, and self-disclosure
Assertiveness	Appropriate amount of assertion on behalf of self or group
Emotional expression	Ability to express the full range of appropriate emotional expressions in various situations; includes skills to appropriately express feelings of warmth, affection, and sexuality.
Trust	Ability to generate and display trust, including skills in empathy, respect, and toleration for personal differences
Humor	Understanding and being able to use humor appropriately
Public Performance	Skills at handling being the focus of public attention
Public Rituals	Skills in appropriate behavior in public rituals (including formal and informal greetings, leave takings, awareness of personal social status and/or role, appropriate control of bodily functions, etc.)
Anxiety management	Coping with social anxiety during moments of stress or ambiguity.
Decision-Making, Negotiation and Conflict Management	Skills in handling the interchange of ideas during conflict so as to lead towards culturally appropriate resolution

4. **Appropriateness and effectiveness**:

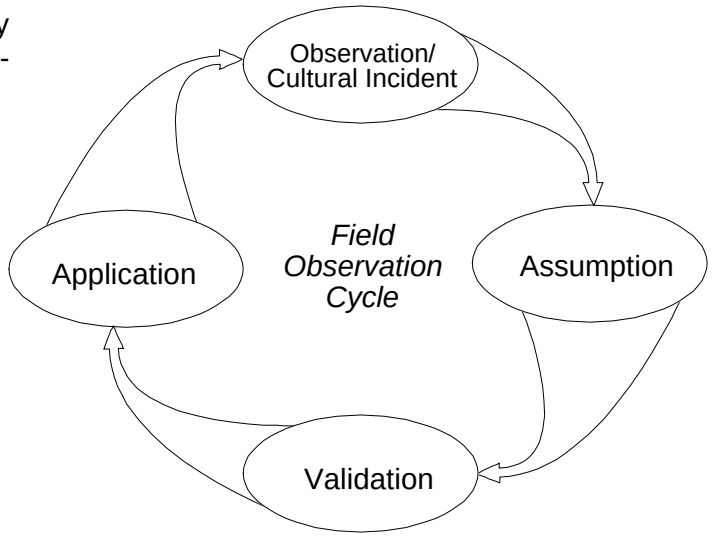
   a. Appropriateness: If our communication methods are inappropriate, we may lose our audience before they even understand what we seek to communicate.

   b. Effectiveness: Even if our methods are culturally appropriate, they may not be effective in helping us reach our goals, whatever those goals may be.

5. **Teaching/Learning Context** (no one is uniformly competent in all areas; everyone has strengths and weaknesses which will be reflected in our varying degrees of competence as seen in different teaching/learning contexts)

Developing Competency

1. For general use in any system: the field-observation cycle:



The Field-Observation Cycle is a simple four step process for systematically analyzing any particular component of culture.

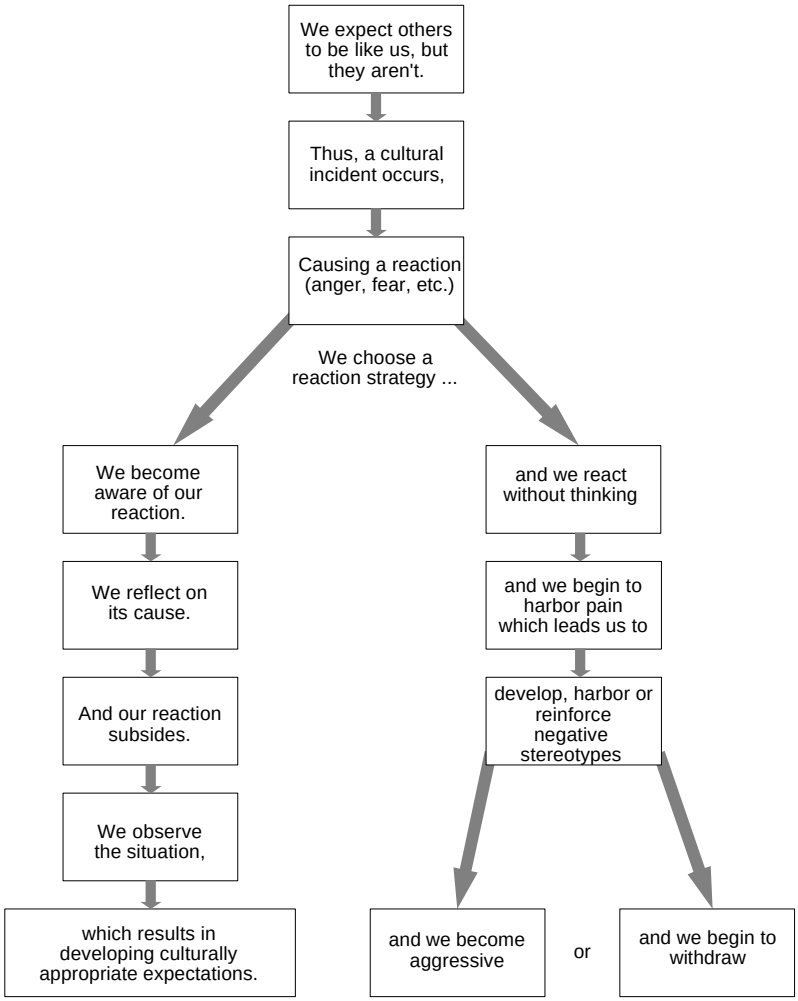
a. **Observe**: Simply look around at what is happening. For example, you see that people rarely look each other in the eyes, even when speaking directly to each other.

b. **Assume**: Make some assumptions about what you see. Why do they avoid this, when in my culture it is important to 'maintain good eye contact'? You decide to assume that this is impolite in your new culture (at this point, you may not know the reason why this is so).

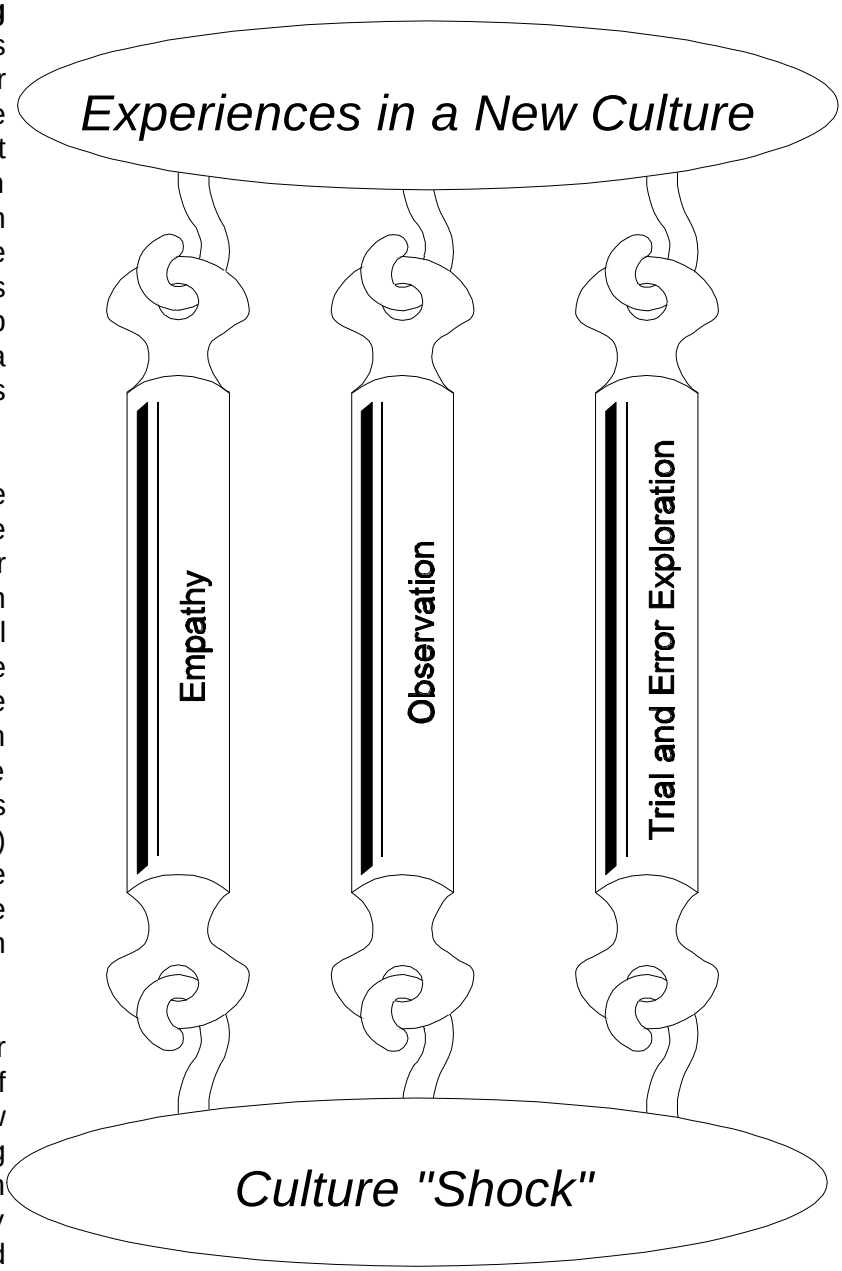
c. **Validate**: This can be done in more than one way. In this case, you may ask a trusted national for his/her opinion. Be careful to ask more than one person, since there may be different interpretations. In other cases, it may be good for you to "do as you see", and see if it improves the communication climate.

d. **Apply**: Based on what you validate, apply your new found cultural knowledge in the cultural setting (for example, begin to develop the practice of looking away from the eyes of the person you talk with).

2. **Conscientization** and the **cultural incident**: All too often, we don't have the time to simply "observe" what takes place around us--it is all happening too quickly. Instead, we are blindsided by something that we do not expect, which Storti calls the cultural incident:



3. Developing a **coping strategy**. Ted Ward notes that much of our adjustment in the intercultural setting is not accomplished through knowing more, but through developing an appropriate set of coping strategies which enable us to absorb the shocks of living in a new culture. He stresses three primary strategies:



   a. *Empathy*: How we relate to others is the foundation for compe-tency in cross-cultural encounters. Do we trust them? Can we accept help from them? Do we consider ourselves as superior (or inferior) to them? Are we willing to try to see the world through their eyes?

   b. *Observation:* After the initial shock of everything being new and being overwhelmed with different sensory data, do we respond by withdrawal or by maintaining an observer's attitude? Do we assume that things are the same everywhere and filter out significant clues in our contexts? How much attention do I give to details?

   c. *Trial and error exploration:* The willingness to explore actions based on our observations is a third shock absorber. Do we try out our hunches, or withdraw as passive participants? This must be tempered with the willingness to see our tests for what they are--tentative attempts to move in line with the things we have observed so as to fit into and understand the new culture more deeply.

Cross-Cultural Teaching

1. When we discuss teaching, what is it that we are trying to do? The core must include ***enabling growth:***

   a. Enabling the development of skills, whether mental or physical
   b. Enabling the development of values that will give a foundation for life
   c. Enabling the development of vision for using the skills and maintaining the values

   Obviously learning is not confined to the classroom--as a species we are built to learn. Therefore, when we discuss teaching styles, we mean far more than a bag of tricks, though our skills should include such a bag!

2. Components of the teaching/learning setting (see also Dunn and Frazier, "Teaching Styles"):

   N.B. Teaching **model** refers to a plan or pattern that we use to design actual teaching events. A model is typically built on an educational philosohpy (e.g., note Joyce and Weil's *families* of models, each family being attached to a philosophical approach).

   a. *Educational philosophy (or curriculum orientations).* Every teacher (and student) has an implicit philosophy towards the learning process. The major models seen in the US educational system include (adapted from Eisner, The Educational Imagination)

Model	Focus	Metaphor
Development of Cognitive Processes The curriculum provided and the teaching strategies used should foster the development of the student's cognitive processes. The major functions of the school are 1) to help children learn how to learn and 2) to provide them with the opportunities to use and strengthen the variety of intellectual faculties that they possess.	Teaching students to learn **how** to learn	The teacher is an exercise leader, stimulating students by exercising their mental muscles
Academic Rationalism The major function of the school is to foster intellectual growth of the student in those subject matters most worthy of study. Because the arts and sciences best exemplify and exercise the human's rational abilities, their study is what education is all about. The greatest ideas created by the greatest writers, exemplified by the greatest works humans have produced, are the proper objects of educational attention.	Teaching students the best knowledge: **What** to learn	The teacher is a sculptor, who shapes the thinking of the student
Personal Relevance Emphasizes the primacy of personal meaning and the school's responsibility to develop programs that make such a meaning possible. Curriculum should be developed in concert with students, not developed at the top and handed down--it should emerge out of a sympathetic interaction between teachers and students.	**Student's** choice	The teacher is a gardener who fosters (or facilitates) the best biological growth possible given the natural conditions of the garden

Model	Focus	Metaphor
Social Adaptation Schools are essentially institutions that are to serve the interests of society. In this case, society identifies the most significant needs and schools adapt by developing curriculum to meet those needs.	Needs of **society**	The school is the flexible greenhouse in which students are trained to meet the ever changing needs of society
Social Reconstruction Schools are essentially institutions that are to serve the interests of society. In this case, the school seeks to develop critical levels of consciousness among children and youth so that they become aware of the kinds of ills that the society has and become motivated to learn how to alleviate them.	Training **students** to understand and change **society**	The school is a medical school training societal "doctors"
Means-End Curriculum is essentially a technical undertaking, a question of relating means to ends once the ends have been formulated. Those ends are open ended (we cannot evaluate their propriety) and thus are not the major focus. Rather, attention is given to the *means* by which those ends will be produced--seen in the requirement of specific, measurable goals for every class session, course or subject, and program.	Right **plans** to meet anticipated **ends**	The school is a staircase, and the student moves up ever ascending ideas built on previous ones

b. *Instructional planning:* The diagnosis of the students and resulting prescription for enhancing learning.

c. *Teaching methods:* The instructor's behavior in the classroom, including the major methodologies. In the cross-cultural setting, this would involve understanding of indigenous learning and teaching techniques (Henry, "A Cross-Cultural Outline of Education" for an extensive listing).

i. Families of teaching models (Joyce and Weil):

(1) Social: building communities of learners who know how relate with people

(2) Information processing: building learners who know how to gather, assemble, synthesize, and convey ideas about our world;

(3) Personal: building learners who know themselves and who can use that knowledge responsibly to have a better personal quality of life;

(4) Behavioral: building learners who know how to behave appropriately and understand how to positively influence the behavior of others around them.

ii. Example: In a study of Kenyan (Akamba) classrooms, David Ness found the

following methods used in the teaching setting:

Seen In All Observed Classes		Seen in 3/4 of the Observed Classes	Seen in 1/2 of the Observed Classes
Questioning	Association	Mystification	Dramatization
Telling (commands)	Singing	Accusation/Challenge	Assumed negation
Assumed affirmation	Individual projects	Comparison/contrast	Play/recreation
Personalization	Music	Problem solving	Writing
Repetition	Lecture	Reading	Confidence building
Demonstration/Example	Reward	Physical manipulation	
Unison/Sychrony	Discussion	Punishment/Intimidation	
Imitation	Narrative (stories)	Experiment	
Group Project	Summarization		
Stress (hurrying)	Correction		
Exhibits/devices	Recogniion		
Threats/Fear			

d. *Teaching environment*

i. Student groupings: the way teachers assign or permit learning to occur through small groups, pairs, individuals, etc.

ii. Room design: The way the room is divided and decorated to match the students' needs.

iii. Learning environment: Includes the time schedules, the types of learning stations and centers, optional learning activities that are available.

e. *Evaluation techniques:* The evaluation of the learner's growth through testing, observation, interview, self-evaluation, etc.

f. *Teaching characteristics and classroom management*

i. Teaching characteristics: the values and standards a teacher holds and the approaches used to transmit those values and standards. This includes such things as the degree of flexibility, the importance of what is learned, the amount of direction given by the teacher, etc.

ii. Classroom management encompases the provisions and procedures necessary to establish and maintain an environment in which learning can occur

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