



## ON THE POSSIBILITY OF APPLYING ACHIEVEMENT GOAL THEORY IN COMPETITIVE SPORTS

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### ABSTRACT

**Purpose.** There exist numerous empirical proofs as well as theoretical bases showing that task motivational orientation and task climate allow students and athletes to function better and be more efficient. What is not certain is whether the same applies to athletes competing at the professional level. The aim of this study was to analyze whether task orientation and task-oriented climate help professional athletes avoid experiencing high levels of anxiety, thereby providing a favorable foundation for performance in high-level competition. **Methods.** Basketball players from the Polish II League (amateur) and Extraleague (professional) were surveyed. Motivational orientation, motivational climate, and anxiety levels were measured by the Perception of Success Questionnaire (POSQ), Perception of Significant Others' Sport Success Criteria Questionnaire (PSOSSCQ), and Sport Anxiety Scale (SAS), respectively. **Results.** The reliability of the research tools on a Polish population was confirmed. Motivational climate was associated with motivational orientation; task orientation and a task-oriented climate were found to not reduce anxiety levels. **Conclusions.** The results do not confirm the application of achievement goal theory in high-level competitive sports.

**Key words:** motivation, anxiety, motivational climate

### Introduction

The motivation behind achievement and success as well as the natural propensity for rivalry and competition has been one of the most significantly debated issues in psychology for the last six decades. It should come as no surprise that the use of this theory in recreational and competitive sports has garnered considerable interest by researchers. This stems from the fact that competitive sport is an arena where motivation is not only of colossal significance in regard to its final outcome but that it also plays a role in the phenomenon of persevering or quitting. Achievement goal theories are deeply rooted in psychology and even in philosophy, being a direct precursor of Lepper's overjustification hypothesis [1] and Deci's Cognitive Evaluation Theory [2]. It has to be emphasized, however, that these two theorists dealt with the differences between external and internal motivation, while goal orientation theory deals with two kinds of internal motivation that work in achieving various goals.

The motivational theories currently being used originate from work conducted in the field of education and have been modified for use in sports [3–5]. Disregarding the differences in terminology, all of these theories can be distinguished by two types of guiding orientations (attitudes). The first, termed **task orientation**, consists of combining the effect of an action with effort. For individuals with such an orientation, spending a great deal of energy in achieving a goal does not suggest that they have poorer abilities. Instead, the effort placed in fostering one's own self-development is treated as having a value and, consequently, nullifying in some respect the objective, or goal, itself. Such individuals are believed

to have no need to compare themselves with others or to a set of specific standards; instead, they demonstrate their abilities only to appease themselves, as something convergent with their effort rather than the final effect. This may be interpreted as saying those who work hard and try to improve themselves have already achieved success in some manner. However, Dweck and Leggett [4], offered a slightly different definition of this phenomenon by defining it as perceiving the changeability or permanence of one's own capacities. A task-oriented person regards their capacities as a group of acquired features and are changeable, subject to modeling and development.

The other orientation, as described by Nicholls, is **ego orientation** [3], which consists of having effort and talent remain non-differentiated, where talent and effort are notions that overlap each other. This approach emphasizes a stark contrast between effort and ability. Individuals with such an orientation need to prove their own abilities in an entirely different way. They believe that the more effort put into achieving a goal, the less talent they actually possess; hence the reason why their aim is to achieve maximum capability with minimum effort. Since the effort is treated as possessing no value of itself, what remains important, in effect, is the final outcome and preferably when it outranks the results of others or by attaining a certain defined standard. To someone who is ego-oriented, one's own development has little influence on their "sense" of success. According to Dweck and Leggett [4], this stems from the fact that individuals with such an orientation consider capacity and talent as permanent features, resulting in the belief that all and any attempts to improve them are performed in vain.

As Nicholls asserts [3], the ontology of task orientation presents itself earlier than ego orientation. Only when children reach the age of 12–13 do they begin to notice the role of talent. They also start to understand why their peers, who more often than not try to do their best, do not feature the achievement level as those who are lazy. Children begin to realize that only effort lets them achieve their maximum capability but that it cannot help overcome their own limitations. The problem of the source and causes of ego orientation motivation was investigated by Ames [5], who demonstrated that the process is affected by such factors as the type of task that is to be performed, the evaluation method, the level of an individual's independence, task grouping and division, and reward.

Both empirical evidence and theoretical analysis have concluded that task orientation is the most beneficial in the proper motivational and emotional development of young students and athletes. Nicholls [3] emphasizes that task-oriented individuals identify success with effort, hence one of the reasons why they try to use effort itself as the source as well as path leading to success. An ego-oriented individual believes that real success and satisfaction are derived from displaying the highest gained capability with minimum effort. Consequently, it can be expected that, given two athletes, the individual featuring higher task orientation would place more effort in a given task.

A similar line of logic is present when choosing a task based on its difficulty. It is believed that choosing a task of medium difficulty, which still poses a challenge to an individual, can ensure the notion of attaining real success in sports. Accordingly, only such a choice is considered rational. Nicholls [3] posits that a task-oriented individual would naturally choose a task of medium difficulty, as would an ego-oriented individuals that might have better sense of their own competence. However, as an individual begins experience more difficulty in demonstrating competence in a given task, they begin to gravitate towards less attractive goals as a way of avoiding failure. As a result, such individuals would then choose a very easy or a very difficult (i.e., impossible) task. In the first example, such an individual would definitely be able to cope with and perform the task; in the other case, they would simply treat themselves as just another example of those unable to complete such a difficult task. This defense strategy might even be considered efficient were it not for the fact that, in sports, one has to choose goals that are difficult but at the same time accomplishable.

There is a great deal of evidence to support the belief that task-oriented individuals feel less anxiety than ego-oriented ones [5, 6]. The difference is especially seen in individuals who are convinced that their competence is low or when a difficult situation is encountered. This is because when faced with a difficult situation, accompanied by a lack of confidence in one's own capabilities, one feels a threat to one's self-image. As had

been previously stated, a goal-oriented individual regards one's features as capable of undergoing development. Consequently, such an individual does not treat such a situation as an attack on one's integrity even in a state of hopelessness, as they understand that they can always improve and overcome their own weaknesses, progressing so as to eliminate the problems they are faced with regardless of the fact that at the present time they are faced with an insurmountable obstacle. An ego-oriented individual behaves in a completely opposite way.

Anxiety coincides with the feeling of satisfaction that an individual derives from their effort, and is a facet particularly visible in sports [7]. A student or athlete can feel satisfaction regardless of the results they have achieved. They feel satisfied with process of accepting a challenge, attempting to meet it, and improving their capabilities. For ego-oriented students and athletes, it is victory that counts the most, which they can achieve only when performing at an appropriate sports or educational level. Therefore, as Roberts asserts [8], such athletes do derive satisfaction from practicing sports but only when they regard their capacity as being high. Comparing one's achievements with others, which for ego-oriented athletes is what determines worth, means that only winners can feel truly satisfied.

The aforementioned reflections point to the benefits of developing goal orientation motivation in young athletes, enabling them to act as best they can in light of the task at hand. This issue, however, is not so clear in the case of athletes who have already achieved a high level of competence.

In light of the findings of some authors [9, 10], it is questionable whether motivational orientation theory, which has been found to work well in the fields of education and youth sports, can be fully transferred and efficiently applied to the realm of professional sports and whether professional athletes may benefit as much from task orientation and being embedded in a task climate. Therefore, the aim of the present study was to study this issue by sampling amateur and professional athletes by the use of specially developed questionnaires used to assess motivational orientation. In addition, as these questionnaires were to be used for the first time in the country of Poland, the reliability of the translations was checked to see if did not weaken the strengths of these tests.

### Material and methods

A representative sample of basketball players from the Polish Extraleague (professional) and the II League (amateur) was used, numbering 65 (mean age 25.0 years) and 47 individuals (mean age 22.66 years), respectively. All players in the leagues were included regardless of their nationality; however, representatives of other Central and Eastern Europe (Lithuanians, Serbs, Croatians, Russians) were excluded due to potential language difficulties.

Data was collected before or after a training session in the city/town the player represented in testing conditions that provided anonymity. The players were informed about the objective of the study and its scientific character as well as the confidentiality of the results. Instructions on how to fill out the questionnaires were provided. The players were assured that there were no right or wrong answers and asked to respond as honestly as possible. They then began filling out the questionnaires, which took about 10–15 minutes to complete.

The questionnaires consisted of measuring the motivational climate, motivational orientation as well as the anxiety level of the players. Players whose native language was English (i.e., Americans) received the original version of the tests in English [11, 12]. Polish players received a translated version.

Motivational climate was measured by Roberts et al.'s Perception of Significant Others' Sport Success Criteria Questionnaire (PSOSSCQ) [13]. The aim of this tool is determine the motivational climate which an athlete competes in. The questionnaire consists of 16 suggested answers that pertain to the perceived motivational climate created by individuals who are important to the athlete. It is preceded by the task orientated question of "When playing my sport, my coach feels that I have success when...". The athlete then rated various responses on a 1–5 Likert scale. Typical answers which testify to the task climate include "I do my best" or "I overcome difficulties"; answers reflecting the ego climate include "I beat other individuals" or "I show other individuals I am the best".

Motivational orientation was assessed using Roberts et al.'s Perception of Success Questionnaire (POSQ) [13]. This tool is designed to help researchers answer questions on the motivational attitude of athletes. It consists of 12 suggested answers measured on a 1–5 Likert scale to the question: "When playing sport, I feel most successful when...". For the ego orientation, typical answers included "I accomplish something others cannot do" or "I am the best"; task orientated responses included "I work hard" or "I show personal improvement".

In order to measure anxiety, Smith et al.'s Sport Anxiety Scale (SAS) [12] was used, which had been designed specifically for the need of assessing athletes. The test consists of 21 items athletes are supposed to agree or disagree with on a four-point Likert scale (definitely not = 1, rather not = 2, rather yes = 3, definitely yes = 4). Answers that testify to the presence of somatic anxiety include, for instance, statements such as "My body feels tense"; answers that measure cognitive anxiety and concentration disruption include statements such as "I have self-doubts" and "I'm concerned I won't be able to concentrate", respectively.

Additionally, with a view to establishing the value and usefulness of particular players in a team, the participants' coaches were asked to rank their players from highest to lowest, a higher number for players they con-

sidered to be the most valuable whereas the lowest indicated those whose value they perceived in the team to be lowest.

Data computation was performed with Statistica ver. 9 (Statsoft, USA).

## Results

The results of the psychometric tests translated into Polish measuring motivational climate and orientation as well as anxiety level found that the translated versions of the tests are sufficiently reliable and applicable for dissemination in Poland.

Cronbach's alpha for the Perception of Significant Others' Sport Success Criteria Questionnaire (PSOSSCQ), measuring motivational climate, was 0.7973 and 0.8276 for the task and ego climates, respectively. The deletion of any of the questions did not considerably affect the results. Escarti et al. [11] obtained similar results with values of 0.87 and 0.92 for the task and ego climates, respectively. The relatively minor difference between these values notwithstanding, the translation of the PSOSSCQ and the impact of any cultural differences only slightly weakened the Polish version's reliability.

The Perception of Success Questionnaire was found with Cronbach's alpha of 0.8274 and 0.8009 for task and ego orientations, respectively. Deletion of any of the questions did not considerably affect the results. The results of the present study were found to be in line with those provided by the creators of the test. For example, while studying a population of athletically active American students (mean age 20.8 years), the creator's obtained values of 0.82 and 0.87 for the task and ego orientations, respectively [13]. Research on a group of both female and male American basketball players (mean age 19.5 years) by Kavussanu and Roberts [14] obtained Cronbach's alpha equal to 0.88 in both the task and ego orientations. The results presented above come quite close to those obtained in the Task and Ego Orientation in Sport Questionnaire scale (TESOSO), designed by Duda et al. [15], for measuring motivational orientations in sports, where Cronbach's alpha for task and ego orientations were found to be 0.72 and 0.82, respectively. The psychometric results of the Polish version of Roberts et al.'s test show that the translated version is well-suited for use in sports and that its reliability does not considerably deviate from the original or from the results of similar tests.

Cronbach's alpha for the Sports Anxiety Scale (SAS) was, respectively, 0.8513, 0.8648, and 0.6178 for cognitive anxiety, somatic anxiety, and concentration disruption. Only Question #1 proved to be weak in the test (correlation of 0.39), which may have resulted from a poor translation. The original test used the word "nervous", which is semantically connected with anxiety, apprehension, fear, stage fright, etc. The Polish equivalent that was used is more connected with being roused, over-

excited, and angry. The difference may have been large enough so as to considerably weaken this question. Nonetheless, similar values of reliability were obtained by other researchers working with the original version of the test, obtaining Cronbach's values of 0.84, 0.90, and 0.71 for cognitive anxiety, somatic anxiety, and concentration disruption, respectively [16]. As can be seen, the highest Cronbach's alpha value was found measuring somatic anxiety, the lowest for concentration disruption. Even though the results shown above seem to testify to the better reliability of the original English version, the translated version is strong enough to be used in analyzing Polish athletes.

A comparison of the professional (Extraleague) and amateur (II League) players found significant differences only between two variables: task orientation and age, with the amateur players being much younger than the professionals and more task-oriented. The remaining differences among the variables were found to be statistically insignificant (Tab. 1).

The results confirmed that task orientation decreased with age and that the motivational climate recognized

by an individual is connected with their orientation. What was not confirmed were reports on the positive influence of task orientation on anxiety level. Reversely, it was ego orientation that correlated negatively with anxiety level, with the strength of the correlation higher for Extraleague players than those in the II league (Tab. 2).

Correlation analysis performed separately on the two groups of athletes (amateur and professional) showed different interactions between certain parameters. In the group of II league players, age negatively correlated with the level of each anxiety component, whereas it positively correlated with their value to the team (as measured by their coach) and ego motivational climate. Such correlations were not found among the Extraleague players (Tab. 3, 4).

Moreover, the item "value to the team" showed a correlation between ego climate and ego orientation among II league players whereas no such correlation was found among the Extraleague players; instead, a slightly negative correlation was observed.

In view of the relatively small number of American

Table 1. Groups characteristic and primary statistics

	Mean EX league	Mean II league	<i>p</i>	<i>N</i> EX league	<i>N</i> II league	<i>SD</i> EX league	<i>SD</i> II league
Age	25.00	22.66	0.0053	65	47	4.32	4.26
Ego climate	3.62	3.65	0.8473	63	46	0.76	0.75
Task climate	3.95	4.19	0.0535	63	46	0.69	0.52
Ego orientation	3.85	4.01	0.2510	65	46	0.69	0.72
Task orientation	4.25	4.54	0.0192	65	46	0.73	0.48
Cognitive anxiety	2.13	2.26	0.2689	63	46	0.57	0.68
Somatic anxiety	1.82	1.94	0.3037	63	47	0.52	0.63

EX league – players from the Polish basketball Extraleague

II league – players from the Polish basketball II league

SD – standard deviation

Table 2. Correlation analysis of a whole control group (Spearman Rank Order Correlations)

	Age	Team position	Ego climate	Task climate	Ego orientation	Task orientation	Cognitive anxiety	Somatic anxiety	Concentration disruption
Age	1.00								
Team position	0.16	1.00							
Ego climate	0.06	0.09	1.000						
Task climate	-0.11	0.01	0.493*	1.000					
Ego orientation	0.05	0.12	0.467*	0.151	1.000				
Task orientation	-0.21*	0.04	0.246*	0.558*	0.341*	1.000			
Cognitive anxiety	-0.21*	-0.14	-0.069	0.025	-0.067	0.144	1.000		
Somatic anxiety	-0.07	-0.06	-0.153	-0.024	-0.296*	-0.018	0.604*	1.000	
Concentration disruption	-0.09	-0.12	-0.287*	-0.229*	-0.268*	-0.201*	0.415*	0.528*	1.000

\* Correlation is statistically significant at 0.05

Table 3. Correlation analysis for II league (Spearman Rank Order Correlations)

	Age	Team position	Ego climate	Task climate	Ego orientation	Task orientation	Cognitive anxiety	Somatic anxiety	Concentration disruption
Age	1.000								
Team position	0.203*	1.000							
Ego climate	0.331*	0.257*	1.000						
Task climate	0.129	-0.079	0.356*	1.000					
Ego orientation	0.132	0.295*	0.468*	-0.024	1.000				
Task orientation	-0.136	0.040	0.055	0.443*	0.192	1.000			
Cognitive anxiety	-0.317*	-0.149	-0.219*	0.058	-0.130	0.089	1.000		
Somatic anxiety	-0.373*	-0.124	-0.184	0.021	-0.219*	-0.065	0.742*	1.000	
Concentration disruption	-0.270*	-0.079	-0.326*	-0.330*	-0.161	-0.332*	0.483*	0.541*	1.000

\* Correlation is statistically significant at 0.05

Table 4. Correlation analysis for Extraleague (Spearman Rank Order Correlations)

	Age	Team position	Ego climate	Task climate	Ego orientation	Task orientation	Cognitive anxiety	Somatic anxiety	Concentration disruption
Age	1.000								
Team position	0.167	1.000							
Ego climate	-0.121	-0.035	1.000						
Task climate	-0.191	0.042	0.586*	1.000					
Ego orientation	0.030	-0.025	0.471*	0.236*	1.000				
Task orientation	-0.188	0.025	0.353*	0.579*	0.415*	1.000			
Cognitive anxiety	-0.102	-0.144	0.064	-0.022	-0.025	0.159	1.000		
Somatic anxiety	0.218*	-0.017	-0.127	-0.081	-0.391*	-0.026	0.448*	1.000	
Concentration disruption	0.086	-0.168	-0.259*	-0.213*	-0.384*	-0.192	0.339*	0.509*	1.000

\* Correlation is statistically significant at 0.05

participants who completed the original English versions of the tests, the results of these players were subjected to only quantity analysis. Considerable differences were found in the mean values of task climate, task orientation, and all of the anxiety components (Tab. 5). However, the limited amount of data collected from these players prevented any conclusive statements from being made. Nonetheless, the large differences among the means of the studied parameters are definitely surprising. What is of particular interest is the fact that the Americans who play in the Polish leagues and who had been rated as among the best in their own teams by their coaches showed considerably higher levels of task orientation. This is at odds with the results of the Polish players. Although this issue lies outside the scope of the present study, future research should attempt to explain this difference.

## Discussion

The results of the present study found that task climate and task orientation do not cause individuals from experiencing less negative emotional states such as anxiety or experiencing disruption in concentration. The positive impact of motivational orientation and the negative impact of ego orientation on anxiety levels, the satisfaction derived from effort, choosing positive life strategies, and the amount of effort put into completing tasks have been verified in many studies, mainly in the field of education [17]. Both theoretical and experimental evidence also confirms the positive impact of a task climate and the negative impact of ego climate [6].

However, the results obtained in the present study differed from these hypotheses and need to be explained. The possibility and legitimacy of applying motivational

Table 5. Comparison of Polish and American players

	<i>Mean</i> EX league	<i>Mean</i> Americans	<i>p</i>	<i>N</i> EX league	<i>N</i> Americans	<i>SD</i> EX league	<i>SD</i> Americans
Age	25.80	28.10	0.1436	84	10	4.66	4.75
Ego climate	3.68	4.21	0.0577	81	9	0.76	0.88
Task climate	4.05	4.61	0.0169	81	9	0.67	0.38
Ego orientation	3.88	3.96	0.7338	84	10	0.70	0.96
Task orientation	4.33	4.92	0.0143	84	10	0.74	0.14
Cognitive anxiety	2.01	1.35	0,0016	82	10	0.62	0.42
Somatic anxiety	1.78	1.16	0,0012	82	10	0.58	0.26
Concentration disruption	1.72	1.16	0.0021	81	10	0.55	0.26

EX league – players from the Polish basketball Extraleague,  
Americans – American players from the Polish basketball Extraleague  
SD – standard deviation

orientation in competitive sports has been under considerable criticism, including the use of practically all research tools that are used in measuring these spheres [18]. The literature on the subject is considerably more indicative of the presence of higher anxiety or concentration disruptions in ego-oriented individuals or those who perceive their climate as ego-related when compared to task-oriented individuals or those who perceive their climate as task-oriented. Such results are frequently found in studies on young students or individuals participating in youth sports, such as fencers (mean age 12.7 years) [19], athletically active students [17], or athletes engaged in various recreational sports (mean age 14.08 years) [6]. However, not all of these results confirmed the need of developing and maintaining task-oriented goals for such individuals. Instead, these results, similar to those in the present study, did not show the preventive “positive” influence of task orientation and task climate nor did they display the supposed negative influence of ego orientation and ego climate.

Newton and Duda [20] tested the relationship between motivational orientation and multi-dimensional anxiety as well as expectations of success or failure. Studying a group of tennis players (mean age 20.2 years), these researchers demonstrated that ego orientation negatively correlated with self-confidence with the use of Martens’ Compleitive State Anxiety Inventory (CSAI-2) [21]. The remaining anxiety components, including cognitive anxiety, which is an important constituent from the point of view of the final makeup of anxiety, did not correlate with motivational orientation.

Hall et al. [22] examined neurotic and normal perfectionism in group of young 14-year-old runners. They used the notion of motivational orientation by checking its relationship with perfectionism as well as with anxiety levels and self-confidence. The hypothesis that “a dispositional task orientation would be a strong predictor of confidence while a dispositional ego endorsement would predict cognitive anxiety” [22, p. 213] was found to be without merit.

Similar results were found by Duda et al. [15] while studying volleyball and basketball players (mean age 21.1 years) and tennis players (mean age 20.0 years). Task orientation positively correlated with lower levels of anxiety only among male volleyball players, while ego orientation positively correlated only with the group of tennis players. The remaining results were statistically insignificant, except for one unexpected result, where female volleyball players with higher task motivational orientation claimed to feel higher levels of anxiety, tension, and pressure than ego-oriented players.

The results obtained by ardent advocates and supporters of goal perspective theory, such as Newton and Duda [23], are important in leading credence to the results of present study, as they also did not find an anticipated correlation between multidimensional anxiety and motivational orientation. Martin and Gill [24] carried out an examination on the relationship between motivational orientation and self-confidence in medium- and long-distance runners aged 14–18 years. The results did not confirm the belief that victory-oriented athletes (which is a construct theoretically similar to ego orientation) had smaller values of self-confidence. On the contrary, it was found that the runners who were more oriented towards winning displayed greater self-confidence, although this correlation was insignificant. The results obtained by these authors are consisted with those presented in this study, where self-confidence, in line with Martens et al.’s assumptions [21], is negatively correlated with cognitive anxiety, where the more self-confidence an individual has, the less cognitive anxiety.

One of the few experimental studies that showed the influence of strong ego orientation and climate on the frequency of dropping out of sports was found in judokas, where those quitting the sport did not perceive the climate as more ego-oriented than those who kept up the sport [25]. This is important since task orientation and task climate were hypothesized as preventing individuals from making such decisions too early in their sports career.

Motivational orientation theory was originally developed in the field of education, hence the reason why most empirical data on the subject is based on individuals at a young age. The findings of the present study as well as assumptions made by other researchers demonstrated that the strength of motivational orientation tends to decrease with age [3, 26]. In other words, what may affect adolescent and child athletes does not necessarily imply the same for adults. Moreover, the strength of various motivational correlations was indeed different depending on skill level of the participants, as was seen with the “Concentration disruption” variable. In the professional league (Extraleague), concentration disruption was negatively correlated with ego orientation, whereas in the amateur league it was task orientation. This further substantiates the belief that professional sports operate under a completely different set of principles than amateur sports, and that results of research one do not apply to the other.

Serious doubts as to the role of “task orientation” and “ego orientation” have also been put forward by Harwood and Swain [27]. In their opinion, the concept of “motivational orientation” cannot be applied in the same way to sports and to education, asserting that “the overall message here is that we cannot afford to simply assume that task and ego involvement mean exactly the same thing in the sport domain as they do in the education domain” [27, p. 245]. Harwood and Swain found that a distinction between task and ego orientations in the realm of competitive sports to be totally groundless. For example, an athlete who states that he feels satisfied in sport if he really works hard does not necessarily have to be task-oriented. Harwood and Swain provided an example of an athlete who, on account of his high ego and low task motivational orientation, derived satisfaction from defeating others in competition, but who – in order to achieve this goal – had to perform in a way that is characteristic of task orientation, including working hard, placing large emphasis on effort, and the willingness to personally improve. Harwood and Swain postulated on extending the two orientations to include a third one. According to their proposal, the currently existing notion of task orientation should pertain only to recreational sports, while ego orientation should be defined either according to one’s own standards or be based upon general standards and consist of comparing oneself to others.

The addition of one or even more orientation constituents has also been postulated by Elliot and Conroy [28]. They pointed out that ego orientation in itself is not unhelpful. Instead, what is important is the recognition of whether an athlete is driven by the need to win or by the need to avoid failure. The former was termed *performance-approach orientation*, the latter *performance-avoidance orientation*. They suggested that task orientation should also give rise to two additional constituents, *mastery-approach orientation* and *mastery-avoidance*

*orientation*. According to this theory, both orientations are designed for achievement, regardless of whether it is normative success or success gained from individual progress. However, both orientations, guided by the need to avoid failure or the loss of already acquired skills, are also associated with negative expectations and may therefore have an adverse effect on an athlete’s emotional processes.

Hardy et al. [9] drew attention to the fact that task and ego orientations are of an independent character, stating that the same athlete can be simultaneously strongly task-oriented and ego-oriented. Despite being confirmed in another study [8], this issue has rarely appeared in the literature on the subject. While comparisons between athletes with high task and high ego orientations are frequent, no comparative studies on athletes with high ego and low task orientation or high task and low ego orientation have been noted. Following Hardy et al.’s description [9], comparisons between task orientation and ego orientation are said to be similar to choosing between an apple and an orange and, therefore, of low theoretical value. After all, both motivations can bring about the desired effects. Many studies credit effective athletes with taking advantage of all possible motivational attitudes in order to raise their motivation and improve efficiency. When it comes to competitive sports, Hardy et al. [9] object to regarding task orientation as more desirable or better. They assert that “ego orientations are often denigrated by goal orientation researchers, a position that is certainly not in accordance with the view received from coaches and performers that: «you don’t get to be a world champion by not wanting to beat other individuals». Indeed, if goals really do motivate one’s behavior (...), then it is difficult to see how one could become a genuinely elite performer without having a strong ego orientation” [9, p. 78].

In a similar vein, Weinberg et al. [10] also spoke on this issue in a discussion on attitude and the choice of goals: “In essence, we have recently begun to question whether sport’s pervasive preoccupation with winning may actually be responsible for many athletes’ anxiety, motivation and self-confidence problems. It is not that winning is unimportant; it is just that, for many athletes and coaches, it has seemingly become the only goal worth pursuing” [10, p. 284]. Weinberg et al. also questioned the need for changing motivational orientation from being ego-oriented to task-oriented, as Ames [5] had promoted, although in the field of education. Weinberg et al. [10] claimed that “(...) in a sports environment, athletes may not need to change their focus. Rather, for some athletes, a winning orientation might produce the best performance and greatest persistence. As noted earlier, it may be the interaction of winning, performance, and fun orientations that is critical, rather than simply saying that an athlete who has a winning orientation should change to performance orientation.” [10, p. 285]

Many studies and theoretical constructs have emphasized the correlation between motivational climate and motivational orientation [29, 30]. The results obtained in the present study also confirm this relationship. It is by no means certain, though, whether motivational climate affects orientation or whether it is the other way round; that is, motivational orientation affects the perception of motivational climate [8, p. 46]. For Nicholls [3], climate has an objective value, for Ames [5] it maintains a subjective one, signifying that in this case what is more important is what impressions an individual has rather than an analysis of the actual climate they perform in. Ames labeled this as “perceived motivational climate”, emphasizing that the perception of the climate in which an individual acts depends on his/her attitudes and expectations..

The classical theory of motivational climate’s influence upon orientation believes that every athlete performs better in a task climate environment, and it also has a positive effect on the development of an individual’s internal, or autonomous, motivation. This belief has been confirmed by the results of one study [30]. However, according to matching theory, it is more important for athletes to perform in a climate that is compatible with their orientation than for the climate to be task-oriented. If a student is task-oriented, they will find better opportunity to be satisfied when working in a similar climate. If, however, the same individual is placed in an ego-oriented climate, then the goals stipulated in such an environment are dissimilar to their own and can have the student feel that their autonomy is threatened. It is not the very process of the ego climate but the incompatibility with a student’s attitude that poses a problem [32, 33]. Since the present study did not demonstrate the beneficial influence of task attitude or a task climate *per se*, the statement that it is more beneficial or desirable cannot be confirmed.

The question stands whether this implies that coaches and instructors should forgo developing and maintaining a higher proportion of task attitude among athletes. The literature on the subject leads to the conclusion that in the course of training youth, coaches should first maintain task orientation and a task climate and only with the passage of time augment other motivational orientations, e.g. ego orientation. A more mature athlete, engaged in competitive sports, must realize that fans and sponsors expect him/her to win, and lead to the realization by both the coach and athlete to expect the same. This also introduces the idea that coaches could introduce slightly different training methods at various times in the training process. A task motivational climate may be advisable in the off-season so as to help the athlete with the arduous training process and, as the season approaches, switch to a more personal, ego-oriented form of motivation. The justification of this method requires more detailed analysis and should be taken under consideration in future research.

## Conclusions

The psychometric tests translated into Polish were found to be reliable. The obtained results confirm the doubts of certain researchers on the application of achievement goal theory in competitive sports. Neither task orientation nor task climate was found to significantly lower the level of sports anxiety among basketball players regardless of their performance level. In addition, the hypothesis that high ego orientation in athletes is reflected by a poorer emotional state was not confirmed.

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