



PROMOTING ATHLETE BEHAVIOUR CHANGE

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KEY POINTS

- All sport scientists are in the business of creating efficient and effective behavioural change with their client groups. As a result, there is value in exploring principles from the domain of behavioural science that can be utilized to encourage rapid behaviour change.
- The likelihood of any behaviour change strategy working is increased by shaping the message so that it is congruent with the motivational orientation of the recipient.
- There are a number of strategies that can be used to make any behavioural change easier, which can encourage the new behaviour over the old.
- Even when individuals are motivated, and the new behaviour is easy, human beings are still prone to forgetting to engage in new behaviours. Prompts can be used to trigger the change in the flow of their day and encourage the new behaviour to be adopted.
- Utilising these lessons from behavioural science may require a subtle change in a practitioner's philosophy of practice but this shift should be encouraged for the benefit of the clients who are served.

INTRODUCTION

Irrespective of their particular discipline or specialism, applied sport science practitioners are required to create meaningful changes in behaviour with those individuals with whom they work in order to be effective (Costello et al., 2018). To do so, practitioners not only require discipline-specific technical knowledge and skills, but also the ability to influence, persuade, and shape the behaviour of athletes and teams. While these behavioural shifts often have the overarching aim of improved performance or wellbeing (e.g., dietary changes), they fundamentally require practitioners to be able to design interventions that aim to create impactful, long-lasting changes in behaviour with their client groups.

Working in elite sport, the demand for practitioners to design interventions that create behaviour change is further compounded by the competitive and fast-paced context in which they operate. Indeed, the contexts in which practitioners working in elite sport are often characterized by highly pressurized environments where continuous challenges and numerous demands arise (Fletcher et al., 2012a,b). As a result, inherent pressure is placed on practitioners to design and provide interventions to solve problems – often quickly, and with minimal friction or inconvenience. It is these growing demands and associated stressors of modern elite sport that coincide with an emerging pressure for sport science practitioners to develop methods for initiating rapid behaviour change. In many ways, it could be argued that the science of behaviour change is everyone's business, but despite this many formal training routes fail to provide applied practitioners with the skills and requisite knowledge to deliver effective behaviour change interventions (Matthews et al., 2020). To this end, this Sports Science Exchange

article aims to provide insights, and a series of simple principles, that can guide sport science practitioners in utilizing contemporary approaches from behavioural science to facilitate effective behavioural change in their client groups.

RESEARCH REVIEW

Since Thaler and Sunstein (2008) outlined their novel method of behavioural intervention, 'nudge' has become a commonly used term with reference to the way minor details can impact behaviour. The rapid and efficient manner in which these interventions initiate behaviour change has appealed to both academic and public communities (e.g., McSmith, 2010). In opening their eponymously titled book 'Nudge', Thaler and Sunstein (2008) demonstrated how the organization of a cafeteria can influence the food selection behaviour and health of school children, simply by selecting the shelves on which certain foods are positioned. Indeed, Rozin et al. (2011) demonstrated that moving the position of food types from the edge to the middle of a food bar, or swapping a serving spoon for serving tongs, could reduce the consumption of a particular food type by up to 16%. The authors concluded that this simple 'nudge', manipulating the presentation of unhealthy versus healthy food groups, could have a significant impact on public health. Similarly, Dayan and Bar-Hillel (2011) found that menu items placed at either end of a category were 20% more likely to be ordered than if they were placed in the middle.

Another effective 'nudge', detailed by Thaler and Sunstein (2018), was the replacement of an 'opt-in' organ donation policy with an 'opt-out' policy. With an 'opt-in' policy, only 42% of participants agreed to donate

their organs; however, when ‘nudged’ (using the ‘opt-out’ policy) 82% of participants agreed to donate. In fact, the British Medical Association has recently urged the British Government to consider the introduction of an ‘opt-out’ policy to increase the number of organ donors in the United Kingdom. Finally, Thaler and Sunstein (2008) outlined a ‘nudge’ that was also successful in changing the culture surrounding littering behaviour in the state of Texas. A well-funded and highly publicized advertising intervention program, aimed at convincing the public that it was their civic duty to stop littering, was a failure. In response, public officials designed a slogan, ‘Don’t mess with Texas’, which was printed on a range of products and endorsed by local celebrities, in order to appeal to the unique ‘tough-talking’ state pride. The amount of litter in the state was reduced by 29% as a result of this ‘nudge’.

These examples emphasize the capacity of a ‘nudge’ to catalyse rapid behaviour change via seemingly small interventions. These types of interventions may appeal to sport science practitioners due to the effectiveness and time-efficient characteristics of such methods. The following principles, arising from behavioural science, aim to convey some of the key elements in designing these kinds of interventions that can help to facilitate positive behaviour change across athletic populations.

Principle 1 – Shape the Message

Message tailoring involves adapting persuasive messages to the recipient’s characteristics (Hirsh et al., 2011) and involves effectively custom-tailoring the message to the intended audience. The goal is to achieve what several authors have described as “regulatory fit” of a communication (Cesario et al., 2004; Hirsh et al., 2011) – when a message is framed to match the recipient’s motivational orientation by focusing either on promoting gains or preventing losses. The first step in applying this approach, therefore, is to focus on the client’s motivational orientation (i.e., determining whether the individual is more focused on achieving gain or avoiding losses). As a simple example to bring this idea to life, and whilst it clearly is not a sport scientists’ typical role, if we were tasked with promoting a particular toothpaste to an athlete, it is worth considering if would they be more motivated by avoiding losses (e.g., “This toothpaste prevents cavities”) or achieving gains (e.g., “This toothpaste will give you whiter teeth”)?

As Hirsh et al. (2011) suggested, this simple shift in personalizing the message so its framing is congruent with the recipient’s underlying personality can lead to the message being more positively evaluated and processed. The impact, of shaping the message to the individual’s motivation frame, has been demonstrated to have a significant effect across a wide range of settings from health to consumer behaviour and there are clear parallels to the messages that sport scientists attempt to convey to their clients. Whether it’s highlighting the performance gains of certain activities or supplements, or how these same products might assist in avoiding injury or drops in performance, tailoring these messages to the client’s personality preferences and motivational orientation can help encourage the adoption of new behaviours.

Such approaches have been shown to be considerably more effective than adopting a ‘one size fits all’ approach, and so there is value in exploring why this might not be common practice with applied practitioners. One potential reason why we do not shape a message to meet the needs of the intended audience is that each of us will also have a preferred motivational orientation (i.e., we each have our own preference towards avoiding losses or achieving gains), and as a result, we tend to shape our language and messaging in a way that is congruent with our personality preferences (Clack et al., 2004). Whilst such an approach of ‘selling to ourselves’ will work with some clients (perhaps when their motivational-orientation matches that of our own), there will also be times when this approach doesn’t work. At these times, when an intervention appears to have landed for some individuals but not others, practitioners might be tempted to label those who don’t share a similar personality profile as themselves as “difficult”, “resistant” or “unprofessional”. As this ‘language game’ ensues, it can lead to many other issues for both the athlete and the client (Lindsay et al., 2014). Alternatively, if practitioners recognize that the client isn’t any of these things but is simply motivated through different means, it can require us to work on adapting our approach to fit their preferred way of processing.

Principle 2 – Make it Easy

Shaping the message can have a significant impact on the likelihood of that message being positively received by clients, but we’ve all personally experienced instances where despite our best intention of starting or stopping a behaviour, we simply never got around to actually doing it. Often, it’s not that we lack an understanding of the potential benefits of adopting a new behaviour (e.g. exercising more regularly) or the pressing need to stop an existing behaviour (e.g., smoking), it is simply that despite knowledge and good intentions, the small obstacles of life seem to stop us transferring that intention into action, and sadly, information alone does not reliably change behaviour (Fogg, 2019). This lack of transfer into meaningful behaviour change is commonly referred to as the ‘Knowing-Doing gap’ - when I have the knowledge to make the required change, but I fail to actually shift my behaviour as a result. The Knowing-Doing gap has interested researchers, leaders, and educators over the past two decades. Indeed, Pfeffer and Sutton (1999) outlined how individuals often possess the knowledge they need to improve performance yet demonstrated that what we know often vastly outweighs what we end up doing. For most sport science practitioners, educational-based interventions (i.e., passing on knowledge) are often go-to solutions. And, after failed attempts to educate the athlete leads to no change in behaviour, we resort to attempting a different means of educating. This “more of the same” phenomenon (Watzlawick et al., 1974) – whereby we continue to apply more of the same ineffective solution to an initial problem, which actually only serves to maintain the issue (and sometimes becomes the issue) can sometimes only further widen the Knowing-Doing gap.

One way to reduce the ‘Knowing-Doing gap’ is simply to make the new behaviour as easy as possible. By reducing what some researchers call ‘friction costs’ (Service et al., 2014), we can quickly tilt the scales in favour of the new behaviour. There are a number of ways to reduce the friction of the new behaviour, including harnessing the power of defaults (i.e., we have a strong tendency to go with the default or pre-set option), simplifying messages (i.e., making the message clear often results in a significant increase in response rates to communications), and shaping the environment (i.e., making the preferred option the easiest one to access). Applying this ‘make it easy’ principle to behaviour change in a sporting context might result in simple strategies such as pre-filling bottles with the amount of liquid/supplement needed, staff handing out the bottles to ensure the bottle is placed into the player’s hand, and with this being done when the players are together after training. Such interventions are neither “educational” nor “motivational” in nature and require the practitioner to “let go” of assumptions that when an athlete does not change their behaviour it must mean that they don’t care (i.e., lack motivation) or don’t understand (i.e., lack knowledge).

A second route to making the new behaviour easy is by identifying instances where the individual is already engaging in similar behaviours. This approach to shaping behaviour is referred to as ‘positive deviance’ (Pascale et al., 2010) and it is an approach that has been utilized across a wide range of areas including reducing childhood malnutrition, reducing neonatal mortality, increasing primary school student retention, and many others. Utilizing ‘positive deviance’ to successfully create behaviour change involves finding how the problem has already been solved by similar individuals (e.g., by other individuals within the team) or by the individual themselves (e.g., where are they already engaging in a similar behaviour). This approach effectively shifts a practitioner’s attention from the ‘failing norm’ to the ‘successful exceptions’ and is of particular use when practitioners find themselves saying things like, “we’ve tried everything, and nothing works”. Taking the time to identify previous times when the client has successfully engaged in similar behaviours and becoming hyper-curious as to how it was that this happened, can effectively provide a personalized method of making similar future changes stick.

Finally, one other method for applying the “make it easy” principle is to focus on implementation intentions, rather than education or motivation. Consider the study by Milne et al., (2002), in which three groups of individuals were asked to record how often they exercised each week. The three groups included: (1) a control group that were only asked to record their exercise, (2) a group that received information on the benefits of exercising, and (3) a group that received the same motivational information as the previous, alongside a simple instruction to formulate a plan for when and where they would exercise. Specifically, they were asked to complete the following sentence: “During the next week, I will partake in at least 20 minutes of vigorous exercise on [day or days] at [time of day] at/in [place]”. Milne et al. (2002) found that the third group exercised significantly more than both other groups. Helping individuals to shape their “implementation intention” (a clear and specific plan

about when and where to act) creates a cue or trigger to behave in a certain way (which is at the heart of habit-forming behaviours) (Duhigg, 2012). In its simplest form, creating an implementation intention helps an individual to create a cue-response habit – “when situation X occurs, I will do response Y” – making the behaviour both easy to do and primed by the cue (rather than by motivation alone). Considering other ways of how we might cue a behavioural response from an individual is our third and final principle, which is described below.

Principle 3 – Trigger the Change

A central character in the design of ‘nudges’ is that of the “choice architect” (Thaler & Sunstein, 2008). As Hansen and Jespersen (2013) explained, choice architects design, construct and organize contexts to encourage the desired behaviour to become the norm. Whether it’s nutritionists arranging food choices, sport scientists designing return-to-play strategies, or physiologists creating training protocols, each of these roles (and all other sport scientist roles) are by default choice architects in how they influence the eventual behaviour of the athlete. Whether it is conscious or not, the timing, delivery, and context in which these interventions are delivered all influence the choice architecture that the client subsequently navigates, and there can be no neutral design (Hansen & Jespersen, 2013).

When shaping the context within which a choice has to be made, sport scientists have a range of options available to them, but the first step is consciously considering themselves as a choice architect, acknowledging that individuals are not rational in their behaviour but instead often operate on a more automatic system 1 type of thinking (Kahneman, 2011). One simple way to influence the choice architecture of a context is to utilize prompts. Without prompt, even if the new behaviour is easy and we’re motivated to engage in it, we are simply unlikely to follow through as human beings are simply prone to forgetting. As Fogg (2019) suggests, utilizing prompts can be as simple as reminding athletes about the new behaviour, rearranging environments so the context feels different in some way, asking others to remind them, or linking the anchoring of the new behaviour to an existing behaviour or routine. Each of these seemingly small interventions have the power to prompt the athlete to engage in the new behaviour. Such ‘nudges’ can help to create rapid behaviour change via only small interventions, and, as a result, may appeal to sport science practitioners due to the effectiveness and time-efficient characteristics of such methods.

PRACTICAL IMPLICATIONS

The purpose of the current Sports Science Exchange article was to provide a practical means of approaching behaviour change, introducing sport scientists to a series of principles that offer an alternative to traditional behaviour change models. These principles form a series of recommendations to aid the “intervention design” stage of trying to change behaviour. We would encourage practitioners to give as much

attention to how they shape the implementation and communication of their intervention in order to make it stick, as they do the intervention itself. Based on the three principles presented in this article, the following implications are a series of small changes to consider at this stage – small changes that can make a big difference to behaviour change.

- Consider the motivational orientation of the athlete you are trying to influence, and match the emphasis of the framing of your intervention to their preferences (i.e., to prevent loss or promote a gain).
- If you find yourself labelling an athlete as “difficult”, “resistant” or “unprofessional” for not changing their behaviour when others have, take a step back and reflect on how you have interacted with them.
- Make the new behaviour that you want the athlete to adopt as easy as possible to do by removing as many barriers as possible (e.g., making the message simple and timely, and using others to encourage the successful adoption of the behaviour).
- Take time to identify previous times when the athlete has successfully engaged in similar behaviours to those that you want them to adopt now – and become hyper-curious as to how it was that this happened (and the wisdom that can be extracted from these ‘exceptions’).
- Create a cue or trigger for the new behaviour by creating an implementation intention with the athlete – a specific plan for when and where they will adopt the new behaviour (“when situation X occurs, I will do response Y”).
- Focus on choice architecture by considering how you might use the environment to increase the likelihood that the required behaviour is seamless to adopt, and is not dependant on memory or motivation alone.

These principles are part of an alternative way of initiating rapid behaviour change and may challenge practitioners’ existing beliefs about how to successfully create behaviour change in athletic populations. Such a shift in our beliefs is often referred to as a shift in our philosophy of practice. Throughout their development, practitioners and researchers are rightly encouraged to question and clarify their own chosen philosophy of practice, to ensure congruence between personal beliefs and their chosen methods and behaviours (Lindsay et al., 2007). In doing so, we suggest that there is value in sport science practitioners considering their own beliefs around ‘behaviour change’, as these beliefs will influence their chosen methods and the strategies they employ.

Reflecting on their own experiences of when behaviour change has not transpired, along with their own personal beliefs about behaviour

change, can open the door to alternative approaches being utilized. When sport scientists experience the feeling of “we’ve tried everything and nothing has worked”, we hope that this may prompt the practitioner to consider some of these simple approaches, recognizing that there is little to be lost and much to be gained. It is hoped that practitioners, in reading this article, will be encouraged to begin, or continue, to question and reflect on the philosophical standpoint that underpins their chosen methods. A willingness to question one’s epistemology is often triggered by an element of discontent, along with the introduction of an alternative way of thinking (Posner et al., 1982; Sandoval, 1996).

SUMMARY

We believe that exploring our own personal professional philosophy is critical to developing as an effective applied practitioners (Lindsay et al., 2007). The process of actively considering one’s own beliefs and values with regard to human beings, behaviour, sport and our role as practitioners is central to developing a rich discipline. Such exploration may serve to identify innovative approaches from other areas of behavioural science, or potentially other disciplines (e.g., anthropology, design, art, management, architecture) to help shape the behaviour of those with whom we work, but these approaches may also contrast with the dominant world view of how to create behavioural change in our respective disciplines. This contrast should be encouraged if any discipline is to continue to meet the evolving demands of elite sport. Identifying such approaches (Lindsay, et al., 2010; 2014) may serve to move the discipline of sport science and the development of practitioners forward, into a more impactful and effective state of affairs.

The views expressed are those of the authors and do not necessarily reflect the position or policy of PepsiCo, Inc.

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