

theories are tested empirically, empirical observations are studied to see if a theoretical model can be created that explains the observations and, thus, can be used to make more changes that have greater impact.

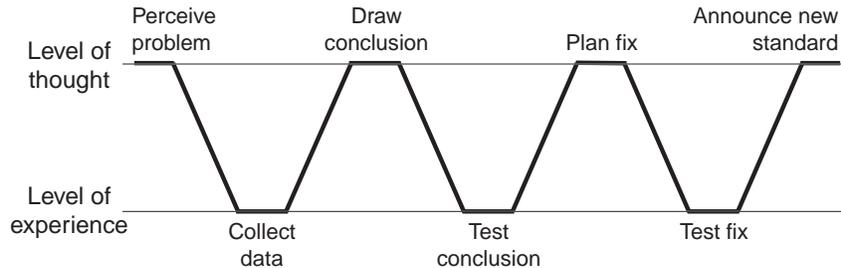


Figure 7-2. The scientific approach to problem solving. Alternating between thought and experience.

Such alternation between the level of thought and the level of experience is implicit in the Five-Step Discovery Process we show in Figure 7-3.

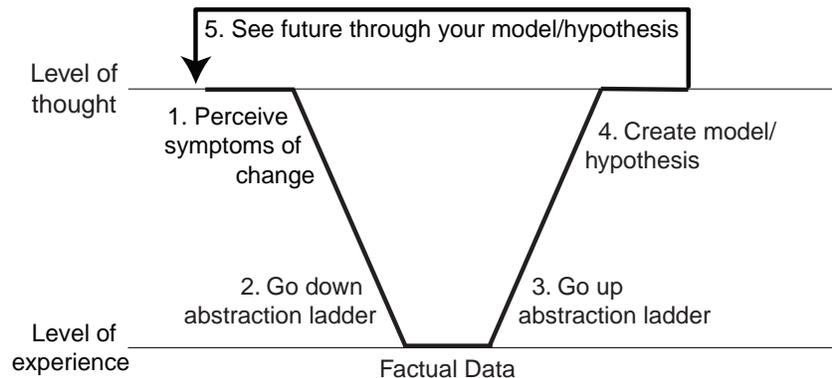


Figure 7-3. The Five-Step Discovery Process.

7.2 Image data versus language data

In the Five-Step Discovery Process, we see the use of two types of data: As shown in Figure 7-4, image data at the level of thought (near step 1 in

Other possible negative effects may include changing social lives, bankruptcy among older businesses, and an increasing divorce rate. By 2006, in fact, we see many of these hypothetical negative trends becoming reality.



Figure 7-16. Model of change in Shanghai.

Reflections on the Five-Step Discovery Process

The Discovery Process we have described lets us bring many capabilities to bear on understanding a situation and coming up with a concept for the future:

- We use our brains in two ways — logically and intuitively, as shown in Figure 7-17.
- We make use of two kinds of data — image data based on intuition and language data based on logic, as shown in Figures 7-4 and 7-10.
- We use two kinds of processes — a disciplined five-step process for keeping the results plausible and to enable learning and improvement in the use of the process, and a creative process to permit unlearning and new learning to create new results and avoid logical

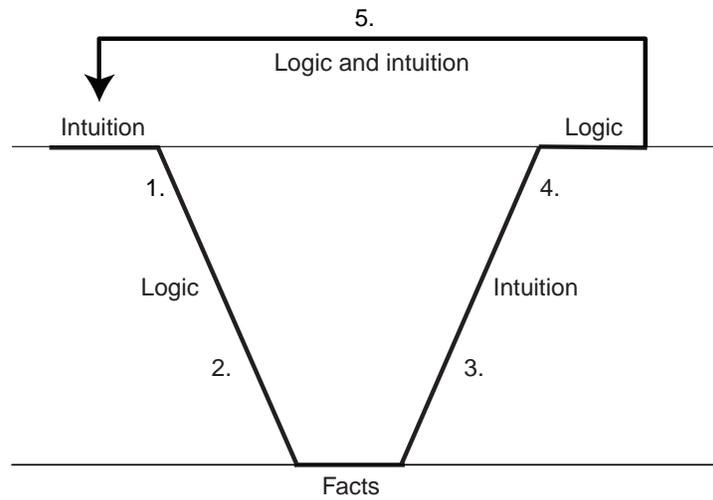


Figure 7-17. Logic and intuition in the Five-Step Discovery Process.

bias. Practicing these two kinds of processes will give us the skill needed to apply them with maximum benefit.

By bringing so many capabilities and skills to bear, we greatly improve our chances of finding a plausible new future.

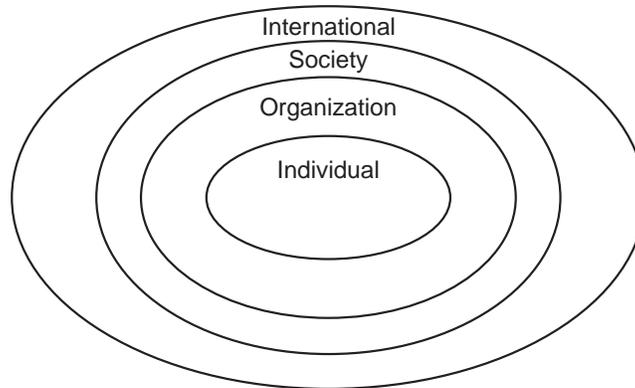


Figure 10-1. Cascading contexts of skill.

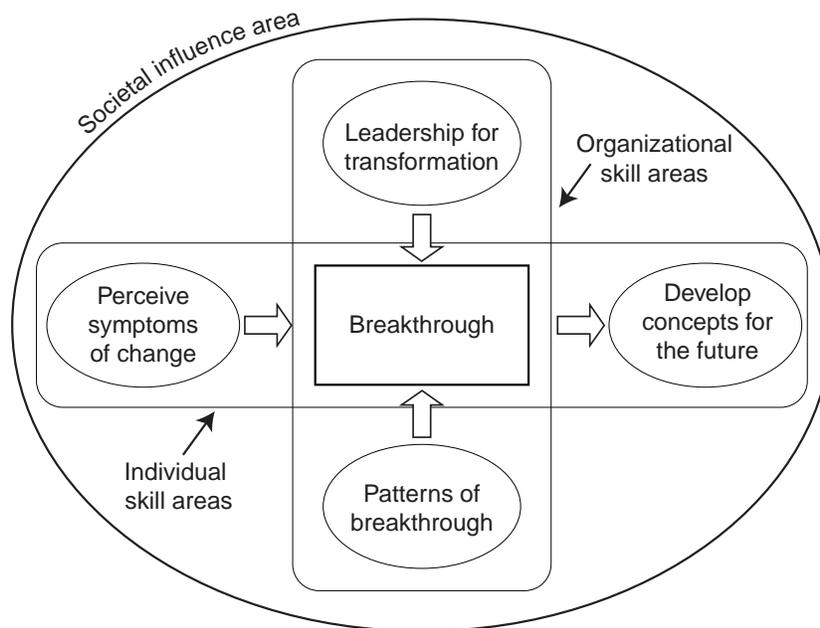


Figure 10-2. The relationship of elements of breakthrough to individual, organizational, and societal realms of skill.