

Operant Subjectivity

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Subjectivity about Communication in Different Learning Contexts in Sport

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Abstract: This article looks at subjective beliefs among sport coaches about effective communication in two different coaching contexts: During training and practice and during performance appraisals with their athletes. A Q sample of 36 opinions concerning underlying aims for communication, and how communications affect athletes' abilities to understand better (knowing), to perform better (doing), and/ or improve their focus was presented to sport coaches from different top-level sports on two different occasions. On the first occasion, the Q sample was presented to 23 coaches who were asked to consider the statements regarding their communication during practice, and on the second occasion it was presented to 19 of the same coaches regarding their communication during performance appraisals. The analysis resulted in four factors, two of which are of particular interest. In general, coaches agree that what is regarded as effective communication differs between the two different coaching contexts, training and practice and performance appraisals.

Introduction

Elite coaches in sport are in helping relationships, which aim to assist their athletes to improve in areas that are important for their performances in sport (Jones, 2006; Lyle, 1999; Weinberg & Gould, 2007). A successful coach–athlete relationship should therefore stimulate an athlete to grow and develop his or her talent (Jowett & Poczwardowski, 2007). Previous studies have found that communication skills are fundamental in creating an optimal helping relationship in general (as, for example, in counselling and business) and particularly between a coach and his or her athletes in sport (Baker, Côté, & Hawes, 2000; Bloom, Schinke, & Salmela, 1997; Ivey & Ivey, 2006; Jones & Wallace, 2006; Lafrenière, Jowett, Vallerand, Gonahue, & Lorimer, 2008; Schein, 2009).

Coaches' abilities to communicate effectively with their athletes seem to form the basis for their relationships with them (Duffy, 2008; Jones, Armour & Potrac, 2004; Salmela, 1996). However, coaches and athletes interact in different learning contexts such as training, competitions, team meetings and individual coach–athlete conversations (Culver & Trudel, 2000). Thus coaches in sport need to communicate effectively in different learning contexts (Côté & Salmela, 1996; Côté, Salmela, Baria, & Russel, 1993; Côté & Sedgwick, 2003; Demers, Woodburn, & Savard, 2006; Duffy, 2008). There is reason to believe that coaches need to adapt a balance between assertive and accommodative communicative styles in these different learning contexts. Thus, they need to listen deeply in order to understand their athletes during coach–athlete

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conversations (Jones & Standage, 2006; Jowett, 2007; Jowett & Meek, 2000). In training, there is an emphasis on providing clear instructions (Lacy & Darst, 1989; Nazarudin, Fauzee, Jamalis, Geok, & Din, 2009; Pilus & Saadan, 2009; Potrac, Jones, & Cushion, 2007). Since elite coaches in sport need to be effective in their interactions in these different learning contexts, it will be of great importance to meet these different situations with suitable and proper communication skills. The question to be addressed in this study is therefore: What are sport coaches' subjective beliefs about what is effective communication during training and during performance appraisals?

Theoretical Background

Communication is defined as the scientific study of the production, processing and effects of signal and symbol systems used by humans to send and receive messages (Hargie, Dickson, & Tourish, 1999). Thus, communication involves a sender, such as a coach, transmitting information either verbally or non-verbally, to a receiver such as an athlete. Successful communication is achieved when there is concordance between a sender's intention and the perception of the message by the receiver (Heron, 2001; Ivey & Ivey, 2006).

The Communication Process

The communication process between a coach and an athlete (or vice versa) consists of at least four possible perspectives; *the coach's -perspective, the athlete's perspective, the intersubjectively experienced fellowship perspective, and the interaction perspective* (as seen in figure 1 below). It starts with an intention within a coach (sender) to communicate a message to an athlete (receiver). The self-perspective is the coach's own internal world, as he or she experiences it based on his or her own experiences, personality, attitudes and knowledge (Martens, 2012). The message is then encoded by the coach and sent to an athlete. The athlete starts his or her communication process by decoding (interpreting) the message. If the decoding process results in an intention to reply to the message, the athlete encodes his or her intention and sends it back to the coach as shown in Figure 1 (Fouss & Troppmann, 1981; Weinberg & Gould, 2007). This is the athlete's perspective reflecting the athlete's internal world. Both the coach and the athlete communicate based upon their subjective perceptions of reality. Importantly, these are individuals' models of reality based on their experiences and knowledge (Hargie, Dickson, & Tourish, 2004). The coach's and the athlete's models of reality might be different, because each perspective is based on individual experiences and knowledge. This is the challenge in communication, since successful communication aims to achieve coherence between the message that is communicated and the perception of it by the receiver. This is especially important between coaches and athletes within sport, since the coach's communication is supposed to help the athletes to perform in the competitive arena (Blom, Watson II, & Spadaro, 2010; Jones, 2006; Jowett, 2007).

The communication process aims to establish an intersubjectively experienced fellowship between the coach and the athlete, which implies a mutual understanding of one another's different worlds (Kvalsund & Allgood, 2008; Shotter, 1995). This is a process with different phases, from just being aware of each other in the beginning phase, to an intermediary phase developing a surface contact potentially leading to a process phase of giving and receiving self-disclosure, and thereby understanding each other on a deeper mutual level (Hargie et al., 2004). Thus, effective communication seems to emerge when the athlete gains a mutual understanding with the coach about the message being sent, and vice versa (Jowett, 2007). The last perspective is the

interaction perspective, which is about understanding the interaction process and the relationship between the communicators as such (Martens, 2012). The interaction perspective is the communicator's awareness about the communication process, how communicators influence one another in the process through their relational responsiveness and their emphatic understanding (Shotter, 1995).

As Figure 1 shows, the communication process is characterized by an underlying intention, or an interest, to achieve something. Communication can be characterized by three universal intentions: control, common understanding and emancipator reflections (Bloom et al., 1997; Chelladurai & Saleh, 1980; Jowett & Cockerill, 2003; Jowett & Ntoumanis, 2004; Williams et al., 2003).

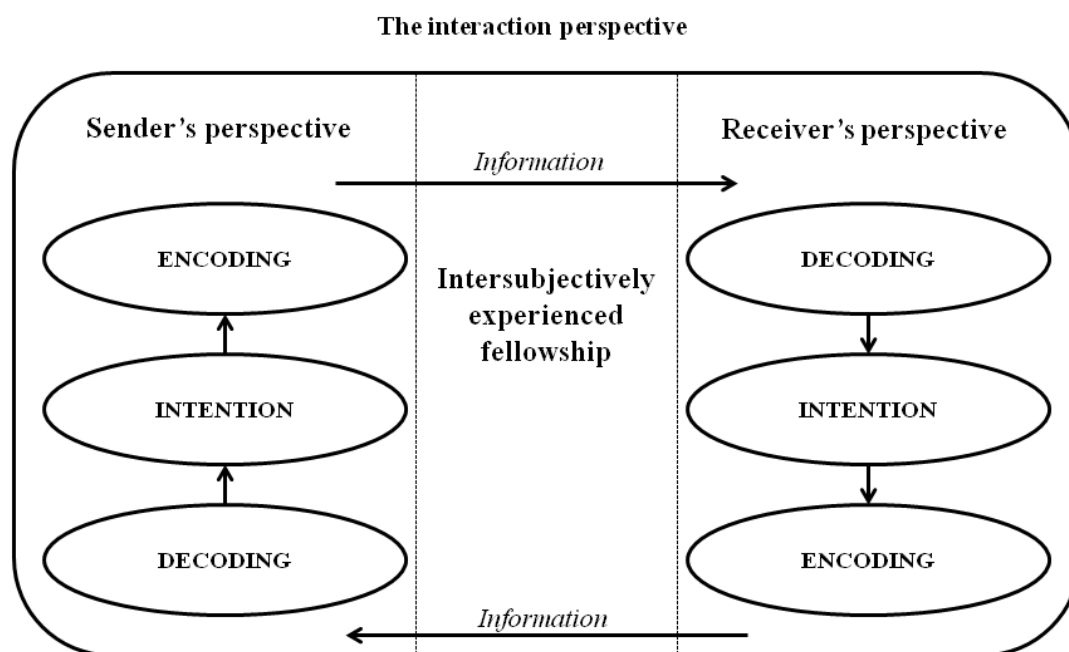


Figure 1: The communication process

As an example, training and instruction, along with democratic behaviour are two important factors in the leadership scale for sports (LSS), which share important similarities with the intentions to respectively control and achieve common understanding in communication (Chelladurai & Saleh, 1980). Also, the coach behaviour questionnaire (CBQ) emphasizes these two dimensions (Williams et al., 2003), whereas the 3Cs model emphasizes the importance of common understanding in the coach-athlete relationship (Jowett & Cockerill, 2002; Jowett & Ntoumanis, 2004). Both common understanding and emancipator reflections are emphasized as important intentions for coaches (Jones, 2006).

Control. Control is when a coach's intention is to control an athlete and influence him or her in a certain direction (Jowett & Lavalley, 2007). Instructions are used to influence others in specific directions. Research shows that instructions seem to characterize a coach's behaviour during practice (Lacy & Darst, 1989; Potrac et al., 2007). Interestingly, training and instructions are also found to be the preferred coaching leadership style among athletes (Nazarudin et al., 2009; Pilus & Saadan, 2009). An instruction can include telling an athlete that a specific behaviour should be performed, the level of proficiency that should be achieved, or the level of proficiency that a performer should achieve in a desired skill or activity (Weinberg & Gould, 2007).

Common understanding. Common understanding, represents a coach's intention to understand an athlete and develop a common understanding about a given situation or a focused case. Jowett claims that effective coach-athlete relationships are defined by mutuality between coaches' and athletes' feelings, thoughts and behaviours (Jowett, 2005; Jowett & Meek, 2000). The importance of common understanding in sport is emphasized through studies of the constructs of the 3+1 Cs model: *closeness, commitment, complementarity and co-orientation* (Jowett, 2007). Closeness is the degree to which the coach and the athlete are connected or the depth of their emotional attachment (Jowett & Cockerill, 2002). Commitment reflects coaches' and athletes' intention or desire to maintain their athletic partnership over time. Complementarity defines an interaction between the coach and the athlete perceived as cooperative and effective, and co-orientation defines the degree of similarity and emphatic understanding (Jowett, 2007).

Communication techniques such as open-ended questions and active listening are used to ensure common understanding in communication (Ivey & Ivey, 2006). Interrogative questions give the receiver the power to generate rich descriptions and detailed answers with regard to his or her own experiences, feelings and interpretations (Hargie, 2006). In this way, the sender is given the opportunity to achieve a deeper and common understanding of the receiver's perspective. Active listening is the most important attending skill because the receiver needs to know that the sender has heard and understood what he or she has been saying, seen his or her point of view, and has an understanding of the receiver's perspective as he or she experiences it (Heron, 2001).

Emancipator reflections. Emancipator reflections represent a coach's intention to stimulate the athlete to discover something new through becoming fully aware, so that he or she can be liberated from inappropriate and unconscious behaviour. Powerful questioning and confrontations are used to stimulate reflections (Hargie, 2006; Ivey & Ivey, 2006). Powerful questioning invites the receiver to participate in a mental exercise, establishing awareness, reflecting and making decisions that relate to the information that is being discussed (Jones, 2006). Confrontation is defined as a statement or question calculated to motivate the receiver to make a decision or face the reality of a situation (Heron, 2001). Thus, confrontations can often involve conflict and differences of opinion and have the potential to achieve raised awareness (Moen & Kvalsund, 2008). However, to achieve a positive outcome, it is necessary to confront the other with care, respect and empathy (Jowett, 2005). Thus, awareness about the underlying intentions in communication is important, because inter-human dialogue is characterized by the intentions that people have towards one another (Stein, Bloom, & Sabiston, 2012).

Communication in Sport

A coach-athlete dialogue is characterized by the intentions that coaches and athletes have towards one another in their meetings. Therefore, the communication process between a coach and an athlete will differ quite a lot based upon what the coach's (sender's) intention is in the situation. A previous study conducted by Bloom, Durant-Bush, Schinke, and Salmela (1998) found that a coach's relationship with an athlete involved much more than simply teaching technical skills and tactics. Specifically, Bloom et al. (1998) discovered that the coach-athlete relationship must entail elements of reciprocity and trust, and must be of a genuine and helping nature. Similarly, Poczwardowski, Barott, and Henschen (2002) found that the coach-athlete relationship

was underlined by respect, belief in, knowledge of, and contribution to the other's goals, needs, and wants (Jowett & Cockerill, 2003, p. 314).

The communication process and the different intentions in communication require a vast repertoire of intra- and inter-personal skills such as listening, observing, speaking, questioning, analysing, and evaluating. During training or competitions athletes are engaged with developing their performances and the coach's communication is supposed to be clear and instructive (Bloom et al., 1998; Weinberg & Gould, 2007). The intention is to control the athlete towards needed performance standards and to focus non-judgmentally during performance (Gallwey, 1974). This is not easy, because what is communicated is supposed to influence the athlete to display artistry in action. When an athlete displays artistry it is the intuitive or automatic repertoire that is displayed (Moran, 2012; Schön, 1983). If a coach's communication during action stimulates reflections, an athlete might be stimulated to judge him- or herself and lose his or her focus on what is appropriate during action (Moran, 2012; Wells & Skowronski, 2012). Ivey and Ivey (2006) refer to the centipede to explain how unconscious complexity that is brought in to consciousness during action can paralyze what happens in action, by explaining how the centipede crashes when it starts to think about how to coordinate its legs. Schön also discusses how reflection-in-action can interfere with the smooth flow of action and artistry (1983). However, Schön also claims that reflection-in-action has a potential benefit during some practice situations (Schön, 1983). Thus, in some cases practice is a time to think about what is actually occurring in action, but in other cases it is not an appropriate time to do that.

Communication during action entails potential contradictions, because the coach must consider if his or her communication should stimulate reflection or not. In some cases it will be dangerous to stop and think, in others reflection-in-action will have an increased potential for learning and performance (Schön, 1983). On the other hand, reflection-on-action seems to be important in order to achieve growth and development and enhance performances (Schön, 1983). This can happen before or after action is completed. Jowett (2005) argues that communication should promote the development of shared knowledge and understanding about various issues that are relevant in sport (for example, goals, beliefs, opinions, or values). The importance of common understanding about what is communicated is emphasized. Therefore, performance appraisals between coaches and athletes are important, because they have the potential to establish raised and common awareness about the athlete's performance, and to clarify how to focus during action in order to perform.

Although it is clear that communication is an important element of both the coach-athlete relationship and the act of coaching in general, it is clear that a coach will encounter different situations, and will need to interact with an athlete differently from situation to situation. Thus, the problem to be addressed in this study is: *"What are sport coaches' subjective beliefs about what is effective communication during training and performance appraisals?"*

Methodology

The research question in this study involves an exploration of the subjectivity among sport coaches regarding their communication with their athletes. The methodological process in the study was completed through a series of five steps: 1) Defining the concourse, 2) Developing the Q sample, 3) Selecting the P sample, 4) Q sorting, and 5) Analysing and interpreting (Brown, 1996; Watts & Stenner, 2012).

Defining the Concourse

The concourse in this study was established through an analysis of relevant literature within the field. We compiled a list of about 80 statements, which covered different possible viewpoints about the research issue. Then the statements from this process were systematically organized, analysed and presented as the concourse, that is, within the segment of the actual communication universe (Brown 1996; Kvalsund, 1998).

Developing the Q Sample

We reduced the concourse to a meaningful, balanced Q sample. The sample offers Q sorters a set of statements to be rank ordered *self-referentially*, thereby providing a picture of their own self-conceived view. In the present study, two main themes, or effects (Stephenson, 1950) emerged in the concourse: *intention* and *benefit*. Within the intention theme, four subthemes, or levels (Stephenson, 1950) seemed to be relevant: goal-oriented control, mutual understanding and agreement, emancipatory reflections, and the need for information. Within the benefit theme, three other subthemes or effects seemed to be relevant: learning in the form of understanding, learning in the form of performing, and focus. In this study, it is important to differentiate whether coaches in sport believe that their intention in communication is based on goal-oriented control, mutual understanding and agreement, emancipatory reflections, or the need for information, or a combination of some of the four. It is further interesting to investigate what they believe is the benefit of their communication.

Selecting the P Sample

The data was collected from sports coaches attending a course organized by the Norwegian Olympic Committee and the Norwegian University of Science and Technology (NTNU) in Trondheim on two different occasions. The course was aimed at elite coaches, those who coach athletes who are on national A-teams in Norway. The coaches were from different sports such as cross country skiing, biathlon, ski jumping, Nordic combined, ice hockey, alpine skiing, swimming, rowing, athletics, bicycling, wrestling, dancing, figure skating, orienteering and handball. Their average age was 35.5 years (youngest 23 and oldest 53), and their formal educational background varied from Master's degree to high-school only. Twenty-three elite coaches participated in the first sorting and 19 from the same group participated in the second sorting. Their experience as coaches at elite level varied from one to 25 years.

The Q Sorting

There were two sorting exercises each of which had a different condition of instruction. For the first sort, the specific condition of instruction was related to what they thought was effective communication during normal training when athletes were practicing sport-specific demands. The second sort was related to what coaches thought was effective communication during a normal performance appraisal with their athletes. Coaches were asked to consider what they felt described the most optimal communication in each condition. The statements were presented from an athletes' point of view, and the coaches were asked to rank the statements in terms of how they believed their communications were received as seen from the athletes' perspectives. The coaches were obliged to keep to the forced-distribution scoresheet in order to make all the necessary nuanced evaluations of the statements (Kvalsund, 1998).

Analysing and Interpreting

Both sets of Q sorts (42 in total) were then entered into the computer program PQMethod (Schmolck, 2002) and analysed together. Following factor extraction and rotation, the final step was to interpret and understand the meaning of the factors.

Results

The 42 x 42 correlation matrix was subjected to a Centroid factor analysis in which seven factors were extracted (the default number). The factors were subsequently rotated using hand rotation. After experimenting with various alternative solutions, we decided on a four-factor solution. Factor A has 7 pure cases (sorts that load only on one factor) and 22 loadings when mixed cases are included. Factor B has 8 pure and 16 mixed cases. For Factor C, the numbers are 5 pure and 16 mixed cases and for Factor D, 2 pure cases and 12 mixed cases. The mixed cases are reflected in high correlations among the factors (from 0.55 to 0.66).

The remainder of this section focuses on the analysis of these four factors. The statements on the extremes of the sorting grid, with rank scores of +5, +4, -4, and -5, reflect the intense feelings and attitudes of respondents and characterize the factor, so analysis was mainly focused on the interpretation of those statements (Brown 1980, 23-24). However, the other statements that represent each factor, especially +3 and -3, are also used in the factor interpretations. In general, these statements helped strengthen the interpretation of the viewpoint reflected in each factor (see Appendix for the complete factor array). In Gestalt psychology the figure-ground phenomenon is known as identifying a figure from its background (Carlson, 2010). This configuration points to the challenge in Q-factor interpretation, where each statement is seen and interpreted from within the wholeness of the factor, where statements in the zero and low psychological meaning area represent the ground for the stronger psychological meaning figure both positively and negatively (Brown, 1980; Kvalsund, 1998).

Factor A: Instructions and Common Understanding Affect Focus and Performance

The most extreme statements on the positive side (+5 and +4) of Factor A emphasize the importance of perceiving instructions and understanding information in affecting focus and performance (see Appendix: statements 1 and 5). The most extreme statements on the negative side (-5 and -4) emphasize the importance of common understanding as relational quality in affecting focus and performance (statements 30, 17, 25). In sum, this factor seems to reflect a view that instructions are effective in order to help the athlete to focus on what is appropriate, so that he or she can perform at his or her best. However, it seems to be necessary that the instructions that are communicated also need to be commonly understood by both parties, the coach and the athlete, in order to be effective. The next positive and negative statements representing this factor (+3 and -3) confirm this view.

The positive and negative statements representing this factor seem to form the figure of the factor, while the statements in the 0 and +/-1 area form the ground. Thus, the figure in this factor is that instructions are believed to be effective in communication in order to affect an athlete's focus and performance, and that common understanding seems to form another important figure. In Factor A's configuration, the figure of clear instruction and direct, commonly held understanding emerge from the ground, which contains themes of exploring and dealing with difficult questions (statements 8, 19, 33), discovering processes (7), being told to do something (13, 14), or to explore different alternatives in an open ended way (9, 19, 21). This background of the factor is pointing to more or less indifference both for its relevance and its psychological significance as to

what this factor means, although not without significance for understanding the total emerging meaning arising out of the dynamic between the factor's figure-ground relationship, that is, its configuration. One could say that the figure pushes the ground: the meaning of clarity of instructions and direct common understanding is the foreground and apprehended both logically and naturally against the background of the more unclear explorative and discussable themes and dimension of communication.

Factor B: Reflections to Affect Understanding

The most extreme statements loading on factor B emphasize the importance of reflections in order to affect understanding (statements 7, 10, 31, 32). This factor also emphasizes the importance of clear and direct information in small amounts in order to affect focus (statements 1, 30). In sum, this factor seems to reflect an attitude that in order to affect an athlete's understanding, the coach mainly needs to stimulate new discoveries through reflections. However, clear and direct information seems to be necessary to affect the athlete's focus when it is necessary. The next positive and negative statements representing this factor (+3 and -3) confirm this view. What seems to form the figure in this factor is the importance of stimulating deep personal reflections in order to develop an athlete's understanding. However, clear and direct information in small amounts 1 (+5) seems to form another important figure in this factor. Clear and direct information is aimed at affecting an athlete's focus and reflections for stimulating new discoveries and understandings. Thus, it might be a contradiction in this factor. A logical explanation could be that when an athlete is reflecting, it is important to help the athlete to focus on the most important areas for discoveries and increasing understanding. This is an important clarification in Factor B. One could say that there is some tension between the figures in the factor, but it seems to dissolve somehow in the process of communication: while one figure gives value to the discovering and explorative processes the other figure seems to contain and support the same processes by seeing the reception of small amounts of clear information for reaching the goal of important discoveries. This is a distinct difference between Factors A and B, highlighted in statement 7, which is figure (+4) in B and ground (+1) in A, showing an openness and willingness to discover and understand comprehensively in Factor B with the help from small amounts of direct and clear information, while reflecting and discovering processes seems rather meaningless for Factor A.

A closer look at factor B's total configuration is perhaps necessary for a more holistic interpretation of it, based not only on the figures but also the ground area of the factor. The impression from the ground helps understand the figure part in a deeper way as well. Statement 3 (+1) about clear and precise communication and 24 (0), about not being influenced by information for staying focused and 18 (0) about keeping an appropriate focus regardless of a common understanding, are more or less indifferent for this factor as is being listened to for the sake of developing understanding for performance, statement 4 (0). It does not seem that the specificities of information or reflecting in the task situation for understanding task improvement is relevant for this view either, statement 6 (+1), 11 (+1), and 20 (0). Staying focused or having an appropriate focus seems to be indifferent to the (amount of) information about the task or looking at it from different angles (statements 34, 35; both ranked 0).

The ground in this factor, the indifferent part of the configuration, seems to be all about staying focused and focused primarily on the specificities of the task situation and task improvement. Out of this ground emerge the figures then as a meaningful dynamic, which is all about reflecting on, generating understanding and discovering the deeper

personal meaning of the level and quality of performance development. It seems that the deep meaning of Factor B deals with facilitating the athlete's own understanding processes and the personal reflective dimensions surrounding being an athlete as a satisfying end in itself, against the background of staying focussed on information about technicalities and specificities of the task situation at hand and its improvement, and about being listened to or achieving a common understanding.

Factor C: Common Understanding and Active Involvement

The most extreme statements loading on factor C (+5 and +4) emphasize the importance of stimulating understanding through reflections and common understanding (statements 5, 6, 7). The most extreme statements on the negative side (-5 and -4) confirm the importance of common understanding in communication (statements 13, 16, 17). It was also found that being listened to and acknowledged (statement 4) is also emphasized in Factor C. In sum this factor seems to reflect an attitude that in order to affect an athlete's understanding, it is necessary to stimulate both common understanding and reflections through communication. Attending skills such as active listening and a respectful attitude towards the athlete, seem to be necessary to achieve common understanding and reflections. The next positive and negative statements representing this factor (+3 and -3) confirm this view. The importance of developing understanding seems to form the figure in Factor C. This view is especially strong in this factor. Another figure in this factor seems to be the importance of being actively involved in the communication process with the coach in order to be involved in creating mutuality and common understanding (statements 16, 17). This need to be understood and to understand the other for improving the task and performance is different from Factor B (see statements 16: -4 in Factor C and + 3 in Factor B), as is the need to be listened to (-5 in Factor C and +1 in Factor B).

In order to better understand Factor C, statements in the zero (ground) area can be considered. Statement 1 (+1) is distinguishing for Factor C. The factor is indifferent to clear and direct information as well as to being told exactly what to do (statement 2, also at +1). This is further confirmed by statements 11, 12, 14, 20, 23 and 26. Claims about having difficulties in staying focused or in understanding if given clear information and instruction for task performance, have low psychological significance and relevance for this factor (statements 24, 25, 26, 27). Similarly, having difficulties in staying focused on what is appropriate in the face of difficult questions or staying focused given large amounts of information seem to lack meaning and relevance (statements 33, 35). As in the other factor interpretations, the ground of a factor generates a dynamic with the figure parts of it and opens the field for meaningful interpretation. In this way the ground or indifferent dimension in Factor C is all about being in a receptive position for clear task information and being told exactly what to do on the one hand, and about staying focused when stimulated by lots of information and challenging questions on the other. The foreground reflects a position of being in an active and involved relationship, co-creating a common mutual understanding.

Factor D: Instructions Affect Focus and Performance

The most extreme statements loading on factor D (+5 and +4) emphasize the importance of stimulating focus through clear and precise communication, while avoiding too much transmitted information (statements 1, 3, 35). The most extreme statements on the negative side (-5 and -4) confirm this finding. Instructions during action are emphasized (statements 13 and 14). In sum this factor seems to reflect an attitude that communication should be based on clear instructions and a suitable

amount of information in order to affect the athletes' focus. The next positive and negative statements representing this factor (+3 and -3) somehow differentiate this view to a certain degree. What seems to form the figure in this factor is clearly the importance of clear instructions in order to affect focus. However, the information load and the need for communication are emphasized as well (statements 1, 26, 35). So another foreground feature in this factor is the importance of balancing the amount of information in the communication process and being aware of when the message is understood or not by the athlete. An overload of information seems to be ineffective or confusing in the communication process according to the athletes who loaded on this factor.

The ground in this factor is conveyed by the zero-area in the factor structure. Explorative and open questions for discovering different perspectives in order to stay focused on performing seem to have little or no relevance and psychological significance (statements 8, 9, 21, 22, 36). Further there is an indifference to improve and perform regardless of being understood, or of feeling a need for common understanding to execute a task (statements 16, 17). Then it is easier to improve skills when given small amounts of information (statement 11), or difficult to develop understanding of performance when given clear and evident information (statement 25). When stimulated to see new perspectives, it is difficult to know which idea will help one to create the strongest performance (statement 32). The ground lacks energy and feeling for the experience representing the view. In sum, the ground in Factor D deals with explorative processes and open questions to improve tasks and performance. Being understood and having a common understanding will influence performance. Further, those skills improve through small amounts of information and it is difficult to develop understanding when given clear information. All this must be understood against the figure of the factor: clear-cut instructions that affect focus and performance.

Discussion and Conclusion

The results in this study show that there is one factor (A) accounting for 22 of the 42 sorts when mixed sorts are included. Loadings on the other three factors (B, C and D) reveal 16, 16 and 12 significant loadings when mixed sorts are included. Clearly, the four different factors share some common content, but they also have viewpoints that clearly separate them from each other. These four factors will therefore be treated as individual factors in the following discussion.

Communication in Different Learning Contexts

The coaches in this investigation were instructed to sort statements about their communication based on two different conditions: The first condition asked them to consider what they believe were effective communications during training, and the second condition asked them to consider what they believe were effective communications during performance appraisals. The results show that there is a mixture of loadings on the different factors from both conditions (see Table 1). However, looking at overall numbers, Factor A has 15 loadings from the first condition (communication during training), but just 7 from the second condition (communication during performance appraisals). On the other hand, Factor C has 10 loadings from the second condition and 6 from the first. Thus, in general, Factor A may represent better what is effective communication during training and Factor C better represent coaches' viewpoints for what is effective communication during performance appraisals. Factors B and D are more balanced regarding their loadings from the different conditions (8 and 8; 7 and 5 respectively).

Table 1: Factor loadings under two different conditions

Condition 1: Communication during training				
	A	B	C	D
Pure Loadings	7	3		2
Mixed Loadings	8	5	6	5
Total	15	8	6	7
Condition 2: Communication during performance appraisals				
	A	B	C	D
Pure Loadings		5	5	
Mixed Loadings	7	3	5	5
Total	7	8	10	5

Instructions and Common Understanding

The most psychologically significant statements loading on Factor A support the fact that the coaches believe that effective communication should be based on instructions and common understanding. Instructions that are based on mutual understanding between the coach and an athlete will affect the athlete's focus and performance. These results may indicate that coaches believe that in order to improve an athlete's focus and performance, their intentions in communication must be to control him or her in a specified direction. Research shows that the amount of deliberate practice is an important factor in the development of an expert athlete (Farrow, Baker, & MacMahon, 2008). Thus, instructions that explain the performance that is most predictive of expert attainment seem to be important in sport (Abernethy, 2008). Interestingly, the results indicate that the communication must be targeted towards agreed-upon standards. Thus, the need for common understanding is strong in Factor A. This result indicates that to affect an appropriate focus through communication, the information that is communicated must be clarified between the coach and the athlete. If the coach communicates something that isn't within mutual understanding, the athlete's focus might be disturbed and weakened. Interestingly, mutuality is described as the optimal relationship between a coach and an athlete (Jowett, 2007). The 3+1Cs model captures the specific interdependence structures in which coaches and athletes cause one another to experience good versus poor outcomes (Jowett, 2007). Therefore, to improve an athlete's capacity, tasks and strategies that are in focus should be well clarified between the coach and the athlete so that there is a sense of clarity and common understanding about what's being communicated. If that happens, the athlete's focus will be stronger and more appropriate. As in accordance with research and theory, this seems to be the most agreed-upon view regarding what is effective communication during training among the coaches (Bloom, et al., 1998; Gallwey, 1974; Weinberg & Gould, 2007).

Common Understanding through Active Involvement

The most psychologically significant statements loading on Factor C emphasize that the intention in communication should be to stimulate common understanding through active involvement of the athlete. Common understanding and active involvement of the athlete are supposed to affect an athlete's understanding (knowing). Factor C viewpoints indicate that communication is targeted at achieving common understanding and that athletes are actively involved in the process. Factor A, on the other hand, emphasizes the importance of communicating information that is understood by the athletes, in order for athletes to maintain focus. The two factors

share some common content, but they have different meaning as well. The statements with strong rankings on Factor C might indicate that the coaches believe that if they attempt to cooperate with their athletes by actively involving them, showing them respect and acting in a trustful manner, this will ensure a positive outcome of the communication process, as in accordance with the 3+1 Cs model (Jowett, 2007; Lafrenière, et al., 2008; Lorimer & Jowett, 2009; Olympiou, Jowett, & Duda, 2008). Interestingly, this seems to be the most agreed-upon view during performance appraisals among the coaches.

Stimulate Reflections

The most psychologically significant statements loading on Factor B emphasize that the intention in communication should be to stimulate reflections. New discoveries among their athletes will develop new understanding. The intention with reflections is to stimulate someone to new discoveries and raised awareness regarding the focused case (Schön, 1983; Ivey & Ivey, 2006). This is an interesting finding. Both counselling and sport psychology claim that questioning is stimulating the athlete to reflect which indicates that the coach's questioning skills are important (Hargie, 2006; Ivey & Ivey, 2006; Jowett & Lavallee, 2007). Reflections are necessary in order to achieve a deep understanding of the case in focus. Factor B also emphasizes the importance of direct instructions in order to stimulate focus. This might indicate that coaches believe that when they stimulate reflections among their athletes, they need to control them in the right direction if necessary, so they stay focused on what is important. The communication process seems to be a balancing act between being mutually interdependent and sharing power on the one side, and acting in an instructive manner and taking control on the other (Jones & Standage, 2006; Jowett & Lavallee, 2007; Potrac et al., 2007). Factor B has loadings from both conditions in similar amounts, which might indicate that, according to these coaches, stimulating reflections is necessary both during training and performance appraisals.

Instructions that Affect Focus and Performance

The last factor in the investigation is Factor D. Factor D emphasizes the importance of instructions in affecting focus and performance. This factor shares important similarities with Factor A, as both factors are focusing on instructions. However, the psychological statements loading on Factor D emphasize control in communication even more, as all psychologically significant statements at both ends of the scoresheet focus on instructions, whereas Factor A focused also on common understanding. The intention in communication in Factor D is to influence athletes in a certain direction, and there is no clear intention to do anything to ensure common understanding as for Factor A. Research from expert coaches during practice supports this notion. Good coaches spend the majority of their time instructing their athletes (Horton & Deakin, 2008). Factor D also has loadings from both conditions, which might indicate that communication should be intended to control the athletes both in training and during performance appraisals when it is necessary.

Conclusion

These results show that communication in elite sport is a dynamic process where coaches need to consider different situations continuously and decide what communication is appropriate. Key results indicate that communication should be intended to control the athlete during action, but in a way that ensures common understanding so that their athletes can focus non-judgmentally during performance (Factor A). The results also indicate that during performance appraisals coaches'

intentions in communication should be for the purpose of understanding their athletes, and establishing common understandings about the focused case. As further shown by Factor A, communication is intended to affect focus during action through clear instructions that are understood by both parties. Thus, effective performance appraisals seem to be necessary in order to be effective in communication during practice. Performance appraisals are important in achieving a common understanding between the coach and the athlete about a focused case and to establish a relationship that is based on mutuality. On the other hand, common understanding about what is communicated in training is important in affecting athletes' focus and performances. The factor structure gives reason to believe that coaches also believe it is necessary to stimulate reflections in action and instructions during performance appraisals when it is appropriate (Factors B and D).

The data from this study cannot be used to draw conclusions regarding causal predominance between intentions regarding communication between coaches and athletes and effects. However, the interpretations reached should be investigated in future research, both in qualitative and quantitative approaches. Also, the problem addressed in this study should be investigated further among athletes in sport and in several learning contexts. Q methodology has clearly been a fruitful approach in this study due to its emphasis on the interpretation of factors in a holistic manner it is sensitive to the complexities and nuances of diverse viewpoints. We believe that approaching such complexity from concourse to Q sample, Q sorting, factor analysis to discussion, reveals deeper, fuller and more holistic views about communication between coaches and elite athletes.

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Appendix: Factor Array

		<i>Factors</i>			
		<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>
<i>Statements*</i>					
1	It is easier for me to focus on what is appropriate when I receive both clear and direct information in small amounts.	5	5	1	4
2	When I am told exactly what to do, it is easier for me to improve my tasks.	3	2	1	3

	<i>Statements</i>	<i>Factors</i>			
		<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>
3	To stay focused on what is appropriate, it is important that the communication is clear and precise.	4	1	2	5
4	The understanding concerning my performance develops when I am listened to and acknowledged.	2	0	3	2
5	I perform better when I have a clear understanding of what I am told and when other's listen to my needs. When I'm understood by others and understand what I am told, my tasks are performed better.	4	2	5	2
6	In order to keep my focus on what is important, it is essential that I have a clear understanding of the task and that I am included in the decision-making process.	3	1	4	2
7	When I am asked open-ended questions that stimulate deep, personal reflections, my understanding about the level of my performance develops.	1	4	4	3
8	Questions that make me explore the focused case make it easier to perform my tasks better.	0	3	2	0
9	It is easier for me to focus on what is appropriate when I'm asked questions that make me explore my understanding.	1	2	2	0
10	I am more likely to have a clear understanding of my performance, when the case in focus is explored from different perspectives.	1	4	2	2
11	It is easier for me to improve my specific tasks if I am given small amounts of information.	2	1	1	1
12	My understanding about the focused case improves when it is clearly explained to me how the case is connected to my current actions.	3	3	0	3
13	I feel no need to understand the focused case or being told how things are connected.	-1	-3	-4	-5
14	I feel no need to be told what to do to perform better.	-1	-1	-1	-4
15	My ability to stay focused on what's appropriate is not influenced by what I am told to do by others.	0	1	-2	-3
16	I understand how to develop and improve my performance regardless if I feel understood or not by others.	-2	3	-4	0
17	I feel no need for common understanding to improve the execution of my tasks.	-4	1	-5	0
18	I keep an appropriate focus regardless of a common understanding exists or not.	0	0	-2	-3
19	I feel no need to be asked questions that lead to either reflections or common understanding.	0	-2	-3	-4
20	The execution of my tasks is improved regardless of questions that make me reflect in the situation.	-1	0	-1	-2
21	I am focused regardless of I'm asked open questions that make me reflect in the situation.	-1	-1	-1	1

		Factors			
Statements		A	B	C	D
22	My understanding develops regardless of how many perspectives the case is explored.	0	-1	-1	-1
23	I am able to perform regardless of the amount of information I have to deal with.	-2	-1	0	-1
24	My ability to stay focused is not influenced by the amount of information that I have been given.	-2	0	1	-2
25	It is difficult for me to develop an understanding of my performance when explanations are both clear and evident.	-4	-2	1	1
26	If I'm not told exactly what to do, it is difficult for me to perform.	-3	-2	0	-3
27	It is easier for me to stay focused on what's appropriate if I am not instructed what to do.	-2	-1	0	-1
28	When I am able to voice my opinions and I am included in the decision-making process, it is difficult for me to develop a clear understanding about my performances.	-3	-3	-3	1
29	When my viewpoints are confirmed and acknowledged, I become in doubt and it is more difficult for me to perform.	-3	-3	-2	-1
30	It is more difficult to keep focused when I am understood and understand what is communicated.	-5	-5	-2	-2
31	The understanding about my performance is reduced when I'm asked open questions that stimulate me to discover new perspectives.	-1	-4	-3	-2
32	When I'm asked questions that stimulate new perspectives and thoughts, it makes it difficult for me to know which idea will allow me to have the strongest performance.	2	-4	-1	0
33	It is difficult to stay focused on what's appropriate when I'm asked difficult questions that challenge my knowledge and understanding of how to perform.	1	-2	0	-1
34	If I'm going to stay focused on what's appropriate, it is important that the case in focus is explored from different perspectives and that the amount of information is good.	0	0	3	0
35	When I receive large amounts of information it is difficult for me to improve the execution of tasks.	2	0	0	4
36	It is difficult for me to develop my knowledge about my performance if I'm not encouraged to discover new perspectives.	1	2	3	1

* Translated from Norwegian to English by the authors.