

Motivation on the Brain – Applying the Neuroscience of Motivation in the Workplace



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Introduction

To move and inspire people, you must first understand them. For centuries, deciphering what motivates human behavior has baffled even the most influential thought leaders. Getting others, and ourselves, to do our best work in a dynamic environment is an enduring challenge. Intuitively, organizations may believe that compensation is the primary motivator for results, but scientific evidence suggests that the link between money, motivation, and performance is much more intricate.

Numerous motivation studies have concluded that people tend to be significantly more motivated by intrinsic rather than extrinsic rewards. Research has found that not only is money not a good motivator, it actually may serve as a *d*emotivator in certain circumstances (Chamorro-Premuzic, 2013). Until recently, we did not comprehend the science behind what guides our behavioral energy and direction. With the flourishing field of neuroscience—the study of how the brain works—great advances have been made in understanding the science of motivation in the brain. These new insights can inform HR and talent management professionals about how to apply it to improve employee motivation in the workplace.

This white paper:

- Discusses what motivation is and why it is important in the workplace;
- Explains where motivation comes from and the science behind it;
- Frames the science of motivation in the brain using Lawrence and Nohria’s Drivers of Human Behavior model and David Rock’s SCARF model of motivation;
- Offers tips on how HR and talent management professionals can use these models to improve employee motivation in the workplace.

The Role Motivation Plays in the Workplace

Motivation in the workplace is defined as the willingness to exert high levels of effort toward organizational goals conditioned by the effort's ability to satisfy some individual needs (Robbins in Mobbs and McFarland, 2010). It has been studied for more than a century by psychologists, sociologists, economists, organizational development experts, and others for a simple reason. Capitalizing on understanding why people do what they do and fostering a motivated workforce means better organizational performance.

Motivated employees improve an organization's productivity and its competitive advantage. They are more highly engaged, can better handle the unease that comes with uncertainty, generally make for better problem solvers, and are more innovative, creative, and customer focused. Organizations with highly motivated workforces, in addition to being more profitable, report having higher levels of customer satisfaction and employee retention (Campbell, n.d.).

Given the benefits experts have long known that motivation offers organizations, a proliferation of motivation theories have been introduced over the years. Most HR and talent management professionals are aware of and have tried to apply many of them. Maslow's hierarchy of needs, Locke's goal-setting theory, Skinner's reinforcement theory, Adam's equity theory, and Vroom's expectancy theory, to name just a few, all made their way into management textbooks, all speculating on how to best motivate employees to increase profits. Studies eventually showed that concepts heavily based on extrinsic rewards could not adequately explain human motivation, and so scientists focused on intrinsic rewards. Until recently, however, we could not substantiate motivational theories. Neuroscience, anchored in rich research, is giving scientists new understanding into human motivation, and this can be to the advantage of all organizations.

The Dopamine on Motivation

With the burgeoning field of neuroscience and advanced tools like functional magnetic resonance imaging, there is scientific evidence that the source of motivation is all in the head.

As Nohria, Groysberg, and Lee (2008) explain in an article for the *Harvard Business Review*, motivation is created in the brain when dopamine is released and takes a specific direction toward the mesolimbic pathway and then spreads to other areas in the brain like the cerebral cortex. One stop along the mesolimbic pathway is in an area called the nucleus accumbens. When activated by dopamine, this area triggers feedback in the brain which predicts that something—either good or bad—is about to happen. That prediction, in turn, triggers the motivation to respond; to act to minimize a predicted threat (the bad) or to maximize a predicted reward (the good).

For example, studies have found that dopamine levels in the brains of soldiers increase when they hear gunfire. In the study, it was found that dopamine causes the motivation to avoid, in this case, a predicted threat (Lee, 2013). In another study, Vanderbilt researchers measured the dopamine levels of go-getters—those willing to work hard for rewards—and slackers—those who weren't. They found that the dopamine levels in areas of the brain associated with reward were higher for go-getters. They also found dopamine in the areas of the brain in slackers associated with emotion and risk perception (Lee, 2013). So dopamine, long thought to be the happy neurotransmitter, is actually the reward and punishment transmitter.

This has important implications for HR and talent management professionals, because along with these neuroscience discoveries comes the realization that the brain can be retrained to increase a person's motivation for rewards—and therefore engagement, employee productivity, retention, and more.

Lawrence and Nohria's Drivers of Human Behavior Model

In *Driven: How Human Nature Shapes Our Choices* (Jossey-Bass, 2002), Harvard Professors Paul Lawrence and Nitin Nohria blended motivation theory with neuroscience to arrive at what they believe are four fundamental patterns of human behavior:

- Drive to acquire
- Drive to defend
- Drive to bond
- Drive to learn

The drive to acquire

This drive fulfills the need to seek, to take control, and to retain objects and personal experiences of value in pursuit of immediate gratification. Its focus is short-term and is often reflected in a focus on the short term found in many organizations.

The drive to defend

This drive is triggered whenever a person feels threatened. Humans innately desire to protect themselves, their loved ones, beliefs, resources, and accomplishments. When faced with such threats, people will act by retreating, fleeing, avoiding, closing ranks, and/or counterattacking. When this occurs in an organization, Lawrence and Nohria counsel leaders to not focus on the reaction but to identify the cause; eliminating the perceived threat will eliminate defensive behavior.

The drive to bond

The brain is wired to be social, and this drive appeals to that need. The drive allows like-minded people with shared interests to work cooperatively together. The need to form social relationships must develop mutually. Lawrence and Nohria note that in an organizational setting, this bond must be modeled by leaders who “walk the talk.”

The drive to learn

This drive fulfills individuals’ natural desire to make sense of their world and themselves. Lawrence and Nohria caution that in an organizational setting, this can only occur in a bonded, cooperative atmosphere where curiosity is rewarded and reinforced, and with the understanding that knowledge should be freely shared (Maber 2014).

How HR and Talent Management Professionals Can Use These Drivers to Improve Employee Motivation

Lawrence and Nohria’s model combines motivation theory and neuroscience in a way that makes practical application to organizations accessible to HR and talent management professionals. When HR and talent managers understand what drives a

person's behavior in this context, they can design systems, policies, procedures, and practices that will appeal to each driver.

It is essential that HR and talent managers think holistically when taking actions to address each driver. Nohria, Groysberg, and Lee (2008) found through studies about applying the model to organizations that to most effectively improve employee motivation, organizations should focus on meeting all four drives simultaneously rather than focusing on just one or two drivers. Certain drivers tend to influence some motivational indicators (like engagement, employee satisfaction, commitment, and intention to quit) more than others. For example, fulfilling the drive to bond has the most effect on employee commitment, but other drivers will influence how strong that bonding is.

The primary organizational lever that can help fulfill the drive to acquire is a company's reward system, according to Nohria, Groysberg, and Lee. Employers looking to fulfill this drive for employees, and thereby spur motivation, should examine how well it differentiates between good and average performance and how well it identifies and rewards high performers versus average and low performers. HR and talent management professionals should also ensure that there is a clear link between rewards and employee performance and should ensure that pay is competitive with their competitors' compensation packages.

Sunoco, a manufacturer of packaging for industrial and consumer goods, focused on better meeting the drive to acquire by establishing clearer links between performance and rewards. Sunoco had always set high business-performance targets, but its incentives did not reward employees for achieving them. Sunoco recognized that it needed to more closely tie individual performance with achieving targets, and launched a pay-for-performance system based on individual and group metrics. Employee satisfaction and engagement improved, according to results of a regularly administered internal survey (Nohria, Groysberg, and Lee, 2008).

Performance management and resource allocation processes are critical when HR and talent management professionals want to reduce the drive to defend. To alleviate this drive, business leaders must ensure that there is transparency in these processes and work to build trust by being just and transparent in their rewards, assignments, and recognition of employees. HR and talent management professionals can also reduce the drive to defend by ensuring that employees are treated fairly—equitable treatment is key to keeping this drive at bay.

An organization’s culture is its primary lever when it comes to fulfilling the drive to bond. To foster the drive to bond, HR and talent management professionals should nurture mutual reliance and friendship among co-workers. Leaders should work to build a culture that highly values collaboration and teamwork and ensure that employees are rewarded for sharing best practices. Embassy Suites, for example, has made organizational culture a vital part of their vision because its leaders understand that creating a positive organizational culture influences not only their guests’ stays, but also their employees’ performance. Embassy Suites leaders understand that human interaction and personal recognition are key to building organizational culture and engagement (McEuen, 2011).

When looking to foster the drive to bond, effective feedback mechanisms are vital. People like to know where they stand and understand that their work has positively affected others. A feedback strategy should be included at the design phase of any organizational initiative, and the strategy should include more than numbers because people seek feedback to fulfill the social drive of bonding. Feedback should include leadership support, coaching, and frequent encouragement (The Maritz Institute staff, 2013). Frequent feedback can also be built into long-term drives as checkpoints along the way. In this way, team members can receive “mini-wins” as an initiative progresses to help cascade motivation.

Filling the drive to bond can also be thought of in terms of corporate social responsibility (CSR), a movement in which many organizations are increasingly turning to advance community relations and improve an organization’s employment brand. CSR activities—like sending employee volunteers to work on community projects—help improve the drive to bond among employees and their customers.

Company Spotlight: Aflac

Insurance giant Aflac, according to Nohria, Groysberg, and Lee



(2008), exemplifies how an organization can match organizational levers with emotional drives on all fronts. Outstanding individual performance at Aflac is regularly recognized and rewarded in highly visible ways, filling people’s drive to acquire. Aflac also focuses on culture building through such activities as Employee Appreciation Week, filling the drive to bond. Aflac meets the drive to learn by investing significantly in the training and development of its employees. And to reduce the drive to defend, the company works hard to improve their employees’ quality of life through training, scholarships, and on-site child-care.

Job design is a critical factor when looking to appeal to the drive to learn. HR and talent management professionals must ensure that jobs are designed in such a way that they are meaningful to employees and foster a sense of contribution to the organization. For example, when The Royal Bank of Scotland was merging with the National Westminster Bank, it heavily invested in a state-of-the-art business school facility to which employees had access. Nohria, Groysberg, and Lee (2008) note that this move not only helped fill the drive to bond, it also challenged employees to think more broadly about how they could contribute to making a difference for co-workers, customers, and investors.

David Rock's SCARF Model and Motivation

Another key model HR and talent management professionals can use to improve organization-wide motivation that combines motivational theory with neuroscience is David Rock's SCARF model. David Rock is the director of the NeuroLeadership Institute and the author of *Your Brain at Work* (HarperBusiness, 2009).

The SCARF model (for more information, see UNC Executive Development white paper [The Neuroscience of Leadership: Practical Applications](#)) is David Rock's framework for understanding how the brain responds to perceived threats and rewards.

Neuroscience has shown that dopamine releases either a threat or reward response in the brain that motivates human action or behavior, and further, that social needs are treated by the brain in the same way as basic survival needs like food and water (Rock in Batista, 2010). Social needs, therefore, are not social conventions, but hardwired in the brain.

The social needs Rock refers to are:

- Status
- Certainty
- Autonomy
- Relatedness
- Fairness

Status

Status relates to a person's relative importance to others. In the workplace, it is often about one's place in the hierarchy and seniority (Batista, 2010). A perceived change in status such as annual performance reviews or formal or informal feedback from supervisors and peers can either trigger a threat response or a reward response, depending on how that perceived change is presented. In the workplace, HR and talent management professionals should ensure that leaders deliver performance reviews or provide feedback in ways that boost—not threaten—the recipient's status.

Certainty

The brain likes to conserve energy so that it can respond when needed to future threats or rewards. This is where certainty comes in. When we are certain, the brain can sense patterns and predict the next steps based on those patterns, allowing it to operate with less energy. When people are uncertain, the brain kicks into basic survival mode and uses more energy to understand the situation. There is a spectrum to certainty and uncertainty, and the brain will react accordingly. When the perceived uncertainty is high, however, and the brain cannot detect any patterns on how to resolve the uncertainty, people may panic, and in the workplace, this can lead to making poor decisions (Batista, 2010).

Autonomy

Autonomy provides a sense of control over events, and it can have a significant effect on a person's response to stress. The more autonomous one feels, the more resistant to stress he or she will be. The less autonomous, the more susceptible a person will be to stress. Further, autonomy and certainty are inter-related. The more autonomous a person is, the more certain he or she will feel about the future and vice versa. For employees, Rock notes, even having a little autonomy can help. He writes that "even where autonomy is substantially limited by organizational constraints, meaningful perceptions of autonomy can be generated by small gestures." (Rock in Batista, 2010.)

Relatedness

Relatedness is the sense of connection and safety one has with others (the brain perceives a friend versus a foe). "In the brain," Rock writes, "the ability to feel trust and empathy about others is shaped by whether they are perceived to be part of the same social group" (Rock in Batista, 2010). If the brain perceives a new person as

different, that information will travel to neural pathways associated with uncomfortable feelings. Once that person becomes more “known,” the brain will release a neurochemical associated with affectionate feelings and will disarm the threat response and allow the person to see the newcomer as “one of us.” For HR and talent management professionals, this means that organizations should foster camaraderie and a sense of teamwork in its culture.

Fairness

Fairness is the perception of being treated justly. If a situation is perceived by the brain to be unfair, it will respond strongly with distrust and hostility. When people perceive others as unfair they will feel no empathy for them, and in the workplace this means that trust and collaboration will be absent (Batista, 2010). In the workplace, fairness includes the feeling among employees that they are compensated equitably, have job security, and are treated with dignity (Diab, 2014).

These domains in the brain will activate a “primary reward” or “primary threat” response in the brain. For example, a perceived threat to status will trigger a threat response in the brain because the brain’s primary goal is survival. A perceived increase in fairness (an open discussion of a company’s compensation practices to assure all employees perceive that their compensation is fair and equitable, for example) will activate a reward response.

How HR and Talent Management Professionals Can Use the SCARF Model to Improve Motivation in the Workplace

Rock’s model turns conventional thinking of what truly motivates employees on its head. Based on Rock’s model and neuroscience, a job should not be viewed as a business transaction—do the work and get paid—but rather as a part of a social system in which the brain is rewarded (or punished) based on how well the business environment is meeting an employee’s need for status, certainty, autonomy, relatedness, and fairness. Employers should make efforts, then, to increase rewards and to minimize threats in these areas to best motivate employees. It is also important to remember that the brain’s survival instinct will kick in when it perceives a threat, and will act to move away from that threat faster than it would move toward a perceived reward (Batista, 2010).

Rock recommends that HR and talent management professionals design motivation strategies that appeal to the social aspect of the brain. As such, developing a sense of affiliation (teamwork, belonging, camaraderie, and sharing of knowledge) and providing positive feedback are potentially some of the most powerful motivators in the workplace (Rock, 2011). Social motivators like these will activate dopamine in the brain and trigger the brain’s reward systems.

To retain high-potential employees, organizations should provide them with rewards other than money that appeal to their need for status, certainty, autonomy, relatedness, and fairness. For example, they can be offered more equity in the company to appeal to their need for status and desire for fairness. Alternatively, management can give them more responsibility to appeal to their need for autonomy

Company Spotlight: #hypertextual

Staff members at #hypertextual, a blog about management cultures, developed the following chart to help HR and talent management professionals begin to think in terms of designing interactive-based rewards to motivate employees:



Domain	Threat	Reward
Status	Performance review	Offer positive feedback, attention to work done.
Certainty	Change, lies, not knowing expectations	Offer vision, strategy and individual goals.
Autonomy	Stress, teamwork	Develop a culture that offers more autonomy. Don't micro-manage.
Relatedness	Meeting strangers, feeling uninvolved, let down	Discuss something in common, mentoring, and culture.
Fairness	Unfairness	Increase transparency, improve communication, and offer clear expectations.

(Diab, 2014). HR professionals and managers should also show employees how their work helps others to appeal to their need for status and relatedness. A study found that when employees were shown first-hand how their work affected others, their productivity levels (a measure of motivation) more than doubled (Lieberman, 2013).

Because Rock's model is about how to design interactions in the workplace that will minimize threats and maximize awards, HR and talent management professionals should concentrate on how to do that in each of Rock's domains. Each organization will differ in what threats need to be minimized and what rewards should be enhanced. Rock's framework, however, can start the conversation among HR, talent management professionals, and other organizational leaders about how to improve employee motivation to reap the rewards of increased productivity and profitability.

Conclusion

Motivated employees outperform unmotivated peers in productivity, innovation, creativity, customer service, engagement, and retention—all of which gives an organization a competitive advantage that is vital in today's high speed, hyper-connected business environment. Neuroscience has provided new insight on how motivation is processed in the brain. Frameworks like Lawrence and Nohria's Drivers of Human Behavior model and Rock's SCARF model combine motivation theory and neuroscience and offer roadmaps for how HR and talent management professionals can help shape their organizational culture and environment to motivate employees, spur engagement, and boost the bottom line. Motivated employees can transform business.

About UNC Executive Development

Our approach to program design and delivery draws upon the power of real-world, applicable experiences from our faculty and staff, integrated with the knowledge our client partners share about the challenges they face.

We call this approach [The Power of Experience](#). We combine traditional with experiential and unique learning to ensure that all individuals gain relevant new skills that they can easily implement within their own organizations. Through action learning and business simulation activities, we challenge participants to think, reflect and make decisions differently.

Our Approach: The Partnership

Our team customizes each leadership program through a highly collaborative process that involves our clients, program directors, faculty and program managers. We are dedicated to following-up with our clients and individual participants to ensure that their learning experiences have been meaningful and impactful. This integrated approach consistently drives strong outcomes.

Our Approach: The Results

Our executive education programs are designed with results in mind, and we are focused on successfully meeting our clients' business and academic expectations. Below are a few examples of the results our client partners have achieved:

- Leadership refocused with new strategy and cohesive vision
- Strategic plans created for the global marketplace
- Supply chains streamlined
- Products redefined
- New markets targeted
- Cost-saving measures developed
- Silos leveled
- Teams aligned

Participants leave empowered to bring in new ideas, present different ways to grow business and tackle challenges. The result is stronger individuals leading stronger teams and organizations.

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