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## THE TACTICAL WHEEL FOR EGYPTIAN EPEE FENCERS ACCORDING TO THE HEIGHT DIFFERENCES

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### Abstract

*Purpose.* Fencing is a very old sport with well-developed pedagogies for techniques and tactics. Contemporary fencers reap the rewards of this history and combine it with the advantages of modern science, training methods, and sport theory. It is surprising then that so very little is published on the topic of how height affects fencing; hence, the aim of this study was to determine the tactical wheel for Egyptian epee fencers according to the height differences.

*Methods.* Data were collected on professional Epee fencers, all of them are members in the Egyptian fencing federation during the 2011-2012 seasons. The committee granted ethical approval from the Egyptian fencing federation. 16 fencers (10 high fencers (above 180 cm), 6 short fencers (under 180 cm)). All of them participated in the national Egyptian championship.

*Results.* Each fencer is characterized by its unique physical and physiological demands in different high, and the fencer puts his strategy according to his physical abilities. The tall fencer tries to benefit from his high, so, he used the distance strategy but the short fencer used the timing (tempo).

*Conclusions.* This analysis has shown that the

The characters of short fencer

- a. Lack of reach means attacking or counterattacking to deep target without controlling
- b. The opponent's blade is risky if not suicidal.
- c. Success requires greater skill than simply extending the arm.
- d. A smaller frame may have less strength and mass.
- e. May be required to be quicker and faster in order to be successful.
- f. May be required to expend more energy during the bout in order to accomplish his
- g. Goals.

The characters of tall fencer

- a. The taller fencer has an advantage at greater distance because of his or her reach.
- b. Long arms create longer trusts that aid all offensive and counter offensive actions.
- c. With height there may be associated strength and mass.
- d. Height and strength may aid in creating a psychological advantage.
- e. Actions from the shorter fencer that normally would score with a single touch against
- f. An opponent of similar height have a greater chance of ending in a double touch if the
- g. Taller fencer counterattacks to the easy to hit the torso
- h. Long lunges tend to be harder or slower to recover from.
- i. If a long attack misses he's at risk.

And coaches Must be developed and modified their tactical training according to individual capacity.

*Key words:* Epee, Tactic, Egyptian fencers

### Introduction

Fencing is a very old sport with well-developed pedagogies for techniques and tactics. Contemporary fencers reap the rewards of this history and combine it with the advantages of modern science, training methods, and sport theory. (Ibrahim, 1984).

In fencing the energy abilities, coordination, motor skills (execution of fencing actions) serve as a base for tactics. In fencing the correct and fast execution of the movement is not enough. Fencer in a bout must know, when and how to apply a given action. The fencer must choose the appropriate action in the most

suitable situation. And this is why a very important aspect of tactics is a sense of timing (sense of surprise). This is connected with choice of situation to successfully employ an appropriate action (distance, opponent's movements, his intentions, accuracy of perception, fast and proper reaction etc.).

Timing or fencer's sense of surprise means perceiving, based on lightning-speed assessment of a situation, the opportunity to score a hit (convenient distance, opponent's careless movement, opponent's signs of inattention, opponent's hesitation etc.) and taking advantage of it (Czajkowski, 2007).

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The fencing of sports bout singles, which depend on different capacities' physical skills and mental. In preparation methods player we find that the fencing room has its origins and its rules and has a philosophy and trends used by various methods, so as to develop the capacity to play this sport, where they differ in performance requirements for the rest of the kinds of sports. (Paul, 2008)

However, progress and rapid development of the sport has become closer to the high levels or overcome difficult unless the availability of the player many aspects of the physical and technical skills, psychological and mental, is the mental side of the important aspects where some experts have known this sport as we continue between the two minds the best in this sport depends on his mental capabilities such as perception, imagination, perception and sense of complex reaction, and all of these capabilities serve the tactical side in the player's performance (Abdel-Maksoud, Sanaa, 1993).

It is clear that some characteristics offer people an advantage. It is generally accepted that it is better to be quicker than slow, better to be stronger than weak, better to be intelligent than a dim-witted, etc. In some sports we expect the elite athletes to share certain physical characteristics. Basketball and volleyball tend to have very tall athletes, for instance. We see success in fencing, even at the elite levels, from a variety of individuals with different physical characteristics. There is no ideal platonic form of a fencer. Epee fencers though tend to be taller, but height is not a requirement for success in epee. As coaches, we need to be aware that we need to modify our teaching to adapt to the needs of the individual. Not all people can fit into the same fencing mold.

It is noteworthy, (Abbas, 1993) for fencer he needs to the ability of mental analytical active in addition to thinking smart with the ability to shuffle also requires courage and boldness to carry out the attack at any moment arises where opportunity and exploited in a timely manner. Also adds that the fencing sport competitive to be its competitor intelligence estimate where we find that the tactical side plays a key role in the win.

(Mohamed, 1987) points out the importance of setting tactical for sports activities characterized by struggle and compete against a competitor (face to face) such as fence individual such as boxing, wrestling and fencing, where These activities require the presence of a competitor positive in the face of the player immediately tries with all his strength frustrate the goals that intends to rival achieved and, as others suggest that competition in such sports activities is only a competition between the yen, thinking, thinking player in the face of rival thinking.

In this regard, says (Evangelista, 1996) plans in fencing "that is a good fencer, who takes into account

the special abilities and employed against rival capabilities in the field of dynamic, time and occasion.

Epee competitive strategy is mostly a blend of three actions - attacks, defense with ripostes, and counterattacks. A truly good strategy should be a blend of all three, but most fencers will settle into an approach that uses one action more than the others. The most important, and often the hardest, aspect of any strategy is the concentration and focus you need to find, follow, and hit target when target is available. You need to be able to process information - at first, simple things picked up in training, then competition follow-up information (you need a trained observer to tell you what you've done wrong and how to correct it), then competition-day advice from a coach before or during a bout (you'll find, early on, that such advice is more confusing than useful - that's pretty normal). If you have the type of coach who can sit with you alongside the strip and analyze the fencers in your pool, take advantage of it - at first, you'll find that it doesn't seem to help much, but eventually it will, and much later it will make it possible for you to do it yourself. Next, you'll be able to step onto the strip with some sort of plan specific to certain opponents - sometimes it will work, sometimes not, and you'll have to decide if the failure is due to a planning problem or to an execution problem. There will be a frustrating period during which you'll get flashes of insight just after a bout (oh, I should have done this!!!!), but that stage for most people leads to the ability to think, strategies and adjust during the actual bout. So, for more experienced people, "bad days" will be lapses in focus rather than failures in techniques. (Moses, 1985)

Ibrahim, (1984) Seethat when you play with a competitor for the first time has to be explored in the first game, it is very important not to prolong the game even with the game with five touches, it is the survey known fencer sentences and movements competitor and he can accomplish his goal through the gaps left, and knows the defense capabilities of a competitor. His distances , and the types of setting different attack , and how to use timing, and how to use it to get the sword, and know when to interact with the call from him , and must workout deception, tricks, attack from the bottom , the setting of the attack , pressure and beatings.

There are also some questions that must be answered by the player so that it can duel better competitor, and choose the appropriate plan, and these questions: how to use the distances? How moving? How to keep his balance? What is the speed? Do you love playing sword blade and is controlled by well? Do you like the vast armed movements? Must learn player earn points and how to be is the initiator of the attack, and uses a timely manner to respond, uses what he learned in the lesson, does not allow for failure that possesses ideas, and must be a permanent planning of new If you do not succeed the previous plan, it is possible that the

change is simple in time, distance, or time. (Magda, 2000)

The Tactical Wheel defines how to defeat particular actions, beginning with the simple attack. As shown above, the direct attack is defeated by a parry-riposte, which is defeated by a feint-attack, which is defeated by a counterattack, which is defeated by an attack, which is defeated by a parry-riposte, etc. Thus, reducing fencing to little more than a physical game of paper, rock, and scissors.

In reality, nothing is this simple. A direct attack can be defeated not only by a parry-riposte, but by backing up out of the distance (sometimes called a distance parry) or by a counter-attack with opposition, or by ducking or - if the opponent is short - just by sticking your arm out if your reach is longer, or by swinging your blade so your opponent doesn't even think to do a straight attack, or by carefully retreating while reaching out to beat the opponent's blade and then hitting. (Ashraf, 2002)

Thus, the tactical wheel provides a good framework for understanding fencing actions but is NOT all there is to know about fencing actions. It is limited to simplistic, foreseen actions and puts an emphasis on the final action and not enough on the preparations.

It is noteworthy, (Moses, 1985) that thinking tactically grows and evolves through systematic and continuous training also through various friendly matches and official where tactical thinking resides on an ongoing basis in different circumstances and conditions and changing process which requires the exercise of the right tactical thinking .

See (Abdel-Maksoud, Sanaa, 1993) that in cases of attack regular resort player weapon to use sentences of skills that may be long or short in the light of playing conditions and in response rival , and often result in this sentence to achieve a particular goal may be to gain a point in favor of the attacker or influence the way that rival makes it beyond the scope of the stadium , which limits prescribed by law and therefore this out an advantage achieved the attacker as a result used for tactical sentences .

It is surprising then that so very little is published on the topic of how height affects fencing; hence, the aim of this study was to determine the tactical wheel for Egyptian epee fencers according to the height differences.

## Material and Methods

### Subjects

Data were collected on professional Epee fencers, all of them are members in the Egyptian fencing federation during the 2011-2012 seasons. The committee granted ethical approval from the Egyptian fencing federation. 16 fencers (10 high fencers (above 180 cm), 6 short fencers (under 180 cm). All of them participated in the national Egyptian championship and all subjects were free of any disorders known to affect bone metabolism, such as bone fractures, osteoporosis, diabetes and cardiovascular disease. The participants did not report use of any anti-seizure drugs, alcohol consumption, and neither smoking cigarette.

### Procedures:

Age, height, weight, body mass index and Training experience were recorded. Height was assessed with a standard tape measure on a wall; weight was measured with household scales. Body mass index was calculated ( $BMI (kg/m^2) = Wt (kg) / (Ht (m))^2$ ).

### Terminology

#### The tactical wheel

The tactical wheel is a sort of choose-your-own-adventure of fencing strategy. The simple wheel has two spokes- offense and defense (or offense and counter-offense). After choosing a path (for example, offense), the fencer will try to figure out what the opponent's reaction is. If it is, for example, to parry, the attacking fencer should use compound attacks (those that attempt to avoid the parry) instead of simple attacks (those that attempt to hit on the first action). If the defender is also following the tactical wheel, after being hit with a compound attack, he will wisely switch to a counterattack in time (aka "stop hit"). This can continue back and forth until someone either makes a technical error or switches spokes. Additionally, more advanced fencers often rely on the complex tactical wheel, which has some additional parts called counter-time and feint-in-time. (Federation International d'escream, 2002).



Fig 1 explain the tactical wheel

### Tempo in fencing

Tempo is a word that will take many meanings. It is the amount of time it takes one fencer to do one action, which is the definition used when determining right-of-way. It can also be used to describe the feeling of the bout, for example: fast, slow, even, etc. The Tempo (practiced by playing the "Bladeless distance game") is something that takes many parts. There is the tempo of the bout as well as the tempo of the fencer's footwork. But what is nearly indescribable is what happens when a fencer attacks "with the tempo". The fencer is truly attacking into preparation- not the beginnings of a compound attack, but true preparation- catching the opponent off guard, too busy still planning or simply not doing anything at all. Furthermore, this form of attack is so smooth and unexpected; the opponent quite literally doesn't know what hit him. (Evangelista, 1996).

### Critical distance

All fencers are constantly striving to reach their critical distance- and forbid the opponent from reaching theirs. Critical distance is the distance in which it is impossible to react in time. Many fencers on the receiving end of this describe it as if the attack is in slow motion, that they can see it coming but for some reason their hands and feet just aren't listening. Assuming all other things are planned well, achieving critical distance will ensure the touch - with one exception: don't let your opponent realize it first! (Micahnik, 2003)

### Distance event triggers

Distance event triggers or idle times to attack are designed to create an opportunity to act with critical distance. They are set up so that fencers can utilize either one or two tempo footwork (and could theoretically be modified to accommodate more than that) so that their attack is synchronized with the footwork of the opponent. These triggers use our main distances: short, medium, medium plus, and long; or extension, lunge, lunge plus, and advance lunge. The events will catch the opponent in transition, which is a perfect opportunity to hit them. (Evangelista, 1996).

### Indication and objective.

The indication is a physical action that the fencer is demonstrated; the body language that he is allowing the opponent to read. The two indications are pushing and

pulling. Quite simply, pushing is driving the opponent toward his or her end line, and pulling is bringing them towards yours. The objective is the intent of the fencer once they get to that desired location. Defend and attack are the two objectives. For example, pushing to defend is to force the fencer as far back as he or she will go, and then pressure the fencer into attacking into the waiting parry and riposte. (Micahnik, 2003)

### Preparation and Probes

Preparation begins as soon as you want it to. Perhaps it was the moment you walked into your first fencing class. Or when you began to seriously train for a large competition; it could be when you walked into that competition (though possibly without exuberantly announcing, or onto that strip, or came on guard for that touch. Whenever your preparation starts, it is vitally important. Preparation during the bout can also be dangerous. If you are left in the state for too long, your opponent is likely to catch you and score a touch. However, when done in the proper distance (hint: as far away from your opponent as feasibly possible), it will allow for your touches to happen. Ideally, the majority of preparation, where all things tactics are considered, specifically in their ability to function against the particular opponent, occurs in between touches, when the director is making his decision. Probes, though part of preparation, must be done during the fencing. Their function is to test out the opponent's defenses and to see where their strengths and weaknesses are. Probes can also be used to scope out the opponents hard ground which is the location on the strip from which they are unwilling to retreat any further. This is particularly useful information if one were to want to use pushing to defend. Make sure to be at a safe distance while performing these studies or a particularly strong attack may be revealed. (Evangelista, 1996).

### Statistical Analysis

All statistical analyses were calculated by the SPSS.V.16 (Statistical Package for the Social Sciences). The results are reported as means and standard deviations (SD). T Test was used to compare group means in variance analysis results that were found statistically significant. Differences in means were considered if  $p < 0.05$

## Results

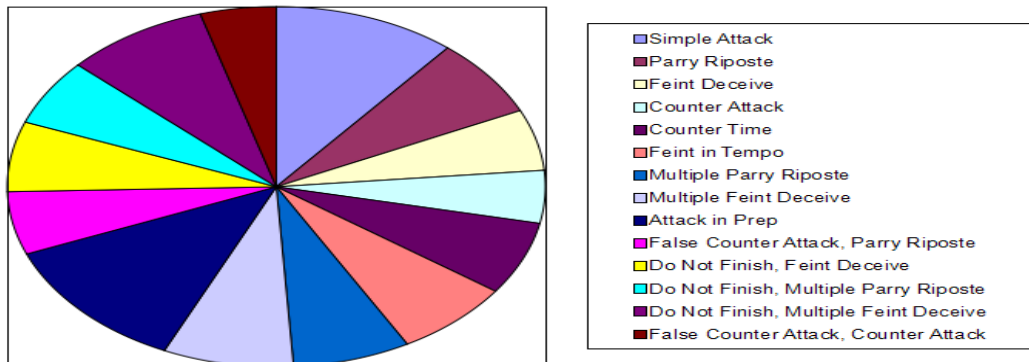
**Table 1. Age, anthropometric characteristics and training experience of the two groups (Mean  $\pm$  SD)**

Group	N	Age [years]	Weight [kg]	Height [cm]	BMI [kg/m <sup>2</sup> ]	Training experience
Tall fencers	7	21.20 $\pm$ 1.2	74 $\pm$ 3.9	183 $\pm$ 4.1	23.5 $\pm$ 1.8	11.27 $\pm$ 2.5
Short fencers	5	21.11 $\pm$ 0.9	71 $\pm$ 3.1	175 $\pm$ 4.2	23.3 $\pm$ 2.1	12.06 $\pm$ 2.3

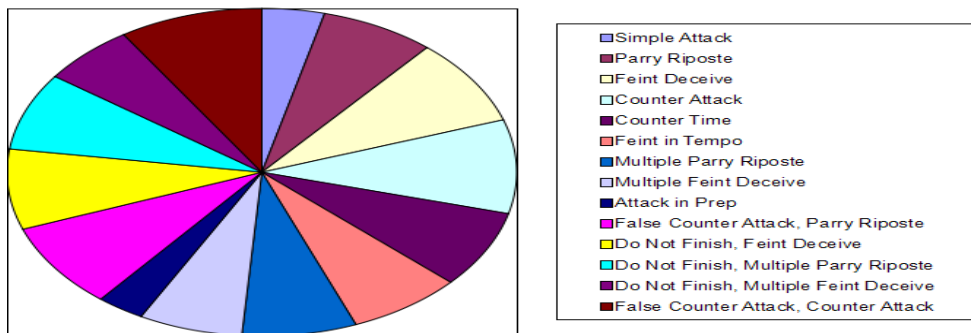
Table 1 shows the age and anthropometric characteristics of the subjects. There were no significant differences were observed in the anthropometric characteristics and Training experience except height for the subjects in the two different groups.



### Tall fencers



### Short fencers



### Discussion

Each fencer is characterized by its unique physical and physiological demands in different high, and the fencer puts his strategy according to his physical abilities.

The tall fencer tries to benefit from his high, so, he used the distance strategy but the short fencer used the timing (tempo).

(Czajkowski, 2005) noted that the expression “tempo” (literally, “time” in Italian) originates from the XVI century Italian rapier play. When a fencer made a movement to cut to the head, and his opponent executed a very fast cut to flank, they called it “tempo” (of course, it is stop-hit). If somebody attempted to execute a stop-hit – “tempo” – and his opponent counteracted it by a stop-hit with opposition, it was called “tempo contra tempo” – the origin of contemporary counter-time, understood as an action against a counterattack. In later years, the expression “tempo” lost its meaning as a stop-hit, and began to be used to describe a sense of surprise (and stop-hit in opposition was called “colpo di tempo” – time-hit). Since then, the expression, “to attack in good tempo,” has come to mean to attack, taking one’s opponent by surprise. It is not a very fortunate description as everything we do occurs in time, and the success of an attack depends on lightning-like speed assessment of the situation and surprising the opponent by immediate action.

Athletes are required to be strong physically as well as mentally and emotionally. Psychological preparation is an important part of any athlete’s regimen, and athletes that take part in combat sports such as fencing require a great deal of fortitude, determination, and mental toughness. There are many resources available to athletes that can help them with their psychological preparation, including coaches, books, and sport psychologists. (Czajkowski, 2007)

The shorter fencer should make use of these resources to help give him the tools necessary to fence well against all opponents, including those who may attempt to use their greater size and strength to intimidate their shorter opponents. The coach may, in his lessons, attempt to desensitize his student to intimidation techniques, by, for instance, and rushing forward at his student unexpectedly.

An important factor in any bout is the scoring of the first touch. To the one who scores goes not only the lead in points, but also a variety of feelings, including Accomplishment, relief, and joy. This boosts confidence and helps fuel the upcoming touches. The opponent, was scored upon, does not feel these effects. He may shrug it off and just focus on getting the next touch, as he should, or he may feel a variety of negative feelings, such as regret, frustration, anger, anxiety, and a partial loss of hope. (Paul, 2008)

Considering this, and considering the aforementioned psychological advantages

and Disadvantages that are related to height differences between opponents, particularly Between opponents who do not know each other well, it is very helpful for the shorter Fencer to get the first touch. If he doesn't, the taller fencer's confidence is boosted.

### Conclusion

The characters of short fencer

- a. Lack of reach means attacking or counterattacking to deep target without controlling
- b. The opponent's blade is risky if not suicidal.
- c. Success requires greater skill than simply extending the arm.
- d. A smaller frame may have less strength and mass.
- e. May be required to be quicker and faster in order to be successful.
- f. May be required to expend more energy during the bout in order to accomplish his
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- f. An opponent of similar height have a greater chance of ending in a double touch if the
- g. Taller fencer counterattacks to the easy to hit the torso
- h. Long lunges tend to be harder or slower to recover from.
- i. If a long attack misses he's at risk.

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