Behaviorist Theory and Task Based Language Learning

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Abstract

Behaviorist Learning Theory is a psychology grounded pedagogical line of thought, based on the idea that behavior can be researched scientifically without consideration of cognitive states. The primary hypothesis is that learning is influenced solely by physical variables such as environmental or material reinforcement. By dismissing the influence of mental variables, behaviorist theories propose that free will is an illusion and that responses can be determined and conditioned. Key figures essential to the development of these theories include Ivan Pavlov, John B. Watson and B.F. Skinner. Much of behaviorist learning theory requires the creation, application, processing and generalization of stereotypes. Conditioning is the belief that an event, stimulus or process will be repeated with the same results in the future thereby reinforcing an appropriate response. However in order to explain human behavior as diverse and variable as language, culture, customs and beliefs, a system of learning based on stereotypes can be inefficient and dangerous. Nevertheless, aspects of this approach have several implications for language learning especially in regard to learning complex and hidden elements of language such as culture and communication styles. Some practical examples of how cultural and communicative behavior tasks might be applied to language teaching are also included.

Introduction

Behaviorist Learning Theory is a psychology grounded pedagogical line of thought, based on the idea that behavior can be researched scientifically without consideration of cognitive states. The primary hypothesis is that learning is influenced solely by physical variables such as environmental or material reinforcement. By dismissing the influence of mental variables, behaviorist theories propose that free will is an illusion and that responses can be determined and conditioned. Key figures essential to the development of these theories include Ivan Pavlov, John B. Watson and B.F. Skinner.

Framing the Issue

Behaviorist Learning Theory is based on principles of Behaviorism, which were developed during the first half of the 20th century. Learning was understood as a process, which created a permanent change in behavior as a result of experience. Behaviorism was established as an alternative to introspective methods of understanding psychological processes involved in learning. This approach was considered unscientific and subjective as learning outcomes and process could not be accurately observed or measured. Behaviorism grew out of the premise that learning is a process influenced by changes in the environment and resulting in changes in behavior. As such learning can be understood by observing the context and environment and subsequent behavior. The dominant theory was that both humans and animals learn in the same way through conditioning, by responding to stimulus and modifying behavior accordingly. In this way learning analysis became observable and scientific as opposed to a subjective description of invisible and internal processes.

The basic assumptions of behaviorist learning are as follows:

- Behavior is a product of environment
- Internal process cannot be observed or measured scientifically and should be excluded.

- Learning is a form of stimulus response and described through the relationship between observable events.
- Learning is a process which results in a change in behavior
- Learning is evident when certain events coincide
- Humans and animals learn new behavior in the same way

Early research on behaviorist learning focused on animals conditioning variations in behavior by eliciting responses to controlled stimulus in a closed environment. Later research and experimentation began to look at human learning to determine if the same theories could be applied. Notable pioneers in developing behaviorist learning theories include; Ivan Pavlov (1849-1936), John Watson (1878-1958), B. F. Skinner (1904-1990).

Pavlov proposed a theory of classical conditioning, which implies that learning or changes in behavior occur when neutral stimuli are paired with behavior at a specific time to associate the stimulus with the behavior. By studying the salivation reflex of his dog, Pavlov found that he could trigger the reflex through a new and unrelated stimulus. Thereby proving learning on the part of the dog. The presence of food made the dog salivate. Pavlov associated the ringing of a bell and other stimuli with the presence of the food. Finally the dog became conditioned to respond to the new stimulus alone and would salivate without the presence of food. During this research, which became known as classical conditioning, he made several important discoveries, which are still used to describe learning processes. These include *acquisition, extinction, spontaneous recovery, generalization,* and *discrimination*

Acquisition refers to the initial learning of a conditioned response. The weakening or disappearance of a conditioned response in the absence of an unconditioned stimulus is *extinction*. If the conditioned response returns after a short period of time, this is known as *spontaneous recovery. Generalization* is the ability to associate responses with other types of unrelated but similar stimuli. In contrast being able to distinguish between different and irrelevant stimuli is *discrimination*. Based on these elements, classical conditioning became a dominant theory explaining how all organisms are able to adapt to their environment and learn new behaviors.

Watson further developed Pavlov's theories proposing that psychology focus on being able to predict responses to various stimuli and completely disregard internal process of learning. Watson's main premise was that all human behavior could be explained or understood through conditioned responses. Many of his studies were controversial and even considered unethical. In particular was his experimentation and observation of an 11 month infant known as "Little Albert". These studies established Pavlov's original theories as applicable to human learning and had a profound influence on modern psychology in particular areas concerned with therapy and emotions. In a very short period of time Watson was able to condition irrational fear of otherwise neutral or pleasing stimuli. When a cute stuffed animal was associated with loud noise, "Little Albert" became afraid of the toy. This learned fear was generalized to other stimulus and included all small animals and white fluffy objects, which would under normal conditions, be harmless or pleasing to a child.

These experiments and theories are significant in that they provide a model and framework for objectively studying internal process such as learning.

Skinner extended these theories to include more complex elements of learning that went beyond basic reflexes and tried to explain higher cognitive and social phenomena. He explained this type of learning of involuntary responses or behavior as operant conditioning. Operant conditioning is a non-reflexive behavior that is learned in order to operate on the environment to produce a reward (positive reinforcement) or avoid a punishment (negative reinforcement). Working on the premise that classical conditioning works with the environment to elicit behaviors that allow an organism to adapt, survive or evolve, Skinner went one step further and conditioned

behavior that was irrelevant to an organism's wellbeing or survival. His experimentation with pigeons teaching them to play ping pong or walk in a figure 8 showed that learning is not necessarily a product of innate ability, biological tendencies or natural instincts designed to keep us safe. Previous theories supported the idea of behaviorism as supporting the ideas of natural selection and survival of the fittest and that organisms have a higher propensity to learn behavior that allows them to flourish and survive. Skinner was able to challenge this by teaching animals uncharacteristic behaviors. However in consideration of higher cognitive process, social influences and biological predispositions, Skinner's model of learning was inadequate as it failed to consider the essential internal processes involved in learning that classical behaviorists ignored as unscientific. Chomsky was one of the main opponents to Skinner's theory, particularly as it applied to language learning. He concluded that essential factors influencing language learning, acquisition and subsequent proficiency were innate and that all languages had an underlying universal grammar that enabled all humans to learn and produce an infinite number and variation of intelligible language regardless of culture, background or experience. In this way linguistic theory of learning, a human propensity for language; Universal Grammar could account for the diverse variation and creativity of language in a way that behaviorism could not.

Making the Case

Much of behaviorist learning theory requires the creation, application, processing and generalization of stereotypes. Conditioning is the belief that an event, stimulus or process will be repeated with the same results in the future thereby reinforcing a response. However in order to explain human behavior as diverse and variable as language, culture, customs and beliefs, a system of learning based on stereotypes can be inefficient and dangerous. Using a stereotype to learn that a flame or stove is hot is valuable as that lesson can be logically and easily generalized to any other stove, flame or hot object in another unfamiliar context. However with regards to people such generalization can result in discrimination, racism, bias, ignorance and generally block or prohibit the acquisition of new information especially if it conflicts with previously held or well established beliefs. Observation, is a key element of learning and can either reinforce or challenge and dispel previous knowledge. In order to apply observation scientifically, in a way that can lead to objective learning and the dissolution of inaccurate or overgeneralized stereotypes, a form of ethnographic methodology is required. Ethnographic principles were first applied and developed by anthropologist Margaret Mead as she studied the behavior of aboriginal people in Papua New Guinea. Ethnography here required that in order to learn and understand the culture in an unfamiliar society or environment, it was necessary to observe and take detailed notes describing all aspects of the context, subjects and behavior. In this way learning could take place objectively without bias or the influence of stereotypes, expectations or previously held assumptions. James Spradley (1980) applied these methods to studying phenomena in modern society, subcultures and other communities. He coined phrases such as *thick description* and *participant observation* to emphasize the need to observe and describe subjects and context carefully and objectively. In this way learning is carried out by not only observing and copying behavior, rather through processing observations, analyzing information and applying results objectively to any response.

Pedagogical Implications

This approach has several implications for language learning especially in regard to learning complex and hidden elements of language such as culture and communication styles. Byram (1997) proposed a form of ethnographic learning which involved students immersing themselves in a language community in order to develop a set of skills or culturally appropriate behaviors to accompany language proficiency. He referred to this as Intercultural Communicative Competence and highlighted 5 savoirs/ abilities required in becoming

culturally competent communicator. This required that learners not only mimic target culture behavior but also try to understand through observation and exploration. In order to incorporate higher aspects of communication such as culture, communication styles and other differences, Reimann (2012) proposed a form of participant observation and ethnographic research to objectively consider all variables affecting language learning. In this research, tasks, which raise cultural awareness, were found to be essential in adapting behaviors, mannerisms and cultural appropriacy necessary to communicate effectively with a target community. This methodology used behaviorist principles to include hidden aspects and influences of communication without relying on stereotypes, which may be inaccurate or subjective. In this regard a stimulus from an unfamiliar culture would be observed, experienced and evaluated before generating a culturally appropriate response. The successful interaction or communication would then be the positive reinforcement to support the behavior occurring in future situations. In contrast relying on stereotypes or behaviors which are preconceived and not experienced could result in negative reinforcement, miscommunication or culture shock having an adverse impact on the learning process.

With regards to language and culture learning, Widdowson (1998) asserted that learners cannot be rehearsed in patterns of cultural behaviour because these are too unpredictable and cannot be reproduced in the classroom. However, he also suggests that the classroom context is a community with its own cultural reality and conventions, and that this offers a unique environment in which language and culture are not just learned but learned from. Tasks more representative of the real world can then be integrated into the classroom as a methodology that will provide for communicative competence by functional investment, engaging the learners in problem-solving tasks as purposeful activities but without the rehearsal requirement that they should be realistic or "authentic" as natural social behavior. These tasks should then be systematically linked to the things learners need to do in the real world, incorporate what is known about the nature of successful communication, and embody what is known about second language acquisition (Widdowson, 1987).

Some practical examples of how cultural and communicative behavior tasks might be applied to language teaching include the following:

Perception and Perspective Analysis

Using images or videos to have students confront, evaluate and reconsider their cultural sterotypes and social expectations in order to develop more flexible communicative behavior. People tend to see only what they expect or want to see. Individual differences of perception and perspective affect how we experience reality. Stereotypes, generalizations, and prejudices lead people to interact with the world in a limited way. By understanding this process, learners are able to broaden their outlook by reevaluating their first impressions and initial expectations, which enables them to become more tolerant and flexible.

Self and Group Awareness Raising

Answering reflective questions through interviews, surveys and discussions, learners can find out more about themselves and each other. By looking inward and understanding the influences that shape their identity, learners are able to understand the extent to which individual differences can vary and how diverse their communities really are.

Critical Incident Analysis

Critical incidents are short dialogues and scenarios, which highlight an aspect of intercultural communication, which may be unfamiliar or challenging if encountered in the real world. Witholding overt cultural information or references, such as names and nationalities, allows the learners to form their own interpretations and evaluate the language and culture of each scenario, independent of preconceptions or stereotypes. This allows free thought and a more complete synthesis of cultural differences and understanding of intercultural communication.

Cultural, Social or Communicative Role Play

Role Play allows learners to consider a communicative situation and apply their knowledge and experience of language and culture to solving or completing a task, scenario or problem. Learners are also directly in control as they collaborate to creatively design, produce and perform a dialogue in small groups or in front of the whole class. Role Play performance makes it possible for learners to put their own culture and personality into the learning process, helping them synthesize concepts, and establish meaningful and relevant connections on wich to model their own behavior.

Participant Observation, Fieldwork Local Ethnography

Observation and fieldwork help learners develop a better understanding of individual differences and a broader perspective of social interaction and communication on different levels by considering a basic aspect of culture or society and critically analyzing, evaluating, and questioning all factors involved in the phenomena, including the origins, reasons, participants, contexts, artifacts, meanings, consequences, relationships, and perspectives. In short, students dissect an element of social behavior (*x*), isolating the variables and placing them under a microscope to better understand: Why does *x* happen? Does everyone do *x*? When? Where? With whom?

Behaviorist theories of learning, though incomplete in understanding all variables involved in the learning process, such as social, cultural or cognitive factors, are important in that they provide a framework to observe and describe hidden, mysterious or ambiguous processes of learning or communication objectively.

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行動主義理論とタスク中心の言語学習

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概要

行動主義学習理論とは、態度や振る舞いの分析は認知プロセスの分析を必ずしも必要としない、という心理学の研究成果に基づいた教授法のまとまりである。基本的な仮説は、学習は環境や物質の変化といった物理的な要因のみによって影響される、というものである。心理的要因の影響を考慮しないことで、行動主義理論は自由な意思は虚構であり、反応は規定され条件づけることができると考える。こうした理論の発展には、イヴァン・パブロフ、ジョン・ワトソン、スキナーなどが貢献した。行動主義学習理論を主張する研究者の多くは、ステレオタイプの創造、適用、定着、一般化という一連の学習の流れを重要視している。条件付けとは、生物が、ある出来事や刺激、手続きが将来も同じ結果をもたらすと確信した場合、結果的に一定の反応が強化されることである。しかしながら、人類の行動が、言語や文化、慣習や進行のように多様性を反映するものだと考える立場からは、ステレオタイプに基づく学習システムの理解は、非効率的であり、またある種の危険性を伴うものと考えざるを得ない。一方で、文化やコミュニケーションスタイルといった複雑で不可視的な言語要素の学習には、このような行動主義理論に基づいたアプローチが有効な場合があるのも事実である。本稿では、文化やコミュニケーション行動のタスクが言語教育に応用できる複数の実践例について述べることにする。

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