System Type: $_{atis}$DynamicTeleologicalSystem

(System type is part of the metatheory and describes configurations and properties that characterize a system of that type.)

Dynamic teleological system, $\mathcal{D}(\mathbb{S})$**,** $=_{df}$ Leadership subsystem-directed system behavior, such that the leadership subsystem controls the system's behavior in a manner determined by the subsystem's goals.

$$_{\mathcal{D}}\mathbb{S} =_{df} \mathbb{S} \mid \exists_{\mathcal{L}}\mathcal{W} \subset \mathbb{S} \; (G{:}(_{\mathcal{L}}\mathcal{W}) \to \mathcal{B}(\mathbb{S}))$$

Where, 'G' is a goal-function-process that maps the leadership subsystem-directed goals onto the system behavior.

Dynamic teleological system is defined as a system; such that, there is a leadership subsystem of the system such that the goal-function-process maps the leadership subsystem goals onto the system behavior.

Dynamic teleology and predictability: Dynamic teleology consists of directed processes of the Leadership subsystem defined by system structure that yields a final state. It is as a direct result of the nature of this dynamic teleological process that such structure and operation implies that the system is predictable.

A basic observation of behavioral systems, whether the behavior of a person or of a system comprised of many persons, is that they are not chaotic. Such systems are observed to operate in a manner that directs them toward certain goals. This characteristic of these systems will be identified as 'intentional'; that is, these are 'intentional systems'. Further, it is asserted that for **intentional systems**, the *intent* controls the behavior and has been recognized as the best predictor of behavior. Such an assumption has long-standing support, even when applied to individuals.

With respect to individuals, in the late 1960's and early 1970's, Icek Ajzen and Martin Fishbein, as a means of predicting individual behavior, developed the *Theory of Reasoned Action* (TRA) and the *Theory of Planned Behavior* (TPB). TRA/TPB were developed in the field of social psychology and were designed:
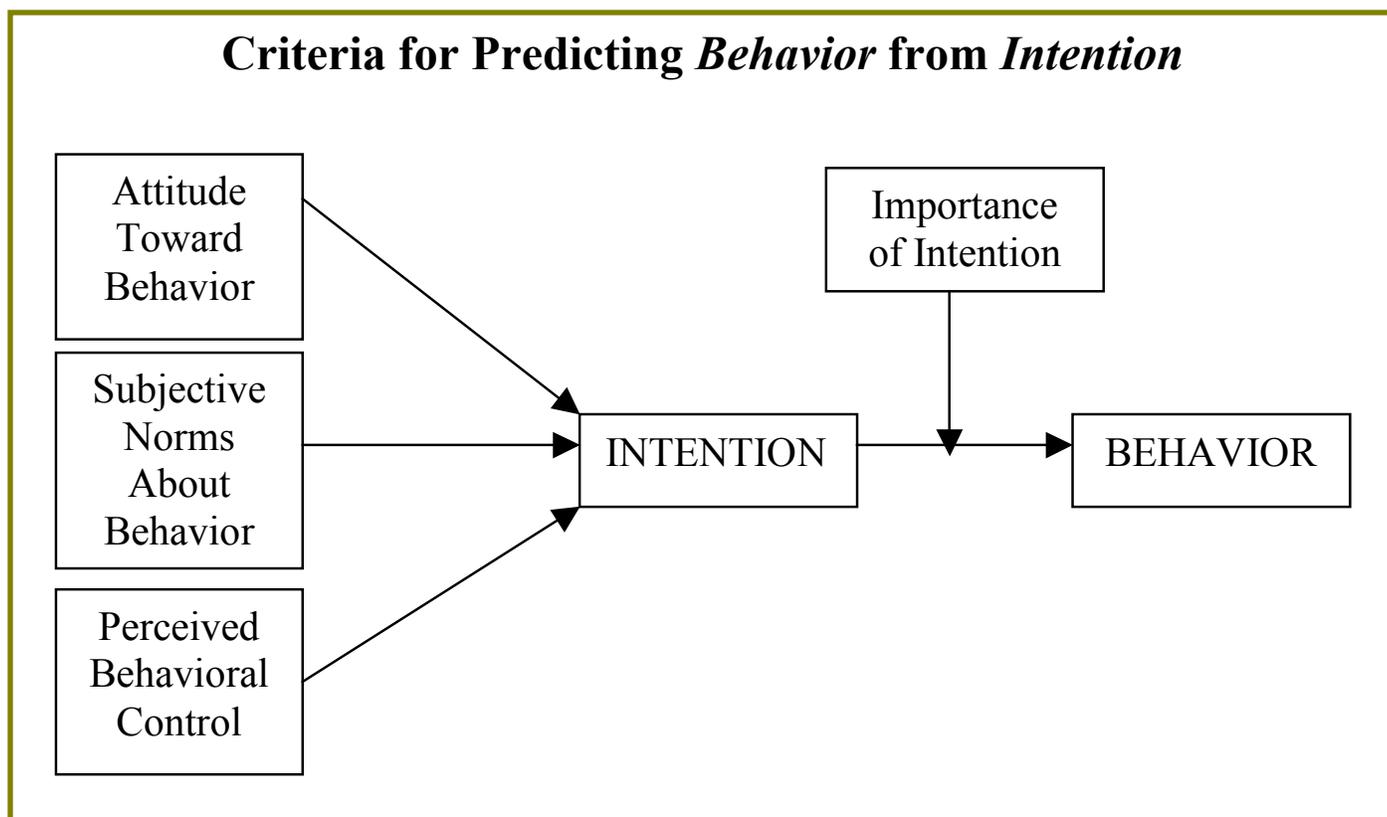
1. To predict and understand motivational influences on behavior that is not under the individual's volitional control.

2. To identify how and where to target strategies for changing behavior.

3. To explain virtually any human behavior such as why a person buys a new car, votes against a certain candidate, is absent from work or engages in premarital sexual intercourse.

> — Jill Levine and Cara Pauls, PHC 6500 Foundations of Health Education/Fall 1996, and Marsha Levine, Sonjia Little and Susan Mills, PHC 6500 Foundations of Health Education/Fall 1997, University of South Florida, Community and Family Health, http://hsc.usf.edu/~kmbrown/TRA_TPB.htm.

Ajzen and Fishbein assert that three things determine intention:

1. Attitude toward the specific behavior,

2. Subjective norms (that is, beliefs about how people they care about will view the behavior in question), and

3. Perceived behavioral control.

The stronger these three factors, then the more likely it is that the person's intention will result in action—the *intended* behavior. The actual behavior is also controlled by the importance of the intention. Even though there may be actual intent, acting on that intent may be influenced by how important the outcome behavior is perceived to be. For example, I may want to and intend to have some ice cream, but to obtain it I will have to go to a store to get it when I find that there is none in the freezer. "Oh, well, it's not really that important!" The *Importance Criteria* provides a final block to the behavior, or allows it to continue to action. The chart below portrays the process for predicting behavior from intention.

Criteria for Predicting *Behavior* from *Intention*

Attitude Toward Behavior		Importance of Intention	
Subjective Norms About Behavior	INTENTION	→	BEHAVIOR
Perceived Behavioral Control			

Now, whereas Ajzen and Fishbein are concerned with predicting human behavior individually, even to the point of predicting (or explaining) "any human behavior," our concern is with predicting intentional systems comprised of "several" individuals. How small the intentional systems can be that are of concern for *ATIS* has yet to be determined. However, even for *ATIS*, individual predictive outcomes are available when the individual is acting as a component of the larger intentional system. And, under these conditions, the Ajzen and Fishbein criteria do apply. In fact, while the intentional systems with which *ATIS* is concerned are not the social-psychological systems of an individual, it is apparent that the three Ajzen and Fishbein criteria shown in the chart above characterize the criteria for the intention of the individuals as they relate to the larger intentional system. That is, the very fact that the individuals are components of the larger intentional system lends support to the belief and assumption that these individuals already have the appropriate attitude, acceptance of subjective norms and behavioral control that allows them to function behaviorally in a manner that furthers the goals of the intentional system. Further, their "commitment" to the goals of the intentional system is confirmed by their presence in the system, hence it is reasonable to predict that they will act behaviorally in a manner that furthers the goals of the larger intentional system. Ajzen and Fishbein provide support for the position here taken that behavior is predictable when system intentions are known.

Examples: It appears as though all social systems are dynamic teleological systems in that they are designed to meet certain social outcomes; that is, they all have specific social goals. All schools are dynamic teleological systems in that they all have been designed with a specific goal to achieve.