Paper

Gentner, Dedre, and Arthur B. Markman. "Structure mapping in analogy and similarity." *American Psychologist* 52 (1997): 45-56.

Assignment

On a total of one side of one sheet of paper, using 10 pt type or larger, with standard interline spacing and margins, respond to all the following.

Part A

Some advisory committees write reports that consist of an executive summary accompanied by something like 30 slides, which are supplemented by explanatory legends that supply useful detail beyond what is captured in the slides. If the slides are prepared according to 6.xxx maxims, the legends are essential, because the slides will be too telegraphic to be understood on their own. The legends range in length from a sentence to a page, tending to peak at a half page. This page, taken from a report of the Naval Research Advisory Committee (the Navy Science Board), illustrates.

This format is the one to be used for the project report for those of you doing projects.

In this exercise, you are to try your hand at an abbreviated version of this format. In particular, you are not to provide an executive summary, nor are you to provide more than a half dozen slides, and your legends should be closer to a sentence than a page. Thus, you are to provide a slide show similar to the kind you prepared in previous exercises, except that the supplementary legends are meant to be read by a report reader, not spoken by you in oral delivery.

Include in your slides, or legends, or both, a demonstration that you have read and understood the paper by providing answers to the following questions:

- What is the difference between similarity and analogy?
- Are similarity judgments symmetric?
- Given a situation for which you desire a precedent, is your mind more likely to retrieve a precedent based on object descriptions or interobject relations?

6.803/6.833 The Human Intelligence Enterprise
Prof. Patrick H. Winston

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Part B

With a big red pencil, or equivalent, identify salient, slogan, symbol, and surprise (if any), in your slides or legends.

Other Things to Think About

Think about the following, but you need not write up your answers:

- How could Ullman's intermediate-features idea be put to use in analogy?
- How could the self-organizing maps idea be put to use in precedent recall?
- How could the self-organizing maps idea be put to use to build a surprize detector?
- Why is learning about how Macbeth is like Hamlet unhelpful when learning about how electrical circuits are like water pipes?
- How do we know what someone means when they say that someone is like a fox?