Building a strong coaching philosophy

By Joseph Hunter

Introduction

A coach is typically a prolific gatherer of information. The coach will organise and interpret the vast array of information, from which he or she will then form theories and ideas. The next step in the process involves testing the theories and ideas, and then possibly depending on the results, modifying them. This process is one of building a coaching philosophy. Such a process is somewhat similar to that which a scientist will use when performing research. However, there are clear differences between philosophy and science. In this article, I clarify these differences. In addition, I present a model of how a coach might source and interpret the information so as to form a strong coaching philosophy, which can then be tested through practical application.

Science Versus Philosophy

Science can be defined as “knowledge, as of facts or principles; knowledge gained by systematic study”.1 In this definition, “facts and principles” implies absolute truth or, at least, knowledge backed by strong evidence. “Systematic study” implies the evidence was gained through strictly controlled experimentation. Scientists strive to ensure the experimental methods used will stand up to harsh critiquing. Ultimately, the scientist aims for the experimental results to be unquestionable.

Philosophy differs from Science. The word “philosophy” has Greek origins meaning “love of wisdom”. It can be defined as “A set of ideas or beliefs relating to a particular field or activity”.2 “Ideas and beliefs” implies a wider scope than just “facts and principles”. That is, the ideas and beliefs may not necessarily have a

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The word philosophy has Greek origins meaning “love of wisdom”. Coaches, in their search for coaching wisdom, collect knowledge from many sources. The coach will assimilate this knowledge and develop various principles, ideas and beliefs that together constitute a coaching philosophy. Anecdotal evidence and intuition gained through years of experience are invaluable sources of information when building a coaching philosophy. In addition, a wise coach will be familiar with the relevant facts and scientific evidence. Such knowledge is useful in its own right, but can also offer an additional “viewpoint” when evaluating the anecdotal evidence and educated guesses that are essential in coaching. With ever increasing experience and knowledge, the coach will re-evaluate and, if required, modify the coaching philosophy. Such an ongoing process is, indeed, healthy for a coach in his or her quest for coaching wisdom.
high level of evidence from strictly controlled experimentation. The ideas and beliefs may have only limited scientific evidence or even just anecdotal evidence gained through trial-and-error. This is not to mean, however, that a philosophy will ignore scientific facts and principles. Actually, a philosophy may be a based on a mix of scientific facts and principles, in addition to ideals and beliefs derived from anecdotal evidence.

Collecting Knowledge

Figure 1 shows a model of how a coach might go about building a strong coaching philosophy. Building and fine-tuning the philosophy is a continual process. An important step in this process is sourcing new knowledge to add to the coach’s current knowledge. Sources may include books, journal articles, video media, coaching courses, and conferences. A coach can also gather information from more informal sources such as discussions with athletes, other coaches, sports scientists, and medical professionals.

In addition, one of the most enlightening and most valuable sources of information can come from years of experience as a coach. Throughout these years, the coach will have tested many of his or her ideas or beliefs. It is from this informal experimentation that the coach will gain anecdotal evidence. It is referred to as “anecdotal” evidence because the evidence is gained through informal experimentation usually on a few athletes. This is in contrast to the scientific evidence gained from strictly controlled experimentation.

Evaluation of Knowledge and Formation of a Coaching Philosophy

With information coming from such a wide scope, ranging from scientific fact to personal communications, it is important that the coach understands and interprets the information with care. Critical analysis of the information will, in part, involve assessing the level of evidence associated with the information.

Figure 1 shows a scale of level of evidence which ranges from “scientific fact” to “myth”. The scale is a continuum. However, for clarity’s sake, various points on the scale are described, with examples, as follows:

- **Scientific fact** includes the laws of physics and undisputed knowledge. For example, according to the laws of physics, the acceleration of a sprinter of a given body mass is ultimately determined by the sum of three external forces acting on the sprinter: the ground reaction force, gravitational force, and wind resistance.3
- **Strong scientific evidence** exists when consistent results are achieved from numerous, strictly controlled experiments. For example, there is consistent evidence that during sprinting, when the thigh of the swing limb swings from vertical to the high knee position, the gluteals and hamstrings act eccentrically to slow the flexing hip and the hamstring also acts eccentrically to slow the extending knee.4, 5
- **Some scientific evidence** exists when there is limited or conflicting evidence from strictly controlled experiments. For example, there is conflicting evidence and opinion that limitation in stride rate is a primary factor limiting running performance.6 - 10
- **Anecdotal evidence** includes evidence gained from trial-and-error. For example, a sprinter responded well to a particular programme, therefore, the coach believes that such a
programme would be beneficial to other athletes too.

- Educated guess includes ideas with little or no prior evidence, but the coach believes his or her guess could be true. For example, a coach may have never tried or heard of a particular block start technique, but believes it is worth a try.

- Myth includes knowledge that is mistakenly believed to be true. For example, the view that genetics plays no part in determining the quality of a sprinter.

Of all the above stated levels of evidence, only “scientific fact” is guaranteed to be true. Nonetheless, it is important to realise that even an educated guess could be fact, it is just that undisputed evidence for it does not exist yet.

Undoubtedly, anecdotal evidence (and even an educated guess) can be extremely useful in coaching. However, a wise coach will also spend time considering what scientific fact and evidence exists that might support the anecdotal evidence. If there is some level of agreement between the anecdotal evidence and scientific evidence, the value of the anecdotal evidence is strengthened. If there is disagreement, this may lead to a healthy re-evaluation of the anecdotal evidence.

From the knowledge available, the coach will form a coaching philosophy or re-evaluate an existing coaching philosophy. Then, the coach, no doubt, will want to put the philosophy to the test in a “real world” situation.

**Implementation of the Coaching Philosophy**

For the coach to put the philosophy to the test, it will have to be implemented. In Figure 1, I have referred to an implemented philosophy as a Coaching Method. It is possible that two coaches with the same philosophy will implement the philosophy in somewhat different ways. For example, it is possible that the personality, prior beliefs, or interpersonal skills of a coach will influence how the coach implements the philosophy. Consequently, two coaches who implement the same philosophy may end up with different results. Awareness of this possibility is valuable when interpreting knowledge gained through personal communications with other coaches.

**Using Test Results in Re-evaluation of the Philosophy**

After implementing the philosophy, the coach will be in a position to evaluate the results, thereby gaining anecdotal evidence. Nonetheless, a wise coach will realise the limitations of anecdotal evidence. Two common limitations with anecdotal evidence are: 1) often only a small number of athletes are involved, and 2) there is a lack of control of interfering variables. The first of these is self explanatory; the second, I will elaborate on.

Interfering variables are outside influences that are not controlled for during the trial-and-error approach used in coaching. For example, an athlete’s performance improved greatly when on a new training programme, but during the same time period the athlete also dramatically reduced his hours of work. Was the improved performance due to the new training programme, increased recovery, or both? That is, it is sometimes difficult to prove conclusively if the anecdotal evidence gained through trial-and-error is the result of the intervention or some interfering variable (of which the coach and athlete may not even be aware of). Nonetheless, despite the limitations of anecdotal evidence, it can still be extremely useful; it just needs to be interpreted with care.

Typically a scientist will be cautious in recommending application of anecdotal evidence. However, in contrast, a coach, by necessity, will often apply ideas and theories backed by only anecdotal evidence or even just intuition. This sometimes results in coaches leading the way with innovations. Ideally, however, a coach will also be familiar with the relevant scientific facts and evidence that exist in their field of interest. Such knowledge is useful in its own right, but can also offer an additional “viewpoint” when evaluating the anecdotal evidence and educated guesses that are inevitable in coaching.

Throughout years of coaching, a coach will have the opportunity to test his or her coaching
philosophy. With experience of trial-and-error, the coach will find what works and what does not work for his or her athletes. Such a process, however, will be greatly enhanced with a willingness to consult scientific evidence, learn from other peoples’ experiences, and be open to evidence that might conflict with the original philosophy.

Discussion

My experience as a coach and as a sports scientist has led me to the following opinions about coaching philosophies and coaching methods:

1. Many different coaching philosophies and coaching methods exist.

2. An excellent philosophy is only effective with the right implementation (particularly ‘people management’).

3. Anecdotal evidence and intuition are important in forming a coaching philosophy, but so is scientific-based evidence and knowledge.

4. Many opportunities exist to learn from athletes, other coaches, scientists, and medical practitioners.

5. Continual evaluation and, if necessary, adjustment of the coaching philosophy is invaluable.

6. There is definitely more than one way to achieve excellent results. This, however, does not mean that anything will work. Some coaching philosophies and coaching methods are clearly better than others.

7. Being able to explain the reasoning behind a philosophy is useful in winning the trust of inquisitive athletes, parents, and other interested people.

Conclusion

I have provided a model of how I believe coaches often form their coaching philosophies and then implement their philosophies resulting in their own coaching methods. Knowing the level of evidence associated with the various ideas and beliefs upon which a philosophy is founded will be valuable in the coaching process of trial-and-error, evaluation, and adjustment of the philosophy. Re-evaluation and possible modification of the coach’s own philosophy is most certainly a healthy process for a coach.

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REFERENCES


