

Handout (Revised) for  
Teaching Thinking: The Core Competency of Critical Listening  
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Workshop conducted at the  
Annual INTERNATIONAL LISTENING ASSOCIATION CONVENTION  
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Milwaukee, WI USA  
The workshop introduced the Bridge Models of Reasoning  
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“It is obvious, then, that interesting speech and interesting writing, as well as clear thinking and consequent psychological adjustment, require the constant interplay of higher and lower level abstractions,”

S. I. Hayakawa

This interactive workshop covers original materials for helping your students better to understand *abstraction* and *reasoning*. The first set of materials develops abstraction ladders at the idea level as opposed to the usual concept (word) level. IT IS ESSENTIAL TO UNDERSTAND HOW AN IDEA CAN ENCOMPASS OTHER IDEAS TO UNDERSTAND CRITICAL THINKING. Abstraction is central to both discourse and thought; thus, it provides a link between discourse and thought. When your students understand abstraction, they are ready to recognize cognitive movement from general to specific, i. e. deduction.

The second set of materials covers deduction using the Bridge Model of Reasoning that refocuses Toulmin’s Model of argumentation. With an understanding of deduction, students are better equipped to assess discourse and identify fallacies in the context of critical listening.

ABSTRACTION at the IDEA LEVEL

Deduction is the process of moving, cognitively, from general to specific. To help students properly understand and use deduction, it is necessary to help them understand the movement from general to specific, i.e. the movement from abstract to specific. The best source for a treatment of abstraction is Hayakawa, S. I. (1949). *Language in Thought and Action*. NY: Harcourt, Brace and Company. Hayakawa’s presentation underpins the first set of examples below.

The first examples are designed to help your students to group statements according to their degree of inclusion. Since students sometimes have difficulty with evaluative statements, the examples are structured to help them see that adjectives usually reduce inclusiveness. The following example may be used to illustrate the ordering of ideas including evaluative ones:

1. Joe gardens.
2. Joe grows flowers.
3. Joe grows roses.
4. Joe grows beautiful roses.
5. Joe grows the most beautiful roses.

These statements are grouped from most general to most specific with the last two containing evaluations.

#### FIRST SET OF MATERIALS

##### Example 1

Consider the following statements:

- a. Pete is the top student in his Spanish class.
- b. Many students take a language course.
- c. Some students are good with languages..
- d. Pete is in a language class.
- e. Pete is in a Spanish class.

Q: Which two statements stand out as being more abstract than the others?

A: Items b. and c.

Q: Between b. and c., which would apply to more students?

A: Item b.

Q: Among the three statements about Pete, which is the most general?

A: Item d.

Q: Between item a. and e., which would be true of more people named Pete?

A: Item e.

Q: Which, then, is the most specific item?

A: Item a.

##### Example 2

Consider the following statements

- a. Our weather is usually nice.
- b. We have our best weather in the fall.
- c. Our best weather is in September.
- d. September of last year was especially pleasant.
- e. We sometimes get snow in January and February.

Q: Which statement is more abstract than the others?

A: Items a.

Q: Between c. and d., which is more specific?

A: Item d.

Q: Between c. and e., which is the most general?

A: Item e

Q: Which, then, is the most specific item?

A: Item d.

NOTE: You might change c. to "I like our weather in September best," and see if that prompts your students to answer the questions differently.

## IDENTIFYING IDEAS IN REASONING

The second block provides material for teaching the Bridge Model of Reasoning and helping your students to use it in examples.

The simplest reason contains three major parts. Of course, when spoken, all three parts may not be presented. Thus, it is most important that your students understand the basic process and the SIMPLE MODEL to better identify what isn't being said. In the Bridge Model, the three part parts are called BRIDGE, PREMISE and CONCLUSION. The three parts can be distinguished based on their relative abstraction and the degree to which they are accepted as being true (as shown in the following tables). The BRIDGE is more abstract than the other two since it spans the other two. The BRIDGE and the PREMISE are, at least for the sake of consideration, accepted as true. The CONCLUSION is more in doubt than the other two main parts. However, since the BRIDGE is accepted and links the accepted PREMISE to the CONCLUSION, there is reason to also accept the CONCLUSION.

### Differentiation of 3 Major Parts of Reasoning

|            |                           |
|------------|---------------------------|
| Bridge     | General and accepted      |
| Premise    | Specific and accepted     |
| Conclusion | Specific and not accepted |

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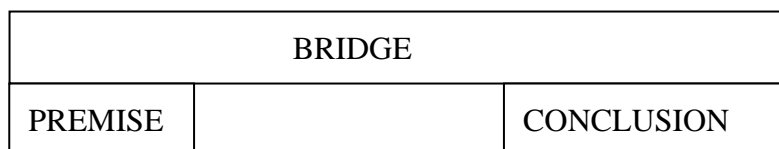
### Table Showing Major Parts in Relationship to Abstraction and Acceptance

|            | Abstract | Specific   |
|------------|----------|------------|
| Accepted   | Bridge   | Premise    |
| Unaccepted |          | Conclusion |

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The following then is the BASIC BRIDGE MODEL with its three essential parts

### Basic Bridge Model of Reasoning with Essential Parts



Examples like the following can help your students work with the model.

Example 3

- a. Dogs like to be petted,
- b. Red is a dog..
- c. Red will like to be petted.

Q: Which of these three statements is the BRIDGE (remember it is the most abstract)? A: a .

Q: Which is the premise? A: b.

Example 4

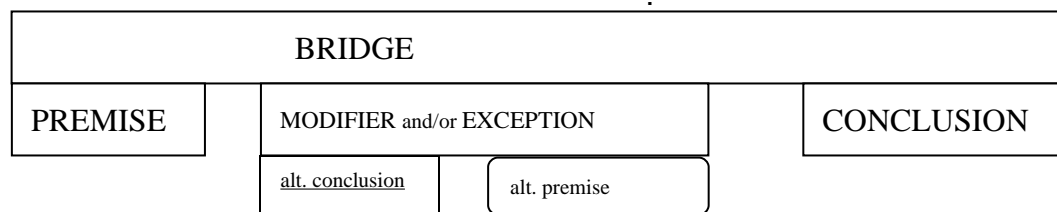
- a. Jim wants something sweet.
- b. When Jim wants something sweet, he buys a candy bar.
- c. Jim is going to buy a candy bar.

Q: Which of these three statements is the BRIDGE? A: b .

Q: Which item is the CONCLUSION? A: c

Since there is usually a degree of uncertainty in reasoning, two additional parts are needed for the BASIC BRIDGE MODEL. A MODIFIER is a word or phrase that indicates a restriction on the probability of an idea. So we could say, "Most dogs like to be petted." The word "most" serves as a modifier. An EXCEPTION is statement/phrase which actually indicates conditions where the reasoning would not apply. So, a phrase, such as "unless he is in too big a hurry," when added to the b (or c) in Example 4 would be an EXCEPTION. Both of these minor parts could lead to alternative conclusions given the correct alternative premise. The next model reflects the addition of these two parts.

### Basic Bridge Model of Reasoning



As your students master the Basic Model, you can expand on it toward reasoning that is more typical by providing connected examples such as the following:

Example 5

- a. Fred wants something from me.
- b. Here comes Fred acting all friendly.
- c. Whenever Fred acts all friendly toward me, he wants something.

Of course, your students should recognize C as the BRIDGE, B as the PREMISE and A as the CONCLUSION in this example.

**Example 6**

- a. To get class notes directly, one has to attend class.
- b. Fred hasn't been attending our psychology class.
- c. Fred doesn't have class notes for our psychology class.

Here A becomes a BRIDGE, with B being a PREMISE and C standing for CONCLUSION.

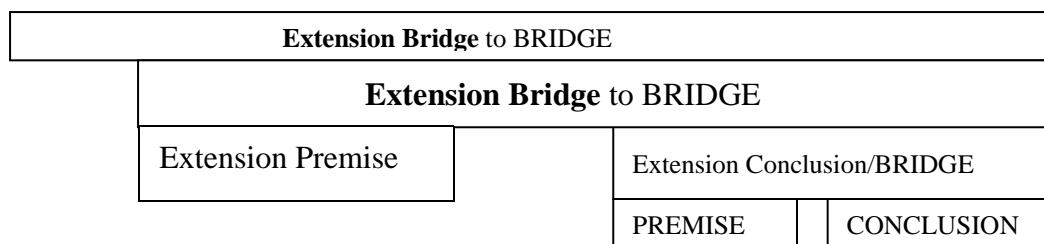
**Example 7**

- a. Fred wants something (that he does not have) from me.
- b. Fred doesn't have class notes for our psychology class.
- c. Fred wants to copy my notes.

Here A becomes a BRIDGE, with B being a PREMISE and C standing for CONCLUSION.

Examples 5, 6 and 7 reflect an extended argument that approximates ones found in our usual thought process. Indeed, most people in that situation, knowing Fred and his absence from class, would have already anticipated Fred's approach with a thought in the nature of, "Soon, Fred is going to come wanting to borrow my psy notes." However, your students will benefit by understanding the idea formation involved. In this set, we consider Example 7 as the primary BRIDGE because it contains the final conclusion. Examples 5 and 6 constitute EXTENDED BRIDGES. Example 5 provides extension to the primary BRIDGE because its CLAIM is the same as the primary BRIDGE. Similarly, Example 6 gives an extension to the primary PREMISE. The final model of this handout depicts these extensions. In our cognitive system, the structure of these extensions is extensive.

**The Extended Bridge Model of Reason**



Bios of Presenter:

W. Clifton Adams taught speech communication for 35 years, mostly as Professor at the University of Central Missouri. He ended his teaching career with the University of Maryland in Asia after a one-year position at the Foreign Affairs College in Beijing. He has written SUNSPOTS as well as over 30 articles and a score of convention presentations.