

Qualitative and quantitative methods in the study of martial arts and combat sports: a panel based on personal experiences

Thomas A. GREEN^{*1}, Stefania SKOWRON-MARKOWSKA², Wojciech CYNARSKI³, Carlos GUTIÉRREZ-GARCÍA⁴, Abel FIGUEIREDO⁵ & Jozef SIMENKO⁶

¹ Texas A&M University (USA)

² University of Wrocław (Poland)

³ University of Rzeszów (Poland)

⁴ Universidad de León (Spain)

⁵ Polytechnic Institute of Viseu (Portugal)

⁶ University of Essex (UK)

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Abstract

In this panel, five experts present their personal experiences in martial arts and combat sports (MA&CS) research. These experiences represent the two classic approaches to our studies: the quantitative and the qualitative. Above all, the panel aims to foster debate and reflection on the complementarity of these methods when trying to embrace the complexity of MA&CS.

Keywords: Martial arts; combat sports; scientific research; qualitative methods; quantitative methods.

1. Introduction

Participants of this panel represent the two classic approaches to our studies: the quantitative and the qualitative. In general, the objective of quantitative research is to develop and employ mathematical models, theories, and hypotheses to martial phenomena. Empirical observation is central to these methods. Qualitative research, at the other extreme, is a scientific method of observation to gather non-numerical data. This type of research “refers to the meanings, concepts definitions, characteristics, metaphors, symbols, and description of things” and not to their “counts or measures” (Berg & Lune, 2012). Historically, the researchers and the methods employed for the study of martial arts and combat sports have been regarded as falling into one of the two categories; sports science or kinesiology vs. Humanistic or symbolic for example (Cynarski, 2014). In reality, however, considerable overlap may exist within a single study and collaboration between specialists in the two areas is common (see e.g., Zhang, Green, & Gutierrez-Garcia, 2016). Panel participants represent diverse areas of research interest and applied methods within the quantitative vs. qualitative spectrum. Initially, each panelist will present a 5-minute overview of his or her research perspective. A question and answer exchange with the audience will constitute the central portion of the session, led by Prof. Thomas Green.

2. Participants

Wojciech Cynarski - Long experience of martial arts practice as a source of knowledge.

Long experience in MA&CS practice can be a relevant source of knowledge, and I think it is difficult to underestimate 40-50 years of continuous training. This is the case of many MA&CS masters, an also my case as I started practicing these disciplines in 1977. In some of my research, I have collected opinions of Grand Masters with high master degrees (8-10 dan / toan) (e.g., Cynarski, 2014, 2018). I have carried out studies of martial arts tourism by using the participant observation

* Email: greenta1117@gmail.com

method (e.g., Cynarski & Kubala, 2017; Cynarski & Swider, 2017), that I have also used it in some other works. On the other hand, when dealing with the area of the borderland of mass and sports culture (film, popular literature), it is worth using the analysis of a broad discourse. Here I include filmography, popular magazines, etc. (e.g., Cynarski, 2019; Cynarski, Yu, Warchol, & Bartik, 2015).

Carlos Gutiérrez-García – Martial arts and combat sports scientific output in numbers

The practice of MA&CS is a global and complex phenomenon that has attracted scientific research specially since the late 1990s (Green & Svinth, 2010). Being educated in the multidisciplinary field of Sport Sciences (a.k.a. Sport Studies) at about that time, my research in MA&CS has focused in many areas and used both quantitative and qualitative methods. This rather unorthodox approach made me conscious on the growing richness of MA&CS field of study, which came to be a key topic in my research during the last decade. We have used bibliometric techniques and indicators to explore the number of publications, authors, journals, academic fields, institutions, countries, etc., involved in MA&CS research (see e.g., Franchini, Gutierrez-Garcia, & Izquierdo, 2018; Gutiérrez-García, Cynarski, et al., 2018; Gutiérrez-García, Pérez-Gutiérrez, & Calderón-Tuero, 2011; Gutiérrez-García, Pérez-Gutiérrez, et al., 2018; Pérez-Gutiérrez, Valdes-Badilla, Gómez-Alonso, & Gutiérrez-García, 2015). This is allowing us to screen the dynamics and trends of this young field, an also reflect on the possibilities and difficulties that MA&CS researchers may find when trying to develop their studies and careers, in the context of current competitive, overcrowded and many times highly commercialized scientific market.

Abel Figueiredo – Mesoscopic model for institutional analysis of MA&CS contexts

The institutionalization of MA&CS is linked with biopsychosocial models that make them visible on intentional communities. Their names, rules and activities institute personal practices into communitarian norms, values and symbols, establishing various networks of communities. If this socio-cultural actions become “relatively permanent structured with and as social patterns, roles and relations that people enact in certain sanctioned and unified ways for the purpose of satisfying basic social needs” (Fichter, 1971, p. 269), thereafter they become on a higher degree of institutionalization.

W. Cynarski et al. (2005, 2009) and K. Obodynski (2009), among some others, study the macro levels of fight motricity, supporting interpretation models for martial arts institutionalization. On this models some authors go deeply on the study of a discipline such as wushu emergence (Filipiak, 2010), and include the modernity conflicts and crises between actors and institutions (Raimondo, 2009), demonstrating them with precision even on integrative movements such as Mixed Martial Arts (Sanchez Garcia, 2010). The analysis of intentional communities in karate showed that there are not a “decontrolled institutional agitation of institutional moves” (Figueiredo, 2006, p. 257) and a mesoscopic model of institutional analysis was developed, based on polarization and differentiation methodology (Figueiredo, 2006, 2009).

The mesoscopic model for analyzing institutional development on MA&CS contexts and disciplines use philosophical approaches based on polar deconstruction (Derrida) and action hermeneutics (Ricoeur). Intentional communities and various circumstances inside MA&CS create interesting internal tensions becoming indicators of different degrees in a certain variable. On the last decade, we are using hermeneutics and deconstruction methodologies on the institutionalization of fight motricity, polarizing and differentiate, from cultural modernity standard to some social details these ones: War and utilitarian fight/Peace and ritualized fight; Mythical/Factual; Orientalism/Occidentalism; MA/CS; Practitioner/Competitor; Grades/Medals; Teaching/Coaching; Titles/Wins; Process/Product. The deconstruction of MA&CS main context poles contributes to (1) integrative interpretations that (2) differentiate these practices from others.

Stefania Skowron-Markowska – Experience of studying Chinese martial arts at the Shaolin Temple by foreign students/practitioners. Qualitative approach.

Chinese martial arts and monasteries of fighting monks have become a permanent part of the traditional and cultural landscape of China. Now, the Shaolin Monastery is a specific laboratory,

where old traditions are mixed with new trends. Today, the development of Chinese martial arts takes place here on several levels. They are a national heritage and hence their high status. Local tourism would have no chance of development if it did not work under the auspices of the Shaolin Monastery, which acts as a magnet for tourists who want to experience something extraordinary. Finally, many people come here to touch and experience the philosophical aspects of martial arts. They come to China to take part in the daily training of monks, take a picture under the famous gates of the monastery, or even breathe in the air saturated with history and the charm of this place.

I started my project in 2012 and it's about contemporary expectations and motivation of people visiting *gong fu* schools (see Skowron-Markowska, 2013, 2014, 2019). In research I am focused on students outside of continental China, who more and more often decide to train in China. Now, there are currently over 50 *wushu* boarding schools and academies in Denfeng, accommodating approximately 70,000 students a year. Among them there are a lot of foreigners. Theoretical perspective is based on sociology and anthropology of martial arts. During my researchers I usually apply the participant observation, also during trainings. The main subject of the project is to observe the level of involvement of European students, check what meaning Chinese martial arts have for them. The motivation and expectations of visitors of Shaolin are changing. Also the women more often visit temple and want to take part in kung fu training or other monastery activities.

Jožef Šimenko – Screening elite athletes' sport development

In sports science, we predominately aim at predicting or identifying factors that are significantly influencing the occurrence of injuries, overall performance, competitive success, etc. During my work at the Sports Institute in Slovenia, where I was screening elite youth and senior athletes, quantitative research methods were 'the methods' to use. Therefore, as a researcher in sport science with an emphasis on martial arts and combat sports (MA&CS), I would qualify myself as a quantitative researcher (Šimenko, Ipavec, et al., 2017; Kambič, Sraka Vuković, et al., 2017; Šimenko & Karpljuk, 2016; Šimenko, Segedi, & Sertić, 2018). However, the more I worked with elite athletes from different sport disciplines (not only MA&CS) in sports testing, strength and conditioning and rehabilitation, the more I recognized the need for combining quantitative and qualitative methods to get a holistic understanding of the issues in elite sports. The elite athletes, in most cases, tick all the necessary boxes in a physiological profile of their disciplines which is tested using quantitative methods. So, the difference between them lies elsewhere, and that is where, in my opinion, qualitative research comes into play. Sometimes we are not even aware that we are using qualitative methods. For example, when I am trying to understand how an injury occurred, I need to know the 'how and what' lead to the injury. If the injury occurred during training, the main questions asked are 1) what movement was the athlete doing? 2) how many sets and repetitions were they performing? and 3) how were they executing the move? We could say that when I am gathering all this information, I am using a semi-structured interview and content analysis. Additionally, qualitative research findings are very beneficial for forming and proposing very interesting hypotheses that need to be tested using quantitative methods. For example, a semi-structured interview with a former elite boxer could provide insides on the preparation to a title fight and issues related to choosing sparing partners, nutrition, weight loss methods, jet lag, etc. (Šimenko, 2014), which would be difficult, or even not possible, to get insights on with quantitative methods. Moreover, in general, insights from an interview could help us compare practice with theoretical frameworks in MA&CS and, ultimately, give feedback to an athlete about what was right and what could be improved in his approach to training and other issues. To close the research loop, the next step would be to use quantitative methods to understand qualitatively elicited factors in need of improvement. To summarize, quantitative and qualitative research methods are complementary (Runciman, 2012) and essential in the overall understanding of MA&CS, especially when working with elite athletes.

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