

STUDY OF THE CONDITION OF MATADORS DURING THE CORRIDA

Korotkov K., Korotkova A.

In may 2008 we had an unique chance to measure the energy state of toreros before and after their performance at the corrida in Madrid in the time of San-Isidro Fiesta. All measurements have been performed in the «Wellington» hotel where all toreros are staying during corrida times. First measurement was at about 17.30, corrida lasted from 19.00 till 21.30, and the second measurement was performed at about 22.

Bullfighting is certainly one of the best known, although at the same time most polemical Spanish popular customs. This *Fiesta* could not exist without the *Toro Bravo*, a species of bull of an archaic race that is only conserved in Spain. Formerly this bull's forebears, the primitive *urus*, were spread out over wide parts of the world. Many civilizations revered to them, the bull-cultus at the Greek island Creta is quite well-known. For its fans *La Corrida* is of course rather an art than a sport, not to speak about the challenge of the man fighting against the beast. It is an archaic tradition that has survived in this country, just as the *Toro Bravo* has done.

From the point of view of sport physiology bullfighting is a colossal psycho-emotional stress and a strong physical loading. For 2.5 hours torero acts at the arena, during this time he has two fighting with bulls, and in the other moments he supports his comrades. It was a unique chance to take measurements of the leading athletes before and after the fight. We measured 4 toreros (Table 1):

Table 1. Personal Data

Name	Birthday	Performance date	Result
Ruben Pinar	05/08/1990	12/05/2008	Honorable price (orejo)
Diego Urdiales	31/05/1975	13/05/2008	Honorable price (orejo)
Luis Francisco Espía	19/08/1957	14/05/2008	
Manuel Jesús "El Cid"	10/3/1974	15/05/2008	Excellent performance, the last blow missed.

In comparison the EPC/GDV data before and after the corrida the following conclusions have been made:

- the area with filter increased;
- the area without filter decreased (fig.1);
- before the performance the activation coefficient for three proficient toreros was in the normal range;
- after the performance the activation coefficient increased for three toreros and decreased for the elder one (fig.2);
- parameters of the program «GDV Qualification» with filter for all toreros specify the state of maximum mobilization and activity. Some deletion are data of Diego Urdiales, for whom after performance a little decrease of efficiency was noted (fig.3);
- parameters without filter demonstrate prenosological changes after the performance. For Luis Francisco, the most proficient one, an advancement of parameters was noted.

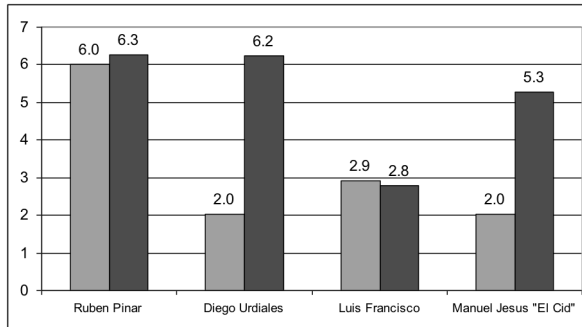
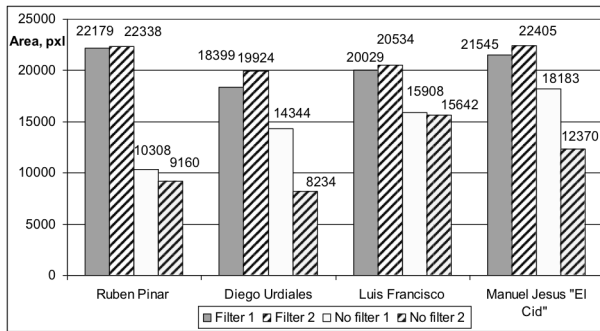


Fig.1. Changes of Area from the "Energy Field" program.

Fig.2. Activation coefficient from the "Diagram" program

GDV Qualification

Summary table - Torero

Sport valuable merits:

- S1 - Activity
- S2 - Purposefulness
- S3 - Self reliance
- S4 - Stress resistance
- S5 - Self regulation

Before nosologic changes:

- C1 - introspection
- C2 - Unsolvable dreams
- C3 - Amotivational anxiety
- C4 - Deterioration of efficiency
- C5 - Irascibility, irritability

Dysadaptation states:

- D1 - Troubled-hypochondriacal states
- D2 - Tendency to solitude
- D3 - Vegetative dysfunction
- D4 - Energy deficiency state
- D5 - Necessity for check-up

	S1	S2	S3	S4	S5	C1	C2	C3	C4	C5	D1	D2	D3	D4	D5
Ruben Pinar F Съёмка 1	+	+	+	+	+										
Ruben Pinar F Съёмка 2	+	+	+	+	+										
Luis Francisco F Съёмка 2	+	+	+	+	+										
Luis Francisco F Съёмка 1	+	+	+	+	+										
Manuel Jesus "El Cid" F Съёмка 1	+	+	+	+	+										
Manuel Jesus "El Cid" F Съёмка 2	+	+	+	+	+										
Manuel Jesus "El Cid" Capture 1	+	+	+	+	+										
Diego Urdiales F Съёмка 1	+	+	+	+	+										
Diego Urdiales F Съёмка 2	+		+	+	+				+						
Luis Francisco Capture 1	+		+		+		+		+						
Luis Francisco Capture 2	+		+	+	+				+						
Diego Urdiales Capture 1	+		+		+		+		+			+			
Ruben Pinar Capture 1	+					+	+		+	+			+		
Manuel Jesus "El Cid" Capture 2	+					+	+	+	+	+			+		
Ruben Pinar Capture 2	+					+	+	+	+	+				+	
Diego Urdiales Capture 2						+	+	+	+	+	+	+	+		

© Kirlionics Technologies International

Presented results suggest that in the process of bullfighting the energy reserves of torero did not decrease, but even increased. This may be interpreted as activation of energy reserves at the expense of psychic tension as a result of physiological stress.

Similar type of process we have found for top level athletes, and this confirms concepts of the leading role in the sport performance of energy activation due to the psychological stress.