# 01 - CREATIVE INTELLIGENCE IN COMPETITIVE TEAMS

CYNTHIA C. P. M.TIBEAU
São Paulo - Brasil
cynthiatibeau@terra.com.br

## INTRODUCTION

Creativity is a human capacity that presupposes a process in which the person, in specific situations, elaborates a product, which is, at least in some aspects, new and valuable. But the new itself can't compose a creative act. The new idea, the new act, the new solution, the new organization must be relevant, solve, explain or adjust itself to the problematic situation.

The literature presents many concepts and definitions about creativity that point to a human capacity that generates a kind of divergence in thinking, is based on previous experiences and results in something productive to the individual or to the society. The socio-historic-cultural context might encourage or hinder creativity.

Alencar (2000) considers independence of thought, perseverance, curiosity, boldness and dissatisfaction, among other factors, features of creative people. She claims creative people present an inherent motivation to perform tasks and feel a great pleasure in doing what they are doing. Besides, they are people who have extensive knowledge and control over the technique, and are not restricted to only one performance area. Individuals who are distinguished by their creative intelligence also own cognitive skills, such as: fluency of ideas, flexibility (ability of accepting new concepts), originality and attention to details.

In the sports field, creativity is a little-explored phenomenon in Physical Education and Sports Psychology literatures, although it has crucial value nowadays. As Trigo (1996a 1996b) and Tibeau (2001) have already mentioned, studying creativity in sports becomes a challenge since the communication of creative acts happen in an artistic, literary or scientific form and in general the definitions of creativity do not take into account the body movements. Furthermore, the authors admit the difficulty of studying such subject and putting into practice activities which will stimulate athletes' creative intelligence. One of the reasons pointed by them and other specialists is basically the importance given to technical training of physical abilities and capacities.

The evolution and diffusion of high standard training models and the advance of digital technology allow athletes to have very similar chances to be the winners, technically speaking. What will differentiate these athletes and allow only one be winner? One of the answers might be the improvement of creative abilities and capacity to improvise. It is essential that the trainer be familiar with the creative behavior features and apply specific strategies to take advantage of this potential.

In general, researches on creativity suggest that, although this ability is considered important as a thinking ability and a factor of human development, some behavior features, acting ways or even the individual's personality are incompatible with those which are more emphasized by society and end up labeling them as difficult people.

One aspect proven by Tibeau (2000, 2001, 2002) in her researches is that coaches and trainers tend to favor features of creative individuals who relate themselves to the product presented. The originality (innovative answers), the flexibility (richness of answers), the fluidity (amount of answers), the preparation (number of details), refer to the product the individual presents and clarify us a little about the creative person's attitudes and behaviors

Some features of the creative people's behavior are considered inadequate or negative and end up labeling them as difficult people during moments of their performance. Gardner (1999), while studying highly creative individuals, explains the two personal dimensions that put them as difficult people. One of them is the determination on doing something, the depreciation of the others and the self-promotion of these individuals which end up marginalizing them. The other dimension reveals the tendency of maintaining less attractive childhood traces or aspects: selfishness, egocentrism, intolerance, stupidity, stubbornness.

Samulski and Costa (2002), based on the American Psychological Association statistics, concluded that the research on creativity in the sports area lacks more comprehensive studies. In spite of the scarce literature – or exactly because of that - the need of tracing a profile of the creative athlete is felt. Knowing the aspects of creative production and also the athletes' behavior will help drive specific works for the strength, the development and the real application of creativity in sports activities.

This way, this research aimed to know, analyze, discuss and understand the aspects of creative behavior and production in individual and group physical and sports activities and verify the perception of the trainers on the creative athletes' features in individual and team sports, based on categories referred in literature.

## METHODOLOGY

To study creativity as a phenomenon and human capacity requires a less conservative, less pragmatic and less Cartesian attitude of the researcher. It involves the rejection of paradigms that disregard the active role of the individual in knowledge production. For that reason, a methodological and qualitative approach based on reports of the consulted individuals was chosen.

This way, the research has an exploratory and descriptive feature, with collected data in field research. At the beginning, semi-structured interviews were done, in which coaches and trainers listed the characteristics they thought were to be attributed to their creative athletes. The trainer was also given the option to write down his own answers in a kind of open questionnaire, if he/she wanted to.

After a careful analysis, the answers were divided into 13 groups which encompassed motor, cognitive and socio-affective aspects, compared to the ones mentioned in specialized literature and originated a second instrument. To this end, 35 sentences were chosen and they composed the definitive instrument. So, the categories created afterwards were related to indicators of creative individuals' features, not only regarding the behavior aspects but also the athletes' outcome.

Sixty-six male and female trainers of twelve types of individual and group sports, at ages of 23 and 64 years old and professional experience ranging from 4 months to 34 years, answered the second instrument and authorized the use of data for the research.

**RESULT ANALYSIS**

Table 1 presents, in condensed form, the results obtained and the different answers given by the group of trainers of collective sports and by the group of trainers of individual sports.

The characteristic regarding the capacity of noticing flaws in situations that others don't (sensibility to problems) was the most mentioned by trainers of group sports (77%), but it came in fifth for the individual sports (62%).

The originality category, which by common sense would look obvious, came in second place for athletes in group sports (73%), as well as elaboration (specification in execution of activities and movements). By contrast, originality was the most mentioned category in individual sports (78%) and elaboration was not considered as important (59%), like fluidity.

Trainers and coaches noticed the importance of the athlete who owns a great variety of technical resources, adapting them according to the situation (characteristic of flexibility: 71% for the team sports and 66% for the individual ones), or using them to form a new movement or situation (category appointed as synthesis: 71% for the team sports and 65% for individual sports).

As far as modifying parts of an activity to form another (analysis), there seems to be a concordance among coaches: (67% in group sports and 64% in individual sports). The amount of answers an individual presents (fluidity) also s a similar percentage in group and individual sports, with 61% and 59%, respectively.

Communication was the least mentioned category in motor, cognitive and socio-affective aspects in both modalities, with 60% in group sports and 44% in individual sports.

Table 1 – Analytical categories and group and individual sports

| GROUP SPORTS | % | INDIVIDUAL SPORTS | % |
|---|---|---|---|
| Sensibility to problems | 77 | Originality | 78 |
| Originality | 73 | Flexibility | 66 |
| Elaboration | 73 | Synthesis | 65 |
| Flexibility | 71 | Analysis | 64 |
| Synthesis | 71 | Sensibility to problems | 62 |
| Analysis | 67 | Fluidity | 59 |
| Fluidity | 61 | Elaboration | 59 |
| Communication | 60 | Communication | 44 |
| Negative aspects of the group | 67 | Personal aspects | 63 |
| Personal aspects | 64 | Negative aspects of the group | 48 |
| Non-characteristic aspects | 57 | Non-characteristic aspects | 48 |
| Negative aspects of the discipline | 46 | Negative aspects of the discipline | 38 |

The last four categories presented in Table 1 represent aspects of the athletes' behavior. The negative aspects of the creative athletes' behavior, in relation to the group (level of demand and negative leadership), reached 67% of the answers from group sports coaches, against 48% of the answers given by individual sports coaches. Challenging the trainer and having difficulties in meeting commitments are negative aspects of the athletes' discipline, and were mentioned by the modalities in 46% (group) and 38% (individual).

The personal aspects that are considered positive and correspond to courage, determination and discipline are also noticed by coaches of group modalities (64%) and individual modalities (63%).

**FINAL CONSIDERATIONS**

Even understanding that there is not a unique profile that distinguishes the behavior or attitude of creative athletes, the qualitative analysis and the interpretation of data allow us to consider the most mentioned features identified by the coaches. A fact that draws attention is that the features attributed to creative people by common sense (original, different, innovative) do not always correspond to the coaches' perceptions in relation to their athletes.

It is also possible to notice that the creative athlete in a group modality, working in group and being able to observe other athletes' moves and techniques, widens his/her perception of the problems and flaws where others do not see any imperfections. This is in line with what Tibeau (2009) declares concerning the intra and interpersonal character of creativity. That is, the individual reconstructs and reformulates the meanings that are transmitted to the group he/she belongs.

While performing in a team, the athlete is more susceptible and conditioned to follow techniques and tactics imposed by the group (adaptation to the style of game mates) and by the coach (tactic, positioning), and his/her capacity of free creation (originality) or combination of movements (synthesis) remain restricted to opportune situations, depending on external factors to him/her. In addition, Di Masi (2005) argues that in group activities, the creative individual's attitudes may block the creativity in other members of the group.

Tibeau (2001), in her studies on university teachers working at graduate schools of Physical Education, explains that the non-characteristic aspects comprise obedience, sincerity, attention, good acceptance by the group, good performance and activities linked to dancing, but they do not necessarily represent types of creative people 's behavior. That category obtained 57% of the answers in group modalities and 48% in individual modalities.

The creative athlete seems to be a perfectionist, since he/she sees the importance of a good execution (elaboration) and seeks to know more than his/her mates (wants to go beyond), having more technical resources and using them to his/her benefit, adapting them when necessary (flexibility), rather than helping or teaching the technique to his/her teammates (low percentage given to the communication category). That individualist factor leads us to think that the creative athlete also recognizes and knows about his/her potential/differential and keeps it to himself/herself, using it in his/her favor in order to stand out and conquer the coach and the mates' trust, enjoying a privileged position and finding himself/herself appreciated among his//her peers.

In conclusion, we believe that the knowledge about the features analyzed can help trainers, coaches and other professionals involved in sports training so that they can better understand the behavior of the athletes during training, competitions and also in different social environments. From then, they will be able to evaluate and seek means to improve the development of the creative intelligence, standing out the positive aspects and minimizing the negative ones. Other studies are necessary for a better understanding of the subject, which is truly relevant to this field of study.

**BIBLIOGRAPHIC REFERENCES**

ALENCAR, E. O processo da criatividade. Produção de idéias e técnicas criativas. S Paulo: Makron, 2000.

DI MASI, D. Criatividade e grupos criativos: fantasia e concretude. Rio de Janeiro: Sextante, 2005.

GARDNER, H Os Padrões dos criadores. In: Boden, M.-Dimensões da criatividade. Porto Alegre: Artes Médicas Sul Ltda., 1999.

SAMULSKI,D e COSTA, V. Criatividades: uma visão multidisciplinar. In: Samulski, D. Psicologia do Esporte: um manual para Educação Física, Psicologia e Fisioterapia.São Paulo: Manole, 2002.

TIBEAU, C. C. P. M A criatividade como ferramenta para a formação do atleta crítico, autônomo e participativo. In: Brandão, R. e Machado,A. O treinador e a psicologia do esporte. Coleção Psicologia do Esporte e do Exercício, vol 4. S. Paulo: Atheneu, 2009.

_____ Criatividade e Criatividade Motora: características, indicadores e sua importância na formação do profissional de Educação Física. Tese de Doutorado – PUCSP, 2001.

_____ Entraves para a compreensão da criatividade no ensino e na formação do profissional de Educação Física. Revista Digital - Buenos Aires - Año 8 - N° 51 - Agosto de 2002 disponível em: http://www.efdeportes.com/

_____ Criatividade no Esporte. ANAIS do 1º Congresso Científico Latino Americano FIEP- UNIMEP. Piracicaba, 2000.

TRIGO, E. La cratividad lúdico-motriz. Santiago de Compostela, Espanha: MICAT Universidad, 1996a.

_____ Creatividad Lúdico Motriz. Revista Internacional de Creatividad Aplicada, nº1, 1996b.

**CREATIVE INTELLIGENCE IN COMPETITIVE TEAMS**

**ABSTRACT**

The research checked the perception that coaches of individual and team sports have regarding characteristics of creative athletes. The instrument used: a questionnaire with 35 statements representing behaviors and creative production. Subjects: 66 coaches of 12 sport events. Sensitivity to problems was the most mentioned characteristic in team events and originality in individual events. Negative aspects of behavior (level of demand and negative leadership) are mentioned more in team events, as well as the difficulty of fulfilling commitments and challenging others. Positive personal aspects, such as courage, determination and discipline are also perceived by coaches of team events.

**KEYWORDS:** creativity in sports; creative intelligence; psychology of sport.

**L'INTELLIGENCE CRÉATICE DANS LES ÉQUIPES COMPÉTITIVES.**

**RÉSUMÉ**

Cette recherche a verifié la perception des entraîneurs des sports individuels et d'équipe à propos de la question des caractéristiques spécifiques des athletes créatives. L'instrument utilisé: un questionnaire avec 35 énoncés qui représentent les comportements et productions créatives. Les sujets: 66 entraîneurs de 12 événements sportifs. Sensibilité aux problemes a été la caractéristique plus mentionnée dans les sports d'équipe et originalité dans les sports individuels. Les aspects négatifs de comportement (le niveau de la demand et négatif “leader ship”) sont les plus mentionnés dans les sports d'équipe, avec la difficulté pour l'accomplissement des engagements assumés et la volonté pour défier les autres. Aspects positifs des personnes, tells que courage, détermination et discipline sont aussi perçus par les entraîneurs des sports d'équipe.

**MOTS-CLÉS:** créativité dans les sports; intelligence créatrice; psychologie du sport.

**INTELIGENCIA CREATIVA EM EQUIPOS COMPETITIVOS.**

**RESUMEN**

El estudio analizó la percepción que técnicos de equipos deportivos colectivos y individuales tienen sobre las características de los atletas creativos. El instrumento utilizado fue un cuestionario con 35 afirmaciones que representan los comportamientos y la producción creativa, fue respondido por 66 técnicos de 12 deportes individuales y colectivos. La sensibilidad a los problemas fue los más citados en las modalidades colectivas y originalidad en los deportes individuales. Los aspectos negativos de la conducta (niveles de demanda y liderazgo negativo) son mencionados más en deportes colectivos, así como la dificultad de cumplimiento de compromisos y desafíos. Los aspectos personales positivos, tales como el coraje, la determinación y la disciplina son igualmente percibidos por los técnicos de deportes colectivos y individuales.

**PALABRAS CLAVE:** creatividad en el deporte; inteligencia creadora; psicología del deporte.

**A INTELIGÊNCIA CRIATIVA EM EQUIPES COMPETITIVAS**

**RESUMO**

A pesquisa verificou a percepção que técnicos de esportes coletivos e individuais têm sobre características de atletas criativos. O instrumento utilizado foi um questionário com 35 frases representando comportamentos e produção criativa. Sujeitos: 66 técnicos de 12 modalidades esportivas individuais e coletivas. Sensibilidade a problemas foi a característica mais citada nas modalidades coletivas e originalidade nas modalidades individuais. Aspectos negativos do comportamento (nível de exigência e liderança negativa) são mencionados mais nas modalidades coletivas, assim como a dificuldade de cumprir compromissos e desafiar os outros. Aspectos pessoais positivos, como coragem, determinação e disciplina são igualmente percebidos pelos técnicos de modalidades coletivas e individuais.

**PALAVRAS CHAVES:** criatividade no esporte; inteligência criativa; psicologia do esporte.