

THE ANALYSIS OF LEARNING AND BEHAVIOR: SKINNER'S LAW OF POSITIVE REINFORCEMENT

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Abstract

This article explores the theories of Burrhus Frederic Skinner, particularly his work on operant conditioning and its application in educational settings. Skinner's emphasis on positive reinforcement and structured, error-free learning materials has significantly influenced classroom management and teaching practices, especially for students with learning difficulties. The article also highlights objections to Skinner's theory, such as the undervaluation of risk-taking and failure as essential components of learning, the reduction of learning processes to conditioning, and concerns about over-reliance on external rewards. The discussion further contrasts Skinner's behaviorist approach with contemporary educational philosophies emphasizing intrinsic motivation, concept development, and the invisible aspects of learning.

Аннотация

В этой статье рассматриваются теории Беррхуса Фредерика Скиннера, в частности его работа по оперантному обусловливанию и ее применению в образовательных учреждениях. Акцент Скиннера на положительном подкреплении и структурированных, безошибочных учебных материалах значительно повлиял на управление классом и методы преподавания, особенно для учащихся с трудностями в обучении. В статье также освещаются возражения против теории Скиннера, такие как недооценка риска и неудач как важнейших компонентов обучения, сведение процессов обучения к обусловливанию и опасения по поводу чрезмерной зависимости от внешних вознаграждений. Обсуждение далее противопоставляет бихевиористский подход Скиннера современным образовательным философиям, подчеркивающим внутреннюю мотивацию, разработку концепций и невидимые аспекты обучения.

Abstrakt

Ushbu maqola Burrhus Frederik Skinner nazariyalarini, xususan uning operant konditsionerligi va uni ta'lim sharoitlarida qo'llash bo'yicha ishlarini o'rganadi. Skinnerning ijobiy mustahkamlash va tuzilgan, xatosiz o'quv materiallariga urg'u berishi sinfni boshqarish va o'qitish amaliyotiga, ayniqsa o'rganishda qiyinchiliklarga duch kelgan talabalar uchun sezilarli ta'sir ko'rsatdi. Maqolada, shuningdek, Skinner nazariyasiga e'tirozlar ta'kidlangan, masalan, ta'limning muhim tarkibiy qismlari sifatida tavakkal qilish va muvaffaqiyatsizlikka kam baho berish, o'quv jarayonlarini

konditsionerlikka qisqartirish va tashqi mukofotlarga haddan tashqari ishonish tashvishlari. Munozara Skinnerning bixevioristik yondashuvini ichki motivatsiya, kontseptsiyani ishlab chiqish va o'rganishning ko'rinmas jihatlariga urg'u beradigan zamonaviy ta'lim falsafasi bilan yanada ziddiyatga olib keladi.

Keywords: Skinner, operant conditioning, positive reinforcement, educational theory, risk-taking in learning, behaviorism, concept development, intrinsic motivation, structured lessons, student-centered teaching.

Ключевые слова: Скиннер, оперантное обусловливание, положительное подкрепление, образовательная теория, принятие риска в обучении, бихевиоризм, разработка концепций, внутренняя мотивация, структурированные уроки, обучение, ориентированное на учащихся.

Kalit so'zlar: Skinner, operant konditsionerlik, ijobiy mustahkamlash, ta'lim nazariyasi, o'rganishda tavakkal qilish, bixeviorizm, kontseptsiyani ishlab chiqish, ichki motivatsiya, tuzilgan darslar, o'quvchiga yo'naltirilgan ta'lim.

Introduction

One theorist whose work continues to reflect not just the ways in which schools and teachers behave towards students but also a growing common-sense view of how development in general (i.e both inside and outside the school setting) occurs and should be managed is Burrkus Frederic Skinner. Much of Skinner's theory revolves around a central view that people learn best by being rewarded for ' right responses' or by responses that show evidence of having a potential eventually to lead to ' right responses' (sometimes known as 'operant conditioning'). Starting with Thorndike's ' Law of Positive Effect' (Thorndike 1914). Skinner elaborates what he calls the ' law of positive reinforcement', which includes the notion that school students can be trained to replicate certain (adult) behavior if they come to associate such replication with the occasional receipt of tangible rewards. These days, such rewards might include 'merit marks', various forms of public approval and special privileges.

Literature review

Skinner's theory emphasizes not only the importance of a high level of positive of reinforcement of a in the classroom , but also the use of highly structured materials through which students can work step by step towards externally imposed goals. Because the making of mistakes is thought by Skinner to demoralize or demotivate the learner, interfering with their steady progress, he advocated that such materials should, as far as possible, be 'error free'. Very structured, 'scripted lessons' with teachers' words pre-ordained and seldom significantly deviated from, are linked to a very fixed-sometimes loosely referred to these days as 'traditionals' –discursive pattern of 'Teacher initiates through, for example, asking a scripted question or providing a simple instruction, student responds'.

Skinner's work- which belongs to a much wider body of work growing out of behavioural theories of learning- has undoubtedly left its mark in the areas of working with students with learning difficulties and in particular, of managing classroom behaviour. In this latter, aspects of Skinnerean theory have become an integral and unquestioned part of much what is now known as 'progressive' classroom practice(Dewey 1938), even though his ideas are often thought of as being exclusively in tune with more 'traditional' methods. We might point, for example, to the practice of rewarding students for 'appropriate' behaviour rather than endlessly punishing them for 'inappropriate' behaviour or the 'Skinnerrean' notion that before deciding on a programme of instruction for any student the teacher need to establish, as a baseline, what the student already knows and can do- a strategy often associated with 'student-centered teaching'.

Particular objections to Skinnerean theory in its relation to academic-cognitive development and behaviour include:

➤ The development of a widely held view that, in contrast to skinner's view making errors and taking risks represent important and fundamental aspects of learning. (For a flavor of the extent to which notion of risk-taking, linked to an acknowledgement and acceptance of the idea- perhaps the necessity- of 'failure' in the learning process continuous to be debated within education, see various practitioner comments in the feature 'What is the purpose of education?' in the Times Educational Supplement, 1st April 2011, p.27. David Hallybone, for example, links risk-taking and failure in this piece to Piagetian understanding of development ----- and children are understood as approaching learning with natural curiosity. Risk-taking , of course, is a key characteristic of entrepreneurialism- the promotion of which we also hear a good deal about these days: an example, perhaps, of quite different social agendas sometimes overlapping in areas of practice and policy.

➤ An increasing rejection of school-learning as being principally content-based, and a corresponding of learning process (The Skinnerean approach may be seen to reduce questions of process to a simple matter of conditioning).

➤ An increasing interest in the 'invisible', 'unreachable' aspects of learning and progress, to set alongside the more readily observable ones (students are quite capable of getting 'right answers ' without having an adequate grasp of the concepts involved, while 'wrong answers may often mask the hidden-development of 'right' process.

➤ An understanding that concepts can actually and continually develop rather than remaining thr same. (there is no obvious space in Skinner's theory for the notion of concept development: answers are implicitly generally treated as wrong or right, and knowledge crystallised and finite.

➤ A fear that if students work to externally-conferred rewards, rather than becoming independent learners who see learning itself as intrinsically rewarding, they may lose the motivation to learn once the source of rewards is no longer there.

Even in the area of managing students' behaviour, Skinner's theory is not without its difficulties, especially in the multicultural classrooms in which many teachers nowadays operate. Specifically, Skinner's work may be criticized as overlooking cultural issues related to behaviour, and the fact that a consistently applied set of punishments and rewards may prove inflexible and counter-productive in many classrooms.

Skinner's theory may also be criticized for its underplaying of the role of teachers' own behaviours in the teaching and learning processes, tending to limit its considerations in this area to matters of the awarding of punishments and rewards rather than, say, the need for teachers to be reflective and reflexive. It offers little help to teachers who have to deal with students who simply choose not to 'play behaviour game': students, that is, who appear not to care whether or not they succeed academically or whether or not they are praised or chastised by the teacher. Nor does it have much to say about the impact of students' ongoing life experiences on their willingness or capacity to learn- for example, the impact of social deprivation or emotionally upsetting experiences. In this respect, the theory offers little in relation to 'internal' motivation and personal expectations or goals, and does not take full account of the extent to which an unwillingness or an inability to conform to certain behaviours may be confused with a cognitive deficiency in the student.

The latter difficulty may be seen as part of a more general concern over Skinner's work, that it does not sufficiently problematize the overlaps and interactions between behaviour and achievement. The awarding of 'pass grades' in public examinations offers a graphic example of this kind of overlap and resultant confusion. On the one hand, the awarding of a good exam grade may be seen as merely representing a recognition or marker of the student's previous achievement. On the other hand, the grade may be seen- by the learner and, indeed, by the teacher- as an ultimate reward in itself for 'doing the right thing': a reward that can be 'cashed in' later, so to speak, towards, say, a university place or a prestigious job. In this respect, the exam grade may itself be seen as the student's achievement, rather than the effort and thought that have gone into getting it.

Methodology

The methodology of this article is based on a qualitative analysis of Skinner's theories and their application in educational settings, using a critical lens to evaluate their strengths and limitations. The primary data sources include Skinner's original works, related educational literature, and comparative studies on alternative educational theories. Secondary sources, such as practitioner insights and

contemporary discussions on education, are incorporated to provide context and contrast.

The study begins with an exploration of Skinner's key principles, including positive reinforcement, structured learning, and error-free teaching methods. These principles are then evaluated against modern educational practices and theories, such as constructivism, which prioritize intrinsic motivation and conceptual learning. Case studies and real-world examples are used to illustrate both the application and the challenges of Skinnerian approaches in diverse educational environments.

A thematic analysis was employed to identify recurring criticisms and gaps in Skinner's framework, such as its limited focus on internal motivation and the dynamics of risk-taking in learning. The research also examined how external rewards influence student behavior and long-term learning outcomes, considering cultural and social factors that may mediate these effects.

Conclusion

Burrhus Frederic Skinner's operant conditioning theory has undeniably shaped modern educational practices, particularly in classroom management and teaching strategies for students with learning difficulties. His emphasis on positive reinforcement and structured, error-free learning materials remains influential. However, Skinner's theory faces significant criticism for undervaluing intrinsic motivation, risk-taking, and conceptual development.

Modern educational philosophies increasingly highlight the invisible aspects of learning, including the role of curiosity, failure, and independent thought, which Skinner's behaviorist approach largely overlooks. Furthermore, the over-reliance on external rewards raises concerns about students' long-term motivation and ability to become self-directed learners. The limitations of Skinner's theory are particularly evident in multicultural classrooms, where uniform behavioral strategies may fail to account for diverse social and cultural contexts.

While Skinner's contributions remain relevant, they must be integrated with contemporary insights into motivation, concept development, and the complexities of individual learner experiences. Future research should focus on bridging the gap between behaviorist principles and holistic, student-centered approaches that prepare learners for an ever-changing and diverse world.

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