

A LINE ON LIFE

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Novice vs. Expert *

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Compared to novices, do experts know more facts? An additional difference may involve **metacognition** — related to how you think, choose methods to solve problems and are aware of information that you have or don't have. Being a good student involves knowing what you know and what you don't know.

Experiments were done to show how insensitive young children are to their own lack of comprehension. Children in grades one through three were asked to help the experimenter to make up new card games to be taught to other children their own age. Instructions for the games were incomplete. Psychologists were interested in how soon the child would ask for more information.

The child and the experimenter were each given four cards. The child had the following instructions:

We each put our cards in a pile. We both turn over the top card in our pile. We look at our cards to see who has the special card. Then we turn over the next card to see who has the special card this time. In the end, the person with the most special cards wins the game.

Before the child could play, he or she had to know how to define a "special card." The younger children were not aware they didn't know how to play the game until prompted by the experimenter. Complex reasoning is needed to be aware of what you know and what you do not know. Children know less than adults do. In addition, their knowledge is filled with inconsistencies of which they are not aware.

Good problem solvers know what facts they have on hand and what they can deduce from them. For example, what if you were asked, "What kind of car did Joan of Arc drive?" The answer involves a series of inferences based on other knowledge you already have. If you knew when Joan of Arc lived (1412-1431) and that the automobile was not invented until several centuries later, you could answer, "None." If you weren't aware of these facts — and were not aware of your ignorance — you would probably guess various makes of cars.

**The more you know,
the more you know how little you know.**

Adolescents are likely to have problems in assessing their own knowledge. Even though they may be physically mature, their view of the world is still like that of a novice. Adolescents are more likely to view the world in terms of **dichotomies** — mutually exclusive "*either-or*" categories. They tend to view life as being either "*black*" or "*white*" — but they may not be aware of the many "*gray*" areas. If parents don't agree with what teenagers want, the teens are likely to view their parents as being completely against them. As adolescents reach their twenties and develop better metacognition, they are surprised to discover "*how smart their parents have become in so few years.*"

With good metacognition, you can become aware of your ignorance. Experts tend to be aware when they don't know. Then they ask questions. Many adolescents (and adults) may be aware that they don't know, but they hesitate to ask questions for fear of appearing stupid. Lacking knowledge is ignorance, but not filling in knowledge gaps when you are aware of them is stupid. Don't be a novice all your life — ask questions when you don't know or are unsure!

* Adapted from Smith, Sarason and Sarason's *Psychology: The Frontiers of Behavior*, Harper & Row, 1986, page 252.