ECONSTOR
Make Your Publications Visible.

A Service of

ZBW Leibniz-Informationszentrum Wirtschaft
Leibniz Information Centre for Economics

Ajzen, Icek

Article

Job satisfaction, effort, and performance: A reasoned action perspective

Contemporary Economics

Provided in Cooperation with:
VIZJA University, Warsaw

Suggested Citation: Ajzen, Icek (2011) : Job satisfaction, effort, and performance: A reasoned action perspective, Contemporary Economics, ISSN 1897-9254, Vizja Press & IT, Warsaw, Vol. 5, Iss. 4, pp. 32-43,
https://doi.org/10.5709/ce.1897-9254.26

This Version is available at:
https://hdl.handle.net/10419/55889

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

WWW.ECONSTOR.EU

Mitglied der Leibniz-Gemeinschaft

Received: 21 09 2011 | Accepted: 27 10 2011

Job Satisfaction, Effort, and Performance: A Reasoned Action Perspective

Icek Ajzen[1]

ABSTRACT In this article the author takes issue with the recurrent reliance on job satisfaction to explain job-related effort and performance. The disappointing findings in this tradition are explained by lack of compatibility between job satisfaction--a very broad attitude--and the more specific effort and performance criteria. Moreover, attempts to apply the expectancy-value model of attitude to explore the determinants of effort and performance suffer from reliance on unrepresentative sets of beliefs about the likely consequences of these behaviors. The theory of planned behavior (Ajzen, 1991, 2012), with its emphasis on the proximal antecedents of job effort and performance, is offered as an alternative. According to the theory, intentions to exert effort and to attain a certain performance level are determined by attitudes, subjective norms, and perceptions of control in relation to these behaviors; and these variables, in turn, are a function of readily accessible beliefs about the likely outcomes of effort and performance, about the normative expectations of important others, and about factors that facilitate or hinder effective performance.

KEY WORDS: job satisfaction, job performance, expectancy-value model, theory of planned behavior.

JEL Classification: A120

[1] University of Massachusetts, USA

Introduction

The productivity of its workforce is of vital importance to any commercial enterprise and it is therefore hardly surprising that job performance has been the focus of much research in organizational behavior. By far the most popular approach invokes the concept of job satisfaction to explain performance under the assumption that a high level of satisfaction leads to increased productivity on the job whereas dissatisfaction undermines productivity. Indeed, the proposed relation between job satisfaction and performance has been called the 'Holy Grail" of organizational behavior (Landy, 1989). Various measures have been developed over the years to assess job satisfaction (e.g., Smith, 1974) as well as job performance (see Viswesvaran & Ones, 2000), and a great number of studies have investigated the relation between these variables. The results of these efforts have been surprisingly disappointing; most studies have reported very low and often nonsignificant correlations. Indeed, a meta-analysis of 312 data sets by Judge, Thoresen, Bono, and Patton (2001) revealed a mean correlation of only .18 between job satisfaction and performance (see also Iaffaldano & Muchinsky, 1985).

Going beyond overall job satisfaction, investigators have also assessed satisfaction with various specific aspects of the work environment: satisfaction with the work itself, with pay, coworkers, supervision, and opportunities for promotion (see Kinicki, McKee-Ryan, Schriesheim, & Carson, 2002; Smith, Kendall, & Hulin,

Corespondence concerning to this article should be addressed to: aizen@psych.umass.edu

 DOI: 10.5709/ce.1897-9254.26

1969). Unfortunately, the prediction of performance from these five facets of job satisfaction has also been largely unsuccessful. In a meta-analytic review of relevant research (Kinicki, et al., 2002), the mean correlation between facets of job satisfaction and performance ranged from a low of .13 for satisfaction with pay to a high of .21 for satisfaction with supervision; simultaneous consideration of all five facets produced little if any improvement in prediction.

Expectancy-Value Model of Attitude

In this article I try to explain the failure of job satisfaction measures to substantially account for job performance and offer an alternative approach to the prediction and explanation of productivity on the job, an approach based on the theory of planned behavior (Ajzen, 1991, 2012). Because job satisfaction is essentially the attitude toward one's job (see, e.g., Robbins & Judge, 2010; Saari & Judge, 2004) we can draw on our understanding of attitudes and their relation with behavior to shed light on this issue. Although formal definitions vary, most theorists agree that attitude is the tendency to respond to an object, in this case one's job, with some degree of favorableness or unfavorableness (Eagly & Chaiken, 1993; Fishbein & Ajzen, 1975; Osgood, Suci, & Tannenbaum, 1957; Petty & Cacioppo, 1986). Consistent with the cognitive tenor of most current theorizing in social psychology, this evaluative reaction is generally thought to be based on the person's expectations or beliefs concerning the attitude object. The most widely accepted theory of attitude formation describes the relation between beliefs about an object and attitude toward the object in terms of an expectancy–value (EV) model (Dabholkar, 1999; Feather, 1959, 1982).

Perhaps the most detailed formulation of the EV model of attitude was proposed by Fishbein (1963, 1967) on the basis of earlier work by Peak (1955), Carlson (1956), and Rosenberg (1956). In this theory, people's evaluations of, or attitudes toward, an object are determined by their beliefs about the object, where a belief is defined as the subjective probability that the object has a certain attribute (Fishbein & Ajzen, 1975). The terms "object" and "attribute" are used in the generic sense and they refer to any discriminable aspect of an individual's world. For example, an employee may believe that her job (the attitude object) requires concentration (the attribute). Each belief thus associates the job with a certain attribute. According to the expectancy–value model, a person's overall job attitude is determined by the subjective values or evaluations of the attributes associated with the job and by the strength of these associations. Specifically, the evaluation of each attribute contributes to the job attitude in direct proportion to the person's subjective probability that the job possesses the attribute in question. The basic structure of the model is shown in the following equation,

$$A \propto \sum b_i e_i \qquad [1]$$

where A is the attitude toward the job (i.e., job satisfaction), bi is the strength of the belief (the subjective probability) that the job possesses attribute i, ei is the evaluation of attribute i, and the sum is over the number of accessible attributes.

Development of the expectancy–value model helped to explain how attitudes are formed but the significance of this effort was challenged by research findings that questioned the attitude construct's ability to explain social behavior. To demonstrate that people might say one thing and do another, LaPiere (1934) accompanied a young Chinese couple in their travels across the United States and recorded whether they received service in restaurants and overnight accommodation in motels, hotels, and inns. Following their travel, LaPiere mailed a letter to each establishment they had visited, asking whether it would "accept members of the Chinese race as guests." As LaPiere had expected, there was no consistency between the symbolic attitudes (responses to the letter) and actual behavior. The Chinese couple received courteous service in virtually every establishment, but responses to the letter were almost universally negative.

This early indication that verbal attitudes may be poor predictors of actual behavior was followed by an increasing number of similarly disappointing findings (e.g., De Fleur & Westie, 1958; Freeman & Ataoev, 1960; Himelstein & Moore, 1963; Linn, 1965). In a provocative and highly influential review of this literature, Wicker (1969) called attention to the inconsistency between attitudes and behavior, concluding that "it is considerably more likely that attitudes will be unrelated or only slightly related to overt behaviors than that attitudes will be closely related to actions.

Product–moment correlation coefficients relating the two kinds of responses are rarely above .30, and often are near zero" (p. 65). Based on a much larger set of studies, a recent meta-analysis of research on the attitude-behavior relation (Greenwald, Poehlman, Uhlmann, & Banaji, 2009) revealed the same general pattern. In their synthesis, the investigators compared the predictive validity of traditional, explicit attitude measures and more recently developed implicit measures designed to circumvent self-presentation biases. The mean weighted correlation between explicit attitude measures and behavior across 156 data sets was .36, and the mean correlation between implicit attitude measures and behavior across 184 data sets was .27. When examining only studies on the relation between prejudicial attitudes and discriminatory behavior where self-presentation biases may be particularly strong, the mean weighted attitude-behavior correlations were .12 (28 data sets) for explicit attitude measures and .24 (32 data sets) for implicit measures. Clearly, for anyone inclined to rely on attitudes to predict and explain human behavior, these low correlations are extremely discouraging. And, as we saw earlier, this pattern in repeated in research on the relation between attitudes toward one's job, i.e., job satisfaction, and productivity.

The Principle of Compatibility

To understand why attitudes are often found to be poor predictors of behavior we must draw a distinction between two kinds of attitudes: general attitudes toward physical objects, institutions, groups, policies, or one's job—attitudes of the kind studied in most early research on the attitude-behavior relation; and attitudes toward performing particular behaviors (exercising, using contraception, getting a cancer screening, hiring a member of a minority group, participating in an election, using public transit, recycling, working long hours, and so forth). Ajzen and Fishbein (1977) formulated the principle of compatibility to help clarify the nature of the relation between verbal attitudes and overt actions. According to this principle, attitudes and behavior correlate with each other to the extent that they refer to the same action, target, context, and time elements. Measures of behavior typically involve a specific action (e.g., making friends) and target (e.g., a gay person), and often also a specific context (e.g., at work) and time frame (e.g., in the next 6 months). By way of contrast, general attitudes (e.g., toward gays) identify only the target; they do not specify any particular action, context, or time element. This lack of compatibility, especially in the action element, is said to be at the root of the low and often nonsignificant correlations between general attitudes and specific behaviors directed at the target of the attitude.

This is not to say, however, that general attitudes are irrelevant when it comes to the prediction of behavior. According to the principle of compatibility, general attitudes predict broad patterns or aggregates of behavior. When we aggregate different behaviors directed at the same target, we generalize across actions, contexts, and time elements, thus assuring compatibility with equally broad attitudes toward the target in question. Consistent with this line of reasoning, attitudes toward religion and the church, though largely unrelated to individual behaviors in this domain, were shown to correlate strongly with broad patterns of religious behavior (Fishbein and Ajzen 1974); and attitudes toward protection of the environment predicted an aggregate of individual behaviors protective of the environment (Weigel and Newman 1976). However, when we are interested in predicting and understanding the determinants of specific actions rather than general behavioral patterns, the principle of compatibility suggests that we must assess the attitude that corresponds to the behavior of interest in terms of its action, target, context, and time elements. In other words, instead of measuring people's attitudes toward a general object, such as their jobs, we have to assess their attitudes toward the particular behavior we are trying to predict. Empirical support for the compatibility principle can be found in several reviews of the literature (Ajzen and Fishbein 1977; Kraus 1995; see also Fishbein and Ajzen 2010).

The principle of compatibility has important implications that, to the best of my knowledge, have not been explored in relation to job satisfaction. It suggests that satisfaction or dissatisfaction with one's job, being a broad attitude, should be predictive of a general pattern of work-related activities but not of any single behavior. Thus, we would expect job satisfaction to correlate well with an aggregate across a whole range of different behaviors including, but not limited to, job performance. In addition to job performance, the aggregate might include such behaviors as tardi-

 DOI: 10.5709/ce.1897-9254.26

ness, absenteeism, turnover, cooperation with coworkers, acceptance of supervision, volunteering for special assignments, working overtime, and so forth.

The weak correlation between job satisfaction and performance documented earlier is quite consistent with this analysis. According to the compatibility principle, job performance, being only one relatively specific aspect related to one's work, cannot be well predicted from a general attitude such as job satisfaction. Moreover, we must also realize that strictly speaking job performance is not a behavior but an outcome--the result of certain work-related behaviors (as well as situational factors to be considered below). It follows that in order to understand the determinants of job performance we have to identify the behaviors that (together with situational factors) are the primary antecedents of productivity. Job satisfaction can be expected to influence performance only to the extent that it influences these behaviors in a favorable direction. However, even if job satisfaction were to have an effect on specific behaviors relevant to performance, unexpected outcomes may occur. For example, workers highly satisfied with their jobs may refrain from interacting with fellow employees under the assumption that this interferes with their work. However, a lack of effective communication among coworkers may actually reduce rather than increase productivity. In sum, due to low compatibility and the fact that productivity is an outcome, not a behavior, we cannot expect a strong direct relation between job satisfaction and performance. In the next section I consider an alternative approach to the prediction and understanding of job performance that, in accordance with the principle of compatibility, relies on an examination of its proximal antecedents.

Predicting Effort and Performance

Employees' performance on the job is arguably determined by their behaviors and by factors in the work environment that facilitate or interfere with productivity. In this section we focus on the behavioral contribution. Generally speaking, raising one's level of productivity will require increased effort which may, depending on the particular job, involve working longer hours, acquiring new skills, opening up new channels of communication, providing better feedback, and working faster. Attitudes could be assessed with respect to each of these specific behaviors, or with respect to the more broadly defined construct of effort. The accessible beliefs that determine a person's attitude toward a particular behavior are beliefs about its likely consequences (Ajzen, 2005; Ajzen & Fishbein, 1980). In accordance with the expectancy-value model, the subjective value or evaluation of each accessible outcome contributes to the attitude in direct proportion to the person's subjective probability that performing the behavior will produce the outcome in question. As discussed earlier, in the EV model the subjective probability of each outcome is multiplied by the evaluation of the outcome, and the resulting products are summed across all accessible outcomes.

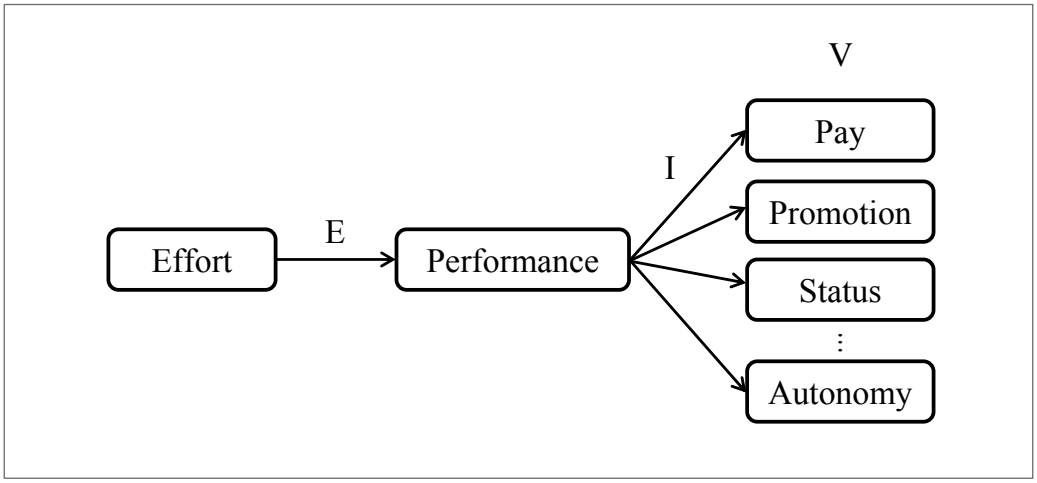
To illustrate, in a pilot study on alcohol and drug use among college students, Armitage, Conner, Loach, and Willetts (1999) identified the following accessible beliefs about using alcohol and marijuana: "Makes me more sociable," "Leads to me having poorer physical health," "Will result in my becoming dependent on it," "Will result in me getting into trouble with authority," and "Makes me feel good." In the main study, they assessed, on 7-point scales, the perceived likelihood that drinking alcohol and that using marijuana would produce each of these outcomes as well as the evaluation of each outcome. In addition, they measured attitudes toward the two behaviors directly by asking participants to evaluate each behavior on four bipolar adjective scales (bad-good, unfavorable-favorable, negative-positive, unsatisfying-satisfying). With respect to drinking alcohol, this attitude measure correlated .58 with the summed likelihood x evaluation products; the corresponding correlation for using marijuana was .78.

Several meta-analyses provide evidence in support of the expectancy-value model as applied to attitudes toward a behavior. Two of these analyses (Armitage & Conner, 2001; van den Putte, 1993) examined prediction across a broad range of behaviors and reported mean correlations of .53 and .50 between the expectancy-value index of beliefs and a direct attitude measure. In a more limited meta-analysis of research on condom use (Albarracín, Johnson, Fishbein, & Muellerleile, 2001) the mean correlation was .56.

Interestingly, organizational behavior theorists have long used expectancy-value theory to model the effect of effort in the work environment (Graen, 1969; Lawler

& Suttle, 1973; Vroom, 1964). The best known of these approaches is Vroom's (1964) expectancy-instrumentality-value theory of work motivation. When applied to job performance, the theory can be described as follows. Effort exerted on the job (the behavior) is determined by the worker's belief or expectation (E) that increased effort will lead to a certain level of performance (the outcome) multiplied by the subjective value or evaluation of this performance level. The subjective value of this (first-level) outcome, in turn, is a function of the perceived instrumentality (I) of the outcome for the attainment of various (second-level) outcomes (e.g., pay, promotion, recognition), weighted by their subjective values (V). This model can be illustrated as follows.

Figure 1. Expectancy-value model of job performance



Source: own study based on Vroom, V. H. (1964). Work and motivation. New York: Wiley.

Although intuitively appealing, empirical tests of Vroom's model have been largely disappointing. For example, Avery and Neel (1974) applied the model to predict the work-related motivation of engineers in a large utility company. Supervisors rated each of the engineers on seven elements reflective of motivation and effort: professional identification, job curiosity, team attitude, task concentration, independent self-starter, persistence, and organizational identification. In addition, an overall effort score was obtained by aggregating the seven specific ratings. As a measure of expectancy (E), the participants indicated, on a 5-point scale, their agreement with the statement, "If I apply a great deal of effort in my job, that is, work very hard, I will be regarded by my supervisor as an effective performer." To assess instrumentality (I), the investigators asked participants to rate, again on a 5-point scale, the likelihood that effective performance would lead to each of 10 possible outcomes: making use of abilities, accomplishments, advancement, supervise others, fair company policies and practices, high salary, getting along with coworkers, praise, use own judgment, and steady and secure employment. Finally, the participants were asked to distribute 100 points among these 10 outcomes according to their perceived importance. These ratings represented the valence (V) or subjective value of each outcome.

Consistent with Vroom's model, the investigators multiplied an individual's (i) instrumentality rating of each outcome j by the outcome's valence, summed the products across the 10 outcomes ($\Sigma I_{ij}V_{ij}$), and then multiplied the resulting index by the expectancy measure ($E_i\Sigma I_{ij}V_{ij}$). This final index of employee motivation was correlated with each of the six behavioral elements of effort, as rated by the supervisors, and with the summed effort score. Because age correlated significantly, albeit weakly, with the criterion scores, the sample was divided into a relatively older group (41 years

 DOI: 10.5709/ce.1897-9254.26

or older) and a younger group (below 41). The results for both groups were disappointing. For the younger participants, the correlations of the expectancy-instrumentality-value index with the seven specific effort measures ranged from -.10 to .16, and its correlation with the aggregate effort score was .03; none of these correlations was statistically significant. Somewhat higher correlations were observed in the older group, but the expectancy index correlated significantly only with job curiosity (r = .26). The correlations of the expectancy index with the other specific effort elements ranged from -02 to .19, and with the total effort score, the correlation was .21.

Other investigators have reported similar findings. In a meta-analysis of research on Vroom's expectancy model, Van Eerde and Thierry (1996) reported a mean correlation of .29 between the expectancy-instrumentality-value index and effort exerted on the job (based on 20 data sets), and a correlation of .19 between this index and job performance (based on 33 data sets). In the following section I discuss these disappointing findings in the context of the theory of planned behavior, a reasoned action model (Ajzen, 1991, 2012).

The Reasoned Action Approach to Job Performance

According to the expectancy-value (EV) model described earlier, attitudes are a function of beliefs about the object of the attitude. When applied to effort on the job, the beliefs in question are mostly beliefs about the likely consequences of exerting such effort. People can, of course, form many different beliefs about this or any other behavior, but it is assumed that only a relatively small number influence the attitude toward the behavior. It is these accessible beliefs that are considered to be the prevailing determinants of a person's attitude. Some correlational evidence is available to support the importance of belief accessibility. The subjective probability associated with a given belief, i.e., its strength, correlates with the frequency with which the belief is emitted spontaneously in a sample of respondents, i.e., with its accessibility (Fishbein, 1963) as well as with order of belief emission (Kaplan & Fishbein, 1969); and highly accessible beliefs tend to correlate more strongly with an independent measure of attitude than do less accessible beliefs (Petkova, Ajzen, & Driver, 1995; van der Pligt & Eiser, 1984). Furthermore, the likelihood that a given belief will be emitted in a free-response format is found to correspond to its accessibility as measured by response latency (Ajzen, Nichols, & Driver, 1995).

The idea that attitudes are based on information about the behavior that is accessible in memory implies a degree of reasonableness. This is not to say, however, that people form attitudes in a rational manner by conducting an impartial review of all relevant information and integrating it according to formal rules of logic. Indeed, the EV model makes no assumptions about rationality. Instead, it relies on the much weaker requirement of internal consistency. Attitudes are assumed to follow reasonably and consistently from beliefs about the attitude object. The more positive the beliefs, and the more strongly they are held, the more favorable should be the attitude. The source of the beliefs, and their veridicality, are immaterial in this model. Whether true or false, biases or unbiased, beliefs represent the subjectively held information upon which attitudes are based. People may hold beliefs about exerting effort on their jobs that are derived not from direct experience, objective information, or a logical process of reasoning but instead are biased by emotions or desires to serve a variety of personal needs. (For a discussion of these issues see Ajzen & Fishbein, 2000; Fishbein & Ajzen, 2010).

In research with the expectancy-value model conducted in the context of the theory of planned behavior (TPB), the kinds of beliefs that are highly accessible in a given population are typically identified in formative research by asking participants to list the advantages and disadvantages, or the likely positive and negative outcomes, associated with a behavior of interest. The most frequently mentioned outcomes are selected for further investigation. It is assumed that all of these beliefs, and only these beliefs, constitute the important determinants of the attitude. Research with Vroom's expectancy model suffers from two major problems in light of the TPB. First, only one direct outcome of effort is being considered, namely, job performance. Vroom's model assumes that the only belief relevant to a person's motivation to exert effort has to do with the effect of effort on performance. The model then goes on to assess the subjective value of performance by considering its perceived outcomes (and the valence of those outcomes). Perhaps in recognition of this problem, some investigators have modified Vroom's model

to consider the perceived direct effects of increased effort (unmediated by performance) on work-related outcomes. Unfortunately, the results are not much improved by taking this approach. In their meta-analysis, Van Eerde and Thierry (1996) reported a mean correlation of .32 between this new expectancy-value index and effort (based on 19 data sets) and a mean correlation of .27 between the new index and job performance (based on 18 data sets).

Although linking effort directly to its likely outcomes is preferable to Vroom's mediational model and is consistent with the expectancy-value model of attitude, the problem with the approach taken by investigators in this area is that they tend to select an a priori set of outcomes and assume that these outcomes are the actual determinants of attitudes toward effort. A moment's reflection reveals the fallacy of this assumption. It stands to reason that attitudes toward exerting effort on the job are influenced by many perceived consequences other than such work-related outcomes as higher pay, promotion, praise, and so forth. Indeed, employees might believe that increased effort would result in a variety of possible negative outcomes such as less time for leisure activities, less energy to devote to one's spouse and children, and deterioration of physical health. Therefore, even if increased effort were perceived to have certain positive work-related outcomes, such as higher pay or promotion, the perceived negative outcomes could cancel or even out-weigh the positive outcomes. In short, instead of simply assuming that work-related outcomes are important to people's attitudes toward effort, we must conduct formative research to ascertain the kinds of beliefs people actually hold about increasing their effort on the job. According to theory, it is these accessible beliefs that determine their attitudes toward effort and that will influence job performance (see Mitchell & Biglan, 1971).

Some empirical support for this argument can be found in a study by Matsui and Ikeda (1976). In one condition of the experiment, the investigators asked high-school students to generate five outcomes they believed would result from studying hard. In a second condition they used a standard list of 10 outcomes generated by the investigators. The number of hours spent daily on homework was used as an index of effort and grades at the latest examinations as a measure of performance. An expectancy-value index based on the self-generated outcomes correlated .44 with effort and .36 with performance, compared to correlations of .28 and .23, respectively, for the index based on the 10 standard outcomes. It should be noted, however, that it is possible to obtain a strong correlation between a belief composite and a direct attitude measure even when the belief statements are constructed by the investigator rather established empirically. This is likely to be the case when the beliefs constructed by the investigator refer to a representative set of potential outcomes. When, as is the practice in research on job performance, the belief statements deal only with positive outcomes, strong correlations cannot be expected. Also, and perhaps more important, the advantage of eliciting beliefs in the research population is that, in theory, readily accessible beliefs serve as the causal antecedents of attitude, i.e., they constitute formative indicators of attitude. A representative list of beliefs constructed by the investigator can serve as reflective indicators of the attitude, and can therefore correlate quite well with a direct attitude measure, but there is no assurance that these beliefs have a causal influence on the attitude.

Going Beyond Attitudes

Subjective norms. In the TPB, beliefs about the likely outcomes of a behavior are known as behavioral beliefs. However, intentions to perform a particular behavior are assumed to be influenced by two other kinds of considerations as well. In addition to the likely outcomes of a behavior, people also consider the wishes of important social referents. These perceived expectations are termed normative beliefs, and, according to the TPB, the normative beliefs regarding different social referents (e.g., spouse, close friends, coworkers, supervisor) combine to produce an overall perceived social pressure to perform the behavior of interest, or subjective norm. Drawing an analogy to the expectancy-value model of attitude toward a behavior, it is assumed that the prevailing subjective norm is determined by the total set of readily accessible normative beliefs concerning the expectations of important referents. Each normative belief is multiplied by the person's motivation to comply with the referent, and the resulting products are summed across all accessible referents.

 DOI: 10.5709/ce.1897-9254.26

Similar to tests of the expectancy-value model of attitudes, tests of the subjective norm model usually involve correlating the summed products of normative belief strength multiplied by motivation to comply with a direct measure of subjective norm. Empirical evidence is supportive of a correlation between normative beliefs on one hand and perceived social pressure or subjective norm on the other. The strength of this correlation is conveyed in the above cited meta-analysis of research with the theory of planned behavior by Armitage and Conner (2001). Across 34 sets of data dealing with diverse kinds of behavior, the mean correlation between normative beliefs and subjective norms was .50.

In a work environment, the perceived normative expectations and behaviors of supervisors and coworkers are likely to be major influences on an employee's own behavior, including, among other things, the amount of effort the employee invests. Examples can be found in normative expectations of coworkers regarding the appropriate rate of output and discouragement of "rate-busting" (Collins, Dalton, & Roy, 1946), norms regulating civility in the workplace (Pearson, Andersson, & Porath, 2005), timing of retirement (Ekerdt, 1998), and employment of persons with disabilities (Fraser et al., 2010).

Perceived behavioral control. Finally, and equally important for our understanding of workplace productivity, is a third kind of consideration that, according to the TPB, influences intentions and actions. We noted earlier that enhanced job performance is a possible outcome of behaviors related to increased effort rather than a behavior in its own right. Many factors, internal and external to an individual, can facilitate or interfere with the attainment of this outcome. Employees should be able to act on their intentions to attain a certain level of performance to the extent that they have the information, intelligence, skills, abilities, and other internal factors required to do so and to the extent that they can overcome any external obstacles that may interfere with it (see Ajzen, 1985). Perhaps less self-evident than the importance of actual control, but more interesting from a psychological perspective, is the role of perceived behavioral control — the extent to which people believe that they can attain a certain performance level if they are inclined to do so.

The conceptualization of perceived behavioral control in the TPB owes much to Albert Bandura's work on self-efficacy (Bandura, 1977, 1997). In Bandura's social cognitive theory, people's beliefs about their capabilities act as proximal determinants of human motivation and action. A considerable body of research attests to the powerful effects of self-efficacy beliefs on motivation and performance. The strongest evidence comes from studies in which level of self-efficacy was experimentally manipulated and the effects of this manipulation on perseverance at a task and/or on task performance was observed. Much of this research has been conducted in situations where intentions to perform the behavior of interest can be taken for granted. Under these conditions, perseverance and task performance are found to increase with perceived self-efficacy (e.g., Bandura & Adams, 1977; see Bandura & Locke, 2003 for a review; Cervone & Peake, 1986; Litt, 1988; Weinberg, Gould, Yukelson, & Jackson, 1981). For example, Cervone and Peake (1986) had participants work on a series of intellectual problems (anagrams or cyclical graphs) that had no solution. Prior to this task, they manipulated self-efficacy beliefs by means of the anchoring and adjustment heuristic (Tversky & Kahneman, 1974). After drawing, ostensibly at random, either a relatively high number (18) or a relatively low number (4), participants were asked to indicate whether they thought they would be able to solve more, an equal number, or fewer problems than the number they had drawn, and—as a measure of self-efficacy—how many problems they thought they would be able to solve. The high anchor was found to produce a significantly higher level of perceived self-efficacy than the low anchor. The investigators then recorded how many times participants attempted to solve problems of a given type before switching to the second task. The results showed that participants in the high anchor condition persevered significantly longer on the unsolvable task than did participants in the low anchor condition, and this effect was completely mediated by perceived self-efficacy.

Like attitudes and subjective norms, perceptions of behavioral control are assumed to follow consistently from readily accessible beliefs, in this case beliefs about resources and obstacles that can facilitate or interfere with performance of a behavior. Analogous to the expectancy-value model of attitudes, the power of each control factor to facilitate or inhibit behavioral performance is expected to contribute to perceived

behavioral control in direct proportion to the person's subjective probability that the control factor is present. Perceived power and subjective probability are multiplied, and the resulting products are summed across all accessible control factors. In support of this model, empirical evidence shows strong correlations between direct measures of perceived behavioral control and the composite of control beliefs. For example, in an analysis of 16 of their own studies in the health domain, Gagné and Godin (2000) found a median correlation of .57 between control belief composites and direct measures of perceived behavioral control, and in a meta-analysis of 18 studies on a variety of different behaviors, Armitage and Conner (2001) reported a mean correlation of .52.

Summary and Conclusions

For obvious practical and theoretical reasons, a great deal of research continues to be devoted to the identification of factors that determine work-related effort and performance. Consistent with the principle of compatibility, I advocate a shift from the focus on job satisfaction––a broad attitude with limited relevance for the relatively specific criteria of interest––to a consideration of the proximal antecedents of effort and performance. Relying on the theory of planned behavior, we can identify three factors that guide people's decisions or intentions to exert effort on the job: attitudes toward this behavior, perceived social pressure to exert or not to exert effort (subjective norms), and perceptions of behavioral control or self efficacy in relation to exerting effort. The same three variables can be assessed if the criterion is job performance. In this case, however, it must be realized that performance is not a behavior but rather a possible outcome of various behaviors related to effort. Attitudes, subjective norms, and perceptions of control with respect to performance would be expected to predict intentions to attain a certain performance level, but these intentions may be thwarted by environmental constraints, thus requiring that the investigator consider the employee's actual control over attainment of the intended outcome.

A fundamental feature of the TPB is its adoption of the expectancy-value model to describe the effects of beliefs on attitudes, subjective norms, and perceptions of behavioral control. In the context of trying to understand effort on the job, it is assumed that behavioral beliefs about the likely consequences of effort determine attitudes toward effort, that normative beliefs about the expectations of important others regarding effort lead to the formation of a subjective norm, and that control beliefs about the factors that facilitate or interfere with effort produce a sense of perceived behavioral control. Rather than relying on a priori assumptions about the nature of these beliefs, the TPB insists that formative research be conducted to identify the behavioral, normative, and control beliefs that are readily accessible in the research population. These readily accessible beliefs are said to constitute the psychological determinants of intentions to exert effort and thus to influence actual effort and performance on the job. The TPB does not specify where these beliefs come from; it merely points to a host of possible background factors that may influence the beliefs people hold: factors of a personal nature such as personality and broad life values; demographic variables such as education, age, gender, and income; and exposure to media and other sources of information. Factors of this kind are expected to influence intentions and behavior indirectly by their effects on the theory's more proximal determinants (Fishbein & Ajzen, 2010).

References

1. Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckman (Eds.), Action-control: From cognition to behavior (pp. 11-39). Heidelberg, Germany: Springer.
2. Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50(2), 179-211.
3. Ajzen, I. (2005). Attitudes, personality, and behavior (2nd ed.). Maidenhead, UK: Open University Press.
4. Ajzen, I. (2012). The theory of planned behavior. In P. A. M. v. Lange, A. W. Kruglanski & E. T. Higgins (Eds.), Handbook of theories of social psychology (Vol. 1, pp. 438-459). London, UK: Sage Publications.
5. Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. Psychological Bulletin, 84(5), 888-918.
6. Ajzen, I., & Fishbein, M. (1980). Understanding attitudes and predicting social behavior. Englewood-Cliffs, NJ: Prentice-Hall.

 DOI: 10.5709/ce.1897-9254.26

7. Ajzen, I., & Fishbein, M. (2000). Attitudes and the attitude-behavior relation: Reasoned and automatic processes. In W. Stroebe & M. Hewstone (Eds.), European review of social psychology (Vol. 11, pp. 1-33). Chichester, England: Wiley.
8. Ajzen, I., Nichols, A. J., & Driver, B. L. (1995). Identifying salient beliefs about leisure activities: Frequency of elicitation versus response latency. Journal of Applied Social Psychology, 25(16), 1391-1410.
9. Albarracín, D., Johnson, B. T., Fishbein, M., & Muellerleile, P. A. (2001). Theories of reasoned action and planned behavior as models of condom use: A meta-analysis. Psychological Bulletin, 127(1), 142-161.
10. Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behavior: A meta-analytic review. British Journal of Social Psychology, 40, 471 - 499.
11. Armitage, C. J., Conner, M., Loach, J., & Willetts, D. (1999). Different perceptions of control: Applying an extended theory of planned behavior to legal and illegal drug use. Basic and Applied Social Psychology, 21(4), 301-316.
12. Arvey, R. D., & Neel, C. W. (1974). Testing expectancy theory predictions using behaviorally based measures of motivational effort for engineers. Journal of Vocational Behavior, 4(3), 299-310. doi: 10.1016/0001-8791(74)90114-6
13. Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, 84(2), 191-215.
14. Bandura, A. (1997). Self-efficacy: The exercise of control. New York: Freeman.
15. Bandura, A., & Adams, N. E. (1977). Analysis of self-efficacy theory of behavioral change. Cognitive Therapy and Research, 1(4), 287-310.
16. Bandura, A., & Locke, E. A. (2003). Negative self-efficacy and goal effects revisited. Journal of Applied Psychology, 88(1), 87-99.
17. Carlson, E. R. (1956). Attitude change through modification of attitude structure. Journal of Abnormal & Social Psychology, 52, 256-261.
18. Cervone, D., & Peake, P. K. (1986). Anchoring, efficacy, and action: The influence of judgmental heuristics on self-efficacy judgments and behavior. Journal of Personality and Social Psychology, 50(3), 492-501.
19. Collins, O., Dalton, M., & Roy, D. (1946). Restriction of output and social cleavage in industry. Applied Anthropology, 5, 3, 1-14.
20. Dabholkar, P. A. (1999). Expectancy-value models. In P. E. Earl & S. Kemp (Eds.), The elgar companion to consumer research and economic psychology (pp. 200-208). Cheltenham, UK: Edward Elgar.
21. De Fleur, M. L., & Westie, F. R. (1958). Verbal attitudes and overt acts: An experiment on the salience of attitudes. American Sociological Review, 23, 667-673.
22. Eagly, A. H., & Chaiken, S. (1993). The psychology of attitudes. Fort Worth, TX: Harcourt Brace.
23. Ekerdt, D. J. (1998). Workplace norms for the timing of retirement. In K. W. Schaie & C. Schooler (Eds.), Impact of work on older adults. (pp. 101-142). New York, NY US: Springer Publishing Co.
24. Feather, N. T. (1959). Subjective probability and decision under uncertainty. Psychological Review, 66, 150-164.
25. Feather, N. T. (Ed.). (1982). Expectations and actions: Expectancy–value models in psychology. Hillsdale, NJ: Erlbaum.
26. Fishbein, M. (1963). An investigation of the relationships between beliefs about an object and the attitude toward that object. Human Relations, 16, 233-240.
27. Fishbein, M. (1967). A consideration of beliefs and their role in attitude measurement. In M. Fishbein (Ed.), Readings in attitude theory and measurement (pp. 257-266). New York: Wiley.
28. Fishbein, M., & Ajzen, I. (1975). Belief, attitude, intention, and behavior: An introduction to theory and research. Reading, MA: Addison-Wesley.
29. Fishbein, M., & Ajzen, I. (2010). Predicting and changing behavior: The reasoned action approach. New York: Psychology Press.
30. Fraser, R. T., Johnson, K., Hebert, J., Ajzen, I., Copeland, J., Brown, P., & Chan, F. (2010). Understanding employers' hiring intentions in relation to qualified workers with disabilities: Preliminary findings. Journal of Occupational Rehabilitation, 20(4), 420-426. doi: 10.1007/s10926-009-9220-1
31. Freeman, L. C., & Ataoev, T. (1960). Invalidity of indirect and direct measures of attitude toward cheating. Journal of Personality, 28, 443-447.

32. Gagné, C., & Godin, G. (2000). The theory of planned behavior: Some measurement issues concerning belief-based variables. Journal of Applied Social Psychology, 30(10), 2173-2193.
33. Graen, G. (1969). Instrumentality theory of work motivation: Some experimental results and suggested modifications. Journal of Applied Psychology, 53(2, Pt.2), 1-25. doi: 10.1037/h0027100
34. Greenwald, A. G., Poehlman, T. A., Uhlmann, E., & Banaji, M. R. (2009). Understanding and using the implicit association test: III. Meta-analysis of predictive validity. Journal of Personality and Social Psychology, 97(1), 17-41.
35. Himelstein, P., & Moore, J. (1963). Racial attitudes and the action of Negro and white background figures as factors in petition-signing. Journal of Social Psychology, 61(2), 267-272.
36. Iaffaldano, M. T., & Muchinsky, P. M. (1985). Job satisfaction and job performance: A meta-analysis. Psychological Bulletin, 97(2), 251-273.
37. Judge, T. A., Thoresen, C. J., Bono, J. E., & Patton, G. K. (2001). The Job Satisfaction-Job Performance Relationship: A Qualitative and Quantitative Review. Psychological Bulletin, 127(3), 376-407.
38. Kaplan, K. J., & Fishbein, M. (1969). The source of beliefs, their saliency, and prediction of attitude. Journal of Social Psychology, 78(1), 63-74.
39. Kinicki, A. J., McKee-Ryan, F. M., Schriesheim, C. A., & Carson, K. P. (2002). Assessing the Construct Validity of the Job Descriptive Index: A Review and Meta-Analysis. Journal of Applied Psychology, 87(1), 14-32.
40. Landy, F. J. (1989). Psychology of work behavior. Pacific Grove, CA: Brooks/Cole.
41. LaPiere, R. T. (1934). Attitudes vs. actions. Social Forces, 13, 230-237.
42. Lawler, E. E., & Suttle, J. L. (1973). Expectancy theory and job behavior. Organizational Behavior & Human Performance, 9(3), 482-503. doi: 10.1016/0030-5073(73)90066-4
43. Linn, L. S. (1965). Verbal attitudes and overt behavior: A study of racial discrimination. Social Forces, 43, 353–364.
44. Litt, M. D. (1988). Self-efficacy and perceived control: Cognitive mediators of pain tolerance. Journal of Personality and Social Psychology, 54(1), 149-160.
45. Mitchell, T. R., & Biglan, A. (1971). Instrumentality theories: Current uses in psychology. Psychological Bulletin, 76(6), 432-454. doi: 10.1037/h0031831
46. Osgood, C. E., Suci, G. J., & Tannenbaum, P. H. (1957). The measurement of meaning. Urbana, IL: University of Illinois Press.
47. Peak, H. (1955). Attitude and motivation. In M. R. Jones (Ed.), Nebraska symposium on motivation (Vol. 3, pp. 149-189). Lincoln, NE: University of Nebraska Press.
48. Pearson, C. M., Andersson, L. M., & Porath, C. L. (2005). Workplace Incivility. In S. Fox & P. E. Spector (Eds.), Counterproductive work behavior: Investigations of actors and targets. (pp. 177-200). Washington, DC US: American Psychological Association.
49. Petkova, K. G., Ajzen, I., & Driver, B. L. (1995). Salience of anti-abortion beliefs and commitment to an attitudinal position: On the strength, structure, and predictive validity of anti-abortion attitudes. Journal of Applied Social Psychology, 25(6), 463-483.
50. Petty, R. E., & Cacioppo, J. T. (1986). Communication and Persuasion: Central and peripheral routes to attitude change. New York: Springer Verlag.
51. Robbins, S. P., & Judge, T. A. (2010). Organizational behavior (14 ed.). Upper Saddle River, NJ: Prentice Hall.
52. Rosenberg, M. J. (1956). Cognitive structure and attitudinal affect. Journal of Abnormal and Social Psychology, 53, 367-372.
53. Saari, L. M., & Judge, T. A. (2004). Employee attitudes and job satisfaction. Human Resource Management, 43(4), 395-407. doi: 10.1002/hrm.20032
54. Smith, P. C. (1974). The development of a method of measuring job satisfaction: The Cornell studies. In E. A. Fleishman & A. R. Bass (Eds.), Studies in personnel and industrial psychology (3rd ed.). Homewood, IL: Dorsey.
55. Smith, P. C., Kendall, L. M., & Hulin, C. L. (1969). The measurement of satisfaction in work and retirement: A strategy for the study of attitudes.: Rand Mcnally.
56. Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. Science, 185(4157), 1124-1131.

57. van den Putte, B. (1993). On the theory of reasoned action. Dissertation, University of Amsterdam, The Netherlands.
58. van der Pligt, J., & Eiser, J. R. (1984). Dimensional salience, judgment and attitudes. In J. R. Eiser (Ed.), Attitudinal judgment (pp. 43-63). New York: Springer-Verlag.
59. Van Eerde, W., & Thierry, H. (1996). Vroom's expectancy models and work-related criteria: A meta-analysis. Journal of Applied Psychology, 81(5), 575-586. doi: 10.1037/0021-9010.81.5.575
60. Viswesvaran, C., & Ones, D. S. (2000). Perspectives on models of job performance. International Journal of Selection & Assessment, 8(4), 216-226.
61. Vroom, V. H. (1964). Work and motivation. New York: Wiley.
62. Weinberg, R. S., Gould, D., Yukelson, D., & Jackson, A. (1981). The effect of preexisting and manipulated self-efficacy on a competitive muscular endurance task. Journal of Sport Psychology, 3(4), 345-354.
63. Wicker, A. W. (1969). Attitudes versus actions: The relationship of verbal and overt behavioral responses to attitude objects. Journal of Social Issues, 25(4), 41-78.