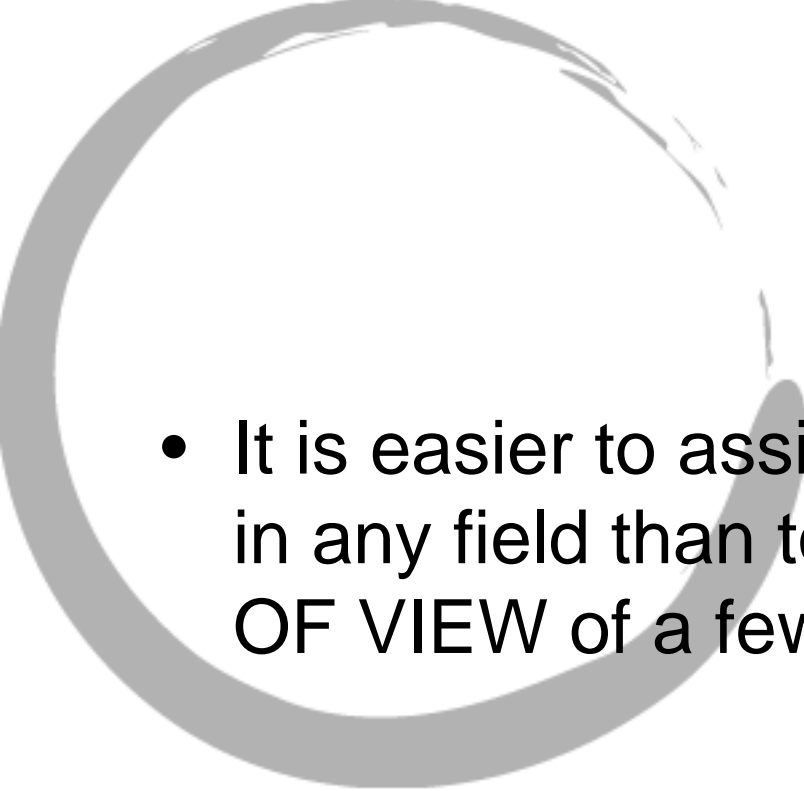# Sociocultural Theory & Language Teaching:
The Pedagogical Imperative

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Outline

- Setting the Stage: Theory-Research-Practice Interface
- Overview of Sociocultural Theory of Mind
  - Types of Mediation
    - Concept-based
    - Social Interaction--Zone of Proximal Development
- Scientific Concepts
  - Systemic-Theoretical Instruction (Concept-Based-Instruction) in the L2 Classroom
- Run Out of Time
- The ZPD and Dynamic Assessment
  - Traditional Assessment vs. Dynamic Assessment
  - Dynamic vs. Formative Assessment
- Video Illustration of Dynamic Assessment in Action

- It is easier to assimilate a thousand new facts in any field than to assimilate a NEW POINT OF VIEW of a few already known facts.

  - L. S. Vygotsky. "The problem of the development of the higher psychological functions."

Theory, Research & Practice

- The fundamental psycholinguistic process of second language acquisition is the same whether learners enter classrooms or acquire language outside of them. (Gass 1989),

- "Like most SLA researchers, however, Ellis is cautious about making direction connections between theory, research, and teaching practice…"

- "The interaction approach, like most other accounts of second language acquisition, is primarily focused on how languages are learned. Thus, direct application to the classroom may be premature"

  - Gass & Mackey (2007)

Theory, Research & Practice

- "Several theorists have claimed that interlanguage development in instructed (classroom) learners does not differ significantly from that in learners acquiring an SL naturalistically. The processes and/or sequences in SL development are held to be the same in both acquisitional contexts. Accordingly, some writers on language teaching have advocated provision of 'natural' language learning experiences for classroom learners, and the elimination of structural grading, a focus on form and error correction, even for adults."

  - Larsen-Freeman & Long (1991)

Theory, Research & Practice

- Assumption: explicit instruction can be effective if it is in synchrony with development. If it is not, "it can be confusing; it can be easily forgotten; it can be dissociated from usage, lacking in transfer-appropriateness and thus never brought to bear so as to tune attention to the relevant input features during usage; it can be unmotivating; it can fail in so many ways. Ineffective instruction is all too easy; the challenge is the reverse." (N. Ellis 2007)

Sociocultural Theory of Mind & Mental Development

- Influence of Experience on Organisms
  - 1. Experience of ancestors passed on thru genes
  - 2. Direct experience of the organism in its environment

  _____

  - 3. Experience of ancestors passed on thru culture
  - 4. Direct experience of the organism in its social environment

Sociocultural Theory of Mind & Mental Development

- How do we receive experiences 3 & 4 ?
  - Cultural inheritance deposited in artifacts--products of human labor activity, including physical and symbolic
  - Participating in social relations with others in our ontogenetic world

- What are the implications of the four types of inheritance ?
  - Our relationship to the world is both direct and indirect or MEDIATED
    - We have a biological and a cultural way of dealing with the world and our place in it.
    - Our biological inheritance pushes us to adapt to changes in the environment
    - Our cultural inheritance pushes us to adapt the environment to meet our needs

Sociocultural Theory of Mind & Mental Development

- Types of Artifacts:
  - Physical--shovels, hammers, hoes, bulldozer, lathe, drill, saw, pliers, ….
  - Symbolic--language, numeration, algebraic symbols, works of art, writing, schemes, diagrams, maps, blueprints, conventional signs, etc.
- Effects of Inclusion of Artifacts in Behavioral Processes:
  - Introduces new functions
  - Abolishes and makes unnecessary a number of natural processes
  - Modifies the course and various aspects of the processes

  - Artifacts understood as "doings-thru" and not as physical things in themselves

Sociocultural Theory of Mind & Mental Development

- Distinction between Psychological & Technical tool:
  - TT inserted between physical activity of person and external object with intent of changing the object itself.

  - PT inserted between mental activity of person and object but it changes nothing in the object, unless the object is a person. It is a means of influencing the mind/behavior of others and one's own mind/behavior
    - It can only influence the external object indirectly through implementation of a plan of action developed initially through mental activity. Hence, there is a relationship between physical activity and mental mental activity.

Sociocultural Theory of Mind & Mental Development

- Natural Acts of Behavior: reflexes, attention, perception, memory as separate functions

- Artificial or Instrumental Acts of Behavior: voluntary attention and categorical perception, voluntary memory, planning unified into a functional system referred to as Consciousness

Sociocultural Theory of Mind & Mental Development

- "Marx has said that it was enough for philosophers to have interpreted the world, now it's time to change it. Such a time comes in every science… Now, however, when psychology has begun to study behavior, it is natural to wonder how to alter behavior. Educational psychology is also a science of the laws of variation of human behavior and of the means of mastering these laws."
  - Vygotsky. *Educational Psychology* (1997)

Sociocultural Theory of Mind & Mental Development

- "Education may be defined as the artificial development of the child. Education is the artificial mastery of natural processes of development. Education not only influences certain processes of development, but restructures all functions of behavior in a most essential manner."

  - Vygotsky (1997). *The instrumental method in psychology. Vol. 3 of the Collected Works.*

Sociocultural Theory and Practice

- Previously theory was not dependent on practice; instead "practice was the conclusion, the application, an excursion beyond the boundaries of science, an operation which lay outside science and came after science, which began after the scientific concept operation was considered completed. Success or failure had practically no effect on the fate of the theory."

- "Now the situation is the opposite. Practice pervades the deepest foundations of the scientific operation and reforms it from beginning to end. Practice sets the tasks and serves as the supreme judge of theory, as its truth criterion. It dictates how to construct the concepts and how to formulate the laws." The highest test of a theory is practice

  Vygotsky (1997)

SCT and the Mediated Mind

- Key Concepts:
  - Everyday and Scientific Concepts

  - Zone of Proximal Development

Two Types of Mediation

- Meta-cognitive
  - An executive function through private & inner speech
    - Conversation between "I" and "You" becomes a conversation between "I" and "Me". "I" decides what to attend to and a "Me" critiques and evaluates "I's" decisions (Vocate 1994)

- Cognitive
  - Mediation organized according to cultural concepts
    - Dependent on quality of content

      - (Karpov 2003)

Everyday Concepts

Features:

Loosely organized meanings resulting from activity of daily life.

- Empirical: based on immediately observable properties of object; require extensive practical experience to develop.

- Often functional but erroneous [e.g., whales are fish] or incomplete [e.g., flowers grow because it rains; people become ill because they eat bad-smelling meat (Ratner 2006: 160)]

  - *Because* can be replaced by *when* without change in meaning. "Flowers grow when it rains" (Ratner 2006: 107)

Subtypes of Everyday Concepts

- Spontaneous: non-conscious knowledge that is often difficult for people to verbalize in a systematic way without explicit instruction [e.g., a young child's concept of 'uncle'; verbal aspect
  - Not part of a higher systematic system:
    - Kinship; Temporal organization of Events

- Non-spontaneous: easily accessible to consciousness -- flowers grow because it rains; car-driving knowledge, stone-masonry knowledge, cake-baking knowledge
  - Rules-of-thumb: use preterit when a sentence contains the adverb 'yesterday' or 'last week'.

Scientific Concepts

- "Essential characteristics of objects or events of a certain class and presenting these characteristics in the form of symbolic and graphic models" (Karpov 2003: 71).

- "Generalizations of the experience of humankind that is fixed in science, understood in the broadest sense of the term to include both natural and social science as well as the humanities" (ibid.)

Everyday vs. Scientific Concepts

Circle

Everyday

property of objects that share common feature of roundness [wheels, bracelets, pancakes]

Scientific

figure resulting from movement of a line with one free and one fixed end

Why do clothes dry ?

because the sun shines

clothes absorb light, which increases kinetic energy of water molecules to point that they overcome adhesive forces binding them to clothes

Everyday & Scientific Concepts

- Strength of the Everyday Concepts:
  - spontaneous usage
  - application to various concrete situations
  - richness of empirical content
  - saturated with personal experience
- Weakness of Everyday Concepts
  - tied to concrete situations
  - rich in empirical content
  - not sufficiently abstract to be flexible
  - spontaneous concept not directly accessible to consciousness
    - Vygotsky (1987: 218)

Everyday & Scientific Concepts

Strength of Scientific Concepts:

    Conscious awareness allows for intentional and volitional use

    Greater flexibility and control to the individual

Weakness of Scientific Concept

    Lacking in richness of personal experience

    Slow and arduous process of proceduralization--make automatic -- Must be linked to practical goal-directed concrete activity if they are to promote genuine development to avoid VERBALISM

    [NB: this does not mean it becomes implicit and inaccessible to conscious inspection and control]

Everyday Concepts ⟷ Scientific Concepts

- Everyday Concepts provide the foundation for development of Scientific Concepts & Scientific Concepts bring Everyday Concepts to awareness and systematic control of person

- ECs grow upward toward abstraction and generalization and therefore become recontextualizable [liberate the person from concrete, empirical circumstance] and SCs grow downward and become realizable in concrete practical circumstances

Language & Concept Development

- In the case of language learning:
  - The NL is analogous to Spontaneous Concepts
  - The FL is analogous to Scientific Concepts
  - "A foreign word is not related to its object immediately, but through the meanings already established in the native language."
  - The NL plays a mediative role-- it "serves as an already established system of meanings"

    - Vygotsky (1987)

The Argument

- Scientific Knowledge of L2 is essential to Development

- Scientific Knowledge of FL grounded in sound linguistic research & should be presented to learners as a coherent concept from the outset of language instruction.

- This is not an argument against communicative language teaching, but an argument for the dialectical unity of communicative performance & explicit instruction.

Receptivity vs. Passivity

- Active Construction

Passive Reception

Active Reception
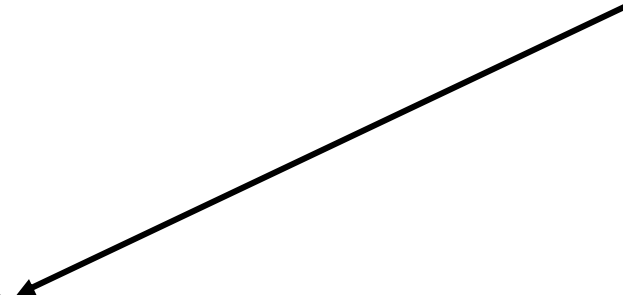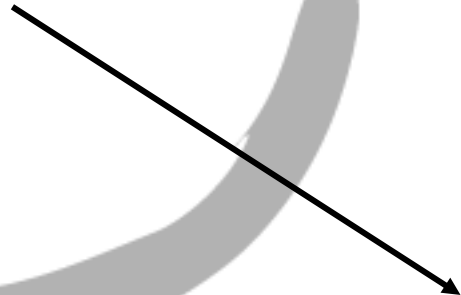
Comparing SLA and SCT

- SLA grounded in the ontology of the autonomous individual
    - Development occurs inside of the head
    - Cognitive Perspective
    - Social provides support for development
- SCT grounded in the ontology of the social individual
    - Development occurs at the nexus of the person and the other
    - Also cognitive but cognition is not exclusively in the head
    - Social is the source of (cultural) development

Key Questions Comparing SLA & SCT

- General Problem: translating one theoretical language into another ?

- Is spontaneous knowledge the same thing as implicit knowledge ?

- Is explicit knowledge the same thing as scientific concept ?

- Can scientific/explicit knowledge become spontaneous/implicit knowledge ?

- Is automatization/proceduralization of scientific knowledge the same thing as implicit knowledge ?

Relevance of Form-Focused Instruction for SLA

- **Incidental** focus on form (interaction hypothesis – negotiation for meaning with focus on form when needed – RECAST)

- **Explicit** and **Extensive** focus on form in order to achieve high levels of proficiency within a communicative syllabus (DeKeyser).

- **FormS** focused instruction. Traditional grammar-based syllabus with exercises and other practice activities.

Form-Focused Instruction & SLA

- R. Ellis (2006) argues that instruction should be based on descriptive functional grammars that map form-meaning relationships

- But– he isn't specific on how this information is to be optimally presented to learners – "pedagogically exploitable description."

Quality of Explicit Instruction

- Ellis (2006) suggests that learners are able to master "a wide range of explicit grammar rules"
  - Yet some of the studies cited show that learner knowledge is not very precise and often reflects rule-of-thumb knowledge (e.g, Macrory and Stone 2000 on French perfective)
- DeKeyser (1998) raised doubts about the quality of explicit instruction utilized in studies showing little or no effect of form-focused instruction on SLA, particularly with regard to research on developmental sequences.

Rule-of-Thumb Grammar

- Explicit instruction through reductive and generally incoherent lists of dos and don'ts
  - Give learners the impression that language is about using right forms and avoiding wrong forms.
  - Rather than of language as a cultural artifact to construct the meanings they need for communicative and cognitive activity
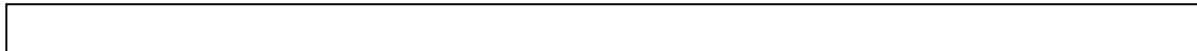
Example of Rule-of-Thumb

- Spanish Aspect (Preterit vs. Imperfect)
  - Preterit: "reports, records, narrates, and in the case of certain verbs (e.g., *saber*, *querer*, *poder*) causes a change of meaning
  - Imperfect: "tells what was happening, recalls what used to happen describes a physical or mental emotion, tells time in the past, describes the background and sets the stage upon which another action occurred"
    - (Whitely 1986)

Galperin: Systemic-Theoretical Instruction

- **Explanation**
  - Presentation of Scientific Concept
- **Materialization**
  - Concretize as SCOBA [Schema for Orienting Basis of Action]
- **Communication**
  - Goal-directed oral and written performance
    - Strategic Interaction [Di Pietro 1987]
- **Verbalization** [social and private]
  - Of Concept using SCOBA
  - Use SCOBA to explain performance
- **Internalization/Automatization/Proceduralization**

SCOBA for Spanish Aspect—Bull & Bolinger

Yes

Is the verb cyclic?

Yes

Empha-size beginning of action

No

Empha-size action as on-going

No

No

Present action as completed ?

Empha-size end of action?

Yes

Use preterit

Yes

Use preterito

No

Yes

Use imper-fecto

Empha-size action as ongoing

Yes
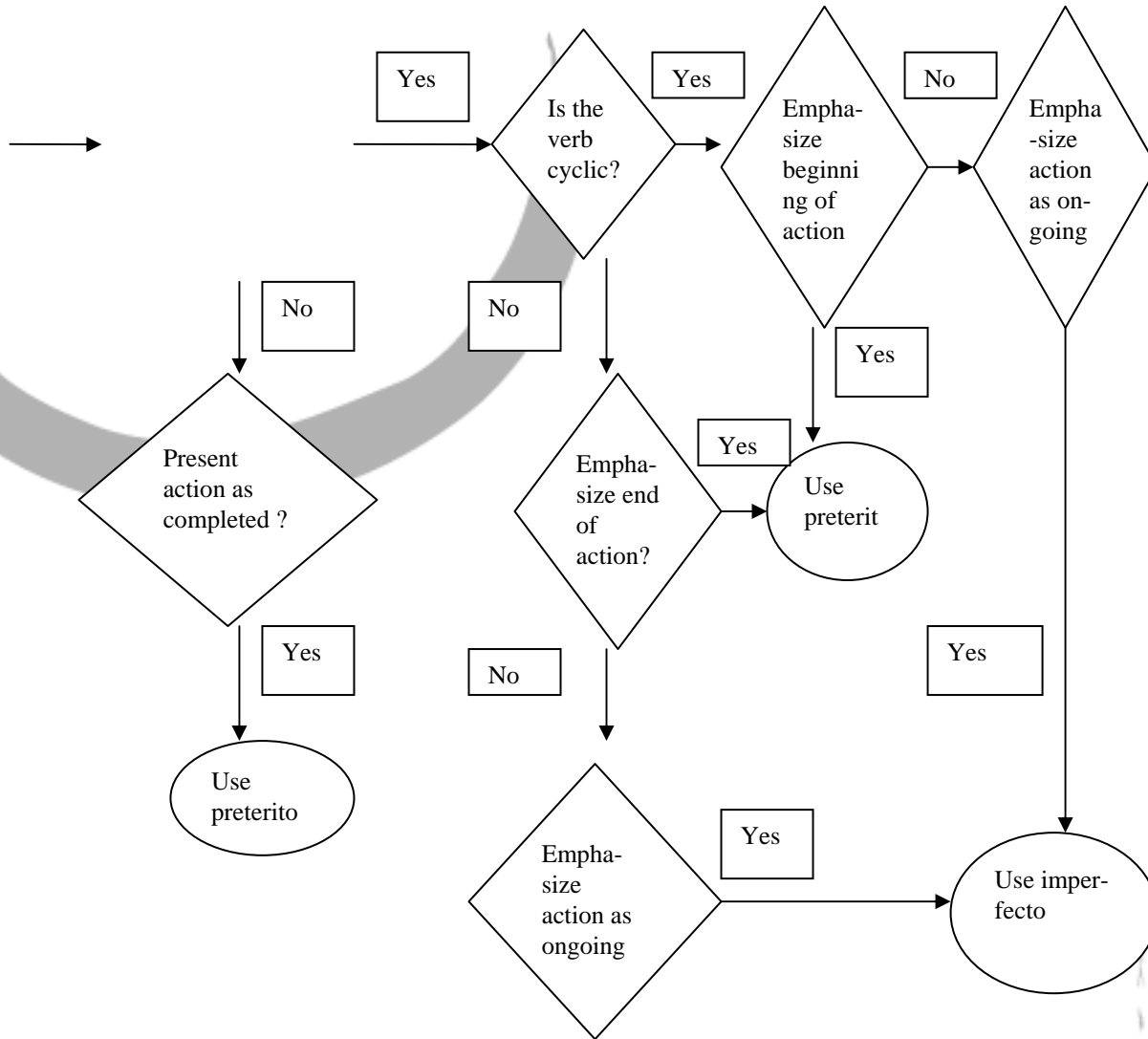
Effects of Verbalization

- Time 2: Although sometimes recording myself speak was a bit awkward, I think it was overall extremely helpful. It made me more comfortable speaking and improvising, and it forced me to truly think about the grammar.

- Time 2: the activities that have helped me the most are the verbalization ones with the cassette tape player. I feel as thought with verbalization exercises I not only improved my speaking, but also learned a lot of information about the indicative and subjunctive.

  - Negueruela (2003)

Concrete Materialization

- Serrano-Lopez, M & M. E. Poehner. Materializing linguistic concepts through 3-D clay modeling: A tool-and-result approach to mediating L2 Spanish development

- Object of Study
  - Spanish locative constructions
    - *Sobre, de, en, a*
- Tool-and-result
  - Self-made clay models
- 240 intermediate university learners of Spanish L2

Serrano-Lopez & Poehner

- 1. Concept-based explanation (N=80)
- 2. Concept-based explanation + clay modeling (N=80)
- 3. No explanation other than what they may have had in previous courses. They were drawn from a reading and culture course taught in Spanish (N=80)
- [NB:all participants were from same level advanced UG courses]

"Talk to your clay"

- Students create clay models to depict their self-generated sentences illustrating locative constructions
- Explain these to teacher using conceptual knowledge

Spanish Prepositions: Movement

- **IN/ON---> DE**
  - specific object is in a specific place and there is no question of the speaker moving it DE is used
  - *Me gusta la planta de la esquina.* I like the plant in the corner
- **IN/ON-->EN**
  - specific object in a specific place and there is the possibility of (re) placement on the part of the speaker EN is used
  - *Me gusta la planta en la esquina.* I prefer the plant in the corner

- **IN/ THROUGH/INTO-->A**
  - when place where object is located requires movement to reach location A is used
  - *Juan se lanzó a la piscina.* John dove into the pool

Clay Examples
Juan se lanzó *a* la piscina
John dove into the swimming pool
[enter volume, region or substance]

El árbol *del* jardín no tiene hojas
The tree in the garden does not have leaves
"

It may not mean much to you, but it is very clear to me"

Results

	[-Instr x +Instr]	[+Instr x clay]	[-Instr x clay]
Post Test	NO	NO	CLAY
Follow Up (2 weeks)	NO	CLAY	CLAY

Research on STI/CBI & L2 Learning

- Lantolf, J. P. (2007). Conceptual knowledge and instructed second language learning: A sociocultural perspective. In. S. Fotos & H. Nassaji (eds.). *Form Focused Instruction and Teacher Education: Studies in Honour of Rod Ellis* (pp. 35-54). Oxford: Oxford University Press.

- Negueruela, E. & J. P. Lantolf. (2006). A concept-based approach to teaching Spanish grammar. In R. Salaberry & B. Lafford (eds.), *Spanish Second Language Acquisition: State of the Art* (pp. 79-102). Washington, D.C.: Georgetown University Press.

- Lantolf & Poehner (eds). (2008). *Sociocultural theory and second language teaching.* London: Equinox:

- Negueruela, E. Revolutionary pedagogies: Learning that leads (to) second language development.

- Lapkin, S., M. Swain, & I. Knouzi. French as a second language: University students learn the grammatical concept of voice.

- Thorne, S., J. Reinhardt, & P. Golombek. Mediation as objectification in the development of professional academic discourse: A corpus-informed curricular innovation.

- Ferreira, M & J. P. Lantolf. A Concept-based approach to teaching writing through genre.

Research on L2 CBI

- I. Early small-scale studies in Europe: Carpay 1974, Kabanova 1984 [NB:Large-scale L1 Russian study by Karpova 1977]
- II. Longitudinal Studies
  - Negueruela 2003: 16-week university intermediate Spanish course [focus--tense/aspect, subjunctive/indicative, articles]
  - Ferreira 2005: 16-week university ESL genre-based writing course [focus--announcements, invitations, obituaries, expository text]
  - Thorne, et al 2008: on-going ITA course [focus deontic modality in ITA-US student office-hour consultations]
  - Yanez-Prieto, in progress: 16-week early-advanced university Spanish course [focus metaphor, figurative language, tense/aspect, subjunctive]

CBI L2 Research

- III. Short-term experimental studies
  - Serrano-Lopez & Poehner 2008 [NB: part of a larger study on Spanish locatives conducted by Serrano-Lopez 2005]
  - Lapkin, Swain & Knouzi 2008: intermediate university learners of French [focus: passive & middle voice]
- IV. Findings of studies: generally positive results both in terms of improved performance and deeper knowledge of L2
  - Major NB: longitudinal studies encounter resistance from learners because of their histories as empirical-based learners
    - "Tell us what to write and we'll write it"
    - "This isn't language, it's literature"

Future Research

- 1.Integrate SCT Pedagogy & Cognitive Linguistics & [Integrational Linguistics ?]
- 2.Use Service Learning experience as more effective way of proceduralizing conceptual knowledge of L2
- 3. Incorporate conceptual knowledge of metaphorical features of L2 [See Yanez-Prieto "Teaching Spanish Literature through the Spanish Language", in progress]
- 4. Use of Gesture to materialize concept
  - [See Goldin-Meadow, S. & M. Singer. 2003. From children's hands to adults' ears: Gestures' role in teaching and learning. *Developmental Psychology* 39: 509-520.
  - Lantolf, J. P. forthcoming. Minding your hands: The function of gesture in L2 Learning. In, R. Bateson (ed.), *Sociocognitive aspects of second language learning and teaching*.