

TRADITIONAL LEARNING PROCESS IN MARTIAL ARTS

APPRENDIMENTO TRADIZIONALE NELLE ARTI MARZIALI

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Abstract

The goal of the paper is to illustrate the link between martial arts and neuroscience through the concept of traditional learning. The expression traditional learning usually indicates, in the world of martial arts, a series of teachers' behaviors aimed at the "non-teaching". These behaviors are only not directive teaching styles and methodologies; these procedures have often been absorbed and filtered into the western collective imagination as fascinating and somewhat esoteric practices. Instead, the use of these teaching methods and styles is inextricably linked to multiple cultural, social and didactic aspects in which the ultimate goal of these processes is the student's understanding of technical aspects related to the various martial arts. Moreover, the aim of these teaching styles is understanding the deeper meaning of each martial art, and this is possible only through a close teacher-student relationship.

L'obiettivo del contributo è illustrare il legame esistente tra le pratiche marziali e le neuroscienze attraverso il concetto di apprendimento tradizionale. Con la locuzione apprendimento tradizionale si indica, nel mondo delle arti marziali, una serie di comportamenti da parte degli insegnanti volti al "non insegnamento", ovvero all'utilizzo storicamente di stili e metodologie didattiche direttive. Tali procedure sono state spesso assorbite e filtrate nell'immaginario collettivo occidentale come pratiche affascinanti ed alquanto esoteriche. L'utilizzo di tali metodologie e stili d'insegnamento è invece indissolubilmente legato a molteplici aspetti culturali, sociali e didattici in cui il fine ultimo di tali processi era l'apprendimento da parte dell'allievo, sia degli aspetti tecnici legati alle varie arti marziali, sia del significato più profondo legato ad ognuna di esse, trasmissibile solo attraverso una stretta relazione maestro-allievo.

Keywords

Martial arts, teaching, learning, neuroscience.

Arti Marziali, insegnamento, apprendimento, neuroscienze.

Introduction

In the context of scientific implications between neuroscience and motor and sports education, the concept of learning - and thus of motor learning - is particularly stimulating. Specifically in the context of oriental martial arts, the topic of teaching-learning methods and techniques seems to be rather heterogeneous, a factor that is probably determined by the multiple differentiations of styles and technical foundations between one discipline and another. The points of view of the studies carried out on this topic seem to be rather varied, from the several studies on the technical teaching practices of martial arts (Vertonghen J., 2012) to the learning modalities of the trainees (Jennings G., 2017), from the function of behavioral ethics (Cynarski W., 2014) to the studies on the relationship between martial arts and playful approaches (Nakajima T., 2012), ending with the existing relationship between multimedia teaching methodologies and technical learning (Hao X. F., 2016).

The number of studies about non-directive didactic methodologies in relation to martial arts learning, a field in which this research project will be inserted, seems to be limited. The objectives of this contribution focus on the analysis of the so-called “non-teaching” phenomenon in the martial arts panorama, a condition that is also called “traditional teaching”. After reviewing the main scientific interventions carried out in the field of the teaching and learning methods of martial arts, the idea is to analyze the historical and didactic motivations of the use of such directive methodologies. By comparing the pedagogical and didactic knowledge of the instructors, we tried to analyze why these practices were considered the most suitable for the teaching of Korean and Japanese martial arts techniques, and if there were really no other pedagogical alternatives in the period between 1960 and 1980 in Italy.

1. Review of the literature

The sources used for this project were categorized into preliminary, primary and secondary. Among the preliminary sources we took into consideration several specific websites dealing with the teaching of martial arts, which tend to describe the traditional teaching as a system of sensory and intuitive transmission based exclusively on direct example. In this teaching modality the teachers use a very few conceptualizations and words, letting the student simply copy and repeat the technical gestures, with the aim of achieving a mnemonic learning without any understanding. Among these sources there are also the websites of the major official federations of the main Korean and Japanese martial arts, for a valuable contribution on the history of the introduction of these disciplines in Italy.

As previously mentioned, among the primary sources we clearly find all the studies and main researches carried out on the subject of teaching methodologies and techniques used in martial arts. The points of view of the studies carried out on this subject seem to be rather varied. Several works focus on the didactic and pedagogical practices of martial arts (Antunes M., 2020), emphasizing the intrinsic differences in the approaches between Eastern (Cynarski W., 2013) and Western (Cynarski W., 2014) countries, pointing out both if there are didactic techniques intended only for martial arts (Vertonghen J., 2012), and if the concepts of school physical education can be applied to the martial field (Antunes M., 2020). However, another line of research concerns how practitioners learn this practice (Spring C., 2016). Some interesting studies consider the existence of particular learning techniques exclusive to martial arts (Santos O., 2017), such as the learning of practice of kata, a Japanese word meaning “form” (Cynarski W., 2006). Other contributions emphasize the importance of experiential learning (Spring C., 2016), and if it is possible to delimit a time frame for technical learning (Burke D., 2011). Another branch of the literature involves the ethical and behavioral function inherent in Eastern martial arts (Jianbo S.U., 2010). Some more contributions draw on the relationship between martial arts and playful approaches (Wang M., 2017). Such research works seek to understand if playful practices related to general motor activity can be adapted to the martial context (Nakajima T., 2012), and if the so-called game-sport can be introduced as a learning tool (Wang M., Huan Y., 2017). Finally, there are several works highlighting the relationship

between multimedia teaching methodologies and technical learning (Peng YI, 2013). These contributions seek to analyze the possible contribution of multimedia aids (Yuanchao Z., 2013), and of software (Chou Y., 2019) in the learning of martial arts. In addition to all this, we must also consider the static sources of the Italian Institute for Statistics (Istat) that made it possible to analyze some fundamental data to verify the research hypotheses.

Among the secondary sources we find mainly manuals and technical texts, which deal with the teaching - learning of martial arts from the point of view of the instructor, from that of the student (Distefano R.M., 2004), or by following the cultural and ethical traditions of a specific eastern country such as Korea (Sang H. Kim, 2000). Furthermore, among the secondary sources, there are some works related to pedagogical activism, which are also fundamental to the verification of the research hypotheses.

2. Research Methodology and Methods used

For this research project, the methodology chosen was conceivably mixed, using both analytical (review) and experimental (data analysis) methodologies. We investigated the reasons why, by tradition, the teaching of oriental martial arts takes place according to the so called “non-teaching” process (Distefano R.M., 2004), a terminology that can be misleading since it mainly refers to directive - and therefore teacher-centered - teaching methods.

The research hypotheses basically addressed two questions. First of all, we asked ourselves why these methodologies were considered particularly suitable for the teaching of martial arts. The second question was if in Italy, in the years between 1960 and 1980 of the last century (years of the introduction of most of Korean and Japanese martial arts), there was already didactic knowledge alternative to teacher-centered approaches that could be used in the teaching-learning process.

To support and verify these hypotheses, three data collection and analysis methods were used. The first aimed at identifying if, in that historical period under consideration, non-directive teaching methodologies were already present in the literature and, above all, if such knowledge was already applied in motor-sports contexts. This method was carried out by researching texts, manuals and scientific researches in literature related to the selected historical period. The second procedure consisted in verifying that the number of martial arts practitioners was particularly high in that historical period, coherently with the validity of the method. This procedure was carried out by analyzing the statistical surveys of the Italian National Olympic Committee (Coni) research center and the statistical surveys of the Italian Institute for Statistics on active participation in sports. The third element reviewed was the analysis of the average literacy rate of the population in that historical context, as the management methods, by their nature, are based on example and practical demonstration, and apparently do not require a particular dialectics aimed at extensive verbal explanations. This approach involved the analysis of the data provided by the Italian Institute for Statistics on the school attendance rate of the Italian population.

3. Outcomes

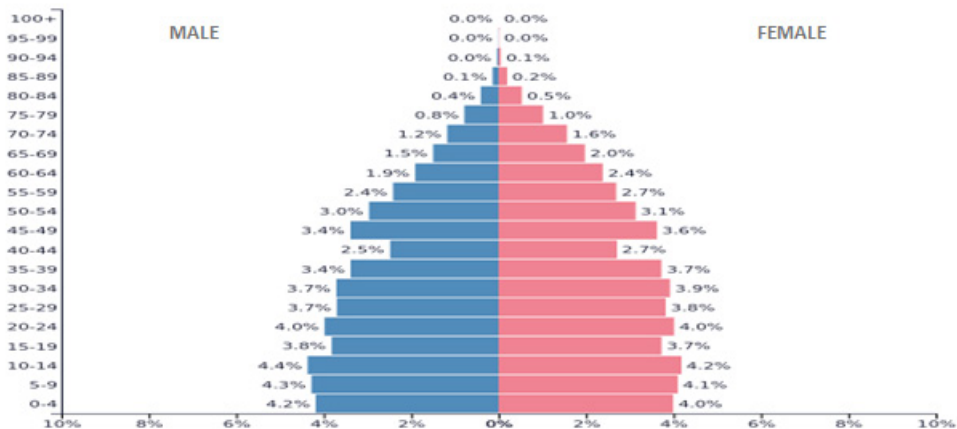
From a preliminary analysis of the documents under review, it is possible to subdivide the data according to the research hypotheses and the consequent aspects of verification related to them. The first outcome to be analyzed in relation to the research hypotheses concerns the number of martial arts practitioners in Italy in the period from 1960 to 1980 of the last century. The first survey of the Italian Institute for Statistics on the practice of sports in free time dates back to 1959, on the eve of the 1960 Rome Olympic Games, while the second one was carried out in 1980.

TYPES OF SPORTS	Data expressed in thousands (a)			Per 100 practitioners (a)		
	Males	Females	Total	Males	Females	Total
Hunting, skeet, bulls-eye shooting, clay pigeon shooting	431	3	434	36,3	2,7	33,2
Football	287	4	291	24,2	3,2	22,3
Swimming and water sports, fishing and related activities	212	33	245	17,9	27,0	18,7
Winter sports, mountaineering	103	41	144	8,7	33,9	11,0
Athletics - strenght sports	93	19	112	7,8	15,4	8,5
Tennis	68	31	99	5,8	25,4	7,6
Basketball, volleyball, rugby, baseball	38	10	48	3,2	7,9	3,6
Cycling	36	1	37	3,0	0,9	2,8
Other sports	63	6	69	5,3	5,0	5,3

Figure 1: sports practitioners in Italy in 1959

AGE GROUPS	TYPE OF SPORTS PRACTICED								
	Athletics - strength sports	Football	Tennis	Basketball Volleyball Rugby Baseball	Cycling	Winter Sports Mountaineering	Swimming and water sports, fishing and related activities	Hunting, Skeet, Bulls-eye shoot., Clay p.shoot.	Other Sports
0-14	21,0	48,3	8,7	3,4	3,5	12,8	19,0	-	5,0
15-17	16,8	49,5	12,3	8,3	5,9	10,5	12,3	0,9	3,4
18-20	18,4	38,8	9,9	8,9	4,4	11,3	14,8	4,7	4,3
21-23	12,2	29,8	11,1	6,2	4,5	13,7	16,4	15,3	3,8
24-26	6,8	31,4	10,7	3,3	2,8	11,6	15,8	25,1	4,9
27-30	4,2	14,7	8,5	1,8	2,3	15,3	18,0	39,2	7,2
31-35	2,1	7,2	5,4	1,0	1,2	11,3	23,4	52,3	6,0
36-40	2,0	3,1	5,6	1,1	0,7	13,0	26,3	50,0	7,5
41-50	-	-	2,8	-	1,0	8,2	24,4	66,8	6,3
51 +	-	-	1,3	-	1,0	4,9	18,3	77,5	5,5
Total	8,5	22,3	7,6	3,6	2,8	11,0	18,7	33,2	5,3

Figure 2: gender differences in sports practice in 1959 in Italy



ITALY - 1959

Population: 49,388,394

Figure 3: Italian population in 1959

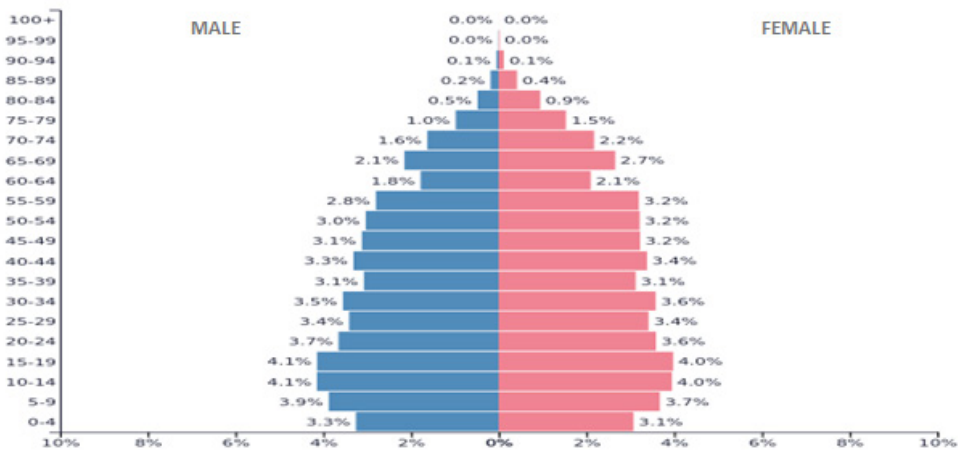
In 1959, sport was an activity for the few, involving approximately one million two hundred and thirty thousand people [figure 1], out of a population of 49,388,394 people in Italy [figure 3]. The activity was practiced mainly by males (90.8% of practitioners) and adults [figure 2]. Hunting was in first place (33%) followed by football (22.3%), and martial arts - if present - can apparently only be contextualized in the macro set “other sports”, with a participation rate of about six (5,3) people per every one hundred practitioners.

TYPES OF SPORTS	Data expressed in thousands(b)			Per 100 inhabitants (b)			Per 100 practitioners (b)		
	1982	1985	1988	1982	1985	1988	1982	1985	1988
Football/Five-a-side football	1.845	2.653	3.092	3,3	5,0	5,6	22,4	22,5	25,0
Athletics, running	697	565	592	1,3	1,1	1,1	8,5	4,8	4,8
Footing, jogging	380	645	339	0,7	1,2	0,6	4,6	5,5	2,7
Cycling	254	----	705	0,5	----	1,3	3,1	----	5,7
Gymnastics/Artistic gymnastics, dance	789	2.348	2.409	1,4	4,4	4,4	9,6	19,9	19,5
Basketball, volleyball, handball	788	1.171	1.157	1,4	2,2	2,1	9,5	9,9	9,4
Swimming, water polo, diving	1.053	1.596	1.641	1,9	3,0	3,0	12,8	13,5	13,3
Tennis	1.049	1.398	1.614	1,9	2,6	2,9	12,7	11,9	13,1
Winter sports, mountaineering	899	1.550	1.232	1,6	2,9	2,2	10,9	13,1	10,0
Hunting	566	879	581	1,0	1,7	1,1	6,9	7,5	4,7
Fishing	322	614	450	0,6	1,2	0,8	3,9	5,2	3,6
Other martial and fight sports	----	----	317	----	----	0,6	----	----	2,6
Other sports	821	1.333	1.071	1,5	2,5	1,9	10,0	11,3	8,7

Figure 4: sports practitioners in Italy since 1979

TYPES OF SPORTS	Data expressed in thousands(b)			Per 100 inhabitants (b)			Per 100 practitioners (b)		
	1982	1985	1988	1982	1985	1988	1982	1985	1988
MALE									
Football, Five-a-side football	1.724	2.550	3.013	6,4	9,9	11,2	30,7	32,5	36,2
Athletics, running	336	304	399	1,2	1,2	1,5	6,0	3,9	4,8
Footing, jogging	247	436	232	0,9	1,7	0,9	4,4	5,6	2,8
Cycling(c)	232	----	586	0,9	----	2,2	4,1	----	7,0
Gymnastics, Artistic Gymnastics, Dance	274	755	713	1,0	2,9	2,7	4,9	9,6	8,6
Basketball, volleyball, Handball	410	586	581	1,5	2,3	2,2	7,3	7,5	7,0
Tennis	527	843	861	2,0	3,3	3,2	9,4	10,7	10,3
Winter sports, mountaineering	715	1.068	1.248	2,6	4,1	4,6	12,7	13,6	15,0
Hunting	564	955	757	2,1	3,7	2,8	10,0	12,2	9,1
Fishing	558	873	578	2,1	3,4	2,2	9,9	11,1	6,9
Martial Arts and Fighting sports(c)	314	593	439	1,2	2,3	1,6	5,6	7,6	5,3
Other sports	----	----	257	----	----	1,0	----	----	3,1
	612	1.051	806	2,3	4,1	3,0	10,9	13,4	9,7
FEMALE									
Football, Five-a-side football	121	104	79	0,4	0,4	0,3	4,6	2,6	2,0
Athletics, running	362	261	192	1,3	1,0	0,7	13,7	6,6	4,8
Footing, jogging	134	209	107	0,5	0,8	0,4	5,1	5,3	2,7
Cycling(c)	22	----	120	0,1	----	0,4	0,9	----	3,0
Gymnastics, Artistic Gymnastics, Dance	514	1.593	1.695	1,8	5,8	6,0	19,6	40,4	42,0
Basketball, volleyball, Handball	377	586	577	1,3	2,1	2,0	14,3	14,9	14,3
Tennis	526	753	780	1,9	2,7	2,7	20,0	19,1	19,3
Winter sports, mountaineering	334	330	367	1,2	1,2	1,3	12,7	8,4	9,1
Hunting	335	595	475	1,2	2,2	1,7	12,7	15,1	11,8
Fishing	8	6	3	----	----	----	0,3	0,2	0,1
Martial Arts and Fighting sports(c)	7	21	11	----	0,1	----	0,3	0,5	0,3
Other sports	----	----	60	----	----	0,2	----	----	1,5
	209	283	265	0,7	1,0	0,9	7,9	7,2	6,6

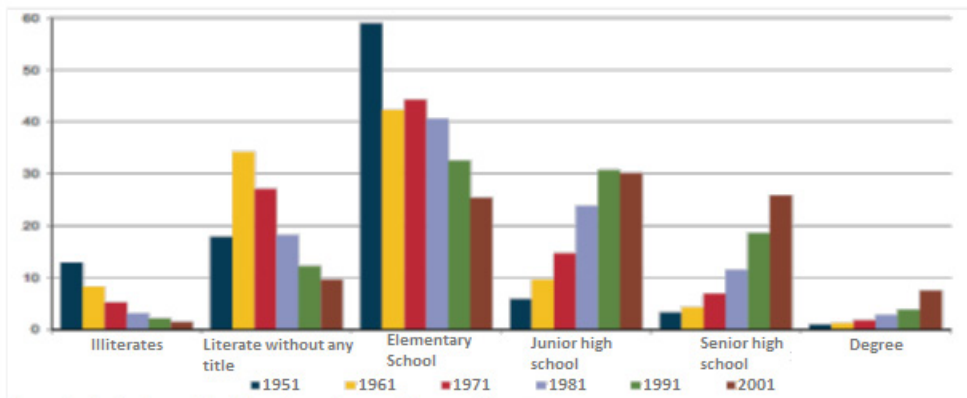
Figure 5: gender differences in sports practice in Italy since 1979



ITALY – 1980
Population: 56,349,351
Figure 6: Italian population in 1981

Since 1980 and in the following years, sport has no longer been considered an activity for the few; in fact, in 1982, people practicing with continuity one or more sports were over 8 million, out of a population of 56,349,351 million in Italy [figure 6]. Martial arts also appeared for the first time in the census as an independent statistical category [figure 4], but once again, no official numbers are available for a possible count of practitioners, except for 1988 with 0.6 practitioners for every 100 inhabitants living in Italy [figure 5].

The second outcome to be analyzed for the research hypotheses concerns the school attendance rate and the related illiteracy rate in Italy, in the period from 1960 to 1980 of the last century. Once again, the data are provided by the surveys of the Italian Institute for Statistics, from the 1961 and 1981 censuses.



Source: Italian Institute of Statistics, General census of the population

Figure 7: school attendance rate in Italy from 1951 to 2001

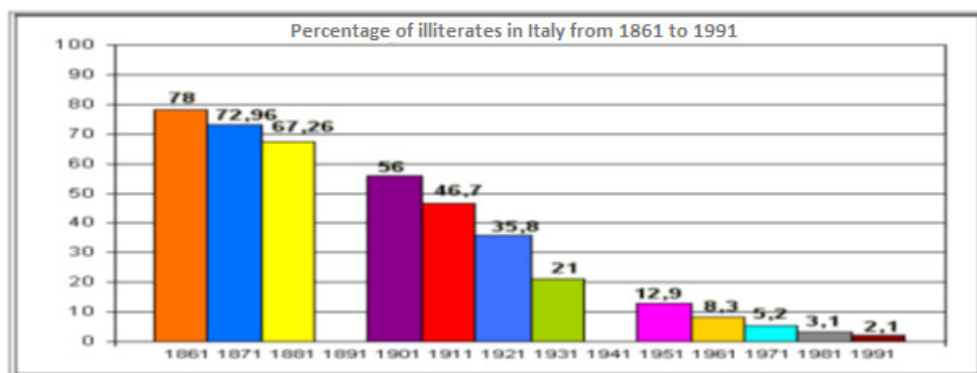


Figure 8: illiteracy rate in Italy from 1861 al 1991

In 1961, the literacy rate corresponded to 43% of the Italian population, with an illiteracy rate of 8.3% [figure 7.8] out of a total of 50,052.174 inhabitants. However, in 1981, the literacy rate remained then stable at 51% of the Italian population, with an illiteracy rate of 3.1% [figure 7.8] out of a total of 56,505,475 inhabitants.

4. Discussions

The available data about the number of practitioners suggest that martial arts, introduced and present in Italy in the immediate post-war period, certainly developed in terms of practitioners in the period 1960-1980. The limited number of sports practitioners in Italy at the beginning of the twenty-year period considered, can probably be analyzed from a global point of view as Italy was still in a post-war period, and sports activity was not considered as a necessary or primary sector. The fact that there is no official data about the number of martial arts practitioners apparently contradicts the historiography of the introduction of these arts in Italy. This assertion appears evident if we consider the end of the contextualized period, where, according to the data, martial arts were surveyed and therefore considered “existing”, even though a certain number can be found only from 1988 on. This factor could suggest that after being introduced, in order to be recognized and have a right qualification, these arts had to undergo an obvious “organizational” process in terms of federations and organizations to start spreading on the national territory. Therefore, with regard to the starting hypothesis, it is currently impossible to establish a statistical link between the introduction, the fascination with the “non-teaching” and the development of the various arts. On the contrary, the limits of this procedure are evident, since it is not possible to determine, from the sources used, the exact number of practitioners in each discipline and the exact increasing percentage of practitioners in the period considered, although aware of the introduction and diffusion of these arts.

As for the low school attendance rate and the high illiteracy rate at the beginning of the period considered, we can assume, as mentioned before, that sports in general were not the priority of the population for obvious social reasons. As soon as martial arts were introduced from the Orient, they were taught just as they were learned by Italian pioneers, or in some cases by oriental ones. At the end of the context taken into consideration, namely at the beginning of the 80's, the school attendance rate remained stable and on the rise for all school levels, with a very low illiteracy rate. It becomes evident that child-centered pedagogical theories linked to pedagogical activism were fully consolidated even in the sports field, as demonstrated by the increase in the number of athletes mentioned above. Therefore, according to the hypotheses considered, if at the beginning of the period considered it was plausible to expect an exclusively directive and thus “traditional” teaching of martial arts, already at the end of the 1970s, pedagogical and didactic knowledge was present and acknowledged in the sports world. Also in this case, the limitation of the data is apparent. The sources considered do not seem to show the school level

of martial arts teachers and instructors in the historical period analyzed.

As a further study and continuation of the work carried out, it would be interesting to obtain the exact number of practitioners through the archives of the various sports federations that were created, as well as the school attendance level of the technical staff in that historical context, from the introduction of the arts to the present day.

Conclusions

Generally speaking, the studies about non-directive teaching methodologies in relation to martial arts would seem to deserve further investigation, and therefore the starting hypotheses of this work appear to be partially addressed although with some limits. As already mentioned in other sections of this research project, the limits highlighted in terms of quantity of some data clearly stop the process of knowledge about the field considered. Therefore, some research gaps appear evident in terms of non-directive didactic methodologies related to martial arts; gaps that, as mentioned before, can become opportunities for further investigation starting from the same methodological base. The possibility to have a more accurate figure of practitioners in a certain period of time and the school attendance level of technical staff over time show how, starting from this contribution, it is possible to further develop the starting hypothesis, adding a further contribution to the link between neuroscience, learning and motor activity.

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