Theory of Planned Behavior

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In psychology, the theory of planned behavior is a theory about the link between attitudes and behavior. It was proposed by Icek Ajzen as an extension of the theory of reasoned action. It is one of the most predictive persuasion theories. It has been applied to studies of the relations among beliefs, attitudes, behavioral intentions and behaviors in various fields such as advertising, public relations, advertising campaigns and healthcare.

History

Extension from the theory of reasoned action

The theory of planned behavior was proposed by Icek Ajzen in 1985 through his article "From intentions to actions: A theory of planned behavior." The theory was developed from the theory of reasoned action, which was proposed by Martin Fishbein together with Icek Ajzen in 1975 which was grounded in various theories of attitude such as learning theories, expectancy-value theories, consistency theories, and attribution theory. According to the theory of reasoned action, if people evaluated the suggested behavior as positive (attitude), and if they think their significant others wanted them to perform the behavior (subjective norm), this results in a higher intention (motivation) and they are more likely to do so. A high correlation of attitudes and subjective norms to behavioral intention, and subsequently to behavior has been confirmed in many studies.

A counterargument against the high relationship between behavioral intention and actual behavior has also been proposed as results of some studies do not show that behavioral intention always leads to actual behavior because of circumstantial limitations. Namely, since behavioral intention cannot be the exclusive determinant of behavior where an individual's control over the behavior is incomplete, Ajzen introduced the theory of planned behavior by adding a new component, "perceived behavioral control." By this, he extended the theory of reasoned action to cover non-volitional behaviors for predicting behavioral intention and actual behavior.

Extension of self-efficacy

In addition to attitudes and subjective norms (which make the theory of reasoned action), the theory of planned behavior adds the concept of perceived behavioral control, which originates from self-efficacy theory (SET). Self-efficacy was proposed by Bandura in 1977, which came from social cognitive theory. According to Bandura, expectations such as motivation, performance, and feelings of frustration associated with repeated failures determine affect and behavioral reactions. Bandura (1986) separated expectations into two distinct types: self-efficacy and outcome expectancy. He defined self-efficacy as the conviction that one can successfully execute the behavior required to produce the outcomes. The outcome expectancy refers to a person's estimation that a given behavior will lead to certain outcomes. He states that self-efficacy is the most important precondition for behavioral change, since it determines the initiation of coping

behavior.

Previous investigations have shown that peoples' behavior is strongly influenced by their confidence in their ability to perform that behavior (Bandura, Adams, Hardy, & Howells, 1980). As the self-efficacy theory contributes to explaining various relationships between beliefs, attitudes, intentions, and behavior, the SET has been widely applied to health-related fields such as physical activity and mental health in preadolescents, and exercise.

Concepts of key variables

Behavioral beliefs and attitude toward behavior

Behavioral belief: an individual's belief about consequences of particular behavior. The concept is based on the subjective probability that the behavior will produce a given outcome.
Attitude toward behavior: an individual's positive or negative evaluation of self-performance of the particular behavior. The concept is the degree to which performance of the behavior is positively or negatively valued. It is determined by the total set of accessible behavioral beliefs linking the behavior to various outcomes and other attributes.

Normative beliefs and subjective norms

Normative belief: an individual's perception about the particular behavior, which is influenced by the judgment of significant others (e.g., parents, spouse, friends, teachers).
Subjective norm: an individual's perception of social normative pressures, or relevant others' beliefs that he or she should or should not perform such behavior.

Control beliefs and perceived behavioral control

Perceived behavioral control: an individual's perceived ease or difficulty of performing the particular behavior (Ajzen, 1988). It is assumed that perceived behavioral control is determined by the total set of accessible control beliefs.
Control beliefs: an individual's beliefs about the presence of factors that may facilitate or impede performance of the behavior (Ajzen, 2001). The concept of perceived behavioral control is conceptually related to self-efficacy.

Behavioral intention and behavior

Behavioral intention: an indication of an individual's readiness to perform a given behavior. It is assumed to be an immediate antecedent of behavior (Ajzen, 2002b). It is based on attitude toward the behavior, subjective norm, and perceived behavioral control, with each predictor weighted for its importance in relation to the behavior and population of interest.
Behavior: an individual's observable response in a given situation with respect to a given target.

Ajzen said a behavior is a function of compatible intentions and perceptions of behavioral control in that perceived behavioral control is expected to moderate the effect of intention on behavior, such that a favorable intention produces the behavior only when perceived behavioral control is strong.

Conceptual / operational comparison

Perceived behavioral control vs. self-efficacy

As Ajzen (1991) stated in the theory of planned behavior, knowledge of the role of perceived behavioral control came from Bandura's concept of self-efficacy. Recently, Fishbein and Cappella (2006) stated that self-efficacy is the same as perceived behavioral control in his integrative model, which is also measured by items of self-efficacy in a previous study (Ajzen, 2002a).

In previous studies, the construction and the number of item inventory of perceived behavioral control have depended on each particular health topic. For example, for smoking topics, it is usually measured by items such as "I don't think I am addicted because I can really just not smoke and not crave for it," and "It would be really easy for me to quit."

The concept of self-efficacy is rooted in Bandura's (1977) social cognitive theory. It refers to the conviction that one can successfully execute the behavior required to produce the outcome. The concept of self-efficacy is used as perceived behavioral control, which means the perception of the ease or difficulty of the particular behavior. It is linked to control beliefs, which refers to beliefs about the presence of factors that may facilitate or impede performance of the behavior.

It is usually measured with items which begins with the stem, "I am sure I can ... (e.g., exercise, quit smoking, etc.)" through a self-report instrument in their questionnaires. Namely, it tries to measure the confidence toward the probability, feasibility, or likelihood of executing given behavior.

Attitude toward behavior vs. outcome expectancy

The theory of planned behavior specifies the nature of relationships between beliefs and attitudes. According to these models, people's evaluations of, or attitudes toward behavior are determined by their accessible beliefs about the behavior, where a belief is defined as the subjective probability that the behavior will produce a certain outcome. Specifically, the evaluation of each outcome contributes to the attitude in direct proportion to the person's subjective possibility that the behavior produces the outcome in question (Fishbein & Ajzen, 1975).

Outcome expectancy was originated from the expectancy-value model. It is a variable-linking belief, attitude and expectation. The theory of planned behavior's positive evaluation of self-performance of the particular behavior is similar to the concept to perceived benefits, which refers to beliefs regarding the effectiveness of the proposed preventive behavior in reducing the

vulnerability to the negative outcomes, whereas their negative evaluation of self-performance is similar to perceived barriers, which refers to evaluation of potential negative consequences that might result from the enactment of the espoused health behavior.

Social influence

The concept of social influence has been assessed by social norm and normative belief in both the theory of reasoned action and theory of planned behavior. Individuals' elaborative thoughts on subjective norms are perceptions on whether they are expected by their friends, family and the society to perform the recommended behavior. Social influence is measured by evaluation of various social groups. For example, for smoking issue, (1) subjective norms from peer group include thoughts such as, "Most of my friends smoke," or "I feel ashamed of smoking in front of a group of friends who don't smoke"; (2) subjective norms from family include thoughts such as, "All my family smoke, and it seems natural to start smoking," or "My parents were really mad at me when I started smoking"; and (3) subjective norms from society or culture include thoughts such as, "Everyone is against smoking," and We just assume everyone is a nonsmoker."

While most models are conceptualized within individual cognitive space, the theory of planned behavior considers social influence such as social norm and normative belief, based on collectivistic culture-related variables. Given that an individual's behavior (e.g., health-related decision-making such as diet, condom use, quitting smoking and drinking, etc.) might very well be located in and dependent on the social networks and organization (e.g. peer group, family, school and workplace), social influence has been a welcomed addition.

Model

Human behavior is guided by three kinds of consideration, "behavioral beliefs," "normative beliefs," and "control beliefs." In their respective aggregates, "behavioral beliefs" produce a favorable or unfavorable "attitude toward the behavior"; "normative beliefs" result in "subjective norm"; and "control beliefs" gives rise to "perceived behavioral control."

In combination, "attitude toward the behavior," "subjective norm," and "perceived behavioral control" lead to the formation of a "behavioral intention" (Ajzen, 2002b). In particular, "perceived behavioral control" is presumed to not only affect actual behavior directly, but also affect it indirectly through behavioral intention (Zimmerman et al., 2005).

As a general rule, the more favorable the attitude toward behavior and subjective norm, and the greater the perceived behavioral control, the stronger the person's intention to perform the behavior in question should be. Finally, given a sufficient degree of actual control over the behavior, people are expected to carry out their intentions when the opportunity arises (Ajzen,

2002b).

Formula

In its simplest form, the theory of planned behavior can be expressed as the following mathematical function:

BI = (W1)AB + (W2)SN + (W3)PBC

BI : Behavioral intention

AB : Attitude toward behavior

(b): the strength of each belief

(e): the evaluation of the outcome or attribute

SN : social norm

(n): the strength of each normative belief

(m): the motivation to comply with the referent

PBC : Perceived Behavioral Control

(c): the strength of each control belief

(p): the perceived power of the control factor

W: empirically derived weight/coefficient

To the extent that it is an accurate reflection of actual behavioral control, perceived behavioral control can, together with intention, be used to predict behavior.

Evaluation of the theory

Strength

At first, the theory of planned behavior can cover people's non-volitional behavior which cannot be explained by the theory of reasoned action.

An individual's behavioral intention cannot be the exclusive determinant of behavior where an individual's control over the behavior is incomplete. By adding "perceived behavioral control," the theory of planned behavior can explain the relationship between behavioral intention and actual

behavior.

Several studies found that the TPB would help better predict health-related behavioral intention than the theory of reasoned action (Ajzen, 1988). The TPB has improved the predictability of intention in various health-related fields such as condom use, leisure, exercise, diet, etc.

In addition, the theory of planned behavior as well as the theory of reasoned action can explain the individual's social behavior by considering "social norm" as an important variable.

Limitations

The theory of planned behavior is based on cognitive processing and level of behavior change.

Compared to affective processing models, the theory of planned behavior overlooks emotional variables such as threat, fear, mood and negative or positive feeling and assessed them in a limited fashion.

In particular in the health-related behavior situation, given that most individuals' health behaviors are influenced by their personal emotion and affect-laden nature, this is a decisive drawback for predicting health-related behaviors (Dutta-Bergman, 2005). Poor predictability for health-related behavior in previous health research may be attributed to the exclusion of this variable. Most of the research is correlational, and evidence based on experimental studies is less convincing.

Applications of the theory

So far, the theory of planned behavior has more than 1200 research bibliographies in academic databases such as Communication & Mass Media Complete, Academic Search Premier, PsycARTICLES, Business Source Premier, PsycINFO, and PsycCRITIQUES.

In particular, recently, several studies found that the TPB would better help to predict health-related behavioral intention than the TRA (Ajzen, 1988) given that the TPB has improved the predictability of intention in various health-related fields such as condom use (e.g., Albarracin, Fishbein, Johnson, & Muellerieile, 2001; Sheeran & Taylor, 1999), leisure (e.g., Ajzen & Driver, 1992), exercise (e.g., Nguyen, Potvin, & Otis, 1997), and diet (e.g., Conner, Kirk, Cade, & Barrett, 2003).

Another application of the theory of planned behavior is in the field of environmental psychology. Generally speaking, actions that are environmentally friendly carry a positive normative belief. That is to say, sustainable behaviors are widely promoted as positive behaviors. However, although there may be a behavioral intention to practice such behaviors, perceived behavioral control can be hindered by constraints such as a belief that one's behavior will not have any impact. For example, if one intends to behave in an environmentally responsible way but there is a lack of

accessible recycling infrastructure, perceived behavioral control is low, and constraints are high, so the behavior may not occur. Applying the theory of planned behavior in these situations helps explain contradictions between sustainable attitudes and unsustainable behavior.

The theory of planned behavior model is thus a very powerful and predictive model for explaining human behavior. That is why the health and nutrition fields have been using this model often in their research studies. In one study, utilizing the theory of planned behavior, the researchers determine obesity factors in overweight Chinese Americans (Liou, 2007). Intention to prevent becoming overweight was the key construct in the research process. It is important that nutrition educators provide the proper public policies in order to provide good tasting, low-cost, healthful food.