4
Bandura's Social Cognition

Makiko Miwa
R & D Division
National Institute of Multimedia Education, Japan
miwamaki@nime.ac.jp

Albert Bandura created social learning theory in the 1970s to emphasize the significance of observational learning. He maintained that most human behavior is learned by modeling. As the theory developed and expanded its scope to include psychological phenomena of motivational and self-regulatory mechanisms, Bandura renamed it "social cognitive theory." The new name emphasizes the social origins of much human thought and action, as well as the influential causal contribution of thought processes to human motivation, affect, and action.

Central to Bandura's theory, and particularly useful for a study of human information behavior, are three premises:

1) Triadic reciprocal causation posits that behavioral, cognitive, and other environmental influences all operate interactively as determinants of each other.
2) Multiple levels of goals assumes that goals are cognitively generated future events which motivate present human behavior. Bandura (1989) incorporates multiple levels of goals to explain how higher-level distal goals of general principles control lower-level goals of context-specific plan.
3) Self-efficacy proposes that people generate their thoughts, behavior, and affective states and that these, in turn, affect the course their own thoughts, behavior, and affective states, and that these, in turn, affect the courses of action people choose to take, the amount of effort they put forth, their resistance to failure, and the level of accomplishment they achieve.

Numerous studies in a variety of domains adopted Bandura's social cognitive theory as a general theory or metatheory to explain and/or analyze

human behavior in the context of everyday life. Wilson (1996) developed several models of human information seeking and information behavior and integrated them with models developed by other authors into a more general framework, generating a variety of research strategies. His 1996 model of information behavior adopts self-efficacy as a part of the activating mechanism of information seeking in order to explain why some information needs do not invoke information-seeking behavior.

Ren (1999) investigated uses of a variety of government information sources by small business managers in the State of New Jersey. She found that respondents with higher self-efficacy in using a particular information source are likely to use the source. Ren also found that executives with higher Internet self-efficacy used the Internet more frequently for government information searches than others.

Miwa (2000) conducted telephone interviews with 62 AskERIC users and analyzed their information-seeking processes. By adopting the conceptualization of multiple levels of goals from Bandura's social cognitive theory, she identified several occurrences of modification in users' goals during their information-seeking processes. Her findings underscore the dynamic nature of information-seeking processes.

Savolainen (2001) proposed a concept of *network competence* in the context of information seeking. He defined network competence as "the mastery of four major areas: knowledge of information resources available on the Internet, skilled use of the ICT tools to access information, judgment of the relevance of information, and communication" (p. 211). Savolainen developed his model of network competence by adopting the concept of self-efficacy from Bandura's social cognitive theory. The model relates four major factors of network competence: self-efficacy, outcome expectations, affective factors (e.g., anxiety), and experiences received from information seeking on the Internet. Savolainen emphasizes the significance of associations between network competence and self-efficacy in finding information on the Internet.

While Bandura and his colleagues used experimental methods in developing the theory, it can also be used as a general framework for naturalistic inquiry in data collection and analysis, as demonstrated by Miwa (2000). The theory can also serve as a framework for survey research as performed by Ren (1999), and for generating and/or synthesizing domain-specific models for information seeking and information

behavioral research as demonstrated by Wilson (1999) and Savolainen (2001).

Social cognitive theory is a general theory or metatheory applicable to various types of everyday human behavior including information behavior. The theory has been tested and verified in a variety of contexts and applied not only in psychology but also in numerous domains including information studies. The theory is capable of capturing internal and external notions of social constraint. The major strength of this theory in information behavioral research seems to be its applicability to a variety of contexts and settings, particularly within everyday information behavior. Thus, the theory may help draw a big picture of human information behavior.

Though Bandura and his colleagues employed experimental design in developing and testing social cognitive theory, it might be difficult to apply experimental design in human information behavioral research incorporating the theory. This is mainly because the cognitive and affective states of humans seeking information are not directly observable. Information-seeking behavior is initiated unexpectedly when people perceive a gap or an anomalous state of knowledge. Thus, it might not be easy to employ direct observational technique in collecting naturalistic data of human information behavior incorporating social cognitive theory.

More research is needed to develop a general model of human information seeking and/or behavior in everyday life. Social cognitive theory may be a useful tool in conceptualizing and designing information behavioral research as well as in analyzing empirical data. For example, *triadic reciprocal causation* may be useful in developing a framework to be used in capturing a variety of cognitive, affective, and social factors associated with human information behavior in everyday life settings. *Multiple levels of goals* may be useful in differentiating task goals and IR goals in studying IR interaction. It may also be useful in capturing modification of goals in information-seeking processes. Finally, the concept of *self-efficacy* may have explanatory power for different levels of performance in information seeking and problem solving.

Bandura, A. (1986). *Social foundation of thought and action.* Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1989). Self-regulation of motivation and action through internal standards and goal systems. In A. P. Lawrence (Ed.), *Goal concepts in personality and social psychology* (pp. 19–85). Hillsdale, NJ: Lawrence Erlbaum.

Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York: W. H. Freeman and Company.

Miwa, M. (2000). *Use of human intermediation in information problem solving: A users' perspective.* Syracuse, NY: ERIC Clearinghouse on Information and Technology.

Ren, W. (2001). Self-efficacy and the search for government information. *Reference & User Services Quarterly, 38*(3) 283–291.

Savolainen, R. (2002). Network competence and network information seeking on the Internet: from definitions towards a social cognitive model. *Journal of Documentation, 58*(2) 211–226.

Wilson, T. D., & Walsh, C. (1996). *Information behaviour: An interdisciplinary perspective.* Sheffield, UK: University of Sheffield.