Concentration and Self-talk in Football

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Author Note

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Abstract

Concentration and self-talk are key (often under appreciated) factors underlying elite sport performance. In this chapter we define concentration and self-talk and look at some of their applications (section 1). We investigate their relation, their functions, and discuss their contribution to sport performance (sections 2). We focus on the specific role that concentration and self-talk play in football (sections 3 and 4). So, we analyse how they improve players’ performance by, for instance: (i) providing a balanced level of anxiety, (ii). enhancing focus and attention, (iii).promoting decision making skill and decreasing reaction time, (iv). motivating to increase efforts, (v). improving coordination with teammates and, more generally, deterring behaviours that have negative consequences on the field. We then analyse (section 5) the peak moment of any football performance (the act of scoring a goal) and look at how to use concentration and self-talk to increase the chances of scoring a goal (or not conceding it). We conclude (section 6), by providing practitioners with a series of applied coaching strategies that can be used to build more successful coaching programs (both in team sports and in football).To do so, we first identify some crucial game factors influencing football performance (e.g. game momentum, stress, anxiety, the players’ capacity to re-focus on the present) and then look at how coaches can intervene to satisfy some of these games demands.

Keywords

Concentration, Self-Talk, Sport Performance, Football, Coaching Strategies
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1. Introduction

Concentration is one of the key factors underlying elite performance. Vernacchia (2003) defined concentration as ‘the ability to perform with a clear and present focus’ (p. 144). Concentration therefore entails the capacity to focus attention on the task at hand. This means that to be successful in competitive situations athletes must be able to learn how to focus attention and control thoughts.

As former Manchester United goalkeeper Edwin Van der Sar noted on the importance of concentration in football:

“Concentration is big part of being a footballer,” “Everything you do during the day is centered around being able to focus for those 90 minutes during a game. But the moment you are tired, your concentration levels start to slip.”

According to Van der Sar then elite performance requires that athletes do not react to potential distractions. These distractions can be external or internal. External distractions can be visual or auditory, and may include other competitors, spectators, and media. Internal distractions may include negative self-talk, fatigue, and emotional arousal.

Elite performance therefore can only meaningfully occur when athletes (at minimum) voluntarily concentrate on the cues in their environment to pursue an action that is within their ability and are at the same time able to avoid potential distractions (Smith, 2003).

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1 Concentration and attention are, on our view, synonyms. Throughout this chapter we use the word concentration because we believe it better reflects the operative approach we pursue and stand for.

2 http://www.dailymail.co.uk/sport/football/article-1099048/Van-der-Sar-United-stay-focused-win-Club-World-Cup.html#ixzz4UcvjpbAo (last accessed April 2018)

3 It must be noted that is not coincidence that the performance of anxious athletes is often ineffective. This is because their mind is unable to appropriately focus and is kept busy with thoughts (distractions) that are not pertinent to the action that needs to be performed (Woodman & Hardy, 2003).
However, concentration (and the capacity to voluntarily avoid potential distractions) are not the only crucial factors affecting elite performance. Self-talk is another crucial factor. Hardy, Hall, and Hardy (2005) defined self-talk as a “multidimensional phenomenon concerned with athletes’ verbalizations that are addressed to themselves” (p. 905) and subsequently (Hardy, 2006) as ‘verbalizations or statements addressed to the self...serving at least two functions; instructional and motivational’ (p. 82).

More recently, Van Raalte, Vincent, and Brewer (2016) provided a definition that emphasizes the linguistic features of self-talk. According to them, self-talk is ‘the syntactically recognizable articulation of an internal position that can be expressed internally or out loud, where the sender of the message is also the intended receiver’ (p. 141). The addition of the term ‘syntactically recognizable’ is of particular importance since it distinguishes self-talk from other verbalizations (such as shouts of frustration like aaahhhh!), self-statements made through gestures, and self-statements made outside of the context of formal language. Defining self-talk as an ‘articulation of an internal position’ also contributes to anchor its meaning within the individual and places the origin of self-talk in consciousness and information processing.

Self-talk has many potential applications, including breaking bad habits and sustaining efforts in acquiring new skills and is normally categorized in 3 types: positive, instructional and negative.

Positive self-talk focuses on increasing energy and efforts but does not carry any task-related clue (e.g., ‘I can do it’). Positive self-talk thus shapes our minds with thoughts enabling us to manage difficult situations and stress more effectively. It also increases motivation and it is therefore essential for athletes to attain consistent and optimal performance (Blumenstein & Lidor, 2007). Instructional self-talk helps the performers’ understanding of task requirements by facilitating their attendance to task relevant cues that aid the players’ concentration during task execution. As such instructional self-talk can be said to help athletes in focusing on the technical aspects of the performance and in improving their motor skills (Hardy, Begley, & Blanchfield, 2018).
Negative self-talk is critical and gets in the way of a person’s reaching goals. Negative self-talk thus interferes with a positive mindset, creates a failure mentality, deflates self-confidence, reduces motivation, generates anxiety, and disrupts optimal arousal (Burton & Raedeke 2008).

Unfortunately, coaches in many football academies display a considerable lack of knowledge concerning the training of players’ mental skills (Harwood & Anderson 2015). This crucial lack of knowledge has determined an under appreciation of the contribution of both concentration and self-talk to elite football performance. Concentration and self-talk are nevertheless paramount to footballers attaining top performance in that allow them, among other things, to work on their technique and enhance movements and executions (Beilock, Carr, MacMahon, & Starkes, 2002).

The objectives of this chapter are two-fold. First, we want to explain the relationship between concentration and self-talk in football. Second, we provide practitioners with a series of applied strategies that can be used to enhance their coaching. Before we turn to these two major goals, however, we briefly review a series of empirical findings on concentration and self-talk and reflect on their relevance to sport performance.

2. Concentration and self-talk in sport performance

The role of concentration in sport performance has been extensively analyzed (Moran, 1997). Many researchers have attempted to specify the processes underlying this construct. Memmert (2009), for example, has individuated four main sub-processes characterizing concentration in sport performance.

The first of these sub-processes is related to the selection of relevant stimuli. This sub-process has been described as a ‘moderator variable’, moderating between the acquisition of relevant information and the actions subsequently undertaken by the player. Such actions are usually based on a selective commitment that determines, for instance, a footballer’s preference of certain stimuli over others (Memmert, 2009). This sub-process explains how environmental
stimulation is selected by players and how this selection is dependent upon their competences, their personal condition, and the specific context arising during the course of a match.

The second sub-process concerns the mechanisms enabling players to focus on two or more sources of information at the same time. This sub-process is usually investigated via the methodological design of dual task conditions, which allows, for example, to measure basic attention performance of a secondary task while performing a primary task, or to quantify the effects of distraction on performance. This sub-process often, but not always, involves forms of inattentional blindness (Simons & Chabris, 1999), whereby if attention is kept on an object (e.g. the trajectory of the ball), the player often fails to notice an action (e.g. a free teammate nearby), even if it is right in front of them.

The third sub-process concerns the relation between performance and activation levels. It is therefore all about individuating how to maintain the right focus when pressure builds up and when athletes get tired. Research has shown that in order for athletes to reach the optimal individual level (or best performance), activation needs to be at a moderate level of arousal (Martens & Landers, 1970).

The fourth sub-process refers to the orientation towards salient stimuli and is described as the capacity to respond, in the shortest amount of time, to a relevant stimulus. This sub-process mainly relates to the players’ flexibility to re-orient the focus of their concentration in the visual space. For instance, an experienced footballer may successfully predict the outcome of a future chain of events based on the observation of a single relevant cue and moves accordingly to anticipate that future action. In contrast, less experienced footballers will lack this capacity and instead will need time to think, which is sequential in character and requires them passing through each step in a chain of events. As a result, these less experienced footballers are normally unable to successfully predict future actions from a single isolated cue.

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4 e.g. https://www.youtube.com/watch?v=IGQmdoK_ZfY
Having described and explained the role of concentration in sport performance we next turn to analyse the functions of self-talk. It has been suggested (Zinsser and colleagues 2001, see also section 1 above) that self-talk has two main functions: 1. to help create statements relevant to technical instructions, tactical choices and kinesthesis (this is known as instructional self-talk), and 2. to create statements that are instrumental to boost self-confidence, efforts and the creation of positive mood (this is known as motivational self-talk). A number of studies have explored these two dimensions of self-talk and their potential relations (Zetou, Nikolaos, & Evaggelos, 2014). It is to these studies that we now briefly turn.

Rushall and colleagues demonstrated the importance of using key words related to mood states, task-relevant sentences, and positive statements to increase sport players’ performances (Rushall 1989; Rushall, Hall, & Rushall, 1988). Hardy, Jones, and Gould (1996) showed that self-talk is crucial to sport performance because it controls anxiety, increases motivation, and triggers appropriate action. Zinnser, Bunker, and Williams (2006) found that self-talk facilitates learning, improves task performance, boosts self-confidence, and helps achieve optimal arousal. In addition, Gould, Finch and Jackson (1993) found that the most common technique used by top skating athletes was instructional self-talk. Instructional self-talk has also been reported to be highly beneficial for tennis players’ volleying (Landin & Hebert, 1999) as well as for 100 m sprinting (Mallett & Hanrahan, 1997).

Other researchers have looked at the influence of instructional versus motivational self-talk on various motor skills (Theodorakis et al., 2000). Instructional self-talk was reported to be more effective than motivational self-talk for fine motor skills, involving small movements that occur in the wrists, hands, fingers, feet and toes. Both motivational and instructional self-talk were found to be equally effective for motor skills requiring strength and endurance (Theodorakis et al., 2000). All these studies have thus contributed to raise awareness on the importance of self-talk for achieving top sport performance.

Having discussed the role of concentration and self-talk in sport performance we next focus
on their specific role in football.

3. Concentration in football

According to the attentional style approach originally proposed by Nideffer (1985) and adapted to football by Pain (2016), footballers must be able to broaden or narrow the focus of their attention quickly and appropriately in response to specific match situations. Under conditions of intense psychological pressure footballers have little time to devote to the rational analysis of a situation (e.g., pass the ball rather than shoot). This is because the speed of the game requires them to act fast, formulating thoughts within a few milliseconds. Consequently, high pressure match conditions must be extensively practiced during training until the player’s responses to such situations become fully automated. This is instrumental to allow the players to focus on playing the game without the need of constantly assessing what is best in a specific situation. In practical terms, this means that a decision and therefore a behaviour must be taken and implemented while the ball is in motion and it is in these types of situations that the differences between amateurs and experts is evident. While the amateur typically focuses on the technical execution of the task, the expert is typically more oriented towards the tactical components of his/her actions. The reason is that years of training have prepared the footballer for this situation and the player has mastered the technique which has become fully automatized (Christensen, Sutton, & McIlwain, 2016).

A number of studies have compared novices and expert performances (Lum, Enns, & Pratt 2002). In football (Memmert, 2009; Williams, Davids, Burwitz, & Williams, 1993), research has shown that expert players are typically more oriented to observe other players without the ball (environmental focus), whereas less experienced footballers focus their attention on the ball and at teammates to whom they could pass it (skill focus). Furthermore, highly skilled athletes analyse only a few relevant elements of the game for a longer duration compared to amateurs, who instead

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5 Pain’s model (2016) emphasizes the role played by specific cognitive processes, particularly concentration, in the development of elite performance. This model has been adopted by the Football Association (FA) and by many football academies around the world.
attempt to process a large amount of information over a restricted period of time. Thus, it seems it is not just the amount of attention or concentration that it is important to achieve top performance (accurate and quick); but rather the fact that concentration must be complemented by the skill to locate and select the appropriate environmental focus (Williams, Davids, & Williams, 1999). In football, this involves the ability to selectively concentrate (as quickly as possible) on the most significant environmental signals; those that allow the player to ‘read the game’, that is, to anticipate the opponents’ actions.

Before concluding this subsection, it is important to reflect on the influence that emotions may have on selective concentration. One approach at our disposal to try to understand the relationship between emotion and concentration is Hanin’s (2000) Individual Zone of Optimal Functioning (IZOF). The IZOF model (Hanin, 2000) asserts that emotion is a key component of the psychobiosocial state characterizing human functioning. The model states that each athlete has an individual zone of optimal activation (IZOF) characterizing his/her best performances and aims to describe the relationship between emotional experiences and relative success in sporting tasks. Five basic dimensions (form, content, intensity, time, and context) are used in this model to describe individually optimal and dysfunctional structure (Robazza, Pellizzari, & Hanin, 2004) and to map the influence of positively/negatively toned emotions, personal metaphors, and physical sensations on performance before during and after sporting events (Ruiz, Raglin, & Hanin, 2017).

Many psychological programs have used the IZOF model to teach individual players how to enter the zone of optimal activation (for a review see Ruiz et al., 2017). However, to our knowledge, the IZOF model has not been applied to football so far. Nonetheless, we believe that there are potential benefits of using this model among footballers. For example, the IZOF model could be used to create a balanced level of anxiety which would allow the players to concentrate and therefore perform to their best, thereby avoiding the detrimental effect taking place on their performance when they are out of their optimal ‘zone’ of activation.
4. Self-Talk in football

Self-talk, as we have seen above, may affect sport performance. A number of studies (e.g., Hatzigeorgiadis, Theodorakis, & Zourbanos, 2004; Zourbanos, Hatzigeorgiadis, Bardas, & Theodorakis, 2013) have found a positive correlation between performance enhancement, positive self-talk (which boosts confidence and belief in one’s ability), and instructional self-talk (which diverts the focus of attention on to certain elements of a movement to increase attentional focus, thereby helping execution). However, there is a potential methodological problem affecting many studies on self-talk and sport performance. Many of these studies have not been conducted in real performance contexts; rather they have been conducted in laboratory-based settings examining performances such as specific motor tasks (e.g., vertical jump), aspects of more complex sports (e.g., forehand drive in tennis) or in simulated competitions (e.g., 100m, 1mile running) (Theodorakis, Hatzigeorgiadis, & Zourbanos. 2012). Given the lack of research in real performance contexts it is quite difficult to draw clear and definite conclusions on the role that self-talk may play in football.

However, Daftari, Fauzee, and Akbari (2010) in a seminal study (which awaits replication) examined the perceived positive and negative effects of self-talk on football performance on Iranian elite-level football players (members of the national team). The participants of this study were 25 Iranian male professional footballers (mean age 27 years). The footballers were presented with an open-ended questionnaire which solicited information about perceived effects of self-talk in three occasions: 1) before the match, 2) during the match, and 3) after the match. The results demonstrated that the perceived effects of self-talk on professional footballers in real performance contexts can be categorized in two main categories: positive and negative.
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Positive effects comprised more than 80% of the perceived effects of self-talk, while negative effects comprised less than 20% of the responses. The three most cited positive effects of self-talk were: ‘it enhances coordination with teammates (15.6%)’, ‘it enhances focus and attention (12.5%)’, ‘it promotes decision making skills (11.4%)’. The results indicate that the perceived effects of self-talk among these participants were to: (a) increase players’ coordination through mental rehearsal of critical situations; (b) enhance athletes’ concentration and sharpen the accuracy of their movements; (c) boost their ability to make correct decision with precision in the shortest time.

Data from Table 1 were then reorganized (Table 2) into three subcategories (cognitive,
emotional, and executive) that the authors thought would more precisely indicate the perceived effects of self-talk at mental and behavioural levels.


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These findings, besides confirming the perceived importance of self-talk in football, also provide clarity about the mental skills that may be influenced by self-talk. These results also show that self-talk can be used as a controlling mechanism to prevent negative consequences (such as disputes with referees or conflicts with other players) that can significantly impair performance. In addition, these findings have important implications for both footballers and coaches. Being aware that self-talk can promote efficiency on the field allow both players and coaches to work on self-talk skills to help gain desirable results.
Having reviewed the role of self-talk in football we next focus on the most important moment of any football performance (the act of scoring a goal) and look at what concentration and self-talk can tell us about it.

5. Goals as tests of concentration and self-talk

Arguably, one of the most important statistics in a football game concerns the number of goals scored and conceded. Carlo Ancellotti, one of the most successful coaches of all time, claimed that a goal represents the peak of a match and the moment that can have a huge impact on a team’s confidence (Higham, Harwood, & Cale, 2005).

Ray Clemence, another football coach, echoed this understanding:

*Just before half-time, just after half-time and depending on where you are in the game, the last 10 minutes of the game as well are key times in a match. Just before the half-time because there might be an element of mental fatigue rather just physical because you’ve worked so hard maybe for 40 minutes. If you concede a goal just before half-time, you have no time to recover from it. You feel deflated because there’s no chance to come back straight away. So, it is a vital time. Just half-time is also important* (Ray Clemence, in Higham, Harwood, & Cale, 2005, p. 96).

These comments show that during a football match there seems to be specific phases or key moments that are more crucial or relevant than others and that scoring a goal during these phases may have a huge impact on the team’s morale.

In order to test the reliability of these assertions, Cei and D’Ottavio (2009) investigated the distribution of goals in Italy’s Serie A football for the 2007-2008 season. The findings show that most of the goals were scored in the last 15 minutes of the game, at the end of the first half-time, and at the beginning of the second half-time. Cei, Tonelli, Pantanella, and D’Ottavio (2011)
partially extended these findings. The authors looked at the distributions of goals in four major European championships (Premier League, Serie A, La Liga, and Eredivisie) for three consecutive seasons. The results showed that the goals deciding the outcome were mostly scored (69% for a draw or a win) in the last 30 minutes of the matches (Figure 1).

These findings seem to empirically confirm the comments made by Ancellotti and Clemence (that there are certain phases in any football performance than are more crucial than others) and, therefore, highlight the importance of maintaining concentration at these key moments of the match.

In the history of football there have been teams that performed extraordinary well under pressure exploiting the capacity to concentrate in key moments of the match (Swann, Crust, Jackman, Vella, Allen, & Keegan, 2016). One of such teams was Manchester United. Under the guidance of Sir Alex Ferguson, the team enjoyed numerous victories and concentration and determination became two of its defining features. In his autobiography, Ferguson (2013) confessed that the team’s plan when loosing was to avoid negative thoughts, keep a high degree of focus, and
wage a high intensity attack in the last 15 minutes of the match. This strategy often paid off, such as against Bayern Munich of Germany in 1999 UEFA Champions League Final. Manchester’s approach to the game clearly showed how a great focus on task-related cues and on performance improvement in preference to winning could directly affect the result of a high-profile football match.

Similar considerations can be made with respect to self-talk. Gianluca Vialli, former Italian footballer and Chelsea manager, noted that in negative situations one must remain lucid: ‘I never played in a match where, when we had the momentum against us, I thought there’s nothing we can do about it. That never happened to me. I have always thought we could turn it around’ (Higham et al. 2005, p.199). The behaviours and mental approaches a player must adopt in these situations are well explained by Mark Hughes, former Manchester United player and Welsh manager, who said: ‘If you’re are getting stretched you will go back to basics, play tighter, close the lines up, get more compact and reorganize and think steady the ship and then go again once it’s calmed down’ (Higham et al. 2005, p.189).

To teach players how to use self-talk to keep a positive approach when difficult circumstances arise, Pain (2016) suggested the adoption of three steps. In the first step, a player writes down in a log instances of negative self-talk that occurred during the match and then discuss these instances with a sport psychology consultant. The goal here is to learn how to move away from these negative thoughts via rational dialogue (e.g., change ‘I must win’ to ‘I really want to win’ or ‘I must win the approval of others’ to ‘It is nice but not essential to gain their approval’). Second, the player must write down in his/her log positive affirmations. This approach helps to avoid rumination over negative thoughts (e.g., “I always make the same errors”). The third step consists in recording a player’s pre-match ideal performances and associating them with music that triggers positive thoughts. The successful implementation of this approach requires a minimum of three months of practice. Pain (2016) reported a case study where a gifted midfielder, at the end of
this psychological training, became less-critical and more able to find the positive aspects of his performance by being more rational and balanced. Moreover, this player’s negative perfectionism was reduced, allowing him to be more positive in pursuing his goals.

Having analysed the role of concentration and self-talk in football performance we can now move on to the second goal of our chapter: providing practitioners with a series of applied coaching strategies that can be used to build more successful coaching programs (both in team sports and in football). To do so, we first identify some crucial game factors influencing football performance and then look at how coaches can intervene to satisfy some of these games demands.

6. Coaching implications

One of the factors influencing football performance is game momentum. As noted earlier, a number of studies (Cei et al. 2011; Higham et al. 2005) have shown that certain phases during a match are more relevant than others and therefore concentration must always remain high. A second important factor affecting football performance is stress (Yerkes & Dodson, 1908). Stress is a psychological factor that tends to disrupt the homeostasis of our body. It is part of our life and it is therefore also inevitable in sport. Recent research (Bali, 2015) has shown that as the level of stress increases the performance level also increases, to the point of eustress, or healthy tension. Over this threshold, however, as stress becomes overwhelming, the person reaches a fatigue point and her performance levels starts to drop. A third factor influencing football performance is anxiety. Often anxiety is an unpleasant state of mind, which disrupts emotional reactivity and causes nervousness. However, anxiety is also an essential ingredient of any competitive situation (Hanin 2000). Without a certain level of anxiety (neither too high, nor too low) there cannot be competitive performance. Thus, anxiety is also conductive to elite football performance. A fourth factor affecting football performance is the players’ capacity to re-focus on the present once the team scored or has conceded a goal (Redwood-Brown, Sunderland, Minniti, & O’Donoghue, 2017). This fourth factor often depends on a fifth factor, which is the capacity to control and regulate tension and inner
aggression (Isberg, 2000).

In order to deal with these factors, and ultimately improve player performance, coaches can intervene with a series of strategies targeting both self-talk and concentration (Swann, Moran, & Piggott, 2015). For instance, coaches can enhance self-talk in terms of process and content. The process refers to the structure of self-talk\(^6\)

- the sentences must be short and specific,
- proffered in the first person of the present tense,
- their contents must be positive,
- their meanings have to be significant (with a goal),
- the sentences must be planned and repeated often and in advance
- when negative thoughts arise, they must be substituted with positive affirmations,
- cue words can be learned and practiced as reminders to cope with stressful moments.

The content of the statements must also be focused:

- on the actions to perform and not exclusively on the results,
- on players’ behaviours (because they are the only things they can control)
- on motivation or on technical instructions,
- on coach advises,
- on team behaviours (to keep playing high intensity attacking football)
- On team’s motto (players can identify cue words to boost their morale and cohesiveness).

Concentration can also be improved through self-talk. The use of certain statements and cue words, for instance, allows the players to select the information needed to keep up motivation (maintain high levels of confidence and a sense of control over their performance) and to stay focused (being fully absorbed in the task to the point that they are unaware of the crowd) (Krane &

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\(^6\) These strategies can be applied to many sport teams. However, they are also effective in football and this is the reason why we discuss them here.
Williams, 2006). This can also be done in the locker room just before the game, where players - through mental repetitions- learn to relax and distinguish between relevant cues and non-relevant stimuli (Williams & Krane, 2015).

It is also fundamental that players - ahead of the match - develop an optimal emotional balance and a heightened self-awareness. This can be achieved through specific meditation exercises, which the coach can present to the players during training (Williams & Krane, 2015). The goal here is to maintain composure, to stop unhelpful thoughts, to keep the adrenaline flow going, and to have a positive mental attitude, which allows the player to be in control of the game and to handle any critical situation that arises (Swann, Crust, Jackman, Vella, Allen, & Keegan, 2016).

**Conclusion**

In this chapter we defined concentration and self-talk (section 1). We investigated their relation and explored their contribution to sport performance (sections 2). We focused on the specific role that concentration and self-talk play in football (sections 3; 4). We analysed (section 5) the peak moment of any football performance (the act of scoring a goal) and looked at how to use concentration and self-talk to increase the chances of scoring a goal (or not conceding it). We concluded (section 6), by providing a series of coaching strategies aimed at improving, through concentration and self-talk, performance in footballers.

It is hoped that this chapter will spark new interest in these topics among scholars and practitioners and that it will provide new theoretical grounds for more detailed understandings of the role of concentration and self-talk in football.

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