Expecting More Out of Expectancy Theory: History Urges Inclusion of the Social Context

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[**Abstract]** Investigating Vroom's expectancy theory, with direct examination of the historical context of its three main tenants, leads to a supportable framework for inclusion of a fourth. Specific consideration is given to social context as it relates to worker motivation within the environment of multiple sectors. The literature on equity theory, organizational justice, and early modifications of expectancy theory suggest that social context necessitates consideration for effectively gauging workplace motivation. Previous research dictates a collection of individuals is not simply an aggregate of their individual motivations and abilities; rather, workplace results are a product of the group's influence on said individuals. Our endeavor is to expand the understanding of workplace motivation with a specific focus on the interaction of the social environment within the organization as well as across sectors. This examination postulates Vroom's expectancy theory formula (motivation = instrumentality * expectancy * valence) should be modified to support management decision-making by introducing a new social variable.

[Keywords] expectancy theory, motivation, social context, group influence, management history, workplace social dynamics

Worker motivation is an important and problematic criterion for administrators to utilize effectively. As firms face increased the diversity of workers in an expanding presence across sectors and the globe, managers require modernized and more applicable theories to aid in every aspect of management, including employee motivation. As firm diversity and collaboration increases, managers must utilize various criteria to motivate workers across numerous sectors and cultures continually. How are relevant factors chosen when determining processes to increase employee motivation? This is an important question in light of a firm's desire to find factors that satisfy their employee's motivational needs as well as the organizations' desire to retain high-quality workers (Mak & Sockel, 2001). Having a relevant, current theory allows decision-makers confidence in selecting the appropriate criteria. As Hofstede (1980) found, there are many different motivational differences throughout the world, which can be traced back to differences in culture. The culture of organizations has been found to vary more across industries than within them (Chatman & Jehn, 1994). Hence, a need exists to determine motivation theory which accounts for the ever-increasing cultural factors involved in the workforce. Utilizing one of the most prominent theories of employee motivation, expectancy theory, this paper examines and determines the theory's appropriateness for current cultural variation across industries and sectors.

Expectancy Theory

During the 1960's, Victor Vroom saw a gap between the research performed by industrial psychologists

and practical models of workplace motivation that could be employed by managers (1964). In *Work and Motivation,* he postulated the theory known as "expectancy theory of motivation." In this seminal work, he describes motivation force (MF) as a product of expectancy, instrumentality, and valence. Vroom's theory has been widely dissected, debated and empirically tested by academicians and scholars. While acknowledging this subsequent research and building on the original writings of the social movement of the early twentieth century, this paper will re-examine the tenets of Vroom's theory and suggest a new variable, the social context, which needs to be included in the theory of motivation.

Expectancy theory was postulated during the golden age of motivation theories during the 1960's. However, what separates expectancy theory from the other seminal works on motivation is that expectancy theory focused on the cognitive antecedents that contribute or detract from personal motivation (Lunenburg, 2011). Albeit the theory heavily influences modern thinking on motivation, much debate exists whether the model can reasonably predict workplace motivation and behavior.

In the decades following the Vroom's publishing, several need theories of motivation were developed which tried to explain specific physical and psychological forces (i.e., food, security, esteem.) that drive workplace behavior. These include Maslow's hierarchy of needs, McClelland's human motivation theory, Herzberg's two-factor theory, and Alderfer's ERG theory (Lunenburg, 2011). Vroom defines motivation as "a process governing choices made by persons or lower organisms among alternative forms of voluntary activity" (1964). Expectancy theory is based on the postulation that individuals have choices, and they make decisions based on which choice they perceive will lead to the best personal outcome. This supposition is composed of three premises which Vroom's uses to construct his theory – expectancy, instrumentality, and valence. According to Vroom, the motivational force that drives behavior is a product of these three variables and can be represented by the equation:

$$Motivation = Expectancy * Instrumentality * Valence$$

Each premise has an assigned value – expectancy 0 to 1, instrumentality 0 to 1, and valence -1 to 1. Therefore, if any of the variables are equal to 0, the motivational force will be absent. If valence is less than 0, the motivational force will be directed towards avoidance of the reward.

Expectancy

Expectancy is the worker's anticipation that a certain effort on their part will lead to a specific performance. It is the degree to which an individual believes their abilities will lead them to goal achievement. Vroom describes expectancy as "an action-outcome association," and "takes values ranging from 0 to 1." In summary, a person's motivation will range from 0 (no expectation) and 1 (full expectation) as it relates to whether they *believe* their efforts will achieve a certain outcome.

Instrumentality

Instrumentality is the perception that a given outcome of performance on their part will lead to them receiving an anticipated reward. Vroom describes this as an "outcome-outcome association" (1964) and also ranges on a scale of 0, where there is no expectation of desired outcome delivery to 1, where a reasonable probability of the delivery of rewards is perceived. It is an "estimate of the probability that a given level of achieved task performance will lead to various work outcomes" (Lunenburg, 2011).

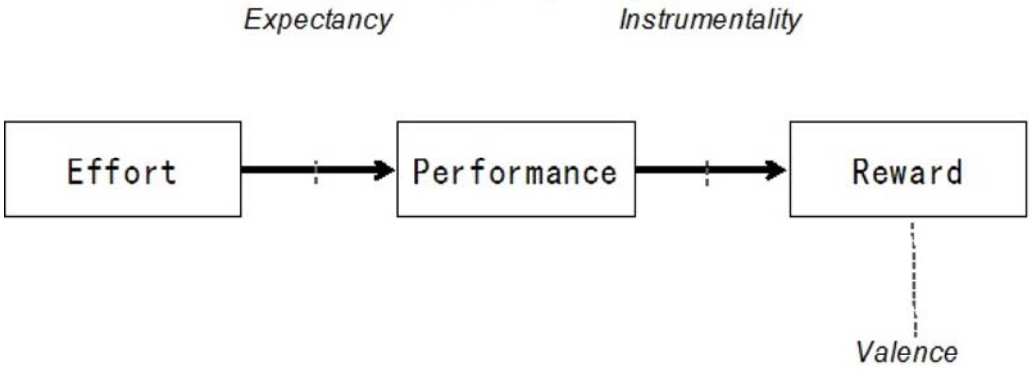
Valence

Valence is the degree to which an individual has a preference for a given outcome. Vroom describes valence as "effective orientations toward particular outcomes" (1964). Valence can be positive, whereby the attainment of the reward is desired, or negative whereby the attainment of the reward is something an individual wishes to avoid. As such, valance can have a value ranging from -1 to 1. Vroom clarifies the difference between valence and value in that valence is the *perception* of anticipated satisfaction while the value is the actual satisfaction or utility received after attaining the reward.

Expectancy Theory Model

Motivational force as described by the expectancy theory is based on an individual's belief that a certain effort will lead to a given performance (expectancy) and that performance will lead to attainment (instrumentality) of a desirable or undesirable (valence) reward. An individual's perception of each variable is essential to determining behavior and can be illustrated with the following figure.

Figure 1 – Expectancy Theory Model



Following publication in 1964, Vroom's expectancy sparked substantial debate on the subject in the proceeding decade. Updates to the model were suggested, most notably by Lawler and Porter (1967), Porter and Lawler (1968), Graen (1969), and Lawler (1971). For a summary of these early modifications to the model see Lawler and Suttle (1973). The major criticisms of expectancy theory focused on the simplicity of the model. Factors were added for both intrinsic and extrinsic motivations: valence, task requirement and perception of fairness of given rewards. Lawler (1971) defined the difference between expectancy that actions would lead to successful performance and the expectancy that actions will produce outcomes. Expectancy theory was expanded by Porter and Lawler (1968) to account for the role of personal abilities and skills, to include the relationship between satisfaction and performance, and to recognize the influence that past relationships have on expectancy.

Research on Vroom's expectancy theory following these early modifications is substantial and ranges from an analysis of the theory's underlying assumptions (Behling & Starke, 1973 & Liddell & Solomon, 1977) and empirical testing of its validity (House & Wahba, 1974) to several applications in specific industries to better understand employee motivation which include pursuit of entrepreneurial ideas (Hayton & Cholakova, 2012), nursing education and career progression (Candela, Gutierrez, & Keating, 2015), federal employee workforce (Park, & Kim, 2017), civil service, (Leonina, 2017), energy markets, (Baumhof,

Decker, Röder & Menrad, 2017), local government (Suciu, Mortan, & Lazar, 2013), hotel management (Chun-Fang, Soo-Cheong, Canter, & Prince, 2008), public accounting (Geiger & Cooper, 1996), sales (Teas & McElroy, 1986), and banking (De Oliveira, Madruga, De Sà, & Regis, 2013). The theory has been contextualized in terms of its effect on employee turnover and absenteeism (Porter & Steers, 1973; Mobley, 1977; Mowday, Porter & Steers, 1982) as well as organizational citizenship (Organ, 1988).

Despite 50 years of research on motivation, recent literature calls for a renewed focus on the subject (Leonard, Beauvais, & Scholl, 1999; Selden & Brewer, 2000; Kim, 2006). Motivation continues to be a principal concern of employers and organizations, yet motivational theories still fall short of explaining human behavior at work. Most theories focus on solitary factors as contributors to motivation, leaving a need for more expansive and comprehensive models (Humphreys & Einstein, 2004). Some scholars concluded that expectancy theory could be combined with other motivational theories to gain a deeper understanding of workplace motivation (Kanfer, 1987; Kernan & Lord, 1990). However, a meta-analysis conducted by Eerde and Thierry (1996) demonstrated that the extensions of expectancy theory and manifold context-specific analyses were scattershot, and no consistency existed in the line of research that explored its tenets. They specifically called for an integrative theory or research agenda that could accomplish what the previous thirty years of research on expectancy theory did not achieve. Despite a waning of scholarly interest on the subject since their call for an integrated theory, some research projects have focused on trying to integrate the social elements of expectancy theory.

For example, Adler and Kwon (2002) first explored the relationship between social context and motivation when they developed intra-organizational social capital (IOSC), which explains the impact of collective action and social influences on organizational readiness and performance. Mahajan and Benson (2013) extended this theory by determining the positive impact that IOSC has on individual employee motivation. This research explains the motivational context of the social environment, but does not specifically address the elements contained within expectancy theory. Gyurko (2010) postulated that expectancy theory creates workplace momentum as a result of social cognition, but results of empirically testing this nexus were marginal. The lack of a foundational theory that fully assimilates socialization and its influence on workplace represents an ongoing gap in the extant research on expectancy theory.

The limited discussion that exists on social context and the motivating factors of expectancy theory are the basis for this scholarly work. The historical context of expectancy theory is provided so that an explicit connection can be drawn between the constructs being explored. While Lunenburg (2011) draws a connection between the two, stating the influence of group norms would determine the positive or negative perception of the valence of rewards, he does not identify the impact as a completely separate variable. The theory has been examined in light of inexorable influence that cultural characteristics can have on workplace motivation (Bhagat & McQuaid, 1982). Humpreys & Einstein (2004) identified the importance of personalities of both leaders and followers on motivation as it relates to temperament congruence. Impression management is a moderating factor in organizational politics which heavily influence the variables within expectancy theory (Chen & Fang, 2008). Locus of control plays an important role in workplace motivation, whereby fair pay, job content, work conditions and relationships are weighty influencers of motivation (Kandrom, 2015).

The existence of informal group influence and social impact on workers performance has been widely

discussed in the literature. Empirical analysis conducted by Hongseok, Myung-Ho, and Labianca (2004) reviews the concept of group social capital, which denotes the social relationships among group members and their impact on group efficacy. Researchers focused considerable effort on organizational justice in the 1960s, and discovered motivation can be derived from perceptions of fairness. Van Avermaet, McClintock, and Moskotwitz (1978) established the reactive-proactive principle of organizational justice whereby individuals will either seek to correct an injustice or strive to attain and promote justice. A further distinction of organizational justice is between the process and the content approaches. Process approaches justice address fairness in how various outcomes are determined while content approaches address the fairness in the distribution of those outcomes (Walker, Lind, & Thibaut, 1979). These two dimensions (reactive-proactive and process-content) serve as the context for how individuals perceive fairness within an organization. For a summary of the literature on organization justice, see Greenburg (1987). Motivation in terms of organizational justice theories are not relegated to individual understandings of fairness, but contingent upon the individuals' perceptions of fairness within their social environment.

Several prominent theories emerged from this early research on the categorization of organizational justice. Distributive justice was defined by Folger and Cropanzano (1998) as "perceived fairness of the outcomes or allocations that an individual receives" (p. xxi). When an individual perceives a violation of distributive justice, job performance, cooperation with co-workers, and quality of work decrease (Greenburg, 1988; Pfeffer & Langton, 1993; Cowherd & Levine, 1992), while theft and stress go up (Zohar, 1995; Greenberg, 1990).

Procedural justice was identified as "fairness issues concerning the methods, mechanisms, and processes used to determine outcomes" (Folger & Cropanzano, 1998). Interactional justice is derived from "the quality of the interpersonal treatment . . . received during the enactment of organizational procedures" (Bies & Moag, 1986). Referent cognitions theory describes an individual's construction of alternative outcomes and their understanding of the ostensible instrumentality of those outcomes (Folger, 1993).

Equity theory arose from the same era that produced other seminal motivational theories; Adams (1963, 1965) established equity theory as a new approach to understanding motivation. Essential to equity theory was the notion that an individual compares the ratio of their output to input to their perceptions of the ratio of others within the organization. If the ratios are not balanced, the individual will experience a level of distress commensurate with the imbalance of equity. Most importantly, the degree of this imbalance determines the degree of motivation an individual generates for correction. Interestingly, Adams (1963) found that inequity of outputs in favor of the individual could have a negative impact on motivation in the same way that perceived inequity is not in their favor. Huseman, Hatfield, and Miles (1987) extended the research further by claiming individuals have various tolerances for inequity, known as equity sensitivity.

Literature abounds in comparison of equity theory and expectancy theory, most notably by Campbell and Pritchard (1976) and Lawler (1968, 1973). These authors juxtaposed the two theories not as antitheses, but as each containing elements of the other. For example, equity theory could inform the understanding of valence outcomes and therefore motivation. Vroom (1964) acknowledged that an understanding of the fair distribution of outcomes as proposed by equity theory would require a moral system from which to base that perception. We refer to a social factor that exists (inclusive of informal group influence and social impact on workers performance) such that its inclusion in expectancy theory will alter the motivation outcome when determining overall worker motivation. Thus, we offer the following hypotheses:

Hypothesis 1: A Social Context exists for individuals such that as the positivity of a social context factor increases, as all other factors remain the same, worker motivation increases.

Hypothesis 2: A Social Context exists for individuals such that as the negativity of a social context factor increases, as all other factors remain the same, worker motivation decreases.

Hypothesis 3: A Social Context exists for individuals such that as the value of a social context factor equals zero, worker motivation is eliminated.

Historical Support for the Inclusion of A New Variable

Two major events promulgated the advent of the industrial revolution - the invention of the steam engine and the publication of Adam Smith's economic treatise *The Wealth of Nations* (Ashton, 1948). Conditions in Great Britain had primed for such industry growth, and the result was an immense augmentation in manufacturing output and an increase in worker migration from farms to factories. A focus on processes, efficiency, and cost-reduction ensued, which relegated labor to another "factor of production." Labor was viewed as another element to be managed. During this timeframe, workers were required to labor long hours in poor and often unsafe conditions. The formation of labor unions attempted to address the needs of the workers (Ashton, 1948).

During the eighteenth and nineteenth centuries, the ontological meaning of work came into the debate. Adam Smith argued that work was a means by which man could achieve other ends that coincided with rational self-interest (Volf, 1991). Karl Marx, on the other hand, postulated that work was itself an end. Work carried specific individual meaning toward dignity and had lasting social implications. "What differentiates human beings from animals is not only that they work freely and purposefully but also that they work consciously for one another. They relate to one another as human beings" (Marx, 1973).

A new concept emerged around the same time Frederick Taylor was initiating the movement towards scientific management. Christian von Ehrenfels articulated the unique concept of *gestalt* in his monograph *Über Gestaltqualitäten* (1890). In summary, he claimed that the "whole" is more than simply the sum of its parts - context *and* interrelation between variables was relevant and needed consideration (Smith, 1988). This concept of gestalt had significant implications on the life of a laborer – making each more than a wage-earning producer of goods that needed to be managed, but rather a part of a larger internal context with fellow laborers and external context with family and society.

The preponderance of Marx's writings on the social relevance of work and Ehrenfels' definition of gestalt as the inclusion of a larger context of work became the underpinnings of what would become the social movement, where the laborer would be seen as a social being. The writings of Paul Göehre, Whiting Williams, Mary P. Follet, Elton Mayo, Fritz Roethlisberger and William Dickens later articulated the notion that interaction between a worker's internal and external social environment had an impact on workplace motivation.

The first major contribution to the research on social context came from the work of Paul Göehre as he spent three months working alongside laborers at a machine-making factory in Germany. He endeavored to understand the reasons workers subscribed to the political platform of Social Democracy and the effects it had on internal group dynamics. What he found was workers' "experiences, personal desires, and early

[life] influences were often exceedingly intense and powerful, [yet] strangely bound up in connection with social-democratic ideals and teachings" (1895). In short, he found that productivity increased when members felt interdependence within the group and that the informal group, which was heavily influenced by political affiliation, created social pressure on individual members. Isolation of group members had a direct relationship with lower morale and productivity (1895). Published in 1891, this was one of the earliest academic publications that connected internal social dynamics and worker productivity.

In similar fashion, Whiting Williams spent several years working alongside various manual laborers in the U.S., after which he published findings on his experiences in *What's on the Worker's Mind? By One Who Put on Overalls to Find Out* (1920). The key takeaway from his research was that a worker's job was inexorably connected to social status outside of work. Williams found that for the laborer, work was "the most important means of establishing his status and standing as a man and a citizen – and the status and standing of his wife and children" (1920). In essence, social identity came from job status because wages and position provided access to the worker's material needs and social desires. As such, the actual wages an individual received were not as important as the comparison the worker made to what others received.

Williams also found that workers engaged in a behavior known as "soldiering," whereby they deliberately restricted output when they perceived a shortage of labor opportunities. Moreover, unions arose because employers were not addressing the long-term security needs of the worker (1920). On occasion, workers would strike as part of a union's effort to improve conditions. Both of these observations reinforced the idea that a worker's primary concern was for maintaining their social status, which was made possible by job security.

Mary Parker Follett further promulgated the social context of work. She was heavily influenced by the work of Anna Boynton Thompson who was a proponent of fully developing the individual in the context of the "many" and the "universal" (Thompson, 1895). Thompson claimed that "duty to a neighbor was to introduce into his knowledge the concept of the highest possible development of existence" (1895). Man was not called into isolation through work, but through contribution to a collective ego.

Another significant influence on Follett was that of the gestalt writers such as Von Ehrenfels. She iterates the concept that the "meaning of a social situation is to be found not in its elements viewed separately, but only in the total situation" (1924). Moreover, she states that it is imperative to "study [the] whole and parts in their active and continuous relation to each other" (1924). These two influences laid the groundwork for her thoughts on group dynamics. In *Creative Experience* (1924) she claims that group experiences can have a positive effect on helping individual members find new creativity in developing integrative solutions to conflict. By contrast, if each individual acted independently, an ideal solution would not be possible. A focus on integrative resolutions necessarily meant unifying group effort and avoiding compromises whereby one party must settle for a sub-standard solution (1924). In *Dynamic Administration* (1940) Follett furthers the notion that by searching for integrative solutions "people identify themselves with the group interest, feeling consciously that it will be their own interest in the end."

In 1923, General Electric commissioned and funded a series of "industrial illumination tests" that were carried out by the Council on Industrial Lighting in late 1924 – a study that became known as the Hawthorne Illumination Tests (Wrege, 1976). The results of these initial tests did not prove a correlation between illumination levels and worker output. However, Charles Snow, the lead researcher, found telling insights into other factors that affected workplace motivation, which included "(1) social pressures used by the

foreman to increase production, (2) physiological and psychological factors, and (3) influence of home environment" (Wrege, 1976). The Hawthorne Studies unwittingly discovered the social context as a predominant factor in workplace motivation and created a new focus for researchers during the next two decades.

Elton Mayo joined the Hawthorne Studies researchers in 1928. From his experiences at Hawthorne and subsequent research in the decades that followed, he developed three salient points in the social context of the workplace. The first of these conclusions was a gestalt-influenced theory on understanding the "total situation" (1923). To him, the worker was a social human being and required attention towards social needs. Individuals, therefore, must be perceived not as singular and independent variables within the workplace, but rather as a part of a group. "It is with a man as a totality, the individual in his social relations that we are dealing with business" (1923). Mayo further stated that "man's desire to be continuously associated in work with his fellows is a strong, if not the strongest, human characteristic" (1945).

A second conclusion that Mayo readily reported in his research was that financial incentives were subordinate to the worker's desire to belong to the informal organization. "Morale [is] derived not primarily from incentive plans devised by industrial engineers, but from a sense of solidarity with the community and service to it" (1932). His research found that "in many industries . . . the majority of workers refuse to earn more than a certain income" (1923). Pecuniary interest yielded to a deeper need for social inclusion.

The third, and perhaps most telling conclusion drawn by Mayo as it relates to worker motivation, is that informal groups had the power to influence the behaviors of individual members. He references "the inner compulsion to think and act in a way that is socially acceptable, which is imposed upon an ordered community by social tradition" (1933). This compulsion manifests itself through "a discipline that enhances the certainty of unity in work" (1945).

Following the completion of the Hawthorne Studies, Fritz Roethlisberger and William Dickson published the complete findings in their book *Management and the Worker* (1939). One of the key takeaways in this work included discussion on the "social control of work behavior." Observation of the informal groups provided commentary on how individuals were positioned within the group (1939). Social status was a function of both conforming to "group expectations on output" and to an individual's adherence to "group sentiments on personal conduct" (1939). Some workers excelled at the output, but held lower social positions because of abrasive attitudes. Other workers lacked in conformance to output standards, yet were still accepted into what the authors describe as the "clique" because their personal conduct was deemed acceptable. The dual expectation by the informal organization provides insights as to the dual nature of workplace motivation – towards wage incentives as well as group norms (1939).

A better understanding of wage incentives arose clearly from the research. They found that wage incentives could not be considered a completely independent factor in fueling a desire to increase output, but "only in connection with the interpersonal relations at work and the personal situations outside of work could its effect on output be determined" (1939). In essence, a worker's ostensible motivation to increase output was not solely determined by the financial incentives to do so.

Summary of the Social Context

The published works of Mayo, Roethlisberger, and Dickson following the Hawthorne Studies created a new focus for workers as social human beings. Several key learnings were gleaned from their findings

as it relates to workplace motivation. Individuals could only be studied in the bigger picture of their role in a group and relationships within the same. The informal groups of an organization could wield resilient influence on the behavior of individual members, both on output effort and conformance to group norms. The monetary incentives provided by the organization to increase output were secondary to the individual's need to be included and accepted into the informal group to which they belonged.

Vroom acknowledges in the introduction of *Work and Motivation* the previous research on the social environment's effect on workplace motivation but did not describe its inclusion into his theory of individual motivation. In the spirit of gestalt thinking, the theory needs to consider the impact social factors play on each of the premises in the expectancy theory. The following discussion addresses this consideration. In short, individuals do not work in a vacuum. They are, as both Mayo and Williams described, a "social man" and the life of a worker outside of the factory cannot be separated from the daily output on the factory floor. Roethlisberger, Dickson, and Göehre described the relationships within the workplace as having a substantial influence on workplace behavior through the pressures of informal group expectations. Individual motivation must, therefore, be considered utilizing both these external and internal relationships – hence the "total situation," and a new gestalt for Vroom's theory.

Effect of Social Context on Effort, Performance, And Reward

Whiting Williams witnessed both "soldiering" (stringing out the job) and union strikes during his observations in the field. On these occasions, the individual interests were subjugated by group influence. In many cases, soldiering and striking happened despite financial incentives being in place for increased output. Let us apply the premises of the original expectancy theory in an attempt to explain a singular worker's motivation at one of these moments in time.

1) Effort – Workers needed the job because it provided material goods for their family and allowed them to maintain social status. Therefore, they should have been willing to show up to work and give the required effort.

2) Performance – The nature of each job (coal, oil, shipyards) was repetitive. The previous experience gave the worker reasonable confidence that they could perform at a level to attain output goals, and they had no reason to believe that management would not pay out promised incentives.

3) Reward – Increased monetary payouts should have had intrinsic value for the worker. More pay meant security and stability in social status.

Each of these factors was positive and should have led to increased motivational force.

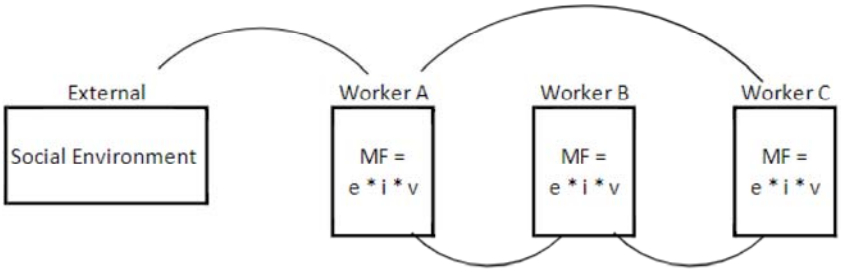
MF = Expectancy (+1) * Instrumentality (+1) * Valence (+1). However, on occasion workers did strike and did string out jobs. Expectancy theory falls short in explaining the complete picture. These workers, who otherwise would have had a positive motivation, chose to engage in behaviors that conformed to group expectations.

Including A New Variable

Vroom's research indicates that motivational force (MF) is a product of his three premises (expectancy, instrumentality, and valence). Each worker carries these predispositions of motivation each day at work, represented by the formula MF = e * i * v. However, these workers interact and affect the predispositions of other workers in the workplace. These other workers can be in different industries, sectors, and

geographic locations. These factors increase the variability of cultures involved, which complicates efforts to determine effective motivation criteria. Worker A's choices regarding motivation are influenced by a relationship with Worker B and a relationship with Worker C. Additionally, Worker A is influenced by his personal perception of the relationship between Worker B and Worker C. As described by Whiting and Mayo, these internal relationships are also heavily influenced by the social environment.

Figure 2 – Inter-relationships and the External Environment



This social interaction is the link between each worker's personal motivational force. As a result, expectancy theory should account for this connection with the inclusion of the social variable into the equation. The inter-relation of the workers should be represented as a valid premise in determining workplace motivation as the full context of motivation could not be understood or explained without its inclusion (as demonstrated with Williams' soldiering and striking example). The workplace then becomes not simply an aggregate of the individual motivational forces, but something completely new (a gestalt), where the individual motivational forces are inter-dependent. The new variable representing the social context would be an algebraic summation of all internal relationships (and the individual's perceptions thereof) plus the impact of the external social environment.

Figure 3 –The Social Impact

$$s = \left(\sum_{i=1}^{x} i \right) + e$$

i = the internal relationships
x = number of internal relationships
e = impact of external environment
s = overall social impact

Just as Vroom assigned numeric value to the first three variables of the theory, the result of the summation of social context would range from -1 to 1. A value less than zero would indicate the social environment has a negative effect on motivation. In one example from the Hawthorne Studies, "an

operator's output declined when her father threw her out of the house, and she was forced to sleep in the park" (Wreg, 1976). A value above zero would indicate the social environment had a positive impact on workplace motivation. During the Hawthorne Studies, the researchers observed increased output when the workers were given a higher number of rest periods, not as a result of reduced fatigue, but because the more social interaction was possible (Roethlisberger & Dickson, 1939). The inclusion of the social variable would result in a new formula for the expectancy theory where: *motivational force = expectancy * instrumentality * valence * social impact*

The historical support for the inclusion of this new variable started with von Ehrenfels idea of gestalt, Uber Gestaltqualitäten in1890, the whole is simply more than the sum of the parts. The focus was that though there is a need to analyze and fully understand each part of a model, it is just as important to understand the complexity of the complete idea. To better understand and utilize motivation, Vroom's expectancy theory needs to better explain the 'big picture'. Adding a social context has been suggested over the previous 130+ years. Paul Göehre connected internal social dynamics and worker productivity in his 1891 publication. Whiting Williams also discussed social standing in 1920, and supported the notion of 'soldiering', where a worker's primary concern was social status and not wages. Elton Mayo, from his work with the Hawthorne Studies, further promotes a social context with his three points regarding 'total situation'-that social inclusion may be a worker's strongest motivator, financial incentives being secondary to worker's belonging, and the power of informal groups to influence individual worker behaviors.

Including the social context in expectancy theory should help satisfy the more recent research asking for more comprehensive models in motivation, such as Kanfer, 1987, Kernan & Lord, 1990, and Humphreys & Einstein, 2004. The relative simplicity of the social context variable should satisfy Eerde and Thierry's (1996) finding of inconsistent, scattershot extensions of motivation theories. The addition of a social context variable to Expectancy Theory is parsimonious and preferable to attempts to add more micro-constructs, (i.e. intra-organizational social capital (IOSC)) external to Expectancy Theory.

Practical Implications and Future Directions

In addition to the contribution this investigation presents for the development of management theory, there are a number of implications for practice that emerge from the creation of an updated theory. Managers who seek to increase motivation and worker output utilizing Vroom's expectancy theory may have previously been able to ignore the social context in their policy creation and application. However, it is apparent in the current business environment, with the three factors of expectancy theory calculating positive or negative results, outcomes could easily be altered by a fourth criterion, social context. We will discuss several implications can be drawn from this discussion.

First, practitioners can better understand the complexity of motivating workers, and the need to include the social context of their worker's in their decision-making. As these concepts have been separate, it is likely the management has spent more time, money, and effort to motivate workers- with lesser results. The updated model from this paper will allow manager's to better understand how their workers are motivated and thus managers are better able to utilize the tools at their disposal to better worker motivation.

Regarding businesses which continue to further engage across industries, sectors, and geographies, the theory needs to evolve to account for differences in motivation based on cultural and social context. As worker motivation is affected by stronger intra-industry and geographical coworker relationships and

societal expectations, corporate policy needs to be grounded in all four criteria in order to motivate effectively. Furthering Vroom's expectancy theory as detailed and supported in this article satisfies this need. Second, matching the evolution and expansion of the managers' business environment with their needs to motivate workers effectively across changing criteria which become more evident as their employees work across industries, sectors, and cultures. As globalization increases and businesses operate further across various industries and sectors, managers need theory to corroborate the changes they encounter. Adding fourth criteria to a very popular motivation theory modifies and modernizes the theory with real-world changes.

Third, employers must be aware of the potential impact of social context on employee motivation (and thus output) when designing jobs and incentive structures. If entrepreneurs and owners fail to learn or comprehend the need for a social context in their motivation calculations, the effects could be costly. As discussed previously, it may be inconsequential how strong the positive calculation of effort, performance, and reward; however, failure to include and manage for the social context with a strongly negative social context variable, could result in eliminating any positive effects. Deprived of this updated motivation theory when designing jobs and incentive structures, the resulting employee motivation could destructively work *against* the firm.

Fourth, as every competitive marketplace further develops globally, the diverse social interaction of employees becomes more necessary and frequent. As employees interact more frequently with other workers in different departments, sectors, and geographic locations, increasing the variance of interacting social systems, the effect of these interactions needs to be managed further. If employees and managers are educated regarding the impact on motivation from increasingly variable social contexts, they can develop methods to use this knowledge to their advantage.

This is the initial step validating a fourth social factor in expectancy theory. Subsequently, the authors propose to apply the established, updated model in an experiment which monitors, evaluates and controls the social context of subjects, while measuring the predicted and summative motivation of each person. It should be very interesting to determine whether a social context is present and if so, its effect, if any, on the overall motivation of workers.

The authors' intent is to follow this effort with empirical testing of the social context's validity. Though the adoption of a social context is supported through over a century of previous findings, a direct, controlled, empirical analysis is the appropriate second step to solidifying the improved theory.

Further study in this area would include continuing the previous discussion of parsimony, and begin the addition of previous findings of factors influencing worker motivation and discover how these criteria can be explained via Expectancy Theory. There would need to be efforts to reevaluate previously tested contextualization, such as employee turnover and absenteeism (Porter & Steers, and Mowday, Porter & Steers, 1982), organizational citizenship (Organ, 1988), etc. The long-term goal is to fully develop expectancy to better explain motivation as a complete theory. To do this, expectancy theory would need to incorporate applicable, major motivation theories such as Hygiene, Equity, and Goal Setting Theory.

There is also need of researching the different social contexts sectors or geographic locations. As cultures obviously are different globally, it is important to understand whether different levels of social context are present and thus have altering effects on worker motivation. If so, managers would require training on methods for adequately accounting for social context in determining employee motivation. The

argument also appears sound for asserting that different sectors would employ workers of similar social skills and/needs. Hence, managers may have to account for not only global social context, but also for the varying social contexts across sectors.

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