



RESEARCH ARTICLE

SYNTHESIS OF PAVLOV'S THEORY OF CLASSICAL CONDITIONING AND THORNDIKE'S VIEW ON BEHAVIOURAL LEARNING

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ABSTRACT

This paper synthesizes two foundational behaviourist theories, Ivan Pavlov's classical conditioning and Edward Thorndike's behavioural learning theory, to explore their relevance and application within public sector institutions. Drawing on historical experiments and contemporary scholarship, it examines how stimulus-response associations and reinforcement principles underpin learning processes that influence both individual and institutional behaviour. The analysis emphasizes how classical conditioning informs symbolic compliance and public engagement through environmental cues and emotional associations, while Thorndike's laws of effect, readiness, and exercise illuminate how consequences and reinforcement shape training outcomes, policy adherence, and employee performance. Through critical comparison, the essay demonstrates that while each theory contributes distinct mechanisms of behavioural change, together they offer a robust conceptual foundation for designing policy interventions, civil service training programs, and public-facing campaigns. The paper concludes by acknowledging the limitations of purely behaviourist perspectives and underscores the value of integrating such models into broader governance and developmental frameworks to promote responsive, ethical, and participatory public institutions.

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INTRODUCTION

Theories help us make sense of the world. Whether in personal reflection or professional practice, they offer valuable lenses through which we interpret experiences, understand behaviour, and navigate complex decisions. Among the many categories of theory, which include ethical, philosophical, and psychological theories, those that explain how we learn and adapt are especially significant in shaping human development and institutional practice. This paper focuses on two influential psychological theories within the behaviourist tradition, Ivan Pavlov's classical conditioning and Edward Thorndike's behavioural learning theory. It explores how these frameworks contribute to our understanding of learned behaviour and examines their practical implications in government institutions, particularly in areas such as staff training, public engagement, and policy compliance. Among the most influential psychological theories are those that explain how humans learn and adapt, particularly within institutional contexts. Rather than examining internal cognitive processes, behaviourists focus on observable actions and the environmental conditions that shape them. Central to this school of thought is the belief that behaviour is learned through interaction with the environment and that both humans and

animals respond to stimuli in similar ways. Ivan Pavlov, a key figure in this tradition, is best known for his theory of classical conditioning, a learning process in which a neutral stimulus becomes associated with a meaningful one, eventually producing a conditioned response. This process has broad implications beyond psychology, including in government settings where official messaging, institutional symbols, and policy frameworks influence public behaviour. In contrast, Edward Thorndike's work in behavioural learning emphasizes the role of consequences in reinforcing or diminishing behaviour. His principles, such as the law of effect and trial-and-error learning, demonstrate that behaviours followed by satisfying outcomes are more likely to recur. These insights are particularly relevant to public sector institutions, where employee conduct, compliance, and public engagement are shaped by structured training, incentives, and policy enforcement mechanisms. By synthesizing Pavlov's classical conditioning with Thorndike's behavioural learning framework, this paper argues that behaviourist principles provide powerful tools for shaping human behaviour within public institutions, particularly in staff development, policy compliance, and citizen engagement. Pavlov's pioneering experiments in the early 20th century revealed how a neutral stimulus, such as the sound of a bell, could, through repeated association with an unconditioned stimulus like food, come to

elicit a conditioned response, such as salivation (Pavlov, 1927). This foundational work was extended by John B. Watson, who demonstrated that emotional reactions, including fear, could similarly be conditioned in humans. His famous 'Little Albert' study showed that pairing a neutral object with a loud noise could instil a lasting fear response (Watson & Rayner, 1920). These experiments highlight the remarkable extent to which humans, like other animals, can develop learned emotional responses through environmental associations. In everyday life, this process often occurs subtly and without conscious awareness, for instance, consumers may develop positive feelings toward brands simply because advertisements pair products with pleasant images or music (Gorn, 1982). Contemporary research further confirms that such conditioning influences preferences and behaviours implicitly, shaping human responses over time in ways we may not fully recognize (De Houwer, Thomas, & Baeyens, 2001). Together, these findings underscore the enduring relevance of classical conditioning in understanding how environmental cues continuously shape human behaviour.

Furthermore, classical conditioning extends beyond experimental psychology and finds practical application in education and behaviour modification. In educational settings, students often learn through conditioned associations, where positive behaviours are reinforced with rewards, and rule violations may be met with consequences, thereby shaping behaviour over time. The familiar ringing of a bell to signal breaks, lunchtime, or the end of the school day exemplifies conditioned environmental cues that regulate student routines. Moreover, classical conditioning principles underpin therapeutic interventions aimed at reducing phobic responses. Techniques such as systematic desensitization, developed by (Wolpe, 1958), utilize controlled exposure to feared stimuli paired with relaxation to weaken conditioned fear responses. These applications demonstrate the enduring significance of classical conditioning today, not only in understanding learned behaviour but also in actively shaping responses across diverse real-world contexts. While Pavlov emphasized involuntary behavioural responses, Edward Thorndike shifted focus toward voluntary behaviours and the power of consequences. At the core of Thorndike's behavioural learning theory lies the law of effect, which posits that behaviours followed by satisfying consequences are more likely to be repeated, whereas those producing discomfort tend to diminish (Thorndike, 1911). This principle highlights how stimulus-response (S-R) associations are dynamically strengthened or weakened based on outcomes, underscoring the role of consequences in shaping behaviour. Thorndike further developed the concept of connectionism, which explains learning as the gradual formation of associations between stimuli and responses through repeated experience (Thorndike, 1913). His well-known puzzle box experiments with cats demonstrated how trial-and-error learning allows individuals to explore different behaviours until discovering one that yields a reward—in this case, food. Over time, the cats' increasing efficiency in performing the correct action illustrated the strengthening of S-R connections through reinforcement (Thorndike, 1911). Additional principles, such as the law of readiness and the law of exercise, further emphasize the conditions under which learning is optimized. The law of readiness suggests that motivation and preparedness enhance the effectiveness of learning, while the law of exercise highlights that repeated practice strengthens behavioural associations, and a lack thereof leads to their weakening (Thorndike, 1913). Together, these insights provide

a robust framework for understanding how behaviour is acquired and maintained, particularly relevant to institutional contexts where training programs and policy compliance rely on reinforcing desired behaviours through structured consequences. By integrating Thorndike's theory with classical conditioning, it becomes evident that behaviourist principles offer powerful mechanisms for shaping human actions within organizational and public sector settings. Pavlov and Thorndike's theories both emphasize behaviour as a response to stimuli, yet they focus on different mechanisms of learning. While Pavlov's classical conditioning highlights how behaviours are acquired through automatic associations between stimuli, Thorndike's theory centers on how the consequences of behaviour influence its recurrence. Although these frameworks often complement each other in explaining how behaviours are acquired and modified, it is important to recognize that human behaviour is complex and cannot be fully accounted for by either theory alone. Factors such as cognition, motivation, and social context also play significant roles in learning. Therefore, synthesizing Pavlov's and Thorndike's insights offers a valuable but partial understanding of behaviour, which must be integrated with broader psychological perspectives to capture the full spectrum of human learning.

Pavlov discovered that dogs would salivate at the sound of a bell when it was consistently associated with food, demonstrating how behaviour can be shaped through stimulus pairing (Pavlov, 1927). In contrast, Thorndike's experiments with cats in a puzzle box showed that behaviours followed by satisfying outcomes were more likely to recur, highlighting the role of consequences in learning. While Pavlov focused on involuntary responses triggered by associations, Thorndike emphasized voluntary behaviours shaped through trial and error. Together, their theories illustrate that learning can occur both through stimulus associations and the reinforcement of consequences. These foundational behaviourist perspectives contribute to our understanding of how external stimuli influence and shape individual behaviour over time. These foundational theories are not confined to psychology, they actively inform how governments design training, enforce policies, and communicate with citizens. In government institutions, employee behaviour and public compliance are often shaped through training, service delivery strategies, and policy enforcement. Both Pavlov's and Thorndike's theories offer useful behavioural insights that can inform these institutional practices, although their mechanisms differ.

Pavlov's classical conditioning is evident in how official symbols, such as ministry logos, government-issued notices, or standardized forms, become associated with authority and expected responses. Over time, citizens may develop conditioned behaviours—such as filing taxes upon receiving a notice—not solely due to personal intent, but through repeated exposure to administrative stimuli that signal obligation and consequence (Pavlov, 1927; Smith, 2020). Similarly, public service campaigns employ emotionally charged imagery and slogans to influence behaviour. For instance, road safety campaigns often pair graphic images with messages about dangerous driving, conditioning viewers to associate reckless driving with fear or guilt (Johnson, 2019). Importantly, this process relies on conditioning not sensitization since the behaviour is shaped by the association of a stimulus with an emotional or behavioural response. Thorndike's theory further informs how behaviour is modified in institutional contexts

through the principle of the law of effect. Government training programs, especially those aimed at civil servants, often use feedback and reinforcement to shape work habits. When public servants are rewarded for effective service delivery—through recognition, salary increments, or career advancement—they are more likely to repeat the rewarded behaviours (Thorndike, 1911; Denhardt *et al.*, 2018). Conversely, poor performance followed by corrective feedback or disciplinary action discourages repetition of undesirable behaviours. Performance appraisal systems used in many ministries reflect this principle. Employees who demonstrate reliability, responsiveness, and adherence to policy are often incentivized through formal rewards, while others are encouraged to adjust their behaviours through structured evaluation and developmental feedback (OECD, 2017). This structured reinforcement aligns with Thorndike's view that learning is a function of consequence and repetition. Together, Pavlov's and Thorndike's theories help explain how behavioural conditioning and reinforcement operate within government systems, not only to train employees but also to foster public compliance and trust in institutional processes. However, it is essential to acknowledge that human behaviour within these contexts is also influenced by cognitive, cultural, and social factors that go beyond the scope of behaviourist theory. The implementation of public policies often reflects Thorndike's law of effect, which posits that behaviours followed by satisfying outcomes are more likely to recur (Thorndike, 1911). Governments routinely use this principle by designing regulations and programs that offer clear benefits or incentives for compliance. For instance, tax rebates, social benefits, and conditional grants motivate citizens to adopt certain behaviours because of the positive outcomes associated with them (Howlett *et al.*, 2020).

Thorndike's law of readiness also applies within public institutions, particularly in the context of training and capacity-building initiatives. Government agencies often invest in training not only civil servants but also the wider public through workshops, community education programs, and online platforms. These interventions are most effective when participants are mentally and emotionally prepared to learn, as the law of readiness suggests learning is facilitated when individuals are in a state conducive to acquiring new behaviours (Thorndike, 1913). Structured repetition and real-world application in these programs help to reinforce learned behaviours, thereby increasing long-term retention and performance outcomes. Moreover, many of these initiatives aim not just to inform, but to shape behaviour through emotional and associative learning. Classical conditioning plays a role in public education campaigns—such as those focused on public health or road safety—by pairing specific imagery or slogans with emotional responses, thereby increasing the likelihood of behaviour change. For example, campaigns that link unsafe driving with fear-inducing consequences are designed to trigger emotional aversion, thereby promoting safer conduct (Johnson, 2019). Both Pavlov's and Thorndike's theories serve as foundational frameworks for understanding and guiding behaviour within government. Pavlov's associative learning model explains how public perceptions can be influenced through repeated exposure to emotionally charged or symbolically authoritative messaging, while Thorndike's focus on reinforcement underscores how structured incentives and consequences influence compliance and performance. Together, these theories inform the design of policies, training programs, and behavioural interventions aimed at promoting effective

governance and public engagement. For governance and public service to be effective, these theories provide a thorough approach to behaviour modification, which is crucial to government ministries and agencies. This behaviour modification of both public servants and citizens is done through campaigns and service delivery, it also beneficial to law enforcement, as it is used to encourage good behaviour and repeated behaviour. This applied will encourage the citizens to fulfil their responsibility, which is to comply with the laws created by the government to guide the society, so that citizens can engage in public service and give back to their communities. Understanding these theories enhances the design of policies that will ensure interventions that promote the well-being of our society.

The application of Pavlov's classical conditioning and Thorndike's behavioural learning theory offers valuable insights into behaviour modification within government institutions. These theories demonstrate that both public servants and citizens can be influenced through structured reinforcement, associative learning, and targeted behavioural interventions. Campaigns, public service delivery, and policy enforcement strategies that draw on these principles not only promote compliance but also cultivate a sense of civic responsibility. By understanding how behaviour is acquired and sustained, whether through conditioned associations or consequences, government ministries and agencies can design more effective policies and training programs that encourage engagement, performance, and accountability. Ultimately, integrating behaviourist frameworks into public governance supports the development of a responsive, participatory, and well-functioning society.

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