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Navigating the Winds of Change on the Smooth Sea - The Interaction of feedback and emotional disruption on the talent pathway

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Key words: Pathway, Elite Performance, Psychology Support, Emotion, Feedback

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Abstract

Research on the developmental trajectories of performers is increasingly focusing on the nature of challenge in talent development. This study sought to investigate the interaction of challenge, emotional disruption and impactful feedback in the talent pathway. Employing a pre-post design, a group of eight junior international rugby league players were interviewed prior to and following their senior transitional season. Data were collected through two semi structured interviews and analysed using Interpretative Phenomenological Analysis.

Participants progressed through a pathway that was perceived to be devoid of challenge until the start of the senior transition. At this stage, however, frequent emotional disturbances were experienced, associated with a greater personal weighting of the feedback provided. Findings suggest that events and feedback that were emotionally laden were a critical element of their developmental experience.

Key words: Pathway, Elite Performance, Psychology Support, Emotion, Feedback

Lay Summary

This study explores the interaction of challenge, emotional disruption and feedback for athletes transitioning to the elite level. The emotional ‘highs and lows’ are identified as critical to overall development, rather than something to be ‘coped with’. We suggest that the athlete experience should be a focal point for practice.

Research has begun to examine the nature of the talent development journey, supporting the concept that the development of talent is both non-linear and dynamic (Abbott et al., 2005; Gulbin et al., 2013; Vaeyens et al., 2009). As a result, there is growing recognition that the early identification of future high performers as a sole function of performance variables is often futile (Abbott & Collins, 2004). Instead there is a growing focus on the *development* of talent, rather than the *selection* of gifted performers (cf. Gagné, 2004). Part of this literature has examined the role played by challenge in the development of performance and suggests those who have attained an elite level have benefitted from significant challenge along their developmental journey (Collins & MacNamara, 2012; Collins et al., 2016b; McCarthy et al., 2016; Sarkar et al., 2015). Subsequently, it has been proposed that the emotional ‘highs and lows’ of the journey, rather than being the direct provocation of new learning and development, appear to test previously developed characteristics (Savage et al., 2017). From this perspective, learning is stimulated *after* the challenge, is supported by skill development *prior* to the challenge; and encouraged by the individual’s experience *during* the challenge (interestingly often more effective when negative - cf. Taylor & Collins, 2020) then *facilitated* by debriefing following the challenge. Indeed, in a 2017 book chapter, Collins and MacNamara made use of the idiom: ‘a smooth sea never made a skillful sailor’, suggesting that the skills to cope with a variety of developmental challenges can be taught as a result of challenge but crucially, need to be deployed in order to facilitate the navigation of the talent development pathway (Collins & MacNamara, 2017). Furthermore, given the complexity and, in some quarters, the confusion generated by the suggestion that ‘talent *needs* trauma’ (Collins & MacNamara, 2012), there is a pressing need for a more granular understanding of the development pathway (Gulbin et al., 2013; McCue et al., 2019), together with greater insight into the nature and role of emotional disturbance .

Emotion

Fluctuation of emotional state has been proposed as a key mechanism in testing previously developed psychological skills and provoking learning (Taylor & Collins, 2020). Emotion can be described as the phenomenon of the “organised psychophysiological reaction to the environment” (Lazarus, 2000, p. 230) and has been proposed to act in a manner equivalent to a highlighter pen, focusing cognition on relevant information and encouraging reflection (Levine & Pizarro, 2004): in turn, acting cyclically to affect the content and depth of thought, and implicit goals (Lerner et al., 2015). The type of cognition provoked has also been linked to the *valence* of emotion, with evidence suggesting that positive emotional state is linked with focusing attention on generalities whilst negative valence may promote more detailed reflection (Gasper & Clore, 2002; Schwarz & Clore, 1996). As such, the individual’s perceptions and interpretations of each incident are central to the impact it exerts. Importantly however, characteristics of the individual also appear to be moderators of cognition following an emotional event (Huntsinger, 2013). Different individuals will have different emotional responses to external stimuli which, in turn, may provoke different patterns of cognition. Also, given that emotion and stress are part of a reciprocal relationship, there is a cost to all highly emotional states (Lazarus, 1999) and the deleterious effects of prolonged stress are well established (McEwen & Sapolsky, 1995). For example, in the context of action sports it has been proposed that, in order to optimise learning, there is a need for the long-term management of emotional states to prevent excessive load and consequent maladaptive impact (Collins et al., 2018).

A Particular Issue - Senior Transition

One of the most researched and obvious obstacles in the development pathway are the numerous transitions that developing performers are confronted with along their journey (Bjørndal et al., 2018; Finn & McKenna, 2010). Of these transitions, the move from the upper end of junior competition to senior elite is well established as the hardest for athletes to

navigate (Stambulova et al., 2020). The difficulty of this transition has been attributed to the number of simultaneous transitions that a young person may be experiencing, not limited to their athletic career but including psychological, psycho-social, financial and vocational/academic (Wylleman et al., 2013).

In the sport psychology literature, transitions are proposed as more likely to be successful if the athlete possesses sufficient resource to overcome the barriers that may prevent progress (Stambulova et al., 2020). Accordingly, in order to support the navigation of transitions, a number of approaches have been taken to prepare performers by developing psychological skills to support transitions (Larsen et al., 2014; MacNamara & Collins, 2010). Additionally, it appears clear that psychological skills are critical to succeeding at the highest levels of performance (MacNamara et al., 2010a, 2010b) and to preventing those with high potential falling away (Taylor & Collins, 2019). Thus, given the overall challenge posed by the junior to senior transition, with the athlete typically being presented with a large number of and greater intensity of challenges, especially in the male team sport environment (Finn & McKenna, 2010) it would appear that the athlete's ability to cope with and learn from challenge is a critical variable in their journey. The support network around an athlete appears to play a critical role in helping them manage the challenges presented by the transition. This is especially true for the coach, who's role has been found to be critical in successful navigation of the transition (Røynesdal et al., 2018)

An Additional Key Factor - Feedback

Thus, in addition to the psychological characteristics of the athlete, the role of key support figures have been positioned as a critical resource to support the navigation of challenge (Jones et al., 2014). A core element of this support is the role of feedback, which has long been known to be a critical element of performance enhancement and learning more broadly (Ericsson et al., 1993). Additionally, however, and as stated earlier, the impact of

feedback has been shown to be a major source of emotion for athletes receiving it; either positive or negative depending on their perceptions and subsequent actions. In this respect, a seminal meta-analysis Kluger and DeNisi (1996) highlighted that the most important characteristics of feedback were not the specific elements of the feedback offered, but instead, what the learner does with it. Later work has furthered this and positions feedback as a process that impacts directly on the recipient, rather than merely information to be given (Carless & Boud, 2018). As such, feedback can be seen as “processes where the learner makes sense of performance-relevant information to promote their learning” (Henderson et al., 2019, p. 17).

Impactful feedback. Thus, if we truly want to understand how to optimise learning and development, it would appear prudent that we focus on the *impact* rather than just the content of feedback. It is for this reason that Henderson et al. (2019) identified impact in feedback as a process within a system, rather than an input alone and, therefore, as a component of the overall feedback loop that also relies on the individual sense making of the learner and their ‘feedback literacy’ (Carless & Boud, 2018). As such, impact can be seen as a changed state within the learner as a result of the feedback process (Henderson et al., 2019) and an enhanced understanding of the interrelationship between the emotional state of the learner and the feedback process would support optimised learning and development. This is an important distinction as previous work in the field of sports psychology has focused on feedback as being information offered to an athlete rather than a process of interaction (eg. Carpentier & Mageau, 2013).

Emotion in feedback. Emotions have historically been seen as something to be managed away and a hinderance to feedback effectiveness (Molloy et al., 2019). It is the perception of need for the balancing of affective state and the removal of emotion to support learning that has led to folk-pedagogical concepts such as the ‘feedback sandwich’ which lack empirical

support (eg. Henley & DiGennaro Reed, 2015). It has even been suggested by some in the business domain that any feedback that offers critique should not be used because “criticism inhibits the brain’s ability to learn” (Buckingham & Goodall, 2019, p. 94). Reflecting on these often-unfounded assertions, Molloy and colleagues (2019) have argued for a more nuanced view of how feedback processes interact with emotion, especially as the dominant narrative has been the need to *reduce* emotional impact on the learner.

Thus, the interaction of these constructs are critical in supporting the individual athlete on their development journey. There appears to be a quadripartite relationship whereby the experience of challenge may provoke emotional disturbance in the performer (and its attendant stress cost), where it does, the valence of response appears to generate differential reflective patterns; feedback can either take advantage of this reflection, or can attempt to redirect them to encourage a different reflective pattern. Given the reciprocal relationship between stress and emotion, it would appear that for learning to be adaptive, prolonged emotional disturbance is likely undesirable and the effective management of overall emotional load requires a high-quality support network. A key tool of this support network is to offer feedback to the athlete and additionally, rather than feedback being devoid of valence, that the feedback will be appropriately toned so as to be optimally impactful.

In order to address some of the points raised in the introduction and to enhance both practical and theoretical understanding, we chose to investigate how these factors interact during the period of the pathway known to be the most challenging for participants, the junior to senior transition. Consequently, the present study had three specific objectives: (a) to establish player perceptions of the level of challenge prior to and through senior transition (b) understand the extent of emotional disturbance occurring from those challenges and the feedback associated with them and (c) to investigate how feedback processes impacted players to help them progress through the transition.

Methodology

Research Philosophy

As both researchers and practitioners with a desire to generate practically meaningful knowledge, the present study was underpinned by a pragmatic research philosophy (Giacobbi et al., 2005). Pragmatic approaches focus on application and usefulness to practitioners, offering feasible and actionable measures in real-world settings (Glasgow, 2013). Pragmatists consider themselves co-constructors of knowledge with the aim of providing tangible applied outcomes rather than generalizability or purely context dependent subjectivity (Denzin & Lincoln, 2008). As such, we have chosen a specific applied issue for the basis of this study.

Participants

Participants (n=8) were purposefully selected from an England Rugby League national age group based on the criteria that they were likely to make the senior transition in the following year. At the time of conducting the first interview, participants were between 18 and 19 years of age ($M = 18.25$; $SD = 0.43$) and, at the point of the second interview, had made at least one senior appearance, playing a mean 11.37 ($SD = 9.49$) times in the Super League (the highest level of competition in the UK). A homogenous sample was deemed appropriate as a result of the desire to conduct an exploratory analysis of the experiences of developing performers as they navigated their first season as a senior elite player (Røynesdal et al., 2018).

Procedure

Ethical approval was granted from the authors' Institutional Ethics Committee. The study followed a pre-post design, whereby participants were interviewed at the start of the transition and at the end of the transitional year. In order to manage a degree of uniformity between interviews, data were collected by means of semi-structured interviews, the guide for which were developed using respective talent development literature. One on one

interviews lasted between 49 and 61 minutes ($M = 54$) and were audio recorded for transcription and analysis. Interviews were conducted by the first author. The first interview sought to gather information regarding the participant's previous experience of challenge in the pathway. The second was used to understand the participant's experience of the transitional year.

Graphic Timeline

At the start of the second interview, adopting a retrospective tracking protocol previously used by Cruickshank et al. (2013); Savage et al. (2017) and Ollis et al. (2006); participants were asked to draw a timeline marking critical events through their transitional year into senior performance (x-axis). Participants were then asked to reflect on the key chronological events that occurred throughout the year and plot their subsequent emotional state. All timelines were gridded to the same scale with positive emotion labelled on a 1 to 5 scale and negative emotion on a -1 to -5 scale (y-axis). For example, participants plotted events such as being selected for 1st team fixtures, changes in coaching staff and negative feedback. Although a two-dimensional model of emotion has been criticised in the literature as being an inadequate description of emotional experience (Mellers et al., 1998), it was decided that the two-dimensional model would be most appropriate to investigate the intensity of valence experienced by the participants for two reasons. The first being the desire to understand the intensity of valence, rather than asking players to reflect on discreet emotions and secondly, to allow the richness of experience to be fully explored in the interview. In addition, given the potential for hindsight bias and recall inaccuracies the timeline was then used to aid recall and promote retrieval by moving through the year several times with each participant to avoid parallel sequences being left out (Drasch & Matthes, 2013).

Interview Guide

Interview guides were informed by literature in both the talent development and feedback domains. The former suggesting that the experience of ‘memorable challenge’ or ‘trauma’ is a highly individual personal interpretation (Savage et al., 2017) whilst the latter calling for a greater emphasis on the role of the learner in the feedback process. Taking this into account, we aimed to take a more holistic approach and understand the participant’s lived experience (Ajjawi et al., 2019). This was further supported by the use of the graphic timeline as an impetus for discussion, allowing participants to share their personal narrative. Probes and prompts were used to encourage the development of answers and the clarification of key points (Jones et al., 2013). The first interview was conducted prior to their expected transitional season into the senior 1st team environment. It was used to understand the player’s previous experience in the pathway and their recent experience of the beginnings of the transition. The second interview took place at the end of the transitional season and collected data related to the player’s lived experience of emotional disturbance and feedback.

Pilot Study

Prior to interviews being conducted, pilot semi structured interviews were conducted with two participants who met the inclusion criteria of the main study as contracted professional players in adult male team sport who had just completed the transition to senior performance (Aged M=20; SD=0). Following the pilot, participants were asked for their feedback on the procedure and no changes were deemed necessary.

Data Analysis

Interpretative Phenomenological Analysis (IPA) aims to generate insight as to how a given person makes sense of a phenomenon, the focus being the personal sense making of the individual (Smith & Shinebourne, 2012). The adoption of the approach allows for a research focus on the aspects of experience ‘that matter to people’ and therefore impact on their consequent actions (Eatough & Smith, 2017). The idiographic nature of the enquiry allows

for the building of understanding from individual experience to that of the group. This commitment to the individual experience, whilst also demonstrating elements of shared experience allows for greater depth of insight (Eatough & Smith, 2017). Given that the research aims were to understand the lived experience of the participants with a particular focus on their individual meaning making, IPA was deemed the most appropriate method to understand the individual's experience. Additionally, given the pragmatic orientation of the research, we wanted to move beyond a descriptive account, offering insight for the applied practitioner and equip them to make a real-world difference.

The recommendations of Smith and Osborn's (2007) step by step approach to IPA were used to complete the analysis. Following the transcription of each interview verbatim, each was read a number of times and the left-hand margin used to annotate points of interest. The right margin was then used to document emerging themes and subsequently emergent themes from all transcripts were listed on a sheet of paper prior to clustering. Initial themes and comments found in each text were captured, taking account of the researcher's interpretation, this was followed by a clustering of similar themes (Smith & Osborn, 2007). Following the analysis of all transcripts, themes were hierarchically organised in order to offer a structure to the data (Biggerstaff & Thompson, 2008) which enabled comparison between transcripts and individuals at the two time points. This enabled the creation of a table with all higher order themes (see Table 1). Anonymised quotes are used liberally throughout the text to ensure that the individual meanings of the participants are expressed. In the interests of confidentiality, these quotes do not contain information enabling the identification of the participants (e.g. club name, coach or player names).

Trustworthiness

Given the role played by trust and rapport in shaping the process and outcomes of interviews, these features were developed as a result of the first author's knowledge of each individual's

career, attendance at training camps with participants, and awareness of the context of the transition into senior elite male team sport as a function of a career in elite sport and role as a talent development coach in elite rugby union. This was augmented by the second author's significant body of experience working in elite sport; and talent development in particular. This role of 'insider' supports enhanced understanding of the experience of participants and approaches the study with cultural insight and address topics with greater ease (Berger, 2013). Yet, to address the challenges posed by this 'insider' status, a variety of reflexive tools were used to make the researchers aware of varying perspectives (Lietz et al., 2006). This was especially important, given the career of the first author, to ensure that their perspective and history of coaching similar cohorts in rugby union, did not interfere with the examination of the participant's lived experience (Lincoln & Guba, 1985). Throughout the investigation, a reflexive journal was used by the first author to maintain awareness of any potential research bias (Patton, 2002) and to support the researcher's personal interpretative framework (Levy, 2003). In addition, the second author acted as a critical friend, challenging the meaning units developed by the first author (Faulkner & Sparkes, 1999). Given our pragmatic orientation, the data are also presented in a manner supportive of the inherent ambiguity involved in complexity (Nicholson, 2013). The focus for pragmatic research is such that it seeks to make a difference to practice with tangibly applied outcomes rather than either widespread generalizability or pure context based subjectivity (Denzin & Lincoln, 2008).

In line with the recommendations of Smith & McGannon (2018) participants all took part in the process of member reflection. This involved each participant being presented with and giving feedback on the themes generated by their own transcript. The process of member reflection allows both participant and researcher to explore connections and differences between the researcher's and participant's understanding of their accounts (Smith & McGannon, 2018). Following the first interview, all participants engaged in the process of

member reflection. At the second, although all were offered the opportunity, only four of the eight participants actively engaged by offering reflections on their reported position. The process of member reflection did not lead to any of the participants challenging the overall themes presented to them, importantly given the pragmatic orientation of this work, a number of participants commented on the usefulness of the process to augment their reflective process. For example, in the second round of member reflections one player commented: “despite it being such a good outcome, it really has been an up and down year for sure”. Additionally, players also reflected in support of our understanding of their experience as researchers when considering the nature of the step change in challenge they were exposed to, for example, one player commented: “it’s definitely been very different for me, much tougher over the last season and I haven’t really kicked on”. Finally, given the importance of presenting the lived experience of the participants, thick description is used through significant direct quotation to preserve the richness of the participant’s accounts.

Results

The Smooth Sea - Experiences on earlier developmental pathways

Community Game. Prior to entry into their respective club’s academy, players often felt that their community game experience was challenge-less. Player six, reflected that until the academy stage at 16, he had rarely experienced negative emotion on his developmental journey: “I had quite a successful amateur team, we never lost. I think it was U13s and we lost our first game ever”. Indeed, very few of the players could reflect on any experience of challenge significant enough to induce emotional disturbance until they reached the junior international representative level. For example, player three who noted that: “The biggest was non-selection, if you aren’t picked for England...it is quite hard”.

Transition into academy. On transitioning into the academy, some players described experiencing some level of perceived challenge, though most perceived this to be very

moderate in nature and not significant enough to induce meaningful emotional disturbance. These moderate challenges were experienced in part as a result of training and competition, such as the experience of player two, who reflected: “That was tough, the pace of the game, the size of the players we were playing against when they were three years older”. This appeared to be the result of experiencing very moderate organisational challenges, such as increased training volume. For example, player 4 recalled: “Some of your days were quite long and sometimes we had 7am in the gym, I had to get up at 5.30am. I wasn’t getting home until 6 or 6.30pm at night. You looked forward to sleeping”. Typically, however, players tended to describe a low frequency and overall level of challenge, player 5 suggested at the first interview point that: “to be honest, it has all been pretty easy so far, touch wood”. Consequently, on their developmental journey to the senior transition, it appears that whilst players began to experience some very moderate level of challenge at the academy level, their lived pathway experience was devoid of significant negative emotional disturbance.

The Winds of Change: Experience of the Senior Transition

This theme concerns the significant change of experience for all participants during their transition to the senior level. Although an unusual element for IPA studies, we offer additional data in Figures 1-8 to enrich the picture of participant experiences, both individually and collectively.

INSERT FIGURES 1-8

As these data show, it was during the transition into the first team that the players perceived a significant increase in the intensity and number of challenges that they faced and, concomitantly, a level of emotional disturbance not previously experienced in their pathway journey. The nature of what players felt had prompted emotional disturbance and how it they experienced it was mediated significantly by individual trajectory, as shown in Figures 1-8 and summarised in Table 1. Based on the lived experience of the players, those who were

more successful in the transition (playing more often) believed that they were subject to greater fluctuation and intensities of emotional disturbance. Of note, however, whilst *all* these aspects were a source of emotional disturbance, two (external validation and the loan experience) were *not* seen as significant challenges.

Initial entry experience to the senior environment. At the initial stages of first team transition, players typically interpreted their emotional state as being positive, despite a higher level of perceived challenge. It appeared, that for all participants, there was a level of satisfaction with having attained a level of performance that they had been working for: “It was harder competition, but I preferred it a lot more than just playing for the academy” (P1). Although the standard of competition was significantly higher, players appeared to experience the initial stages of senior involvement very positively.

Struggling with academy. Later in the transition, all players who found themselves moving between the 1st team squad and the academy began to express significantly negative affective state as a function of increased involvement in the academy. This appeared to result from a significant change in orientation, with players becoming frustrated with the level of challenge offered by the academy: “the academy never did anything for me...I scored 6 tries in 2 games... Playing against young kids who are 16 years old...they are nowhere near the standard of Super League” (P5). The emphasis of player five in this account highlights the deep frustration he was feeling with the situation he found himself in. There was a perception for all players, that playing in the academy was proving a barrier to their future development: “You are playing with kids two years younger, sometimes you do get down, you just feel like you are treading water and there is nothing you can do...I can’t wait for the season to end really” (P2). This expression of emotion is especially notable given player 2’s status as a professional player. Notably, some players experienced negative affect when playing at lower levels of performance as a function of other’s perceptions of their ability: “They know I have

played Super League, there is demand to always be on my game because I am known as a good player, people always expect you to be good all the time” (P8).

Lack of first team opportunity. Unsurprisingly, players also experienced negative emotions as a result of a lack of 1st team selection opportunities and not playing: “I thought I was in contention, so I was frustrated... It was 6 weeks until I played again a while after. It was very frustrating because I knew I could play at that level” (P4).

Pressure to demonstrate worth. Players became increasingly aware of the need to demonstrate their ability to coaches, feeling a sense that performance in training needed to be at a consistently high level in order to manage the impression of the coaches. For some, this acted as a relatively chronic stressor throughout the transition year with acute peaks where poor performance in training prompting negative affect: “There was one session where I didn’t have a great time, I didn’t make good decisions and I knocked on twice and it was a wakeup call...The coaches were telling me that I needed to wake up” (P8).

Playing for the 1st team. Players making their 1st team debuts perceived it as stimulus for very positive emotional states and described it as life changing: “I started to get more involved in training and at team run, he told me that I would play. It was one of the best moments I have ever had” (P8). As players began to progress, making more appearances some began to experience higher levels of pressure and consequent negative affect “My first team debut was a bit of a blur...but after that I found it a lot more challenging because of the build-up to the game, a lot more pressure” (P2).

In some cases, players were involved with teams fighting against relegation. This tended to provoke moderately high levels of negative emotion, for example, in the case of player four: “It has been very pressurised; it is a win or relegated situation. There is a lot of pressure”. Players at clubs in different circumstances also experienced negative valence prompted by performance pressure, but for different reasons: “Playing at [club], if you get

picked you are expected to play well. It kind of put pressure on you. So, when I didn't have a good game, they weren't happy" (P6). This heightened sense of pressure led players to have a very negative response to poor team performances: "We got absolutely hammered, it were [sic] embarrassing we went 12 points up and it finished 60 odd points to 12" (P5). The language used by players was especially striking, illustrating the emotional experience of playing elite rugby league.

Deselection. A consequence of being on the edges of the first team squad often led to players being deselected. The validation of selection, subsequent feeling of accomplishment, but then followed by deselection was a stimulus for significant negative emotional responses. Player five's experience of expecting to be selected and subsequently not being a part of the matchday squad was one of extreme disappointment: "the Challenge Cup quarter final against [club], I had played the three weeks leading up to it and then I was dropped to 18th man when some of the other players became fit. I was gutted, I thought I had done enough to get a shout" (P5). These experiences appeared to be so impactful for the participants that they felt ashamed of themselves following deselection.

Social Difficulties in the 1st team. In addition to performance related challenge, players also described a heightened felt experience of the social milieu of the senior squad when compared to their academy group. As a result, negative social dynamics were perceived to be a challenge for the participant to overcome and also prompting negative valence. Player three experienced significant negative emotion as a consequence of the social milieu during the transition: "people were getting on each other's backs. It wasn't the best situation to be in, people weren't looking forward to coming into training...especially the senior players, it was pretty tough" (P3). Participants appeared to notice an increased awareness of the social dynamics in the senior team when compared to the academy group. This appeared to heighten the overall emotional load for each young player.

Loan Clubs. For those players who did not transition directly into the senior team, the experience of playing for loan clubs in a lower league as provoking positive affect. Players perceived it as an opportunity to develop their game at a higher level of performance than the academy game: “It was really good, really positive. I had enjoyed the speed step up, faster and bigger bodies in the Championship (the second tier of the professional game in England)” (P8). As such, players could broadly be seen to interpret these loan experiences as career enhancing and typically provoking a positive emotional state where they were able to perform well enough to push for senior selection.

Social media. The experience of increased interaction with fans on social media, caused players to experience a range of emotional states. As player six began to progress, making more first team appearances, he experienced a changing valence as a result of social media interactions: “There was quite a bit of social media, mainly just fans, I tried not to look at comments, I would obviously see them now and again.... I didn’t get slated too much”. Players conceptualised social media as acting to intensify both positive and negative emotion experienced as a function of performance in matches: “Social media now, if you lose a big game, then everyone is talking about it, you can’t get away from it” (P1). Players described an awareness of the danger of this unnecessary emotional amplification. Yet, players also seemed to be drawn to social media, unable to avoid the emotional load it may provoke.

External validation of performance. Players also experienced highly positive emotional states following external validation of their performances. This validation was felt following selection for representative teams: “I got a call from [national coach] who said that I am in the squad. I was really honoured to get the opportunity to play at a high level, I was really thankful” (P8). It was also experienced as a result of receiving man of the match awards: “I played well at [club] and [club] as well, I got Sky man of the match, they were tough games, that was great” (P7). Participant’s experience of external validation were

notable, but often players reflected a sense of concern if they lingered for too long on the successes, they would prevent themselves progressing further.

Injury. All players who suffered injuries experienced significant negative affect as a consequence. For some, this was relatively acute such as player 8 reflecting on an injury at a loan club: “I really hurt my shoulder but had to keep playing because I didn’t want to miss out on anything, so had to play 3 or 4 weeks with a really injured shoulder”. In others, injury led to prolonged periods of negative emotion:

The week before Christmas I got concussed... After then I got a back injury in training so was out for 3 weeks, could barely move. Came back and played one game in the reserves, got concussed in the 1st team which was my second concussion of the year... That took me through until I injured my shoulder. This injury has also been hard, I haven’t played, it took me six weeks from the injury to the operation and now I am in the brace, it has just been very frustrating (P5).

This quote suggests that player 5 had spent a significant period of time ruminating on his situation, feeling more frustrated, unable to take action.

What was Impactful?

Despite participants experiencing a number of stimuli that provoked negative emotional states, these were often perceived to be facilitative of long-term development. In addition, participants also felt a range of emotional intensities as a result of highly impactful feedback instances. Participants consistently reflected that the most impactful feedback was coupled with an event that provoked an affective response or where the feedback itself induced emotional disturbance. For example, player 8 made sense of the most impactful feedback he had received and the emotive nature of the experience: “It was so personal and brutally honest with me. No bullshit, just straight to the point. I just knew that he meant it in

the way that he said it". Players appeared to value this approach, appreciating straight forward and direct feedback.

Negative valence. Players consistently expressed an experience of reflective depth and the desire for consequent action following negative emotion. For example, player 4 conceptualised the emotional impact of a poor performance and the extent of his subsequent reflection:

My performance that day had a big impact on the team, I dropped a ball and they went on to score. I learned that if I have an off day in the academy then I might get away with it, if I have an off day in the first team then we will get beaten (P4).

Similarly, when players made meaning of feedback which induced negative valence, they described a similar response:

[Head coach] pulled me in and showed me a clip of their try and he asked me what was wrong with it. I said [player] has missed an inside shoulder and they have scored. He showed me a clip of me walking back and said that if I was running hard back then I would have tackled him. He said if I was working harder, I would have made the tackle and it gave me a new perspective...if I'm not walking, then I stop that try. The lesson I learned was that it wasn't all about the big play, more about the little things that we all do together. I really focus hard on the one percenters now; I work on the little things harder (P1).

Feedback was perceived to be even more impactful when an underlying negative valence was coupled with a negative perception of the feedback offer. Importantly though, it appears that players actively deployed a range of meta-cognitive skills to support sense making and reflection, prompting the participant to take adaptive action:

He just said that he felt the player picked ahead of me was better defensively and that I didn't have a big enough impact in the first game. It was defining really. At that

point I wanted to leave because I thought if I am not playing, what is the point of me being here... but after thinking about it..it focused me on my defence and getting better (P4).

Extended periods of negative emotion. Critically, some participants experienced extended periods of negative affect, typically as a function of long term or persistent injury. When talking about his experience, player five discussed the implications that a negative feedback offer might have had for him:

I was in a negative headspace and my confidence was shot to pieces. I just thought that a little bit of positivity went a long way. It was one of their ways of saying they knew what had happened to me, they knew that I was frustrated having missed opportunities, but the way that I reacted was what they like in me.

Positive valence. During a period of positive affect, the receiving of feedback was recalled by participants as highly memorable but they felt it had limited impact. Notably, players were typically able to recall feedback of this nature, but it was often felt that it supported motivation or confidence rather than prompting any deep reflection or future action. For example, after receiving positive feedback after a senior team fixture, player 3 suggested that the feedback following the game was the most memorable event of his season: “I got told that I was one of the better players on the pitch, I can’t remember the feedback really, it was just a case of: ‘keep doing what you are doing, you are playing well’ ...I didn’t play again”. This was often interpreted to be the case when the content of the feedback was perceived to be positive. In another example, player eight reflected on a meeting with the head coach: “I can’t remember anything specific; it was just really good to hear that from the two main people at the club who make the decisions, it was really positive. It gave me a lift to be honest”.

Feedback aimed at managing positive affect. Notably, players suggested that they believed feedback providers were wary of the side effects of significantly positive events.

They often appreciated this element of the support they received, believing that it showed a level of care on the part of the feedback provider:

It was one of the biggest points of my career and I think that is something I will hold with me all the way through. It was [coach] speaking to me after that made me realise that you have never made it, you will never be the complete player. It is just something to keep thinking, even when you hit the high points, there are still things I can improve on (P5).

Importantly, all players described regularly receiving high volumes of feedback on a day to day basis as a professional player. Yet, players perceived no instances of impactful feedback that weren't paired to an emotional response by the player.

Given the wide ranging and multifaceted experience of the participants, table 1 offers an overview of their collective experience, including the frequency with which each factor was perceived as a feature of participant experience. Although a table of this nature may be uncharacteristic for an IPA approach, it is offered to further illustrate participant meaning making with a focus on applied implications.

INSERT TABLE 1

Discussion

The purpose of the current study was to (a) establish player perceptions of the level of challenge prior to and through senior transition (b) understand the extent of emotional disturbance occurring from those challenges and the feedback associated with them and (c) to investigate how feedback processes impacted players to help them progress through the transition. Findings suggest that players typically experienced a low level of challenge prior to the senior transition through the community game and their academy experience (the smooth sea). This smoothness changed in the transition to senior performance, with the intensity of emotional disturbance provoked by experience reported as being significantly

greater (the winds of change). Finally, participants reported that all feedback considered impactful was either paired with peaks of emotional intensity or provoked a level of emotional disturbance.

The Smooth Sea

The first aim of the study was to understand player perceptions of challenge prior to the senior transition. In a 2016 study, Collins and colleagues investigated matched triads of performers, comparing ‘super champions’, ‘champions’ and ‘almosts’. The ‘almosts’ were reported to have experienced relatively smooth trajectories through their pathway, characterised by an ‘ease of progression’ (Collins et al., 2016b, p. 6). In contrast, participants in the present study consistently reported their experience of challenge prior to arrival at the senior transition as being low. This began as players in the community game, where participants reported a near total lack of any challenge and in some circumstances could never recall losing a game. Players did not report any memorable challenges at this stage, with the exception of the end of scholarship where some reported disappointment with a failure to be selected for the England ‘Youth’ squad.

At the next stage of performance, transitioning into a Super League academy, the experience of the pathway was perceived to be a relatively smooth, with players rarely experiencing challenges of a nature to elicit significant negative emotion. Players reported the experience of some additional challenge, but this was again moderate, with the transition to more frequent training and playing with older players being the most common. Critically, players reflected an overall lack of significant challenge or emotional disturbance.

The Winds of Change

At the stage where players began to make their transition between academy and senior performance levels, players reported significantly greater levels of emotional disturbance (both positive and negative) provoked by the increased level of challenge. These ‘wave like

patterns' (cf. Ollis et al., 2006) were experienced by all performers, but notably those participants who featured more often in the first team experienced more frequent highs and lows. The highs tended to be associated with the validation of their performance level through either selection for the senior team, or international squads; winning of awards based on their performances or, attaining a level of status within the senior squad. The lows came as a function of the increased level of scrutiny on their individual performances in both training and games, 'fitting in' to the social dynamic of a senior dressing room (Røynesdal et al., 2018), deselection and injury. Players also perceived social media as having a significant impact on them, acting as an amplifier, particularly of negative emotion following poor performance.

Those participants who made fewer appearances experienced prolonged exposure to both positive and negative valence. This in no way suggests a causative relationship between emotional state and performance level but rather, should elicit a number of concerns for the talent pathway seeking to offer an optimal developmental experience for a transitioning elite performer. For example, a player who experiences lengthy exposure to negative emotion is at risk of the ill consequences of the attendant stress cost (McEwen & Sapolsky, 1995). Additionally, by focusing on the experience of the performer our data question the long term efficacy of blanket approaches to challenge level adjustment, such as 'bio-banding' (eg. Cumming et al., 2018). If our data show anything, it is that simplistic 'one size fits all' solutions will rarely be effective given significant individual differences in emotional response to similar events. We would emphasise that this appears to equally apply to overly negative *and* excessively positive experience.

Wind in the sails

During the transitional year, players reported no instances of impactful feedback that weren't paired to either an event that had provoked an affective response or where the

feedback itself prompted an emotional response. There were broad differences in the consequent reflections of players as a consequence of the emotional tone of their experience. These data are in line with previous research suggesting that positive emotion tended to provoke reflections supportive of motivation and confidence (Gasper & Clore, 2002). In addition, players reported offers of feedback that provoked or accompanied positive affect was less impactful than negative (cf. Baumeister et al., 2001). Negative emotion and attendant feedback was reported by players to provoke deep reflection about elements of their performance that they hadn't previously considered to be important, or hadn't been motivated to develop at previous stages of their journey. As such, in addition to the important but differential benefits to the peaks of emotional experience; there is an opportunity for additional 'added value' when this emotional state is matched with a feedback offer that is appropriate to the current needs of the athlete. The data would suggest that those players who were offered multiple first team opportunities were those who were best able to cope with and learn from the emotional disturbance conveyed. It also appears that this became a self-perpetuating cycle, as those who were able to cope and learn were offered additional opportunities to play, which in turn motivated performance improvement and reflective practice. Therefore, we would suggest that the results serve to highlight the central role played by challenge and potential emotional disruption as a tool for development. Additionally, results serve to highlight the value of investigating the athlete's overall perspective of their development, taking account of the psycho-emotional backdrop of experience.

Implications

Athlete Experience

Individualisation and meeting the needs of each performer has long been seen as a critical element of developing athletes (Henriksen & Stambulova, 2017; Kidman, 2010; Martindale

et al., 2005) and a consequence of the complex and dynamic nature of talent development (Abbott et al., 2005; Van der Sluis et al., 2019). The results of this study serve to emphasise the centrality of the individual's experience being a focal point for practice and highlight that an individual's response to challenge are layered against a highly individual psycho-emotional backdrop (Huntsinger, 2013; Kiely, 2016). Therefore, what might a relatively minor emotional disturbance for one individual, can be experienced in a completely different manner by another. Despite this, the emotional states of the participants in the present study appear to follow similar patterns to research suggesting that positive emotional states provoke a focus of attention on generalities and that negative states drive more detailed reflection (Gasper & Clore, 2002; Schwarz & Clore, 1996).

The individual nature of challenge responses was highlighted by the changing nature of emotional state through the period of the study with some players reporting challenges like playing at the senior level in very different ways over the course of the same year. It is also clear that many of the players in this sample had their first encounter with a challenge to the level that could be referred to as being memorable, or inducing a traumatic response, during the transition to the senior level (cf. Savage et al., 2017). This should be of particular concern given a lack of previous challenge experience, or preparation for what was coming (Hill et al., 2018).

Finally, and based on the players' observations, the data also support the RFL's intention to introduce Reserve teams to Super league sides. The current transitional situation would seem too bipolar to genuinely support progression with some players, on an almost weekly turnaround, finding things too easy or overly challenging.

Talent Development Pathways

Transitions. Data support the well-established difficulty of the senior transition and the nature of the challenges faced by the players in this study clearly support the existing

body of literature that has considered the nature of the junior to senior transition (Bjørndal et al., 2018; Finn & McKenna, 2010; Røynesdal et al., 2018). This study also highlights the differences between the previous challenge experience in the development pathway and that of the transition. This would suggest that, in addition to developing a range of psychological skills to navigate the transition, the talent pathway needs to provide a ‘challenge full’ and bumpy pathway prior to the senior transition (Collins & MacNamara, 2017). Indeed, it may be the case that other transition points are designed to ensure that individuals do *not* experience a smooth move from one stage of performance to another. Clearly, there are limitations to this; it would not be desirable to have too great a step change in challenge that causes potentially talented performers to fall away (cf. Taylor & Collins, 2019). Thus, talent development pathways need to be acutely aware of how individual performers are interacting with challenge throughout the development pathway.

The athlete curriculum. Consequently, there is a need for greater focus on the full range of experiences a developing athlete is exposed to (cf. Bjørndal & Ronglan, 2018). Therefore, rather than seeing the progress of an athlete as a series of sessions, it would be appropriate to consider the broader experiences of the performer integrated with long term goals (Abraham & Collins, 2011). A critical feature of this curriculum would appear to be the development of a range of psychological skills (cf. Collins et al., 2016a). The present study identifies that young players’ initial interaction with the challenges of the senior level was a qualitatively different experience to that of their previous pathway and consequently, required them to mobilise skills that hadn’t previously been required (Finn & McKenna, 2010; Røynesdal et al., 2018). This increased demand was also required in situations where they would outwardly appear to be ‘cruising’ through the transition, making a significant number of appearances and quickly making themselves a regular selection in the senior team. Additionally, in order to interact with the feedback that they were offered along the journey,

the active deployment of skills to support sense making and taking appropriate action would appear to be a critical pre-requisite for adaptive, rather than indiscriminate action (Carless & Boud, 2018). Interventions of this type have been reported to be successful on a shorter-term basis (eg. Henriksen, 2018) but to be clear, what is being suggested here is the ongoing development of skills *throughout* a pathway. Additionally, regardless of eventual end destination, the development of the Psychological Characteristics of Developing Excellence (PCDEs) (MacNamara et al., 2010a, 2010b) and exposure to progressively higher levels of challenge appear to be a critical factor in what people who do not ‘make it’ learn from the experience of a talent pathway (Williams & MacNamara, 2020). The ‘PCDE approach’ runs parallel to methods identified in the educational literature, such as the principle of rigor in curriculum design, to ensure that what is developed at each stage ensures that it does not hinder what comes later (William, 2013). For example, if a player’s experience of the game at an earlier stage is one where they utilise a limited range of skills to overpower junior opponents without developing a broader range of characteristics. It may help them to progress in the short term, but it neglects the wider range of skills that they will inevitably require in order to progress. As such, for all talent development environments, it is critical that they take a long term view (Henriksen & Stambulova, 2017; Martindale et al., 2005) to ensure that what they offer is not just a simple strengths based approach, allowing athletes to deploy what they are already proficient at to dominate junior levels.

Feedback

Utilising emotional disturbance. Given the findings of the study and the role played by emotion in focusing the attention of developing performers. It would appear prudent that the talent system seeking to make optimal impact should deliberately use fluctuating emotional states to support the learning of athletes. These emotional states offer practitioners the opportunity to engage the performer with feedback during periods of emotional disturbance

to maximise impact. These periods may also offer the opportunity for coaches to offer the type of feedback that might have previously been rejected by the performer. For example, rather than seeking to boost the confidence of a player who has just had a poor performance, a practitioner may seek to take advantage of a poor performance by offering feedback on an element of their performance that had previously lacked appropriate attention. In short, and especially with driven players aspiring to high level, we must not be in too much of a hurry to mitigate the negative affect (Taylor & Collins, 2020). Indeed, despite specific questioning, our data did not show a balancing effect that might suggest that players were able to interact with negative feedback positively as a function of positive feedback elsewhere. Negative feedback when combined with a negative emotional state may serve to drive more detailed reflection and analytic processing (Blanchette & Caparos, 2013). In contrast, an athlete who might be characterised as being an average performer, but with underlying potential, may gain significant benefit from a positive emotional experience and the attendant boost in confidence and motivation. Critically, in line with the findings of this study and the extant literature in the field of stress, if the athlete is experiencing chronic stress and prolonged periods of negative affect, that the practitioner operates with caution and does not seek to add to their overall load (McEwen & Sapolsky, 1995). Finally, given that the most impactful feedback is that which provokes deep reflection, considered action and engagement over time (Carless, 2019) it would appear that the affective state of the performer is a critical variable to be used by the practitioner when making decisions about what, how and when to say.

Limitations and Future Directions

Findings of the present study have to be considered within the limitations of its design. Firstly, whilst the relatively small cohort of participants allowed for a deep examination of their experience over an extended period of time, it has limitations for the generalizability of findings. Similarly, the cohort were recruited from a homogenous population from a single

sport (rugby league) and as such, there may be socio-cultural elements of the sport that influence their interpretation of their experience. Future work should consider investigating emotional disturbance across multiple populations of developing athletes (and perhaps other performance domains). Particularly, the experiences of individual athletes and females as the present sample were all male (cf. Curran et al., 2019). Additionally, although the risk of self-presentation bias was managed through the building of rapport with participants, there is a risk that they may have sought to manage the interviewer's impression of them.

Although data were collected at two time points, enhancing the participant's recall and accuracy of events, players were asked to draw the timeline of the year and reflect on their overall valence retrospectively. As such, this may have prevented participants being able to recall the nature of their emotional intensity retrospectively. Future work should consider an expanded use of multiple methods, asking participants to track their valence both longitudinally and retrospectively, in addition to exploratory qualitative methods.

Conclusion

In conclusion, the present study has explored the interaction of challenge, emotional disruption and impactful feedback processes amongst a cohort of rugby league players transitioning into elite sport. The players in the study reported significant differences in both perceived challenge and emotional disruption in their transition year compared to their experience of the community game and academy. In addition, when considering what was impactful in supporting their progress, players referred to events and feedback that were emotionally laden. Consequently, emotional disruption was reported as a critical part of their developmental experience to be used for maximal impact, rather than something just 'coped with'. Overall, the study offers further insight into the management of challenge through a pathway journey and the interrelation between psychological characteristics and optimum utilisation of the 'rocky road'.

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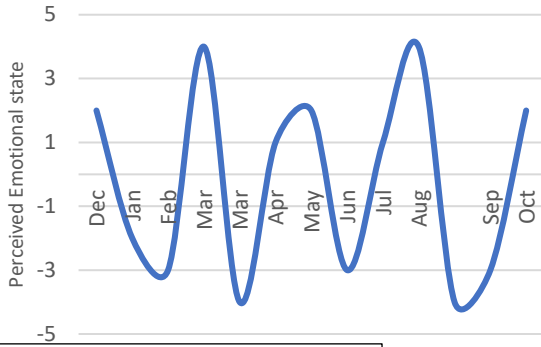


Figure 1 | Participant 1's graphic timeline
Super League appearances: 12

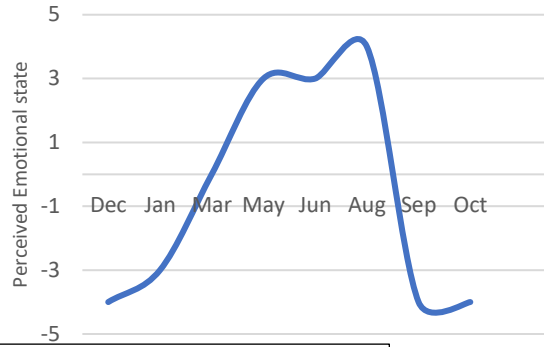


Figure 2 | Participant 2's graphic timeline
Super League appearances: 1

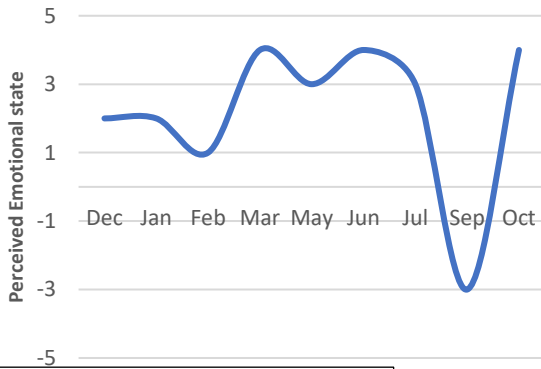


Figure 3 | Participant 3's graphic timeline
Super League appearances: 1

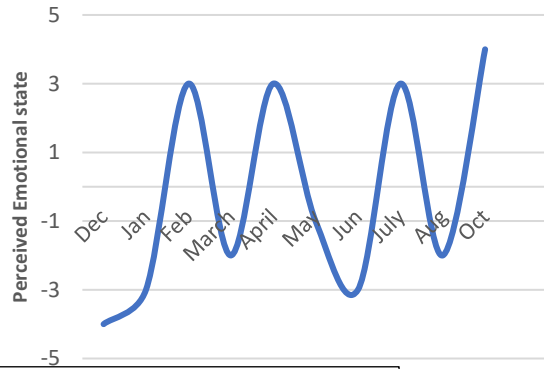


Figure 4 | Participant 4's graphic timeline
Super League appearances: 17

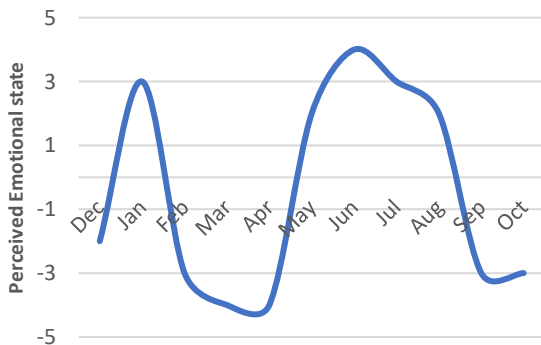


Figure 5 | Participant 5's graphic timeline
Super League appearances: 8

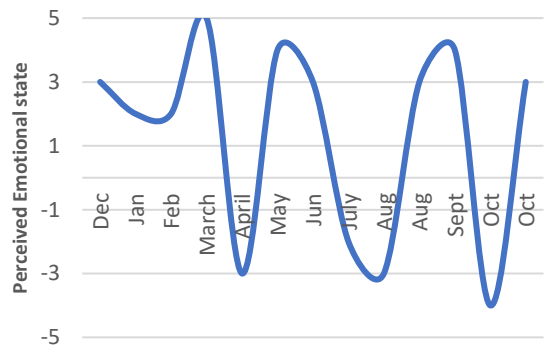


Figure 6 | Participant 6's graphic timeline
Super League appearances: 24



Figure 7 | Participant 7's graphic timeline
Super League appearances: 26

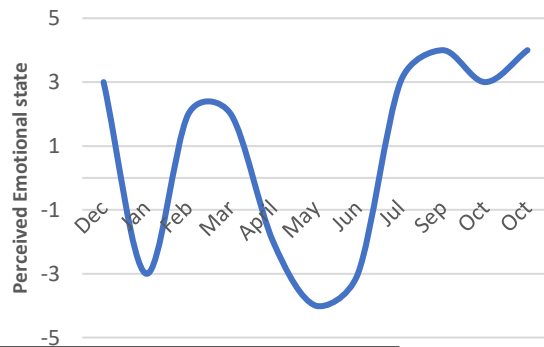


Figure 8 | Participant 8's graphic timeline
Super League appearances: 2

Master Themes	Superordinate Order Theme	Raw data exemplar	N = Feature of participant's experience
Provoking Negative valence	Feedback	"it got pulled up in the review. It was embarrassing"	7
	Increased performance pressure at the senior level	"The hardest times were in the relegation battle"	7
	Lack of appropriate feedback	"I got frustrated getting through training, not getting enough feedback"	5
	Poor individual performance	"I was given a gig, but I had a stinker"	5
	Changing perception of training/playing in the academy	"I enjoyed playing in the academy before, but I felt like I was getting to a state where I was too old and developed to be playing for the academy."	5
	Deselection	"I missed out. I thought it was unfair at the time"	5
	Lack of first team opportunity	"[Coach] would reshuffle the team rather than putting me in... I was waiting, it was frustrating..I knew I could play at that level."	4
	Pressure to demonstrate worth	"If you get picked you are expected to play well. It put pressure on you"	4
	Raising of profile	"It was tough for me, I played quite a few good games so people started to expect me to play well, so when I didn't have a good game, they weren't very happy"	3
	Pressure to prepare effectively	"it was tough to maintain my consistency in preparation, how you warm up and how you play"	2
Injury	"This injury has been hard, I haven't played"	2	

Provoking Positive Valence	Initial entry experience to the senior environment	“I was positive and training with the 1st team in the week and playing with the academy, I was playing so I was happy.”	7
	Making first team debut	“Making my debut, it was completely unexpected, I got the call on the Wednesday that I would be playing on the Friday. I didn’t expect it at all...it was something that I will remember for the rest of my life.”	6
	Feedback	“[Coach] said that he didn’t expect that from the first game, and I thought I would need to settle in, so that was another memorable one. I could go into a team in my first game and make such an impact.”	6
	Good individual performance	“It doesn’t get much tougher than [club] at [stadium] and felt I did myself justice with my performance.”	6
	Loan club experience	“I ended up on dual reg at [club] and I enjoyed it a lot more.. It was playing in a pro game with fans. It was harder competition, I preferred it a lot more than just playing for the academy.”	4
	External validation of performance	“I was the youngest player to play for [club] in the past few years, I got a lot of publicity off that and some of the fans went to watch my debut at [club]. I had a lot of backing.”	4

Table 1: Events provoking emotional disturbance