

Reflections from expert throws coaches on the use of attentional focus cues during training

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HIGHLIGHTS

- Coaches use a mix of attentional strategies that include IF, EF, and/or HF.
- Coaches most used holistic focus cues on the general feeling of movement.
- Coaches adjust focus instructions based on their approach and needs of athletes.

ABBREVIATIONS

EX	External focus
IAAF	International Association of Athletics Federations
IF	Internal focus
HF	holistic focus
NCAA	National Collegiate Athletic Association

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BACKGROUND: Previous research in motor learning shows that adopting an external focus of attention significantly benefits performance and learning among novice participants. Research has been fairly limited in regards to the attentional focus reported to be used by highly skilled performers or coaches. Fairbrother et al. (2016) suggested that experts might utilize more complex attentional strategies than a simple dyad of internal or external foci.

AIM: The purpose of the present study was to examine attentional focus cues utilized by elite track and field throws coaches during practice and competition.

METHOD: Fifteen NCAA track and field coaches completed a questionnaire related the instructions they provide their athletes during practice. Meaning units that related to attentional focus were extracted from the questionnaires and categorized into associative and dissociative cues. The cues were then categorized for various attentional focus strategies.

RESULTS: Results showed that elite coaches utilized multiple attentional focus strategies which included internal, external, and holistic focus cues. The most common attentional focus utilized with collegiate throwers was that of a holistic focus, which directs attention to the general feeling of the movement (Becker et al. 2019). It was observed that elite throws coaches alter their focus of attention instruction based on their unique style of coaching and the perceived needs of the athlete.

CONCLUSION: This research shows that attentional focus is not as simple as adopting one focus strategy for all individuals within all contexts.

KEYWORDS: Coaching psychology | Expert performance | Motor behavior | Track and field | Holistic focus | Coaching behavior

INTRODUCTION

Various manipulations have been employed within a sporting context to not only enhance performance but facilitate skill acquisition ^{1,2}. One of the most common practice manipulations over the last few decades has been that of attentional focus. Research has consistently shown a benefit for the adoption of an external focus (EF) ^{1,3}. EF is when attention is directed to the effects of the movement on the environment, which leads to more of an outcome-based focus. It is common to compare EF to an internal focus (IF) condition. With IF the learner directs their attention to the movement of the body so the focus is on motor control. It has been suggested that the adoption of an IF disrupts automatic processing of motor skills, whereas EF promotes the automatic or natural control of motor commands ^{4,5}. The majority of the research on attentional focus has been done with novice individuals learning a new task ³. Research needs to further investigate how attentional focus is currently being used by coaches working with experienced athletes. Understanding the

perspective of experienced coaches, and athletes, potentially provides more beneficial attentional focus cuing when working with both novice and experienced performers in the future.

Although much less frequent, some existing research has explored the effects of differing foci on skilled and elite performers. For example, experts or highly skilled athletes have been examined in endurance sports ^{6,7}, acrobatics ⁸, golf ⁹, horseshoe pitchers ¹⁰, figure skaters ¹¹, sprinters ¹², weight throwers ¹³, dancers ¹⁴, and track and field athletes ¹⁵. Even though a small body of literature exists on the use of attentional focus among these elite athletes, there has been little done to guide coaches on how to change the instruction given to athletes that may aid in adopting an EF ¹⁶. Additionally, the research has not been clear on one attentional focus type being used exclusively by expert performers.

The research findings with experienced performers has been more ambiguous in terms of the advantages of an EF. For example, when experienced sprinters were examined with different attentional foci there was no benefits to an EF on performance ¹⁷. Furthermore, an EF was found to improve the golf pitch ⁹ and the shot put ¹⁸, while no difference was observed between EF and IF for the baseball pitch ¹⁹ or the weight throw ¹³. One potential research methodology to better understand the incongruent findings on attentional focus within skilled performers, is to utilize a qualitative approach to investigate cuing that highly skilled coaches use with their athletes. It is reasonable to assume that the attentional cuing used by coaches will be more familiar to a performer and elicit the desired effects of improved performance. Porter, Wu ¹⁵ found that 69% of track and field athletes used focus cues consistent with an IF and that 85% of coaching instruction was reported to use an IF. Likewise, Guss-West and Wulf ¹⁴ reported that skilled ballet dancers used some form of an IF more than 72% of the time. However, a study involving balance acrobats revealed that experts performed poorer when adopting any new attentional focus ⁸. The preferred method was not to alter the focus of attention in elite performers because any change in focus potentially disrupts automatic processing which leads to a break down in performance.

Fairbrother, Post ¹⁰ investigated the use of attentional focus in elite horseshoe pitchers based on pre-existing interview questions about their focus points. The results suggested that during the execution phase the focus was overwhelmingly external. At other times the focus was more frequently given to technique which likely was more of an IF. The authors suggested that the use of attentional focus in elite performers is much more complex than simply using either an EF or IF. These results are supported by evidence in both golfers and figure skaters where these athletes reported using various types of attentional focus that includes both IF and EF ¹¹. Taken together, this suggest the need for continued investigation into the focus strategies of expert performers. It is logical to assume that different tasks or situations may require different focus strategies. For example, it is possible that tasks with a clear EF (e.g., throwing tasks) may be more likely to benefit from an EF than a skill with no clear EF (e.g., running).

Another method for studying attentional focus in experienced performers has been to investigate the instruction provided by coaches. The relationship between the focus cues provided by coaches and what the athlete uses during performance needs to be further investigated as one may influence the other. Diekfuss and Raisbeck ²⁰ interviewed NCAA Division I golf coaches and found that 50% provided verbal instruction that promoted an IF. In a follow-up study with the collegiate golfers where practice was observed in addition to interview data, athletes reported using both IF and EF ²¹. When examining the instruction

provided by distance run coaches the most common attentional focus cue given was an IF and an IF become more predominant during fatigue ⁷.

The use of attentional focus cues by coaches (e.g., amount and type) has been under researched and warrants further investigation. The purpose of the current study was to investigate the use of attentional focus cues used by elite throws coaches in track and field. Throws coaches were chosen because the skill of shot put, weight or hammer, and discus all have a clear EF that can be easily adopted. Understanding how these elite coaches provide instruction and feedback can potentially help develop proper focus cues to train novice athletes or improve performance in skilled athletes.

METHOD

Participants

A total of 25 elite male throws coaches from the United States were recruited for participation in the study, with 15 agreeing to participate (60% response rate). Figure 1 shows the phases of the discus throw which is one of the events coached by these throws coaches. Participants were identified through the lead author from her relationships as a past throws coach. All coaches interviewed had experience with and worked for a school affiliated with the National Collegiate Athletic Association (NCAA) at the Division I level. Of the fifteen coaches, two were head track and field coaches and thirteen assistant track and field coaches. These coaches were classified as elite based on the athletes that they worked with and coached. Their athletes competed at the national, international, and Olympic levels. All fifteen coaches trained international level athletes (competed at the international level), and nine trained athletes who participated in the Olympic Games or have qualified for the 2020 Olympics in Tokyo. Some coaches were also well-recognized athletes in the past whom competed for, or qualified for the Olympics. IRB approval was obtained by the university Institutional Review Board which was in accordance with the declaration of Helsinki.



Figure 1. The basic phases of the discus throw. Phase 1 shows the set-up, 2-4 show the phases of the turn to the center of the ring. Phase 5 shows the power position, while phase 6 shows release of the discus.

Procedure

Individuals were contacted via publicly available e-mail addresses and asked to participate in the study. If they agreed to participate an informed consent was e-mailed so the participant could sign and return it. Following provision of consent, individuals were sent an instruction letter with a link to complete a short survey. The instruction letter only let participants know that they should complete the entire survey using the web link provided. The short survey consisted of eight open-ended questions that asked about their coaching career, use of coaching cues, and use of feedback (see table 1). The questions generated

were adapted from one of the previous studies that investigated the use of attentional focus strategies¹⁵ with additional questions or alterations that were more directed at the purpose of the present study.

Table 1. Eight –item questionnaire administered to throws coaches about their past experience and teaching cues for the discus throw.

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1. How many years have you coached the discus throw?
 2. List the years of experience you have coaching different level of athletes:
 - a. High School: _____
 - b. College: _____
 - c. Post Graduate/Professional: _____
 3. List the formal training you have had for the throws events (this may include but is not limited to: certification courses, sport science seminars, mentorships, etc).
 4. What do you tell your athletes to focus/concentrate on the most when they are practicing their discus throw technique?
 5. Why do you think these particular instructions are optimal?
 6. When do you typically provide feedback during practice?
 7. Are you aware of scientific research addressing external focus of attention and cues?
 8. Please write down all the resources you use to design the technical portion of training the discus throw (this may include but not limited to: other coaches, DVD's, podcasts, coaching journals, research journals, magazine articles, mentoring with other elite coaches or competitors, experience as an athlete in the past, feedback from their athletes, articles, abstracts, training clinics, and/or coaching journals).
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Data Analysis

For the questions about the amount of time coaching, and the level of coached athletes, an average in years was calculated. The third question was used to compile a list of coaching certifications to ensure qualification of coaching at an elite level. The last two questions asked about the use and knowledge of current research.

Data from questions 4 and 5, about the attentional focus use while coaching, were analyzed with deductive content analysis. The responses were analyzed by the first two authors independently. Based on the previous work by Raisbeck, Yamada⁶ the coaches' responses were coded (meaning units) as being associative (attention related to the task-components) or dissociative (attention related to task-irrelevant components). Associative meaning units were then categorized using a deductive approach^{6,11} as being process related (holistic focus; e.g. attention components related to balance, rhythm, patience, and timing), body focused (internally focused; e.g. focus on the body parts such as shoulder axis), or focused on the environment (external focus; e.g. focus on movement outcome like flying the discus nicely). Each coach was then categorized as using predominately a holistic (HF), internal (IF), external (EF), or multiple focus strategies. To assess the agreement between the two researchers coding the meaning units, Cohen's Kappa was used. Cohen's Kappa provides an inter-rater reliability for the agreement between the two researchers in how they categorized the reported meaning units. In the case of disagreement between the two researchers in how the meaning unit was coded, it was discussed until agreement was

reached.

RESULTS

Coaching Experience

Coaches had an average of 12.8 ± 9.8 years coaching experience. In addition to collegiate experience, 12 also coached professionally. Coaches reported a mix of training certifications. Eight coaches had level I USA track and field (USATF) certification, five had level II certifications, and three had level III certifications. In addition, three coaches hold U.S. track and field and cross-country coach's association (USTFCCCA) certifications, one still maintained high school certifications, and one also held International Athletic Association Federation (IAAF) certification and is a member of the Olympic development program. One coach mentioned that they coached a world ranked shot putter, and a world master shot put champion, while another coach shared their experience as a six-time NCAA champion, ten times team USA coach, and two-time world champion. In addition, four coaches noted that they attended various international training camps and nationally recognized throwing clinics.

Inter-Rater Reliability

A total of 35 meaning units were identified by researcher 1 and a total of 36 items were identified by researcher 2. The proportion of agreement between the researchers was almost perfect agreement 22. The inter-rater analysis was found to be Kappa = .951, $p < .001$, 95% CI (.88, 1.00). Examples of the various categories used corresponding to the coach responses can be found in table 2.

Table 2. The number and type of attentional focus cues recorded with examples for each category.

Attentional Focus Cues		
Focus Type	Number of Units	Example
Internal	12	"develop the whip feeling" "feel positions"
External	8	"visual cue down the sector" "work the ground"
Holistic	14	"slowing down", "rhythm" "balance"

Attentional focus cues used during practice and competition

Of the 36 meaning units that were recorded, 33 (91.60%) were identified as associative cues and three (8.30%) were coded as dissociative attentional focus cues. The breakdown of the associative cues were 14 – process meaning units (38.89%), 8 – environmental meaning units (22.22%), and 12 – body meaning units (33.33%).

The associative-process units were identified as a holistic focus of attention where the primary focus was on the general feeling of the movement. Some cues that were reported in this category were to maintain focus on being balanced or being in rhythm. The associative-environmental units were classified as an external focus of attention where the focus was on the effects of the movement on the environment. Some examples of an EF were to focus on flying the disc or working the ground. Coaches also mentioned a focus on getting left from the back of the ring. For associative-body cues coaches commented on "staying back on the left leg" or feeling or setting up correct positions. These cues were taken as an IF where the attention is on the body or the movements of the body. The dissociative

units were comments where coaches suggested that the focus “depends” on the athlete and/or changes. These cues resulted in no clear strategy but still was a relevant comment on attentional focus.

Primary attentional focus strategy during practice and competition

It was found that three coaches solely used IF cues, while two coaches used EF cues exclusively. Two coaches were categorized as only using HF cues. Seven of the coaches were categorized as using multiple attentional focus strategies with their athletes. This was a mix of IF, EF, and HF cues. One coach also failed to provide an attentional focus cue or cues in their responses but instead suggested attentional focus is too complex and they could not identify an attentional focus strategy.

Internal focus

There were 12 total meaning units that were categorized as associative-body or internal focus. One example cue was that an athlete should focus on “hitting their positions correctly”. This is a clear focus directed to the body and ensuring anatomical correctness. The idea would be that if the correct position is hit the athlete will generate the power needed to perform their best. Another response was that the athlete should focus on, “[setting] up correctly out of the back”. This cue once again focuses on the body position being correct which will lead to correct performance. A third example was that the focus should be on feeling the whip motion of the arm. They wanted athlete to focus on, “developing the whip [feeling] or slinging...The goal is to have them feel how to sling it”. The multiple references to feeling the motion indicated a clear internal focus. Another cue was to focus on “separation of implement/shoulder axis/hip axis”.

External focus

There were eight associative-environmental cues or external focus of attention cues. An example meaning unit was that the athlete should have a focus of, “[get] left from the back of the ring”. Here the focus is on moving the body to a specific area in the environment. The idea behind an EF is to focus on the outcome of the movement on the environment. Focusing on getting the body to the left is a clear EF. Another example was a coach that responded the attentional focus may change but the common focus is external, “we all end up going back to flying the discus nicely”. Another example was to focus on the “visual cue down the sector and focal point” These examples highlight an external focus of attention as the athlete should focus on the flight of the discus or the field. Coaches also commented on working the ground or ground forces.

Holistic focus

14 meaning units for associative-process or FH were observed. A very common cue was that an athlete should focus on the “rhythm” of the movement. Another example were comments on focusing on “balance and imbalance”. HF is defined as focusing on the general feeling without consciously controlling the movement itself. The cue of rhythm or balance does not focus on the effect of the movements on the environment which is an external cue. It also does not focus on the part of the body and consciously controlling the movement. Becker, Georges ²³ reference the focus on general feelings of a movement as a holistic focus.

No focus strategy

Our sample also included three dissociative cues. One meaning unit was the focus cue, “depends on... the athlete’s skill level, where their deficiencies are, what their common mistakes are, and what time of year it is”. Another was that “it depends on their level of qualification...”. They then suggested that they could never provide a single cue that should be used. This response further adds to the idea that multiple cues are necessary when training high level athletes or complex motor skills.

DISCUSSION

Previous literature on the effects of attentional focus has been somewhat unclear when working with experienced athletes or performers. For example, research has found both a benefit for the adoption of an external focus (EF) ^{17,24,25} and no benefit from an EF among elite performers ^{8,12,14}. Porter and Sims ¹² even suggested that no change in focus strategy is ideal for elite level performers as any change to the normal routine may degrade motor performance. What is yet to be understood is how the instruction from a coach alters the attentional focus used by the athlete. It is reasonable to suggest that if a coach uses cues consistent with an EF than athletes would see a performance detriment when adopting an IF, and vice versa. For example, research has shown that when skilled performers use familiar attentional focus cues they perform better than when using an unfamiliar cue regardless of attentional focus type ²⁶. By understanding the attentional strategies of coaches, we can design better focus manipulations for individuals new to a specific skill. The purpose of the present study was to examine what attentional strategies or cues elite track and field throws coaches utilize while coaching the discus throw.

Of the 36 meaning units observed in the questionnaire, 12 were coded as being an IF. It was also recorded that three of the coaches exclusively used IF cues. The coaches that used an IF are consistent with the findings reported in experienced distance runners and track and field athletes ^{6,15}. Porter, Wu ¹⁵ suggested that elite track and field athletes utilize an IF because coaches provide internal cues during practice. These coaching instructions that only use an IF is contrary to a large body of literature which suggests negative effects of adopting an IF ³. The action-effect hypothesis suggests that an IF breaks down automatic processing which in turn inhibits the ability to perform at an optimal level ².

A bit surprising was that only eight meaning units of an EF of attention were observed. There were only two coaches that exclusively used an EF in their cues to their athletes. These coaches are in-line with the traditional argument of attentional focus research that adopting an EF improves performance and facilitates learning ^{1,3}. Research has shown an advantage with experienced golfers when they adopted an EF while performing a chip shot ⁹. Motor skills in golf have a clear external focus that is part of the movement which may explain the benefit from the external cue. Guss-West and Wulf ¹⁴ found that ballet dancers more frequently use an IF. We suggest that it is plausible this occurs because the IF is a more natural focus to a ballet dancer. A skill like a pirouette doesn’t have a clear EF when the environment is changing during the movement so it may be more familiar to the athlete to use an IF. However, the authors suggest that we may further enhance performance with the change to an EF. The coaches in the present study show that in a skill with turning movements an EF can still be implemented.

In a recent paper by Becker, Georges ²³ it was suggested that many motor skills don't have obvious EF cues, but it is still possible to utilize cues that do not provide an IF. For example, a ballet dancer performing a pirouette may not have a clear EF but may need to focus on the aesthetics of the action by being smooth. An athlete may also focus on being explosive to initiate an action which also doesn't fit into the didactic response of internal or external focus. Becker, Georges ²³ referred to attention on the general feeling of the movement as a holistic focus (HF). In the current study two coaches exclusively used holistic focus cues. Of the total meaning units observed, 14 were holistic. This was the largest category for any of the associative cues observed. In a field throwing sport the performer makes multiple turns around an axis to build momentum prior to throwing the implement. Similar to the pirouette there is no easy external focus with this aspect of the skill. It makes sense that many coaches use the HF to pull the attention away from an IF that may break down performance. It was however surprising that more coaches did not use a focus *down the sector of the throw* more frequently, as that would be more consistent with previous attentional focus research and the ultimate goal of the motor task.

As discussed previously, past research on elite performers has found that individuals utilize multiple cues. The findings of this study add to the existent literature that suggests attentional focus is much more complex than simply adopting either an IF or EF. Seven of the coaches whom responded to the questionnaire listed multiple attentional foci. Another two suggested that it was not possible to state what an athlete should focus or concentrate on. The majority of the coaches appear to support the research on elite horseshoe pitchers where various attentional strategies were noted ¹⁰. The authors suggested that attentional strategies are far too complex to simply use the dyad of internal versus external. Bernier, Trottier ¹¹ also suggested that experienced athletes may change their focus of attention to an IF or EF depending on what is needed during a particular performance or skill.

Limitations and future research

One limitation of the study was that participants answered the survey online which did not allow for follow up questions on their responses. Some of the responses were very heavy in "coach speak" which made it more difficult to interpret the answers. A study with more open-ended questioning and in-person interviews may provide additional information needed to better understand the complexities of attentional focus strategies by elite coaches. One particular strength of the article is that we only investigated throws coaches so we were able to compare responses from coaches as they instructed only throwing tasks with easily defined EF cues. Previous research with track and field athletes investigated various athletes from differing events. This makes it difficult to compare results from the two studies. Future research should continue to investigate how attentional focus in elite populations changes from one skill or event to the next.

REFERENCES

1. Wulf G. Attention and motor skill learning. Champaign, IL: Human Kinetics; 2007.
2. Wulf G, Prinz W. Directing attention to movement effects enhances learning: A review. *Psychon B Rev.* 2001;8:648-660.

3. Wulf G. Attentional focus and motor learning: a review of 15 years. *Int Rev Sport Exer P*. 2013;6:77-104.
4. Wulf G, Mcconnel N, Gärtner M, Schwarz A. Enhancing the learning of sport skills through external-focus feedback. *J Mot Behav*. 2002;34:171-182. doi: 10.1080/00222890209601939.
5. Wulf G, Mcnevin N, Shea CH. The automaticity of complex motor skill learning as a function of attentional focus. *Q J Exp Psychol-A*. 2001;54:1143-1154.
6. Raisbeck L, Yamada M, Diekfuss JA. Focus of attention in trained distance runners. *Int J Sports Sci Coa*. 2018;13:1143-1149. doi: 10.1177/1747954118798396.
7. Yamada M, Diekfuss JA, Raisbeck LD. Motor behavior literature fails to translate: A preliminary investigation into coaching and focus of attention in recreational distance runners. *Int J Exerc Sci*. 2020;13:789-801.
8. Wulf G. Attentional focus effects in balance acrobats. *Res Q Exercise Sport*. 2008;79:319-325.
9. Wulf G, Su J. An external focus of attention enhances golf shot accuracy in beginners and experts. *Res Q Exercise Sport*. 2007;78:384-389.
10. Fairbrother JT, Post PG, Whalen SJ. Self-Reported Responses to Player Profile Questions Show Consistency with the Use of Complex Attentional Strategies by Expert Horseshoe Pitchers. *Front Psychol*. 2016;7.
11. Bernier M, Trottier C, Thienot E, Fournier J. An Investigation of Attentional Foci and their Temporal Patterns: A Naturalistic Study in Expert Figure Skaters. *Sport Psychol*. 2016;30:256-266.
12. Porter JM, Sims B. Altering focus of attention influences elite athletes sprinting performance. *Int J Coach Sci*. 2013;7:41-51.
13. Porter JM, Raimondi G, Makaruk H. The effects of altering focus of attention when performing the weight throw. *J Sports Games*. 2019;1:1-7.
14. Guss-West C, Wulf G. Attentional Focus in Classical Ballet: A Survey Of Professional Dancers. *J Dance Med Sci*. 2016;20:23-29. doi: 10.12678/1089-313X.20.1.23.
15. Porter JM, Wu WFW, Partridge JA. Focus of attention and verbal instructions: Strategies of elite track and field coaches and athletes. *Sport Sci Rev*. 2010;19:77-89.
16. Tedesqui RaB, Orlick T. Brazilian Elite Soccer Players: Exploring Attentional Focus in Performance Tasks and Soccer Positions. *Sport Psychol*. 2015;29:41-50. doi: 10.1123/tsp.2014-0007 10.1123/tsp.2014-0007.
17. Winkelman NC, Clark KP, Ryan LJ. Experience level influences the effect of attentional focus on sprint performance. *Hum Mov Sci*. 2017;52:84-95. doi: 10.1016/j.humov.2017.01.012.
18. Makaruk H, Porter J, Makaruk B. Acute effects of attentional focus on shot put performance in elite athletes. *Kinesiology*. 2013;45:55-62.
19. Porter JM, Solemsaas BO, Partridge JA. The effects of altering focus of attention on throwing accuracy in highly skilled baseball pitchers. *J Sports Games*. 2019;1:7.

20. Diekfuss JA, Raisbeck LD. Focus of Attention and Instructional Feedback From NCAA Division 1 Collegiate Coaches. *J Mot Learn Dev.* 2016;4:262-273. doi: 10.1123/jmld.2015-0026.
21. Diekfuss JA, Raisbeck LD. Attentional Focus in NCAA Division 1 Golfers. *J Mot Learn Dev.* 2017;5:240-251. doi: 10.1123/jmld.2016-0025.
22. Landis JR, Koch GG. The Measurement of Observer Agreement for Categorical Data. *Biometrics.* 1977;33:159-174. doi: 10.2307/2529310.
23. Becker KA, Georges AF, Aiken CA. Considering a Holistic Focus of Attention as an Alternative to an External Focus. *J Mot Learn Dev.* 2019;7:194. doi: 10.1123/jmld.2017-0065.
24. Mcnevin NH, Wulf G, Carlson C. Effects of attentional focus, self-control, and dyad training on motor learning: implications for physical rehabilitation. *Phys Ther.* 2000;80:373-385.
25. Mcnevin NH, Shea CH, Wulf G. Increasing the distance of an external focus of attention enhances learning. *Psychol Res.* 2003;67:22-29.
26. Maurer H, Munzert J. Influence of attentional focus on skilled motor performance: Performance decrement under unfamiliar focus conditions. *Hum Mov Sci.* 2013;32:730-740.

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