

Advancing Strategies for Developing Employee Retention: A Two-Factor Model Approach

Reginald L. Bell
Prairie View A&M University

Shahedur Rahman
Prairie View A&M University

In this study, we reviewed 20 years of literature on factors for employee retention. We wanted to know if Edward Lee Thorndike's law of effect was related to employee retention. We also wanted to know if Ivan Pavlov's discovery of the classical condition was related to employee retention. No studies were found with either "Edward Thorndike" or "Ivan Pavlov" AND "employee retention" in the title of the article. However, we found that their discoveries are fundamental to advancing strategies for developing employee retention in a two-factor model approach. We argue that organizational policies constitute the component loadings of two dimensions of employee retention. Our two-factor employee retention model represents the cumulative satisfying effect of organizational policies that lead an employee to "stay" or the cumulative discomforting effect of organizational policies that lead an employee to "leave" the organization. We proffer recommendations on how our two-factor model can be empirically tested; in the APPENDIX, we provide a 7-Point Likert-type scale with 72 items that can be used by any scholar interested in this line of research.

Keywords: conditioning, employee retention, effect, factors, model, Pavlov, reinforcement, Thorndike

PROLOGUE

In this study, we examined 20 years of employee retention literature to determine if Edward Lee Thorndike's (1911) Law of Effect and Ivan Pavlov's (1927) classical conditioning have anything to do with commonly known strategies for developing employee retention (Cloutier et al., 2015). We used Google Scholar's advance search as our tool, mainly seeking peer-reviewed articles that underwent a blind review process. Our search was delimited to a period from 2003 to 2022. There were 4000 search results for "employee retention" in the article's title. A more refined search using "factors" AND "employee retention" in the article's title yielded 404 results, a much more manageable number. No studies were found with either "Edward Thorndike" or "Ivan Pavlov" AND "employee retention" in the title of the article.

We quickly recognized consistent patterns among the known factors of employee retention strategies, leading us to SHRM's Toolkit "Managing for Employee Retention" (2023). We had a eureka moment when we discovered that Thorndike's Law of Effect can be used to justify a Two-Factor Model of Employee Retention. Our proposed Model comprises organizational policy components (not factors) that will load onto two dimensions: 1) organizational policy components will load onto the *satisfying effect dimension*,

or 2) they will load onto the *discomforting effect dimension*. Organizational policies will load on one dimension or another dimension, and these loadings will be interpreted as the Two-Factor Model of Employee Retention (the construct): “*Stay*” or “*Leave*.” Similar to Herzberg’s (1959, 1966) Two-Factor Model of Job Satisfaction (hygiene: motivation), our proposed Two-Factor Model of Employee Retention (Stay: Leave) is a Model where factors are independent of each other.

Our Research Process

As the first step in the process, we determined the research question. The second step, we examined blind-reviewed articles related to the research question. In the third step, we synthesized the themes into a meaningful framework. Finally, we concluded the paper with recommendations for The Two-Factor Model of Employee Retention and how the Model should be tested empirically in future studies.

We recommend how exploratory factor analyses should be used empirically to test our Two-Factor Model of Employee Retention for future studies. In the APPENDIX, we provide an example survey instrument that can be used to measure the construct on a 7-point Likert-type scale, containing 72 items for 12 policy component categories.

Our Research Question

Our research question was: *Does the employee retention literature show that the discoveries of Edward Lee Thorndike and Ivan Pavlov relate favorably to employee retention?*

EDWARD LEE THORNDIKE’S LAW OF EFFECT

Edward Lee Thorndike’s (1911) Law of Effect demonstrates a law-like consistency between an environmental stimulus and an animal’s behavioral response towards that stimulus. The Law of Effect, its presupposition, holds that any behavior associated with a satisfying effect will eventually be stamped-in, while any behavior associated with a discomforting effect will eventually be stamped-out. The predictable relationship between an environmental stimulus and an animal’s behavioral response has a law-like tendency, operant conditioning has global validity (Bell, 2010; Hanzel, 1999; Morris, 1985; Thorndike, 2017).

Edward Lee Thorndike (August 31, 1874—August 9, 1949) was a Columbia University Professor who pioneered reinforcement theory and behavior analysis for most of his career. Thorndike (2017) is most famous for his Law of Effect discovered in 1911, which explains the nature of the binary satisfying versus discomforting effects: there is a law-like consistency between an environmental stimulus and animals’ behavioral response to that stimulus. Thorndike’s Law of Effect is elegant because it is conceptually simple; it explains a predictable behavioral response that an animal will have towards an environmental stimulus; therefore, it is parsimonious, as any good scientific explanation should be.

William of Ockham (1287-1347) discovered Occam’s razor, known as the law of parsimony, which argues that when there are two competing ideas, the best explanation is the simpler of the two (King, 2015; Spade & Panaccio, 2002). It is always the simple answer that is best when two explanations compete. In scientific discovery, simple explanations are more enduring and more robust. For modern managers, Occam’s razor is “Keep it simple, stupid (KISS)!” The fact that stimuli can be associated so tightly with predictable behavioral responses meant that Thorndike could claim animal behavior is governed by scientific law.

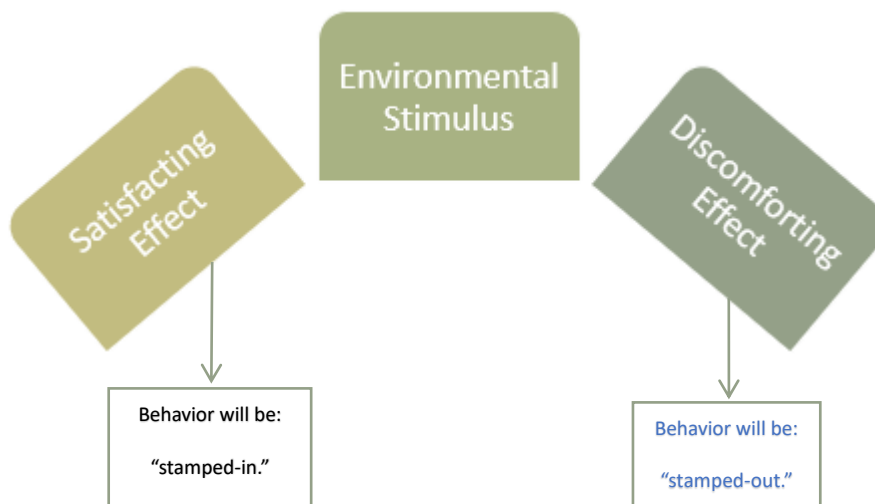
Gravity is presumed valid universally in the natural world. For example, gravity has such law-like tendencies that there is no need to doubt its properties or investigate its predictability because we expect the outcome to occur every time a body falls from the heavens under the correct circumstances. Quick oxidation is fire: add a spark to gasoline, and we expect an explosion! Slow oxidation is rust: when we leave a pristine steel blade in moist air, over time, we expect rust; both fast and slow oxidation abide by natural laws (Fast vs Slow Oxidation Explained, 2021). To be more precise, calling something law of nature presumes it is valid universally, precluding the need for further investigation; if the law is valid,

consequentially, its principle is valid. Hanzel (1999, p. 16) in a screenshot of a passage from his brief book, explicates a law of nature succinctly.

necessitarian approach by the following consideration. Popper’s distinction between necessary (lawful) and accidental is based on the distinction of what is valid universally (i.e., at any time and in any space) from what is valid only locally (i.e., in a certain time and in a certain space). Kneale considers the proposition “All ravens are black.” From the view of Popper’s understanding of the concept scientific law,” there exist only two possibilities: (a) it is a law of nature that all ravens are black, or (b) there exists or will exist in a certain moment of time a raven which is not or will not be black. The accidental is always what is given only locally, while a law is given globally, i.e., “philosophers who treat suggestions of law as universal material implications say in effect that there is no sense in talking of historical accidents on cosmic scale” (Kneale 1950, 48). In his view, if something is universally valid, it does not mean that it is always lawful. “We can conceive an unrestricted material implication without regarding it as a statement of a law,” (1950, 49) e.g., “[i]t is at least conceivable that there has never been a chain reaction of plutonium within a strong shell containing heavy hydrogen, and it is also conceivable that there never will be” (1950, 49). One can reason about events which never and nowhere occurred in the whole universe, and still their universal non-occurrence has an accidental character.

Scientifically speaking, an animal’s behavioral response to an environmental stimulus abides by a law of nature: satisfying effects stamp in behavior; discomforting effects will stamp-out behavior. Psychologists today refer to this fact as reinforcement theory. Figure 1 shows a visual depiction of animal behavior associated with a satisfying stimulus versus a discomforting stimulus. Thorndike’s Law of Effect simply explains that animal behavior is binary with regards to a stimulus it encounters: environmental stimulus that causes a satisfying effect will “stamp-in” behavior associated with that stimulus. On the contrary, an environmental stimulus that the animal encounters which causes a discomforting effect will “stamp-out” behavior associated with that stimulus. A stimulus will cause an animal to stop or continue a behavior, which is universally valid.

FIGURE 1
EDWARD LEE THORNDIKE’S LAW OF EFFECT: BEHAVIORS STAMPED IN VS. BEHAVIORS STAMPED-OUT



IVAN PAVLOV'S CLASSICAL CONDITIONING

Ivan Pavlov (1927) is considered the father of behaviorism in psychology, and his discovery of classical conditioning is certainly the bedrock of managerialism in contemporary organizational behavior. Present-day managers are, technically, behavioral psychologists when they use classical conditioning techniques to condition in their employees' behavioral responses towards satisfying stimuli: managers use incentives in the form of reinforcements, to reward, to stamp-in, in productive employee work routines; or they use aversive controls to end unproductive behaviors (Bell, 2010; Bell & Martin, 2010; Bell & Ramdass, 2010; Morris, 1985). Any time a manager uses resources to modify human behavior towards a desired behavioral outcome, that manager uses classical conditioning.

Ivan Pavlov's discovery gained him academic prominence; his contribution is also practicable in the workplace. Ivan Pavlov (September 14, 1849—February 27, 1936) was a Nobel Prize-winning physiologist who discovered classical conditioning, using surgical implants to measure drooling dogs as his experimental subjects. Figure 2 illustrates Ivan Pavlov's most famous classical conditioning model. The model is nuanced, but it adheres to Occam's razor as the law of parsimony. The model illustrates the experimental controls Pavlov (1927: 2010) used to demonstrate how a natural relationship can be conditioned into an unnatural relationship known as a conditioned response. This is where the genius of Pavlov is revealed. He set out to understand why the dogs began to drool when he entered his laboratory, whether it was feeding time or not. By recording the amounts on a revolving drum, while the dog was restrained with a harness, Pavlov "*first determined that placing the food powder in the dog's mouth increased the flow of saliva*" (Darley, Glucksberg, & Kinchla, 1991, p. 174). He set up many experiments to test his hypotheses to solace his curiosity.

Each level in the model illustrates the man-made transformation of a natural relationship (food invokes drool naturally) to one that simulates a natural relationship, but is unnatural after conditioning (bell invokes drool unnaturally). We adopted and modified the illustrative in Figure 2 from a textbook by Charles Morris (1985).

FIGURE 2
THE IVAN PAVLOV'S CLASSICAL CONDITIONING MODEL, WITH DOGS BEING THE EXPERIMENTAL SUBJECTS

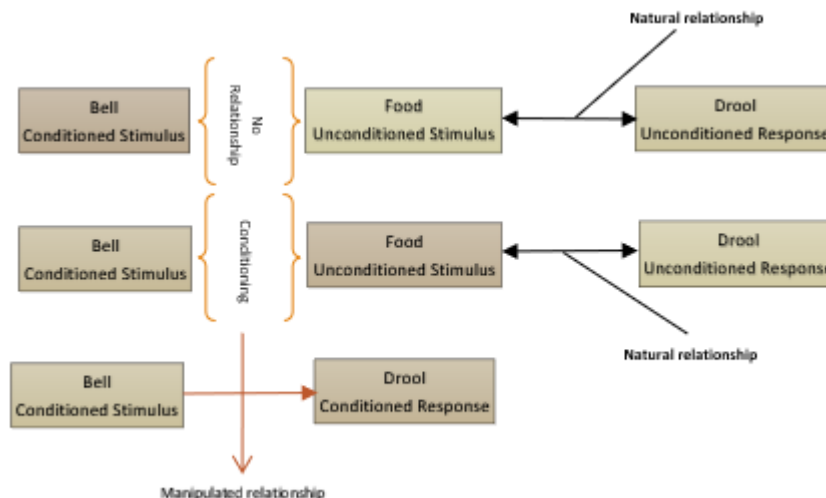


Figure 2 shows the first level of the model includes: a bell is a conditioned stimulus (CS) because it has no natural relationship with a dog's drool—dogs do not eat bells; and food is an unconditioned stimulus (US) because food has a natural relationship with the dog because dogs eat food; and a dog that has an

unconditioned response (UR) to the food—drool preps the dog’s mouth for consuming food. Without copious salivation a dog’s teeth would injure its tongue and mouth. Figure 2 also shows the bell as a CS, food as US; it shows a dog’s salivation (drool) as UR. Notice that CS and UR have no true natural relationship, as dogs do not eat bells, made of steel or iron; they have no natural association. Conversely, US and UR have a natural relationship, as dogs eat food; dogs produce drool as it is necessary for dogs to ready their mouths to bite, crush and swallow food-stuff. The researcher learned how to simulate a natural response from an unnatural (manmade or manipulated) stimulus. The goal was to condition, or train the dogs, to drool upon command, based on conditioning, then measure the response under controlled environments. The bell ringing should be able to replace food, yet cause the dogs to drool as if food was present. Pavlov was able to do this repeatedly; therefore, he discovered classical conditioning, which many attributes him now to be the father of behaviorism in psychology. His discovery was a profound breakthrough in psychology, as it is now known as classical conditioning. The fact that a CS can invoke in an animal a response that is the same as in the natural relationship is important. Thus, CS causes CR, which is equal to UR. In other words, behavioral scientists learned humans could condition other animals, including the human animal, to respond naturally to manipulated relationships, using a conditioned stimulus. Classical conditioning was among a handful of theories that revolutionized managerialism and helped usher in the behavioral perspective in management literature. Organizational policy components are the stimuli for employees deciding to stay or leave the organization.

WORKPLACE USES OF CLASSICAL CONDITIONING

Classical conditioning works best with rewards (satisfying effect) and occasionally punishment (adverse control). Operant and classical conditioning are the underlying theories of rewards and punishments. **Rewards** are often misunderstood because they can include both positive (+) and negative (-) methods to reinforce, stamp-in, in productive workplace behaviors. **Punishment** is imposing consequences on an employee to eliminate unproductive workplace behavior (Bell, 2010). Equity theory also involves a good amount of classical conditioning theory, and addressing inequity involves rewards and punishments (Bell, 2011; Bell & Martin, 2012). Understanding employees’ sensitivity to rewards and punishments is enhanced when managers understand emotional intelligence in managerial communication situations too (Nguyen et al., 2019).

A **positive reinforcement** PR (+) reward falls under the categories of any of the four resources available to managers: human, informational, financial, and material. Whenever a manager seeks to PR (+) human behavior, this attempt requires a satisfying stimulus to generate the effect. Praise coming from a direct supervisor to a subordinate is an example of a human PR (+); sharing information that an employee was not previously allowed access is an information PR (+); giving a \$25 gift card to Starbucks for an accomplishment is a financial PR (+); and allowing an employee to move into a desired office space is an example of a material PR (+).

A **negative reinforcement** NR (-) reward also falls under the four resources available to managers. Whenever a manager is seeking to NR (-) human behavior, this attempt requires that a discomforting stimulus (aversive stimulus) be removed in order to generate the desired effect. Knowing how to appropriately apply a NR (-) requires understanding and knowing the person receiving this reinforcement reward. For example, taking a child off trash duty for bringing home a grade report with all “As” is rewarding if the child absolutely hates trash duty. Trash duty is emotionally and physically discomforting to the child; therefore, removing the discomforting effect reinforces the “all ‘As’ grade” behavior, which the child’s guardian wishes to stamp in. The child is thinking, “Wow, if I get all ‘As’ at the end of the next term, mom will let me escape trash duty for an entire month!” Both PR (+) and NR (-) rewards are methods to stamp-in productive workplace behaviors.

Aversive control, **punishment**, on the other hand, is when a manager imposes a discomforting effect on an employee to eliminate unproductive workplace behavior—to stamp the behavior out! Punishment differs from NR (-) because NR (-) rewards a behavior the manager wishes to stamp in; thus, removing an

aversive stimulus makes sense. Conversely, adding a discomfoting stimulus makes sense when an employee has engaged in destructive workplace behavior, which needs to be eliminated.

Punishment works best when it satisfies three requirements: 1) it is immediately applied, 2) the level of the punishment is sufficient to alter the behavior, and 3) the consequence is consistently applied each time such an infraction occurs (Morris, 1985). For example, when any of the three requirements are missing, you end up with State correctional institutions that merely warehouse convicted criminals, rather than punishing them and then rehabilitating them. If any of the three requirements of punishment are missing, the punishment could be ineffective, or worst, accidentally reward the bad behavior. One main reason recidivism is so high in correctional institutions in the 50 United States of America is the misapplication of punishment.

A classic example of an inappropriate application of punishment is when a parent spansks an attention-starved child in public; a parent might inadvertently cause the child to act out in public more intensely. Acting out and throwing tantrums could be the child's only way to receive parental attention; starvation for attention will negate whatever magnitude of punishment that is meted out by the parent. When toddlers are "acting for the camera" in public, it is likely an unintended consequence of misapplied punishment. The magnitude of a spanking or verbal scolding might condition the child to a level of tolerance, and compared to the parent's emotional intensity directed at the child, if the child is greatly starved for attention, ill-perceived affection from the parent will outweigh the intensity of the punishment. The child might think, "Mom beats me because she loves me!"

When a manager reprimands an unproductive employee, this is an example of punishment through formal authority; however, the success of authority always resides with the recipient of the authority flow theory of communication acceptance (Bell & Kennebrew, 2023; Bell & Martin, 2010; Bell & Ramdass, 2010). Reprimands work best when employees are not neglected, and all three requirements of punishment are included in the reprimand process. Reprimanding is not merely handing someone a piece of paper, it is a behavior modification process. An infraction that occurs on Monday should not be punished on Friday! Nor should a first tardy result in a termination of employment. Managers should also be aware of reinforcement schedules that, if applied correctly, can guarantee high levels of productive and consistent workplace performance; conversely, a sinister design has been known to work against victims.

The One-Armed Bandit

Variable-Ratio Reinforcement Schedule is a powerful reward program and a useful tool for managers. Casinos are notorious for this type of reinforcement schedule. The "one-armed-bandit" is an early version of the slot machine designed by psychologists to intentionally addict patrons to gambling habit. A bandit robs unsuspecting people. Players of the early slot machines were unaware that they were being conditioned to gamble at intensely high levels of consistent gambling, by rewards (Morris, 1985). A variable is an unpredictable occurrence. A ratio is a magnitude of benefit that is also not predictable. Therefore, in this type of robbery, the victim is conditioned to intensely high levels of consistent gambling because the time he or she will win is varied and random, and the magnitude of the amount won also varies, as it too is random. This is a form of deception.

Bell and Martin (2012) provided an explication of Tolman's 1932 discovery of how Monkeys responded to deception when the magnitude of the reward did not coincide with the level of expectation:

Tolman (1932) reported what happens to monkeys' behaviors when monkeys expected bananas for a reward and received "monkey chow" instead. When Tolman's monkeys were trained to use signals, they were rewarded with monkey chow or bananas. They learned to associate effort with reward this way. Nonetheless, when Tolman's monkeys selected signals that were supposed to yield a banana reward, but they were rewarded with monkey chow instead, the monkeys went literally bananas! Tolman's monkeys liked monkey chow but they found bananas irresistible! Tolman, therefore, inferred that his monkeys placed an exchange value on their efforts with rewards they received. The betrayed monkeys refused to play Tolman's game thereafter because they had been deceived by the

researcher. Psychologists tend to infer onto human behavior what they learn from their animal experiments (p. 110).

The design of the one-armed bandit is fiendish because the amount of the reward and the times a gambler receives the reward is random and can be very intense emotionally! Unlike Tolmans's (1932) monkeys, this type of reinforcement schedule does not deceive the patron where they recognize the deception, rather it rewards their expectation for what is not known in frequency and magnitude, yet the reward is earned consistently enough to maintain an expectation of an eventually irresistible reward! Gambling addiction is stamped in because the conditioning is intense and the rewards create a satisfying effect for the gambler. How many senior citizens have unintentionally gambled away their children's inheritance?

Knowledgeable managers will set up reward programs and incentives to mirror variable-ratio reinforcement schedules to foster very predictable and high levels of productive employee behaviors. Many of the known factors of employee retention discussed in the literature, from 2003 to 2022, fit neatly into the classical conditioning construct, while all of them will either cause an overall satisfying effect or discomfiting effect on the employee's decision to stay or leave the organization. In other words, our proposed Two-Factor Model of Employee Retention is a parsimonious explanation of the concept.

FACTORS FOR EMPLOYEE RETENTION IN THE LITERATURE

Das and Baruah (2013) argued, after their literature review, that 9-factors [compensation, reward and recognition, promotion and opportunity for growth, participation in decision-making, work-life balance, good work environment, training and development, proper leadership, and job-security] accounted for an "Employee Retention & Job Satisfaction Model," which reduces turnover: accordingly, their model "clearly depicts that employee retention factors have a direct relationship with job satisfaction" (p. 14). Christeen (2014) conducted a study of professional workers, which identified eight retention factors from the literature: organizational factors (management, conducive environment, social support, and development opportunities) and job-related factors (autonomy, compensation, crafted workload, and work-life balance). The study found positive relationships between these factors and retention. Similarly, a study by Hausknecht et al. (2009) that developed a content model using 12 retention factors derived from the literature found positive relationships between the factors and job satisfaction. Other research studies that have explored job satisfaction and employee retention factors find that bonuses (Chinyio et al., 2018), compensation (Colson & Satterfield, 2018), organization commitment (Perreira et al., 2018), peer support, organizational culture, training opportunities (Ghapanchi & Aurum, 2011), and work-life balance (Deshwal, 2015), socialization (Allen & Shanock), and job promotion (Woodall et al., 2017) play a significant role in employee retention. Managerial listening and feedback behaviors across cultures, between genders, and among management tiers can be easily identified with the "supervision" factor (Roebuck, et al, 2016; Roebuck et al., 2015; Roebuck, Bell, & Hanscom, 2016).

The factors that determine employee retention and turnover expand or retract depending on the leadership focus, seniority focus, job security, or work-life factors tested empirically (Kyndt, Dochy, Michielsen, & Moeyaert, 2009; Samuel, & Chipunza, 2009). There is a great amount of similarity in employee retention factors across the literature from 2003 to 2022, whether motivational based or arguments to further study the complex factors of human resources management (Kossivi, Xu, & Kalgora, 2016; Ramlall, 2004; Sandhya, & Kumar, 2011) or developing strategy based (Cloutier, Felusiak, Hill, & Pemberton-Jones, 2015) or based on recent trends, including sustainability issues (Singh, 2019). Because employee retention factors are so common, many authors focused their studies on specific segments or particular industries or professions or countries (Ezeuduji & Mbane, 2017; Magaisa & Masundire, 2022; Netswera & Rankhumise, 2005; Nyanjom, 2013; Raina & Roebuck, 2016; Rakhra, 2018; Tadesse, 2018; Yousuf & Siddiqui, 2019).

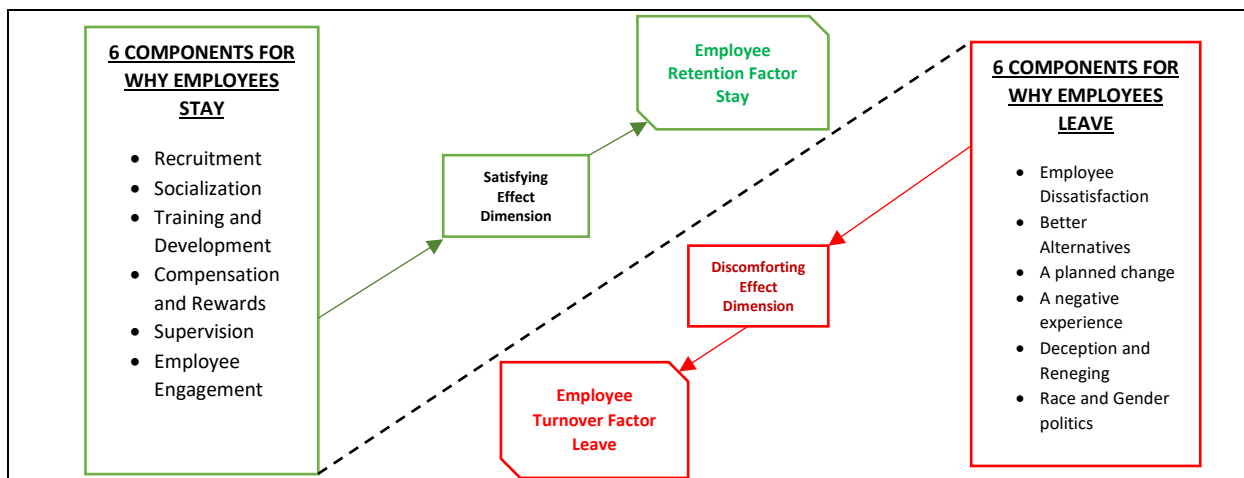
It did not take us long to see in the literature repeating factors that are positively identified with employee retention, which are very similar to those presented by SHRM in its (2023) Toolkit "Managing

for Employee Retention.” The SHRM Managing for Employee Retention factors possess face validity because the organization represents the view of thousands of academicians and professionals worldwide. The SHRM factors are streamlined to encompass the relevant contributions in the literature, which we surmise represents the 404 results we found in our Google Scholar search using “factors” AND “Employee Retention” as our search terms in the title of the article for a period from 2003 to 2022. According to SHRM’s Toolkit on Managing for Employee Retention (2023, September 1):

“Managing for employee retention involves strategic actions to keep employees motivated and focused so they elect to remain employed and fully productive for the benefit of the organization. A comprehensive employee retention program can play a vital role in both attracting and retaining key employees, as well as in reducing turnover and its related costs. All of these contribute to an organization’s productivity and overall business performance. It is more efficient to retain a quality employee than to recruit, train and orient a replacement employee of the same quality” (para).

We developed a theoretical model shown in Figure 3 that clearly links Thorndike’s Law of Effect and Pavlov’s classical conditioning to organizational policy components that elicit satisfying or discomfoting effects on the employee. Policies also reward and punish employee behaviors. Consistent with the Law of Effect, satisfying effects are the organizational policy components that lead to employee retention; conversely, discomfoting effects are organizational policy components that lead to employee turnover. In other words, employee retention is a two-factor model that accounts for the policy components that stamp in an employee’s reasons to stay, while turnover components stamp out an employee’s reasons to stay. Das and Baruah (2013) show small differences from our proposed Two-Factor Employee Retention Model shown in Figure 3, which was developed based on the SHRM Toolkit factors. We added two components to the “Leave” factor, which are Deception and Reneging [supported by Tolman (1932)]; Race and Gender Politics, because these two policy components are responsible for much uproar, backlash (McGinley, 2019), and consternation among employees in recent years. You have an article published in the New York Times titled “What Happens When Men Are Too Afraid to Mentor Women?” There is another article titled “Men’s Fear of Mentoring in the #MeToo Era—What’s at Stake for Academic Medicine” (Soklaridis et al., 2018). Countless men would rather leave the organization than be put in a situation where they could be falsely accused.

FIGURE 3
THE TWO-FACTOR MODEL OF EMPLOYEE RETENTION IS BASED PARTIALLY ON SHRM’S “MANAGING FOR EMPLOYEE RETENTION” (2023) TOOLKIT



Source: Modified items from “Managing for Employee Retention” (2023, September 2). SHRM.

The two dimensions of the employee retention construct does not violate the law of contradiction. Merriam-Webster's online defines "law of contradiction: a principle in logic: a thing cannot at the same time both be and not be of a specified kind (as a table and not a table) or in a specified manner (as red and not red)." Therefore, we argue an employee is satisfied with a policy component or discomforted by that component, i.e. "compensation and rewards" cannot be simultaneously satisfying and discomforting. Policy components such as "favorable alternative" cannot be a reason to stay and also at the same time be a reason to leave.

The Two-Factor Model of Employee Retention adheres to Aristotle's Law of Contradiction [also known as the principle of non-contradiction]; whereby, the basic law of thought makes it impossible to both stay and leave an organization simultaneously. Rasmussen (1973, p. 149), in *Defense of the Law of Contradiction* writes: "*What this principle is Aristotle states, 'It is, that the same attribute cannot at the same time belong and not belong to the same subject and in the same respect.'* *The Law of Contradiction is a basic law of thought.*" Kirwan (1993) echoes Rasmussen's understanding of the Aristotelian principle of non-contradiction. The law of contradiction in philosophical arguments about free will in man applies when two scholars, for example, concede God's existence, yet they bicker about His main attribute, foreknowledge.

Fischer (1989) in his introduction to the collection of essays he edited explains why God's foreknowledge limits free will in man. If God knows a proposition to be true, it is never false, as God cannot know a false proposition; therefore, if John, for example, God knows will go to hell, John has a limitation in free will. John is destined for hell, because God cannot know a proposition to be false at any point in time, because God is sempiternal and counterfactually independent of human action. In other words, God's knowledge is perfect and unalterable. Because people attribute to God foreknowledge, the law of contradiction renders determinism (predestination) indefensible as a major problem in theological debates: God's foreknowledge appears to restrict human beings of their free will even when debaters concede God's existence before the disputed issues being argued.

CONCLUSION

Imagine asking a junior-level brand manager the following question. "If you win a \$5 million POWERBALL jackpot, would you remain an employee at your current job?" Considering that "Better Alternatives" is one of SHRM's Toolkit on "Managing for Employee Retention" (2023, September 1) factors, the law of contradiction applies. Either winning the \$5 million POWERBALL jackpot will trigger the discomfort effect dimension, or it will not. Enormous sums of money for some people will cause their current jobs to become a burden. If a large amount of money is the lynch-pin to quit, it is among other discomforts leading to the final decision to leave. It is unlikely that winning a \$500 lottery scratch-off ticket would be enough to represent a better alternative for a person's employment, regardless of other discomforting workplace components that collectively represent the discomforting effect dimension. If a "better alternative" is a reason to leave, it cannot also be at the same time be a reason to stay because of the principle of non-contradiction.

The search of the literature, using "Employee Retention" as the search term, yielded some common factors related to employee retention and turnover. We found a great amount of consistency in the literature that managers who use classical conditioning techniques can better "stamp in" reasons for employees to stay. The academic literature confirmed our hunch that discoveries by both Edward Lee Thorndike and Ivan Pavlov are related favorably to employee retention. We proposed a two-factor model of employee retention. Our Model hypothesizes that collectively, policy components culminate into the satisfying effect dimension, leading to employee retention. Conversely, policy components culminate into the discomforting effect dimension, leading to employee turnover.

Our view is that employee retention is a construct with two dimensions: organizations will impose policy components on the individual that have 1) a satisfying effect dimension, or 2) a discomforting effect dimension. Similar to Frederick Herzberg's (1966) two-factor theory of employee satisfaction that has two dimensions: "hygiene" and "motivation," organizations will impose policy components on the individual

that collectively lead to one dimension or the other dimension: satisfying effect or discomfoting effect. Policy components collectively are the makeup of one or the other dimensions loading on either factor. The two-factor employee retention model is necessarily two factors because the law of contradiction applies. A reason for an employee to stay cannot at the same time be the same reason for that employee to leave. The two factors are independent of each other: *Stay or Leave!*

Research Question Answered

Earlier in this study, we asked the following research question: *Does the employee retention literature show that the discoveries of Edward Lee Thorndike and Ivan Pavlov relate favorably to employee retention?*

Answer: Yes! The discoveries of Edward Lee Thorndike and Ivan Pavlov are shown in the scholarly literature to be related favorably to a two-factor model of employee retention. The next step is to conduct an exploratory factor analysis and to validate the scale, to refine the items. The Two-Factor Model for Employee Retention needs to be shown to have both construct and predictive validity to be valid.

Recommendations for Testing Our Two-Factor Model Retention

We intend to use exploratory factor analysis (EFA) to explore the underlying factors influencing employee retention. Our theoretical model posits that employee retention can be explained by two dimensions: the ‘satisfying’ effect and the ‘discomfoting’ effect. The satisfying effect includes recruitment, socialization, training and development, compensation and rewards, supervision, and employee engagement. The discomfoting effect comprises employee dissatisfaction, better alternatives, planned changes, negative experiences, deception and renegeing, and race and gender politics.

We will use survey methodology (shown in the APPENDIX) to collect data. The survey instrument and the items (see Appendix) have been developed using the SHRM’s “Managing for Employee Retention” toolkit. Respondents will rate these items on a 7-point Likert scale, ranging from ‘strongly disagree’ (1) to ‘strongly agree’ (7). After collecting the data, we will conduct EFA to extract and interpret latent factors from observed variables. This will enable us to identify the latent factors that best explain the observed patterns in the responses, helping us to understand the underlying structure of employee retention within our context.

The preliminary EFA will pave the way for us to investigate further using confirmatory factor analysis (CFA) in order to assess the validity and reliability of our measurement constructs, test our theoretical model, and assess the relationships between the latent constructs and observed variables.

REFERENCES

- Allen, D.G., & Shanock, L.R. (2013). Perceived organizational support and embeddedness as key mechanisms connecting socialization tactics to commitment and turnover among new employees. *Journal of Organizational Behavior, 34*(3), 350–369.
- Bell, R., & Kennebrew, D. (2023). What Does Jean-Jacques Rousseau and Chester I. Barnard have to do with quiet quitting? *American Journal of Management, 23*(1), 1–11.
- Bell, R.L. (2010). Getting the most from your frontline workers: A rule of thumb for observing and rewarding good behavior. *Supervision, 71*(10), 9–12.
- Bell, R.L. (2011). Addressing employees’ feelings of inequity: Capitalizing on equity theory in modern management. *Supervision, 72*(5), 3–6.
- Bell, R.L., & Martin, J.S. (2010). Techniques for writing a reprimand: How to modify the behavior of a rule breaker at work. *Supervision, 71*(4), 8-12.
- Bell, R.L., & Martin, J.S. (2012). The relevance of scientific management and equity theory in everyday managerial communication situations. *Journal of Management, Policy & Practice, 13*(3), 106–115.
- Bell, R.L., & Ramdass, R. (2010). A model for reprimanding unproductive workplace behaviors. *Supervision, 71*(3), 3–6.

- Chinyio, E., Suresh, S., & Salisu, J.B. (2018). The impacts of monetary rewards on public sector employees in construction: A case of Jigawa state in Nigeria. *J. Eng. Design Technol.*, 16, 125–142.
- Cloutier, O., Felusiak, L., Hill, C., & Pemberton-Jones, E.J. (2015). The importance of developing strategies for employee retention. *Journal of Leadership, Accountability & Ethics*, 12(2), 119–128.
- Colson, T.L., & Satterfield, C. (2018). The effects of strategic compensation on teacher retention. *Power and Education*, 10(1), 92–104.
- Darley, J.M., Glucksberg, S., & Kinchla, R.A. (1991). *Psychology* (5th Edition, pp. 173–178). Prentice Hall.
- Das, B.L., & Baruah, M. (2013). Employee retention: A review of literature. *Journal of Business and Management*, 14(2), 8–16.
- Deshwal, S. (2015). Employee retention-perspective of employees. *International Journal of Applied Research*, 1(6), 344–345.
- Ezeuduji, I.O., & Mbane, T.L. (2017). Employee retention factors: The case of hotels in Cape Town, South Africa. *Journal of Economics and Behavioral Studies*, 9(1(J)), 6–16.
- Fischer, J.M. (Ed.). (1989). *God, foreknowledge, and freedom*. Stanford University Press.
- Fluid Air Dynamics. (2021, December 22). *Fast vs. Slow Oxidation Explained*. Retrieved from <https://fluidairedynamics.com/blogs/news/fast-vs-slow-oxidation-explained>
- Ghapanchi, A.H., & Aurum, A. (2011). Antecedents to IT personnel's intentions to leave: A systematic literature review. *Journal of Systems and Software*, 84(2), 238–249.
- Hanzel, I. (1999). *The concept of scientific law in the philosophy of science and epistemology: A study of theoretical reason* (Vol. 208, p.16). Springer Science & Business Media.
- Hausknecht, J.P., Rodda, J., & Howard, M.J. (2009). Targeted employee retention: Performance-based and job-related differences in reported reasons for staying. *Human Resource Management*, 48(2), 269–288.
- Herzberg, F. (1966). *Work and the nature of man*. Cleveland, OH: Holland.
- Herzberg, F., Mausner, B., & Snyderman, B.B. (1959). *The motivation to work*. New York: Wiley
- King, P. (2015). William of Ockham: Summa Logicae. In *Central Works of Philosophy v1* (pp. 242–269). Routledge.
- Kirwan, C. (1993). *Aristotle. Metaphysics. Books Gamma, Delta, and Epsilon*, tr. with notes.
- Kossivi, B., Xu, M., & Kalgora, B. (2016). Study on determining factors of employee retention. *Open Journal of Social Sciences*, 4(5), 261.
- Kyndt, E., Dochy, F., Michielsens, M., & Moeyaert, B. (2009). Employee retention: Organisational and personal perspectives. *Vocations and Learning*, 2(3), 195–215.
- Magaisa, G.M., & Musundire, A. (2022). Factors affecting employee retention in Zimbabwean companies. *International Journal of Applied Management Theory and Research (IJAMTR)*, 4(1), 1–20.
- Managing for Employee Retention. (2023, September 2). *Society for Human Resource Management: SHRM*. Retrieved from <https://www.shrm.org/resourcesandtools/tools-and-samples/toolkits/pages/managing-for-employee-retention.aspx>
- McGinley, A.C. (2019). # MeToo backlash or simply common sense?: It's complicated. *Seton Hall L. Rev.*, 50, 1397.
- Morris, C. (1985). *Psychology: An introduction*. Prentice-Hall.
- Netswera, F.G., & Rankhumise, E.M. (2005). Employee retention factors for South African higher education institutions: A case study. *SA Journal of Human Resource Management*, 3(2), 36–40.
- Nguyen, T., White, S., Hall, K., & Bell, R. (2019). Emotional intelligence and managerial communication. *American Journal of Management*, 19(2), 54–63.
- Nyanjom, C.R. (2013). *Factors influencing employee retention in the state corporations in Kenya* (Doctoral dissertation, University of Nairobi).

- Pavlov, I.P., & Anrep, G.V.E. (1927). *Conditioned reflexes: An investigation of the physiological activity of the cerebral cortex*. Translated and Edited by GV Anrep. London.
- Pavlov, P.I. (2010). Conditioned reflexes: An investigation of the physiological activity of the cerebral cortex. *Annals of Neurosciences*, 17(3), 136.
- Perreira, T.A., Berta, W., & Herbert, M. (2018). The employee retention triad in health care: Exploring relationships amongst organisational justice, affective commitment and turnover intention. *Journal of Clinical Nursing*, 27(7–8), e1451–e1461.
- Raina, R., & Roebuck, D.B. (2016). Exploring cultural influence on managerial communication in relationship to job satisfaction, organizational commitment, and the employees' propensity to leave in the insurance sector of India. *International Journal of Business Communication*, 53(1), 97–130.
- Rakhra, H.K. (2018). Study on factors influencing employee retention in companies. *International Journal of Public Sector Performance Management*, 4(1), 57–79.
- Ramlall, S. (2004). A review of employee motivation theories and their implications for employee retention within organizations. *Journal of American Academy of Business*, 5(1/2), 52–63.
- Rasmussen, D.B. (1973). Aristotle and the defense of the Law of Contradiction. *The Personalist*, 54(2), 149–162.
- Ringle, C.M., Wende, S., & Will, A. (2005). *SmartPLS 2.0*. Retrieved on Sept 2012 from <http://www.smartpls.de>
- Roebuck, D.B., Bell, R.L., & Hanscom, M.E. (2016). Differences in the Observed Frequency Distributions of Male and Female Feedback Behaviors. *Journal of Applied Management and Entrepreneurship*, 21(2), 6–25.
- Roebuck, D.B., Bell, R.L., Raina, R., & Lee, C.E. (2016). Comparing perceived listening behavior differences between managers and nonmanagers living in the United States, India, and Malaysia. *International Journal of Business Communication*, 53(4), 485–518.
- Roebuck, D.B., Bell, R.L., Raina, R., & Lee, C.E.C. (2015). The effects of home country, gender, and position on listening behaviors. *Journal of Organizational Culture, Communications and Conflict*, 19(2), 93–120.
- Samuel, M.O., & Chipunza, C. (2009). Employee retention and turnover: Using motivational variables as a panacea. *African Journal of Business Management*, 3(9), 410.
- Sandhya, K., & Kumar, D.P. (2011). Employee retention by motivation. *Indian Journal of Science and Technology*, 4(12), 1778–1782.
- Singh, D. (2019). A literature review on employee retention with focus on recent trends. *International Journal of Scientific Research in Science and Technology*, 6(1), 425–431.
- Soklaridis, S., Zahn, C., Kuper, A., Gillis, D., Taylor, V.H., & Whitehead, C. (2018). Men's fear of mentoring in the #MeToo era—What's at stake for academic medicine. *N Engl J Med*, 379(23), 2270–2274.
- Spade, P.V., & Panaccio, C. (2002). William of Ockham. *Stanford Encyclopedia of Philosophy*. Retrieved from <https://plato.stanford.edu/entries/ockham/>
- Tadesse, W.M. (2018). Factors affecting employee retention in Ethiopian public organizations. *Journal of Strategic Human Resource Management*, 7(3), 22–32.
- Thorndike, E. (1911). *Animal intelligence; experimental studies*. Animal Behavior Series.
- Thorndike, E. (2017). *Animal intelligence: Experimental studies*. Routledge.
- Tolman, E.C. (1932). *The purposive behavior in animals and men*. Century/Random House UK.
- Woodall, J., Southby, K., Trigwell, J., Lendzionowski, V., & Rategh, R. (2017). Maintaining employment and improving health: A qualitative exploration of a job retention programme for employees with mental health conditions. *International Journal of Workplace Health Management*, 10(1), 42–54.
- Yousuf, S., & Siddiqui, D.A. (2019). Factors influencing employee retention: A Karachi based comparative study on IT and banking industry. *International Journal of Human Resource Studies*, 9(1), 42–62.

APPENDIX: MEASUREMENT ON THE LIKERT-TYPE SCALE FOR EXPLORATORY FACTOR ANALYSIS

7-POINT LIKERT-TYPE MEASURE FOR WHY EMPLOYEES STAY: FACTOR 1							
Recruitment	Strongly disagree 1	Disagree 2	Somewhat disagree 3	Neither disagree or agree 4	Somewhat agree 5	Agree 6	Strongly agree 7
<ol style="list-style-type: none"> 1. I will stay employed in my current position because I was recruited at a college career fair by an alumnus of my alma Mata. 2. I will stay employed in my current position because an employment search firm helped me get hired and requires me to stay here for a defined period. 3. I will stay employed in my current position because I am under a binding contract for a defined period. 4. I will stay employed in my current position because the position I currently occupy is known to be a very competitive and hard to replace. 5. I will stay employed in my current position because I am sufficiently qualified to do my work which is highly specialized. 6. I will stay employed in my current position because I know many others who would love to be in my shoes. 							
Socialization	Strongly disagree 1	Disagree 2	Somewhat disagree 3	Neither disagree or agree 4	Somewhat agree 5	Agree 6	Strongly agree 7
<ol style="list-style-type: none"> 1. I will stay employed in my current position because people are easy to get along with. 2. I will stay employed in my current position because company values are very similar to my personal values. 3. I will stay employed in my current position because of the trusting and caring climate. 4. I will stay employed in my current position because management has an open-door policy to address any of my concerns. 5. I will stay employed in my current position because my ideas are valued by the management team. 6. I will stay employed in my current position because the leadership has communicated a clear vision and mission. 							
Training and development	Strongly disagree 1	Disagree 2	Somewhat disagree 3	Neither disagree or agree 4	Somewhat agree 5	Agree 6	Strongly agree 7
<ol style="list-style-type: none"> 1. I will stay employed in my current position because I am allowed to keep pace with current knowledge in my field. 2. I will stay employed in my current position because the company reimburses all or most of my education expenses. 3. I will stay employed in my current position because my boss has offered me mentoring opportunities. 4. I will stay employed in my current position because I followed my boss who was promoted recently to a new position. 5. I will stay employed in my current position because I am cross-trained to do at least one other job in my unit. 6. I will stay employed in my current position because the skills I offer are hard to replace by computer or artificial intelligence. 							

Compensation and rewards	Strongly disagree 1	Disagree 2	Somewhat disagree 3	Neither disagree or agree 4	Somewhat agree 5	Agree 6	Strongly agree 7
<ol style="list-style-type: none"> 1. I will stay employed in my current position because my pay is satisfactory for my personal needs. 2. I will stay employed in my current position because my benefits are above that of my peers working for competitors. 3. I will stay employed in my current position because my annual bonuses are often equal to or higher than my base pay. 4. I will stay employed in my current position because I can acquire common stocks at a discounted price. 5. I will stay employed in my current position because I like it when my manager gives me genuine praise for the work I do. 6. I will stay employed in my current position because I can help all sorts of people, not just my coworkers, improve their lives. 							
Supervision	Strongly disagree 1	Disagree 2	Somewhat disagree 3	Neither disagree or agree 4	Somewhat agree 5	Agree 6	Strongly agree 7
<ol style="list-style-type: none"> 1. I will stay employed in my current position because my boss is an ideal leader and manager. 2. I will stay employed in my current position because my boss listens to my concerns. 3. I will stay employed in my current position because my boss chips in and helps out, rather than just standing around idle all day. 4. I will stay employed in my current position because my boss is a natural mentor and teacher. 5. I will stay employed in my current position because my boss genuinely cares about people. 6. I will stay employed in my current position because my boss knows all the technical aspects of others' jobs in the department. 							
Employee engagement	Strongly disagree 1	Disagree 2	Somewhat disagree 3	Neither disagree or agree 4	Somewhat agree 5	Agree 6	Strongly agree 7
<ol style="list-style-type: none"> 1. I will stay employed in my current position because if I found a problem, I can shut down operations until the problem is resolved. 2. I will stay employed in my current position because I know others value my skills as a necessary part of a performance team. 3. I will stay employed in my current position because there is always something that I can do to make me feel I earned my paycheck. 4. I will stay employed in my current position because I trained the person I like who replaced me when I got promoted. 5. I will stay employed in my current position because I can engage any of my bosses with information they might not always agree with. 6. I will stay employed in my current position because people respect me and count on my input. 							

7-POINT LIKERT-TYPE MEASURE FOR WHY EMPLOYEES LEAVE: FACTOR 2							
Employee dissatisfaction	Strongly disagree 1	Disagree 2	Somewhat disagree 3	Neither disagree or agree 4	Somewhat agree 5	Agree 6	Strongly agree 7
<ol style="list-style-type: none"> 1. I would leave my current position if I get yelled at one more time, by anyone—a customer or coworker! 2. I would leave my current position if I found out I was paid much less than my peers for doing the exact same job. 3. I would leave my current position if I did not receive the support that I required to do my job efficiently and effectively. 4. I would leave my current position if I realized that it was contributing to my health deteriorating. 5. I would leave my current position if people viewed me as a part of a criminal organization. 6. I would leave my current position if my family needs outweighed my employer's needs. 							
Better alternatives	Strongly disagree 1	Disagree 2	Somewhat disagree 3	Neither disagree or agree 4	Somewhat agree 5	Agree 6	Strongly agree 7
<ol style="list-style-type: none"> 1. I would leave my current position if I won the Powerball Jackpot in an amount that was more than two year's my salary. 2. I would leave my current position if a job offer was made to me that pays 25% more than my current salary. 3. I would leave my current position if a job offer was made to me that includes a housing allowance in a warmer climate. 4. I would leave my current position if there was an unexpected pregnancy in my family requiring me to stay home. 5. I would leave my current position if I suddenly inherited \$2 million from a deceased relative. 6. I would leave my current position if I were debt free and close to retirement age with over \$500,000 in savings and investments. 							
A planned change	Strongly disagree 1	Disagree 2	Somewhat disagree 3	Neither disagree or agree 4	Somewhat agree 5	Agree 6	Strongly agree 7
<ol style="list-style-type: none"> 1. I will leave my current position when my employment contract ends and it has not been renewed. 2. I will leave my current position when I am close to retirement age, which is not too far away. 3. I will leave my current position when my firm completes its merger with another firm. 4. I will leave my current position when I start my new position and my replacement is hired. 5. I will leave my current position when I reach my savings and investment goals. 6. I will leave my current position when I complete my training for a different position. 							

A negative experience	Strongly disagree 1	Disagree 2	Somewhat disagree 3	Neither disagree or agree 4	Somewhat agree 5	Agree 6	Strongly agree 7
<ol style="list-style-type: none"> 1. I would leave my current position if I get terminated for cause. 2. I would leave my current position if I get a formal reprimand for a problem that I caused, but fill the corrective action was too harsh. 3. I would leave my current position if I was blamed for a problem that was not my fault, and no one apologized when the person to blame for the problem was revealed. 4. I would leave my current position if too many of my colleagues quit the organization and I suddenly had to work along with coworkers who do to not know what they are doing. 5. I would leave my current position if forced to work with unqualified coworkers because the “Woke” company wanted to fill a minority quota. 6. I would leave my current position if my company filed for bankruptcy, even if I am not sure of the financial health of the firm. 							
Deception and renegeing	Strongly disagree 1	Disagree 2	Somewhat disagree 3	Neither disagree or agree 4	Somewhat agree 5	Agree 6	Strongly agree 7
<ol style="list-style-type: none"> 1. I would leave my current position if management renegeed on a budget commitment that was agreed to in a previous meeting. 2. I would leave my current position if management promised me an office suite, but gave me an open cubicle instead amidst 50 people. 3. I would leave my current position if I earned a bonus of \$50,000, but I was given \$25,000 and told the rest would be paid next year-end. 4. I would leave my current position if a week’s worth of my vacation credit was erased, and I was told that I lost it because I did not use it in the calendar year it was accrued, even though it was not anywhere stated in company policy. 5. I would leave my current position if my direct supervisor is constantly found to be a liar on small issues, as well as big issues. 6. I would leave my current position if our company CEO was found to be a drug user who cheats on their spouse and squanders company resources. 							
Race and gender politics	Strongly disagree 1	Disagree 2	Somewhat disagree 3	Neither disagree or agree 4	Somewhat agree 5	Agree 6	Strongly agree 7
<ol style="list-style-type: none"> 1. I would leave my current position if I was required to attend too many diversity (DEI) workshops not related to my job. 2. I would leave my current position if one of my closest colleagues was proved to have been falsely accused of sexual harassment or race discrimination. 3. I would leave my current position if forced to work with a person of the opposite sex in a one-on-one isolated setting. 4. I would leave my current position if I am forced to travel alone with a person of the opposite sex on a multiday trip. 5. I would leave my current position if I was proved to have been falsely accused of sexual harassment or race discrimination, and soon thereafter, I would file a lawsuit against my accuser and my former employer. 6. I would leave my current position if a male boss received 100 percent credit for work I completed alone without any assistance from him. 							