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**A SUMMARY OF THE THREE WAVES OF  
BEHAVIOURISM AND THEIR PRACTICAL  
IMPLICATIONS FOR COACHING**

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# A summary of the three waves of behaviourism and their practical implications for coaching

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## Abstract

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It is easy to become entangled in the jungle of definitions, minute distinctions and many debates concerning behaviourism. For this reason, I have attempted to keep the basic definition as succinct as possible. I will arrive at some practical conclusions regarding behaviourism and its role in coaching, therapy, counselling and other forms of human help. Part and parcel of the reason for the drive towards a simplified summary is due to the term “behaviourism” being loaded with the possibility for misinterpretation and misunderstanding. The caricatures of behaviourisms opponents frequently fail to recognise that behaviourism can offer a significant contribution to human help and development. Russ Harris (2009:38) demonstrates this volatility when he admits: “I thought behaviourists treated humans like robots or rats, that they had no interest in thoughts and feelings, and considered them unimportant or irrelevant. Boy, was I wrong! I soon discovered there are several different schools of behaviourism...” Harris exemplifies the tension and misunderstanding that many people experience with behaviourism, especially when you encounter the school of *radical behaviourism*. Admittedly, behaviourism does have a checkered past, and this article does not seek to deny this. I seek to explore this, and arrive at sensible and practical conclusions of the merits of behaviourism while critically evaluating its origins. This possible tension and potential for misunderstanding regarding what we mean with behaviourism, may also lead one to misunderstand systems designed to quantify behavioural patterns, like Shadowmatch. Logically, a brief historical discussion of behaviourism is necessary since we need to understand the “three waves of behaviourism” before we can arrive at a working definition of behaviourism within the scope of human help and development.

## 1. The three waves of behaviourism

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Behaviourism can be demarcated into three main “waves” (Eagle & Michael, 2019:251). Although these distinctions are not watertight (Eagle & Michael, 2019:251), they do serve a useful purpose in

describing the development of behaviouristic research since the 1800s. A useful way to approach these three “waves” is by considering how each wave (Hoekstra, s.a.):

1. Determines the **cause of behaviour**.
2. Understands the importance of **thoughts and feelings**.

### 1.1 First wave behaviourism

Officially, first wave behaviourism finds its beginnings in John B. Watson’s infamous baby-scaring experiments related to Little Albert in 1920 at John Hopkins University (Judora, 2005:233). This “first wave” reached its height of popularity in the 1950s and 60 and was an attempt to apply basic principles of learning to clinical problems (Eagle & Michael, 2019:251). Ivan Pavlov’s classical conditioning experiments using animals contributed significantly to Watson’s point of departure (Harris, 2009:39; Jarvis *et al.*, 2003:25–26). However, Watson was the first person to use the term “behaviourism” for his research and philosophical position (Jarvis *et al.*, 2003:26).

Watson conditioned a 11-month old baby (Albert) to fear fuzzy white objects by pairing these objects with a startling noise. This is an iconic classical conditioning experiment (very similar to Pavlov’s experiments with salivating dogs), but with a human being as the test subject instead of an animal. After a few rounds of conditioning, Albert developed a generalized fear of anything white and fuzzy, including rats, dogs, rabbits and beards (Judora, 2005:233).

Watson’s position is not concerned with motives, emotions or even cognition. It focused exclusively on the resultant conditioned behaviour of Albert. Watson also represents an extreme position since he went as far as denying the existence of the mind and regarded thoughts and emotions as epiphenomena of behaviour (Jarvis *et al.*, 2003:25-26). Nevertheless, Watson still represents a useful point of departure in understanding this first wave of behaviourism:

- **Cause of behaviour** – Causality is stimulus and response. An organism experiences X from the environment, and reacts with Y. Repeat this enough, and the response becomes habituated.
- **Thoughts and feelings** – What goes on inside the mind of the organism is irrelevant and can’t be studied. Asking “why?” Little Albert was frightened was not important.

Understandably such experiments and the clinical approach to behaviour gave first wave behaviourism a bad reputation. Watson and his partner, Rayner, were severely criticized on ethical grounds and particularly because they did not extinguish little Albert’s generalized fear response (Judora, 2005:233). Watson’s legacy may have caused *all* behaviourists to be accused of treating people like “rats and robots” (Harris, 2009:39).

Nevertheless, first wave behaviourism generated massive bodies of data, and shed light on the major role the principles of classical conditioning play in practically every species’ learning, response and adaptation to their environment (Judora, 2005:229). Without this first wave’s foundation, concepts like reinforcement, response acquisition, extinction, spontaneous recovery, generalization, discrimination and higher-order conditioning (foundational to habit theory), would not have developed (Judora, 2005:230–235). In short, first wave behaviourism made us aware of the fact that complex organisms’ behaviour is learned, and this learning is pattern-based (De Villiers, 2019:21). These key principles of first wave behaviourism also laid the foundation for the second wave that produced treatments still used in dealing with anxiety, depression and substance abuse.

## 1.2 Second wave behaviourism

Classical conditioning does have its limitations, and the second wave of behaviour studies was a response to address these limitations (Judora, 2005:236). An important figure is Edward Thorndike and his experiments with cats that led to the formulation of the “law of effect” – behaviour which leads to satisfactory results is learned (that is, habituated) while behaviour which leads to unsatisfactory results is not (Judora, 2005:238–239).

However, the iconic figure-head of second wave behaviourism and the “father of operant conditioning” is Burrhus F. Skinner (Judora, 2005:239). Like most of his predecessors, he primarily worked with animals (rats) and food experiments. Skinner is defined as a *radical* behaviourist in the sense that he departed from the strong mechanical understanding of Watson and those who followed him, but still stressed the importance of behaviour as point of departure exclusively (Eagle & Michael, 2019:251).

Skinner realized that the mind plays a role in learning, particularly in humans (Jarvis *et al.*, 2003:26). However, he staunchly persisted that “human personality” is still determined by the environment and learning experiences (Judora, 2005:256). He held a strong operant conditioning stance (as opposed to classical conditioning stance of Pavlov and Watson) which addressed some of the inadequacies of Watson’s mechanistic perspective on human behaviour (Jarvis *et al.*, 2003:27). He affirmed that thoughts and feelings (internal experience) are indeed present, but the distinction between “public behaviour” (the behaviours that researchers can observe) and “private behaviour” (those behaviours that are technically thoughts and feelings that only the subject can describe) should always be important (Harris, 2009:38). Also, a critical notion is that the organism and the environment *interact* with one another. It is not merely a mechanical stimulus and response as in the first wave, but a complex interaction. Therefore, behaviour is contextual, where meaningful interaction between the operant and the environment, results in learned behavioural patterns which are repeated (De Villiers, 2019:21, 22). The second wave’s position can be summarized as:

- **Cause of behaviour** – The environment and behaviour are interlinked in a complex way.
- **Thoughts and feelings** – Internal experiences like thoughts and feelings are understood to be behaviours and are, therefore, patterns. They moderate external behaviours and can be manipulated to yield different behaviours.

Second wave behaviourism had and still has a profound effect on clinical psychology and paved the way for cognitive behavioural therapy (CBT), which still dominates the clinical field in many countries. CBT operates from the assumption that if you could adjust thinking patterns, and eliminate irrational beliefs (which are from a technical behaviouristic perspective “private” behaviours), you can modulate external behaviour (Harris, 2009:39). It is still regarded the go-to treatment for psychological disorders. CBT is closely followed by rational emotive behaviour therapy (REBT) in terms of its frequency of use. Whether CBT and alike treatments are truly effective is still up for debate in many academic circles.

First and second wave behaviourism were, understandably so, criticized extensively (De Villiers, 2019:61). Skinner’s work, for instance, was criticized because he basically ignored the role of human cognitive processes in learning, and also because his research under-emphasized the constraints biological factors place on learning (Judora, 2005:256). Perhaps it is Skinner’s personal view of humanity, and not just his research, that made him a controversial figure in psychology. Skinner was

thoroughly deterministic in his view of humanity, how society ought to be constructed, and held an almost exclusive position that operant conditioning should be the governing principle in creating the ideal human world. According to Skinner, human behaviour is, whether we actively shape it or not, controlled by the environment and subsequent learning experiences. We might as well actively manipulate these forces for the betterment of humanity (Judora, 2005:256).

### 2.3 Third wave behaviourism

The latest, “third wave,” development in behaviourism incorporates the notions of acceptance and insight. Insight in terms of quantifying and understanding what is going on, and acceptance in the sense of coming to terms with my current behavioural set and internal experiences. Some researchers go as far as calling this mindfulness and correlates the notion with the mindfulness practices of various Buddhist traditions (Brown *et al.*, 2015:3; Segal *et al.*, 2012:39). Thoughts and feelings exist but they are fleeting and more often than not illusionary. The stance of acceptance within this wave postulates that trying to exercise control over these thoughts and feelings (as with CBT), is a fruitless endeavor, and can actually induce even more anxiety, stress, guilt, shame and a sense of failure.

A prominent researcher in the field, Jon Kabat-Zinn (Kabat-Zinn, 1994:4) defines “mindfulness” in the following manner: “mindfulness means paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally.” Even more specific in their definition Scott Bishop *et al.* (2004:232) define “mindfulness” as: “Broadly conceptualized, mindfulness has been described as a kind of nonelaborative, nonjudgmental, present-centered awareness in which each thought, feeling, or sensation that arises in the attentional field is acknowledged and accepted as it is.”

The implications of this definition for practice is that (Bishop *et al.*, 2004:232) “in a state of mindfulness, thoughts and feelings are observed as events in the mind, without over-identifying with them and without reacting to them in an automatic, habitual pattern of reactivity. This dispassionate state of self-observation is thought to introduce a ‘space’ between one’s perception and response. Thus, mindfulness is thought to enable one to respond to situations more reflectively (as opposed to reflexively).” Whether mindfulness actually delivers on what the theory implies (and even promises) is still debated.

This has led to further developments like DBT (Dialectical behaviour therapy), ACT (Acceptance and commitment therapy), and BA (behavioural activation therapies), mindfulness-based cognitive therapy (MBCT), functional analytic psychotherapy (FAP) (Harris, 2009:39; Hoekstra, s.a.). In summary, third wave behaviourism can be condensed as follows:

- **Cause of behaviour** – The environment and behaviour are still understood to be interlinked in a complex way. Behavioural history is assumed, but is not the focus of treatment.
- **Thoughts and feelings** – Behaviour is still given precedence over cognition. Thoughts and feelings are considered behaviours, but are only one aspect of behaviour. They should not receive any special attention, or as Bishop *et al.* (2004:232) state, people should not “over identify” with them. Rather, external behaviour is leveraged and internal experiences can be managed by insight and acceptance. Thoughts and feelings don’t matter (again!) as in first wave behaviourism, but for different reasons: They exist, and are patterned, but don’t have to determine our actions and destiny.

## 2. How do we make sense of the theory for coaching in a practical way?

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To arrive at a workable definition of behaviourism for human help and development purposes, I use a simplified list of principles (see O'Donohue & Kitchener, 1998:3–4):

### 2.1 Regarding the scope of “behaviourism” for this article

1. My definition works within scientific psychological behaviourism and does not include philosophical behaviourism.
2. By “scientific” I mean, psychological evidence should be:
  - a. regarded as objective evidence,
  - b. which is obtained through observations and experimentation,
  - c. conducted on public objects.
  - d. Therefore, these experiments must be intersubjective verifiable, and replicable by others.
3. Philosophical, spiritual and theological discussions fall outside of the scope of this definition.<sup>1</sup>

### 2.2 Regarding internal phenomena

4. The private phenomenal world of people exists, but can become difficult to engage and navigate for new, and experienced coaches, alike.
5. Avoid (putative) internal causes as far as possible in coaching (like intention, history, motivation etc.). Behaviour should be discussed in relation to the environment. This “externalism” places cause in the observable environment and diminishes guesswork, inferences of the coach, and unnecessary “rabbit-holing.”
6. This “externalism” perspective acts as a safeguard against the challenge of the coach “mind-reading” their clients’ intentions, giving advice and implanting conclusions which were not the client’s own.

### 2.3 Theoretical content of coaching

7. The theory should always be tied to data gathered from the scientific investigation (see point 2).
8. The theory emphasises environmental events and responses.
9. It is possible, and useful, to translate terms into language related to behaviour, observable events and actions.

## 3. The merits of behaviourism for coaching towards sustained action and change

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Whether someone wishes to become a full-time coach, or wants to use coaching as part of their profession, behaviouristic insights can be beneficial.<sup>2</sup> My personal position whenever I coach, uses first wave behaviourism as the point of departure. I urge new coaches to work with what we can observe, study, measure and replicate. Why? It allows for a simplified approach, effective strategies to help clients and prevents client and coach getting “stuck” in the internal phenomena.

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<sup>1</sup> I do not imply that these things do not exist or are unimportant topics.

<sup>2</sup> Although I reference coaching here specifically, these insights can very well be applied wider than the coaching practice.

Although I do not deny the relevance of the second wave's insights, using second wave practices, can be challenging. Partly because second wave therapies and praxis require extensive training (as with CBT), and also because working with thoughts, feelings and "inner experiences" in a *coaching* setting does not necessarily always lead to action (whether the desired action is life change, increase in performance, goal setting or something else).

From the third wave, however, I use insights from mindfulness. Here the principles of *insight* (understand your behaviours), and *acceptance* (there's nothing wrong with anybody, we just have to work with your habits) are important and has helped many of my clients build better personal and professional environments. In short – I base my approach on 1<sup>st</sup> wave behaviourism's insights, while applying some aspects of third wave behaviourism.

#### 4. Conclusion

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This summary of the historical development of behaviourism illustrates the key differences between first, second and third wave behaviourism. Behaviourism definitely has a colourful past, especially in terms of the ethical aspects of Watson's experiments on a human test subject. Nevertheless, the insights and sheer practical use of behaviourism's insights cannot and should not be ignored by aspiring and seasoned coaches, therapists, counsellors and mentors (De Villiers, 2019:61).

The moment a behaviouristic approach can be quantified with a smart AI system like Shadowmatch, the coach has an immense amount of useful data at their disposal. If this is paired with the right models, framework and an understanding of how powerfully behaviouristic principles can benefit clients (or patients for that matter), coaching can be very effective, clear, and a joy to partake in.

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