

NOT JUST FOR KICKS: DISCIPLINE, SELF-CONTROL, AND MARTIAL ARTS
CULTURE IN AMERICA

by

Chad Austin Menear

A thesis submitted to the faculty of
The University of North Carolina at Charlotte
in fulfillment of the requirements
for the degree of Master of Arts in
Sociology

Charlotte

2021

Approved by:

Dr. Vaughn Schmutz

Dr. Joseph Dippong

Dr. Rosemary Hopcroft

ABSTRACT

CHAD AUSTIN MENEAR. Not Just for Kicks: Discipline, Self-Control, and Martial Arts Culture in America. (Under the direction of DR. VAUGHN SCHMUTZ)

While martial arts are becoming more and more popular in American society, very little research is done on what relationship these practices have with violence. Previous research has shown a link with Eastern martial arts and reducing levels of aggression. Meanwhile, much of the limited social theory on violence contends that modern, Western culture reduces aggression by way of placing more emphasis on self-control. This paper set out to test these contradictory ideas by comparing aggression levels and emphasis placed on self-control between different styles of Eastern and Western martial arts. The findings did not support either of these ideas. Neither emphasis on self-control nor style of martial art had a significant negative effect on levels of aggression. However, the findings were consistent with Randall Collins' micro-sociological theory of violence.

ACKNOWLEDGEMENTS

I would like to thank my entire thesis committee for their suggestions of changes to make the thesis stronger as well as suggested readings for better theoretical arguments. I would also like to thank Dr. Schmutz in particular for his multiple reviews of the drafts and help with quantitative analysis. Finally, I wish to thank Dr. Dippong for his suggestion for the title of this paper.

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CHAPTER 1: INTRODUCTION

American interest in Martial Arts has surged in recent decades. Televised Mixed-Martial Arts (MMA) fights and videogames have breathed new life into the industry. The number of martial arts studios in the U.S. grew by 3.7% between 2014 and 2019, while more Western combat sports like boxing programs grew by 1.1% (IBISWorld 2019; IBISWorld 2020). With such a growing popularity, and the fact that martial arts academies advertise themselves in part as teaching people how to defend themselves with violence, it comes as a surprise that so little research has been done on these institutions and their practices from a sociological perspective. This presents an opportunity to expand our knowledge of violence by examining combat sports.

Martial arts are typically associated with Eastern practices of physical combat. However, the term applies to a wide range of combat practices all over the world that are used for self-defense, sport, and exercise. For the purposes of this study, they will be further divided into “Eastern” (Karate, Taekwondo) and “Western” (Boxing, Wrestling) martial arts.

The World Health Organization defines *violence* as “the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, which either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation.” This study focuses on types of violence associated with martial arts, particularly interpersonal aggression. Buss-Perry (1992: 457) define *aggression* as consisting of “*physical and verbal aggression* which involves hurting or harming others...*anger* which involves physiological arousal and preparation for aggression...[and] *hostility*, which consists of feelings of ill will and injustice.”

Self-control is defined by Gottfredson and Hirschi (1990) as the tendency for individuals to avoid criminal acts independent of the circumstances they find themselves in. While not all crime is violent, and not all violence is criminal, the questions in this study will be examining violence in a broad sense that includes physical assault that is not used in self-defense as well as other forms of interpersonal aggression that are linked to violent sentiments and actions. This means that with higher levels of self-control, individuals should be less violent. With the assumption that it is self-control making individuals avoid these violent actions, it should be expected that forms of martial arts emphasizing self-control should lead practitioners to exhibit lower levels of aggression and, therefore, reduce the likelihood that they act out violently.

Outside of criminology, sociology does not put a great deal of theory and research into understanding violence (Walby 2012) and even less into martial arts. Most research on martial arts has been done thus far in the fields of psychology, sports, and coaching. Among the most well-known sociological treatments of violence, some argue that modernity places more emphasis on self-control and discipline than previous times (Weber 1954; Elias 1978; Foucault 1995) based primarily on European history (Gurr 1981; Tilly 1990; Arrighi 1994; Eisner 2001). However, the assumptions undergirding theoretical work on violence are in conflict with many of the assumptions and ideas present in what research has been done on martial arts. Previous work supports a link between martial arts training and decreases in violence (Trulson 1986; Daniels and Thornton 1992; Hernandez and Anderson 2015; Harwood et al. 2017). Yet these studies make no distinction between individual styles of martial arts, and instead only distinguish between “traditional” (a word they use interchangeably with “eastern”) styles and “modern” (“western”) styles. Their assumptions are that the style does not matter as much as the

philosophical emphasis on self-control and discipline, something that they also assume to be more present in the traditional styles.

By contrast, Randall Collins' (2008) micro-sociological approach to violence suggests style would not matter for a different reason. If people were fundamentally avoidant of violence, and violent acts were a result of situations rather than individual characteristics like aggression, then any emphasis on philosophy, self-control, and discipline would matter less than the context of situations where violence is likely to occur. If there is an emotional and social barrier to violence, then it could only occur when a pathway is presented around these barriers are presented, such as dehumanizing the intended target of violence. Social conditions that dehumanize a specific group make them a much more likely target of violence, which is why marginalized groups are often victims of such violence (Collins 2008). Many martial arts, regardless of origin or focus on competition, have aligned themselves with the values of the Olympic movement: Excellence, Friendship, and Respect (WT 2015; UWW 2020; AIBA 2021). These Olympic values clash with the idea of making specific groups acceptable targets of violence.

If previous sociological ideas regarding violence have merit, then not only should the philosophical emphasis on self-control and discipline be more present in the modern practices, but they should also have more impact on the hostility and aggression of those who study them. Furthermore, if certain martial arts are more effective at curbing aggression and hostility, that could have implications for behavioral intervention programs. The goal of this study will be to determine if traditional eastern martial arts styles place more emphasis on self-control and discipline, and whether they have more of an effect on violence and aggression in their practitioners.

CHAPTER 2: LITERATURE REVIEW

There is a general association between martial arts and violence among the general public and people who seek them out for self-defense. In the minds of many, only the rules and ethics espoused by these combat sports separate them from “barbaric” fighting (Sánchez García and Malcolm 2010). Many children and adults seek to learn fighting techniques from Eastern martial arts they may use to defend themselves, before discovering the emphasis that they place on discipline and self-control (Min 1979). Martial arts in general are often referred to as “combat sports,” though some make a distinction between what is a “sport” and what is an “art” (Lu 2008). Similarly, MMA media commentary often deemphasizes the violence of martial arts and focuses on its aesthetic qualities as a way to legitimate it for mainstream audiences (Brett 2017). A parallel distinction is often drawn between “traditional” and “modern” practices with the traditional placing more emphasis on Eastern philosophy. In fact, research on martial arts typically conflates “traditional” with “Eastern” and “modern” with “Western” (Trulson 1986; Lu 2008; Hernandez and Anderson 2015). The literature treats modern practices as not emphasizing traditional philosophies, with value instead being placed on competitiveness and sport. This separation extends to assumptions that are being made and used in the conducting of research on violence in martial arts as well.

Theory

Much of the research that has been done on martial arts and violence has been from a perspective of coaches and psychologists. Many examine the viability of using martial arts training as a behavioral intervention for at-risk youth (Trulson 1986; Zivin et al. 2001; Twemlow et al. 2008; Hernandez and Anderson 2015; Lorenz 2018). These studies use predominately

experimental methods to determine the effects of martial arts training on children or young adults' aggression, hostility levels, and risk of getting into violent situations. While the results from these studies tend to show that martial arts training lowers aggression levels in children and youth (Harwood et al. 2017), their methods mostly compare one type of martial arts training to no training at all. The experiments that do examine multiple styles of training to compare the impact do so with altered versions of the same martial art, such as comparing taekwondo training with its accompanying Eastern philosophy against taekwondo training without the philosophy (Trulson 1986; Hernandez and Anderson 2015). In these cases, studies found that taekwondo with the philosophy performs better at reducing aggression among participants. Studies that examine completely different styles of martial arts still combine them for analysis purposes (Daniels and Thornton 1992). In general, the approaches taken in this body of research demonstrate underlying assumptions that the only meaningful difference between styles of martial arts is the presence of philosophical teachings of discipline and self-control, and that these teachings are absent in modern, western styles.

Meanwhile, sociology has been historically negligent towards studies of violence (Walby 2012). The theoretical work that has been done suffers from building on Eurocentric histories (Gurr 1981; Tilly 1990; Arrighi 1994; Eisner 2001). The theory constructed from these histories claims that the West has modernized over time, and this modernizing process has led to a reduction of violence both between states and within society. Weber (1954) suggested this resulted from the state monopolizing legitimate violence, subsequently delegitimizing all smaller scale, including interpersonal, violence. Foucault (1995) argued that as the state modernized through democracy, it moved away from violence and toward discipline. Elias (1978) similarly thought that as society became more civilized through changes in both the individuals and

institutions, there was a greater focus on self-control that would reduce violence on and among the people. These ideas paint a picture of western civilization moving in a particular direction as time moves forward: a direction that emphasizes and legitimates internalized discipline and self-control.

However, many different forms of martial arts are growing in popularity. As martial arts associated with philosophical emphasis on self-control and discipline grow, so too do martial arts practices more commonly associated with competitive sport and brutality. Boxing and wrestling both continue to grow in popularity just as the Eastern practices do. MMA is a fusion of all styles of martial arts with emphasis on effectiveness in combat which was initially viewed as barbaric when it first emerged in the 1990's, before it adopted stricter rules, the support of popular sponsors, and media outlets that focus on the "art" of the fight to better legitimize it (Sánchez García and Malcolm 2010, Brett 2017). Now, it has emerged as an entertainment and sport powerhouse, with the UFC as the most popular MMA organization selling for \$4 Billion in 2016, and just 4 years later being valued at \$10 Billion (Shelton 2020). In general, this runs counter to the idea that martial arts are becoming more popular due to society becoming more disciplined if the emphasis on the most popular emerging martial art is valued for its entertainment value as a competitive sport. Some have suggested that rather than a civilizing or decivilizing process, the modern martial arts have gone through an informalization process so that the same philosophies of self-control and discipline are no more or less present in Western or Eastern martial arts, but rather less formal (Sánchez García and Malcolm 2010).

Self-control has other theoretical support for curbing violence. Gottfredson and Hirschi (1990) argue the main factor behind criminal behavior, which would encompass any form of illegitimate violence, is a lack of individual self-control. This self-control can be increased on the

individual level by higher opportunity costs associated with losing control, biological development as one gets older, and the socialization one receives. As previous martial arts studies would argue, the martial arts styles that focus on imparting philosophies based on discipline and self-control are the ones that reduce aggression and hostility (Trulson 1986; Hernandez and Anderson 2015). In other words, these studies conclude that it is the presence or absence of socialization into such philosophies that determines a particular martial art's effectiveness at reducing violence. Furthermore, this socialization process is what the previous theories argue distinguishes Eastern martial arts practices from the Western martial arts practices.

Therefore, theories of violence generally share many common features with the empirical work that has been done on martial arts. Both typically conflate “the West” with modernity and “the East” with traditionalism. Both place value on discipline and self-control, and credit those values with the reduction of aggression and violence. However, they contradict each other in a key way. Theories of violence claim that the values of discipline and self-control come about through modernity and the west. By that logic, the more modern and Western martial arts should be able to internalize these values into practitioners and be better at reducing violence and aggression than the eastern, less modern styles. Meanwhile the martial arts research operates on complete opposite assumptions: that modern, fight-heavy Western martial arts generally lack the philosophical teachings of discipline and self-control, and therefore do not reduce violence and aggression. This research even goes so far as to say the competitive nature of Western “combat sports” can make them harmful (Trulson 1986, Lu 2008, Harwood et al. 2017).

In his book, *Violence*, Randall Collins (2008) rejects the idea that there is such a thing as a violent person. In his view, people more often than not avoid violent confrontation, with even

serial killers acting on violence only occasionally. While media representation glorifies violence and drags out action scenes, most violent encounters are brief and are reacted to by witnesses negatively. So rather than thinking of violent actions as resulting from any inherent aggression on an individual's part, Collins (2008) argues that they come about through the specific circumstances in a given situation: timing, power dynamics, and other social conditions. This creates a much more micro focused theory on violence compared to the macro, comparative-historical perspectives in previous social theory. In regards to martial arts, which he classifies as sports violence, he remarks how the fighting itself is highly regulated, and that any fighting that goes beyond the rules is very rare and usually cause for an immediate halt of the match (Collins 2008).

Hypotheses

This paper aims to examine this contradiction and test the assumptions that these ideas rest on. In particular, current martial arts research rests on the assumptions that modern Western martial arts do not value self-control and discipline and therefore cannot reduce aggression and violence to the same extent that Eastern martial arts do.

H1: Practitioners of Western martial arts will report less emphasis on self-control in their training than practitioners of Eastern martial arts.

H2: Practitioners of Western martial arts will have higher aggression scores than practitioners of Eastern martial arts.

The basic model for this study expected for the style of martial art practiced to affect levels of reported aggression, with the emphasis placed on self-control by that art to act as a mediating variable.

Type of Martial Art → Level of Emphasis on Self-Control → Level of Aggression

CHAPTER 3: METHODS

The study utilized a Qualtrics online survey distributed via martial arts subreddits. It targeted adults who have studied or are currently studying boxing, wrestling (with these two representing Western martial arts), karate, or taekwondo (with these two representing Eastern martial arts) at a martial arts academy in the United States. It also allowed for practitioners of other styles to list them in the “Other” category. For this reason, the survey was posted on one subreddit specific to each style being focused on, as well as one “general” martial arts subreddit. The survey consists of 42 questions mostly from the Buss-Perry Aggression Questionnaire (1992) which has been validated before in martial arts studies, specifically the one that compared taekwondo with and without philosophical elements (Hernandez and Anderson 2015). Questions pertaining to Verbal Aggression have not been included, as they contained the lowest factor loadings, and because this study is more interested in Physical Aggression. Instead, questions related to self-control have been adapted from Tangney, Baumeister, and Boone (2004) and included on the survey. These items were modified to better measure the emphasis placed on self-control by the martial art practiced by the respondent, rather than on the respondent’s individual level of self-control. While physical aggression is the form of aggression the study is most interested in, Overall Aggression is used as the primary dependent variable, with items measuring Hostility and items measuring Anger included because they contribute to the mindset necessary for physical aggression (Buss and Perry 1992). In addition, the survey asked basic demographic information to be used as controls and three free response questions. The free response questions served two purposes: to check the validity of how their martial arts practice

had affected their feelings towards violence, and as an exploration into why certain people chose specific styles over others and what values they learned from them.

The study utilized convenience sampling and there was no control population; however, this was deemed acceptable as the main goal is not generalizability to the entire population of martial arts practitioners. Rather, the study aimed to compare practitioners of different martial arts in their orientation towards violence and the role that self-control plays in shaping that orientation. In this regard, using Reddit, a forum site that largely attracts similar kinds of people, allowed for focusing in on only the specific differences being examined by the survey. Furthermore, as these respondents were already members of a martial arts subreddits, they were expected to have similar levels of passion for the subject of the survey. That said, several characteristics of the sample are generally consistent with the larger population of martial arts practitioners in the United States, which is addressed below.

Over the course of four weeks, 455 surveys were submitted. Of these, 83 were incomplete and excluded from the sample, leaving a valid sample of 372. The survey contained 9 items measuring Physical Aggression, 7 items to measure Anger, 8 items for Hostility, and 4 items for Self-Control. The measures were created by adding scores on items together, with higher Likert scores leading to higher scores for these measures. Two questions were reverse coded. The new variables of Physical Aggression, Anger, and Hostility were then added together to create a measure of Overall Aggression (see Appendix for full list of survey questions). Fortunately, very few items were missing responses on any of the scales for aggression, anger, or hostility (always fewer than 2%). In the few cases where an item was missing, I imputed the mean for other items on that same measure (Allison 2001). This had no impact on the overall results reported below.

For the categorization of the martial arts being practiced, respondents were given a “check all that apply” question, and those that selected “Other” were asked to list the martial arts styles they practice. As many respondents practiced multiple martial arts, including both Eastern and Western styles, the variable “Eastern” was created to include anyone who checked at least one of the two Eastern styles listed (i.e., karate and/or taekwondo), or included an Eastern style under “Other”. Whether a style listed under “Other” qualified as an Eastern style was determined by examining the nation and estimated time of origin. A list of descriptive statistics can be seen in Table 1 below.

Importance of Art refers to how important the respondents felt their martial art was to them. *Male* is based on the self-reported gender of the respondents, here reported as percent identifying as male. *Education level* was measured with 5 levels (less than high school, high school/GED, some college, Bachelor’s, or Graduate school). *Days a Week* and *Years of Practice* were both measures of how much time respondents dedicated to their martial art, which was closely linked with *Importance of Art*. *Personal Income* was measured using 7 levels (Less than \$25,000; \$25,000 to 49,999; \$50,000 to 74,999; \$75,000 to 99,999; \$100,000 to 124,999; \$125,000 and greater; Prefer not to answer), but was missing 11% of responses and was thus not included as an independent variable, with *Education Level* standing in as a correlated proxy for general socio-economic status. The primary independent variable was the style of martial arts practiced; in particular, whether or not the respondent had any exposure to *Eastern* style teachings.

Table 1: Descriptive Statistics

Variable	N	Percentage	Mean	Std. Deviation
Importance of Art	371	74.7%	--	--
Male	368	66.7%	--	--
White	372	82%	--	--
Education (College)	370	73.8%	--	--

Age	350	--	28.77	6.527
Personal Income	344	--	2.99	1.422
Years of Practice	372	--	2.57	1.151
Days a Week	372	--	3.75	1.575
Karate	372	23.7%	--	--
Taekwondo	372	43.5%	--	--
Boxing	372	33.9%	--	--
Wrestling	372	11.3%	--	--
Other	372	15.9%	--	--
Eastern	372	61.3%	--	--

The respondents were about two-thirds male and mostly white, averaging in their late 20s. There was not much variation in education or income levels. 273 respondents (73.8%) had attended at least some college, and over half (55.6%) of all respondents reported making between \$25 thousand and \$74 thousand annually. Eastern styles held the advantage in terms of number of practitioners, but there was relatively little variation in how long they practiced their chosen art and in how many days a week they practiced, averaging between 1-5 years and nearly 3 days a week. At 74.7%, most respondents rated their art as either “important” (38.3%) or “very important” (36.4%) to them. While demographic information about martial arts practitioners is scarce, the sample demographics do seem to line up with what information is available as far as age and gender. The racial composition of the sample is also similar to the population of the United States.

Table 2: Dependent Variables

Variable	N	Range	Mean	Std. Deviation	Cronbach's α
Self-Control	372	4-20	14.96	2.882	.739
Physical Aggression	372	9-45	24.76	5.594	.738
Anger	372	7-35	19.59	4.739	.714
Hostility	372	8-40	22.45	5.761	.813
Overall Aggression	372	28-140	66.80	14.019	.889

Overall Aggression and its component parts acted as the main dependent variables. As a moderating variable, Self-control was also treated as a dependent variable with martial arts style

as predictor and an independent variable in analyses of all forms of aggression. Self-control was measuring the emphasis placed on discipline and self-control by the martial art, rather than the respondent's personal level of self-control in order to better measure the differences between the styles impact and to control for individual differences in personal self-control. Due to how the questions were structured, a median score would be 'neutral' on aggression and self-control, scores above the median indicate high levels of aggression and emphasis on self-control, and scores below the median indicate lower levels. The mean score for respondents was slightly higher than the median, and the means for the components of aggression were all slightly lower than the median, with the mean for Overall Aggression being about 20 points lower than the median. This indicates that in general, respondents had low levels of aggression, and felt that their martial art did place emphasis on self-control. As shown in Table 2, all scales were tested for reliability and all had Cronbach's alpha scores above 0.7 with Overall Aggression reaching nearly 0.9 on that measure. A correlation matrix of the independent and dependent variables can be found below in Table 3. Of particular note are the fairly high levels of correlation between hostility, anger, and physical aggression. By contrast, self-control is only significantly correlated with anger and the direction is positive, which runs counter to the expectation that greater emphasis on self-control would be associated with lower levels of anger.

Table 3: Correlation Matrix

	Importance	Eastern	Male	Self-Control	Hostility	Anger	Physical Aggression
Importance	—						
Eastern	.031	—					
Male	-.017	-.155**	—				
Self-Control	.190**	-.046	-.046	—			
Hostility	-.198**	.070	-.158**	.052	—		
Anger	-.151**	.047	-.228**	.130*	.732**	—	
Physical Aggression	-.218**	.107*	-.136**	.084	.567**	.624**	—
Overall Aggression	-.220**	.087	-.196**	.099	.885**	.888**	.843**

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

CHAPTER 4: RESULTS

Quantitative Analysis

Table 4: Linear Regression of Eastern Martial Arts effect on Self-control (unstandardized Beta)

	Model 1	Model 2	Model 3
(Constant)	13.914**	13.833**	14.021**
Education level	.618**	.599**	.603**
Male	-.470	-.433	-.459
Importance	.429**	.429**	.410**
Age	-.076**	-.078**	-.085**
Eastern		.292	--
Taekwondo		--	.055
Karate		--	1.109**

Dependent Variable: Self-Control

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 4 presents unstandardized estimates of predictors of self-control. Importance placed on the art and education level both had a significant positive effect on emphasis on self-control. Gender is non-significant for self-control and age has a negative effect, but this could be due to the nature of self-control measuring the emphasis of the art, rather than individual self-control. In general, style of martial art did not have a significant impact on level of emphasis placed on self-control as seen in Model 2. However, after including dummy variables for the two main types of Eastern martial arts, Model 3 shows a significant positive correlation between self-control and karate. This suggests that karate practitioners reported a higher emphasis on self-control, but this was not the case for Eastern styles more generally. The results fail to support hypothesis H1 in which it was predicted that Western martial arts would have a lower level of self-control.

Furthermore, self-control has a significant positive impact on Overall Aggression, which was the opposite of what was expected according to hypothesis H2 (as seen in Table 5). In addition, there was no significant relationship between overall aggression and Eastern martial arts styles, in general, or with karate, in particular. Taken together, this suggests that there is no

support for the hypothesized differences between Eastern and Western martial arts. Returning to the unexpected positive relationship between self-control and overall aggression, it turns out that this did not hold true for every type of aggression. Results of regression models for each of the individual scales are reported in Tables 6 through 8 (physical aggression in Table 6; anger in Table 7; and hostility in Table 8). Self-control only has a significantly positive effect on anger (see Table 7). As in Table 5, neither Eastern martial arts nor karate is a significant predictor of physical aggression, anger, or hostility. Taken together, these results do not provide support for the model of Self-control acting as a mediator between style of martial art and aggression.

Table 5: Linear Regression for Overall Aggression (unstandardized Beta)

	Model 1	Model 2	Model 3	Model 4
(Constant)	81.863**	72.522**	81.159**	81.998**
Education level	-1.653*	-2.068**	-1.822*	-1.668*
Male	-5.438**	-5.123**	-5.122**	-5.439**
Importance	-3.133**	-3.421**	-3.133**	-3.155**
Age	.279	.279*	.210	.219
Self Control	--	.671*	--	--
Eastern	--	--	2.529	--
Karate	--	--	--	1.137

Dependent Variable: Overall Aggression

** . Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The data also shows that there is no significant connection between whether someone has been exposed to Eastern style of martial arts and their level of Overall Aggression nor any of its component parts, as seen in Model 3. Furthermore, Karate (the only martial art that had a significant impact on Self-Control) also did not have a significant impact on Aggression, shown in Model 4 (shown in Tables 6-8). Therefore H2 is also not supported.

Table 6: Linear Regression for Physical Aggression (unstandardized Beta)

	Model 1	Model 2	Model 3	Model 4
(Constant)	29.389**	26.634**	29.065**	29.386**
Education level	-.209	-.331	-.287	-.209
Male	-1.400*	-1.307*	-1.254	-1.400*
Importance	-1.310**	-1.395**	-1.310**	-1.310**
Age	.081	.279*	.073	.082
Self Control	--	.198	--	--
Eastern	--	--	1.165	--
Karate	--	--	--	-.026

Dependent Variable: Physical Aggression

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 7: Linear Regression for Anger (unstandardized Beta)

	Model 1	Model 2	Model 3	Model 4
(Constant)	24.168**	20.422**	24.056**	24.245**
Education level	-.675*	-.841**	-.701**	-.683*
Male	-2.223**	-2.096**	-2.172**	-2.223**
Importance	-.753**	-.868**	-.753**	-.766**
Age	.073	.093*	.070	.068
Self Control	--	.269**	--	--
Eastern	--	--	.401	--
Karate	--	--	--	-.655

Dependent Variable: Anger

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 8 : Linear Regression for Hostility (unstandardized Beta)

	Model 1	Model 2	Model 3	Model 4
(Constant)	28.306**	25.466**	28.038**	28.366**
Education level	-.769*	-.896**	-.834*	-.776*
Male	-1.816**	-1.720**	-1.695*	-1.816**
Importance	-1.070**	-1.158**	-1.070**	-1.080**
Age	.074	.089	.067	.070
Self Control	--	.204	--	--
Eastern	--	--	.963	--
Karate	--	--	--	.509

Dependent Variable: Hostility

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Given that the variable Importance of Art had consistently significant negative correlations with all components of aggression, and a significant positive correlation with self-control, it is possible that it was acting as a moderating variable and reducing the impact of self-control in these models. This possibility was also tested (see Table 9), but the relationship

between self-control and aggression was largely unaffected. In fact, the Beta of Self-control on Anger and Overall Aggression decreased slightly with Importance removed.

Table 9: Linear Regression for Aggression without Importance (unstandardized Beta)

	Anger	Hostility	Physical	Overall
(Constant)	17.204**	21.131**	81.159**	59.882**
Education level	-1.653**	-1.076**	-.549	-2.602**
Male	-2.087**	-1.708*	-1.291	-5.086**
Age	.104**	.104*	.113*	.322**
Self Control	.257**	.190	.174	.621*

** . Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Gender consistently impacted levels of aggression in respondents, with men reporting lower levels of aggression than women. This contradicts what previous studies have shown about women in martial arts, as these practices are not known for attracting aggressive people, and the women who participate in them are no exception. However, this type of contradiction among women in martial arts is not unheard of (see Follo 2012). One study did find that while male practitioners of karate had lower rates of violent conflict resolution than male practitioners of other sports, female practitioners of karate saw an increase in violent conflict resolution when compared to females in other sports. The authors attributed this to women perceiving karate as an empowering ability to defend themselves, while men perceived karate as a non-violent defense (Björkqvist and Varhama 2001). However, this could also be due to unique characteristics of the women participating in the martial arts subreddits and should not be taken as a reflection on the general population or on women in martial arts more broadly. The level of importance participants placed on their martial art had a weak but consistent and significant effect on the dependent variables, with a negative correlation on all types of aggression, and a positive correlation with emphasis placed on self-control by the particular martial art.

Qualitative Analysis

The survey asked three free-response questions with varying response rates. In many cases, responses would be a single word. Some were incomplete ideas, and in some cases not even in English. Furthermore, many answers did not share commonalities with other answers in a way that could contribute to an emerging theme from the data.

For the question of why they chose their particular martial art to practice, 352 respondents answered. At 74 (21%) responses, “exercise and maintaining overall health” was listed as the most common answer. 45 (12.8%) people cited “self-defense” as a primary motivation for practicing. Only 18 (5.1%) people directly cited the values of “self-discipline” and “control of emotions” as an initial motivation for taking up martial arts. 13 (3.7%) respondents declared an “interest for the cultural heritage of the art” as their motivation, whether that heritage was initially foreign to them, or a part of their own family heritage. Finally, 10 (2.8%) individuals expressed interest specifically in the “technical”, physical aspects of the art (technique, body movements). Beyond that, no other recurring themes emerged from the remaining answers.

When it came to how respondents felt their martial art affected their feelings toward violence, 349 people answered. The largest group (123 cases, 35.2%) reported feeling no effect. These answers were often short, with most of them limited to the words “no effect” or even one-word answers of “no”. Of the longer answers, different themes emerged with many answers mentioning multiple themes. 37 (10.6%) respondents stated that their training in martial arts had directly led them to avoid violence except as “a last resort”. Often, a key contributing factor for such respondents was that martial arts had shown them the consequences of violence. 25 (7.2%) people mentioned the “consequences of violence”; specifically, what it could do to the human body, as well as relationships, as a lesson they had learned from their practice. Many specifically

mentioned recognizing how unrealistic and glorified violence was in the media after witnessing these real consequences. This tied into their motivation for becoming avoidant of situations where violence could arise. “Calmer” actions and decisions were mentioned in 34 (9.7%) different cases, typically as a result of knowing what they were physically capable of, as well as the emotional outlet that practicing martial arts provides. 12 (3.4%) people stated that they felt “more comfortable” in violent situations than before they started training in martial arts, but these cases also emphasized being more comfortable did not mean seeking violent situations. They felt more comfortable as a result of knowing what they were physically capable of, and emphasized that this comfort with violence lead to them feeling they could make calmer decisions that could help them avoid a violent outcome:

I have no illusions about what I train. I know what it's like to be knocked out and have my ankle broken. I understand the consequences of violence. I see violence as a tool for good or ill intent. If someone attacked my mother, I would not hesitate to use controlled violence. By this I mean, I would not seek to maim them or smash their head in the ground. Just use enough violence to control the situation. However, if that person were just bothered and shouting (even terrible things), I would first attempt to de-escalate the situation. We don't need to pull out a hammer when we need glue. (Boxing, age 27)

Only 2 (0.6%) respondents mentioned an actual increase in their urges towards violence. Even then, they emphasized their hesitation to act on such urges, and some of the other themes can be seen:

It has made me want to get in to a physical altercation more, and although I would not act on these urges, it seems to have increased my predisposition for violence. (Boxing, age 19)

I'm a reserved, quiet guy and fairly small. When I was younger I would get picked on quite a bit and was deathly afraid of confrontation/fights. I no longer fear physical confrontation and have used violence in certain situations that were avoidable, each of which I still stand by and would repeat. I feel as though I understand the potential of violence (I.e. brain trauma) and would never instigate a situation in which violence was a likely option. Yet I do see it as a fit “punishment” for those who instigate such situations. (Boxing, age 19)

353 respondents answered the question of what values they had learned from their martial art. Following over from the initial motivations for choosing a particular martial art, 83 (23.5%)

people cited the value of “maintaining their physical and mental health” as a core part of their art. Mirroring another initial motivation, “self-defense” appeared 38 (10.8%) times. 79 (22.4%) people cited either “discipline” (52; 14.7%) or “self-control” (27; 7.6%) as a core value of their art. “Respect” appeared in 33 (9.3%) cases, and in multiple forms: from self-respect, to respecting others. “Perseverance” and the value of “hard work” were also emphasized in 24 (6.8%) cases, with respondents emphasizing how commitment to training and overcoming the obstacles that presents had taught them not to give up and to keep calm under stress. Again, many of the answers here resonate with the effects on their feelings toward violence they had reported:

Focus and self-sacrifice. Willpower. Empathy. Alertness. Humility. You simply cannot achieve any level of success in martial arts without spending hundreds of hours in the gym/dojo. I would say I don't think I was capable of fighting or defending myself well until about the 3rd year of training. And those early days, I was training hard. 4-5 times a week, 3-4 hours per day. It is an incredible investment of time, with honestly very little chance you will ever need to 'defend' yourself. Since I started training, I have only once had to use it to defend myself and it was against a sloppy drunk at a bar. Nobody was hurt physically. I could have hurt my opponent, but instead chose to just escort him outside till the cops showed up. The more you train the more you realize how dangerous it can be to hurt someone. You can be in trouble with the law if you hurt someone, even in a self-defense situation. The more you train you also realize that there are so many other people that can possibly hurt you, no matter how much training you have. So in summary, MA made me more humble, less likely to escalate a violent situation, and realize that fighting like kids is immature and a fools path. (Wing Chun & Muay Thai, age 41)

While the most common learned values were in line with the motivations for starting a particular martial art (health and fitness; self-defense), there were more cases of learned values like discipline (79) than there were cases of discipline being sighted as a reason for starting (18). This indicates that many people who did not start training with the intention of becoming more disciplined still learned and internalized these values. Socializing self-control remains a latent function of martial arts, rather than a manifest function. Along with people tying their increased desire to avoid violence with their exposure to the real consequences of violence as contrasted to its portrayal in media, there are other ideas present in the qualitative data that the quantitative

questions were not designed to look for. Many respondents indicated viewing violence as acceptable only in the context of self-defense, and only as a last resort. Furthermore, even in these appropriate situations, only certain types and amounts of violence were seen as appropriate: only as much measured violence as necessary to gain control over the situation. At no point were intentional maiming, disproportionate retribution, or killing seen as acceptable. In fact, these things were explicitly called out as undesirable (see first quote, for example).

CHAPTER 5: DISCUSSION AND CONCLUSION

The results of this study generally failed to support both hypotheses. Martial arts style did not have a significant negative impact on levels of aggression. With the exception of karate, martial arts style also did not have a significant positive impact on emphasis on self-control. However, while some social theories suggesting that self-control would reduce levels of aggression this study found the opposite: a significant positive link between self-control and overall aggression. This could be a result of adapting the questions from a measure of an individual's self-control into a measure of the importance placed on self-control by the particular martial art being practiced. It could also be that the level of emphasis placed on self-control by the martial art made the respondent more aware of their natural levels of aggression, thus making it more salient. However, the lack of support for Hypothesis 2 cannot be as easily explained away. Previous studies had assumed that Western martial arts were the same as Eastern martial arts taught without philosophy when it came to affecting aggression levels, and the results do not support that.

There are other unusual results from the quantitative data. The fact that being male was associated with lower levels of aggression does not fit with previous findings related to gender differences either within or outside of martial arts. Despite the competitive sports nature of martial arts, they are not known for attracting aggressive people, nor are the women who participate more aggressive than those who do not. However, there is precedent for these kinds of anomalies in previous research. Perhaps women who practice martial arts are more likely to overemphasize their aggression than men due to their martial arts practice making their feelings of aggression more salient. Another possible explanation for this could be that while martial arts do not naturally attract more aggressive women, perhaps martial arts subreddits do.

The lack of support for either side of these conflicting ideas about Western and Eastern martial arts does not directly conflict with the ideas presented by Randall Collins. He predicts that people will avoid violence by nature and that exposure to violence tends to be regarded as a negative experience. As he states that there are no violent people and that levels of aggression do not matter, it only makes sense that none of these things correlate. Even if Western martial arts did place more importance on competition and Eastern martial arts placed more importance on non-violent philosophy, it would not ultimately make anyone more or less violent unless it was directly creating situations for violence.

Echoes of these ideas can also be seen in the qualitative data. Many people reported getting into martial arts either to shield themselves from violence, or for reasons completely unrelated. Furthermore, in some of the outcomes of these martial arts interventions in their lives, respondents emphasized the values they learned and their reports of newfound negative feelings towards violence. In particular, a common theme was how exposure to the real consequence of violence and the contrast with its portrayal in media had contributed to these newfound feelings. This falls in line with Collins' (2008) approach to violence. That being said, nearly one-third of people reported feeling no effect on said feelings. Another interesting theme was the idea of when violence became appropriate and how much violence was appropriate under those circumstances. Not only was self-defense, or the defense of others, the only acceptable scenario for using martial arts as violence, but only enough to bring an end to the violent situation as soon as possible.

This study runs into limitations when it comes to determining why they reported "no effect", but a possible reason that would still be in line with Collins' ideas is that they already held negative views of violence. If their own personal philosophy was already in line with that of

Eastern styles, or if the competitive nature of the Western styles allowed them to vent their anger within the rules of sparing, then it stands to reason that neither style would have any effect on aggression or violence. Collins' views are also reflected in the qualitative responses that cited how martial arts showed them the consequences of violence and how it differed from media representation, making them wish to avoid it even more.

The only exception to hypotheses not being supported seems to be karate, though only as it relates to self-control, which might also be due to the issues adapting the measures of self-control. It is interesting to note, however, that while style of martial art did not affect these other variables for the most part, the level of importance that a respondent placed on their art did have a significant negative correlation with all forms of aggression, and a significant positive correlation with self-control. This suggests that relatively dedicated martial artists of all types are influenced similarly by their practice.

This study contains another limitation in the inability to conclude which style a respondent had the most experience with, which could have an effect on the extent to which individuals were exposed to particular philosophies. Future studies may wish to take this into account to get more specific information. Future studies might also wish to build upon the exploratory qualitative data presented here. Many respondents indicated getting into martial arts for reasons totally unrelated to violence or any of the values of the art, but still reported having learned specific values from the practice, which implies that some socialization is happening that differs from outside perceptions of martial arts. Many others indicated that seeing the consequences of violence were what made them only wish to use it as a last resort. A potential future study might seek to find how the presentation of the consequence of violence in this context differs from how it is presented in media that glorifies it, and how that affects what

practitioners view as a legitimate time to use violence. These studies might examine interpersonal violence in martial arts as it relates to legitimacy theory, building off Collins' (2008) work and looking into not only the specific context of when violence becomes legitimate, but what constitutes controlled, legitimate violence.

REFERENCES

- AIBA. 2021. "About the International Boxing Association (AIBA)."
- Allison, Paul D. 2001. *Missing data*. Sage publications.
- Arrighi, Giovanni. 1994. *The Long Twentieth Century: Money, Power, and the Origin of Our Times*. New York: Verso.
- Björkqvist, Kaj and Lasse Varhama. 2001. "Attitudes toward Violent Conflict Resolution among Male and Female Karateka in Comparison with Practitioners of other Sports." *Perceptual and Motor Skills* 92(2): 586-588
- Brett, Gordon. 2017. "Reframing the 'Violence' of Mixed Martial Arts: The 'Art' of the Fight." *Poetics* 62: 15-28.
- Buss, Arnold H. and Mark Perry. 1992. "The Aggression Questionnaire." *Journal of Personality and Social Psychology* 63(3): 452-459.
- Collins, Randall. 2008. *Violence: A Micro-sociological Theory*. Princeton, New Jersey: Princeton University Press.
- Daniels, Kevin, and Everand Thornton. 1992. "Length of Training, Hostility, and the Martial Arts: a Comparison with Other Sporting Groups." *British Journal of Sports Medicine* 26(3): 118-120.
- Eisner, Manuel. 2001. "Modernization, Self-Control and Lethal Violence: The Long-Term Dynamics of European Homicide Rates in Theoretical Perspective." *British Journal of Criminology* 41(4): 618-638.
- Elias, Norbert. 1978. *The Civilizing Process*. New York: Urizen Books.
- Follo, Giovanna. 2012. "A Literature Review of Women and The Martial Arts: Where are We Right Now?" *Sociology Compass* 6(9): 707-717.

- Foucault, Michel. 1995. *Discipline and Punishment: The Birth of the Prison*. New York: Vintage Books.
- Gottfredson, Michael R. and Travis Hirschi. 1990. *A General Theory of Crime*. Stanford: Stanford University Press.
- Gurr, Ted Robert. 1981. "Historical Trends in Violent Crime: A Critical Review of the Evidence." *Crime and Justice. An Annual Review of Research* 3: 295-350.
- Harwood, Anna, Michal Lavidor, and Yuri Rassovsky. 2017. "Reducing Aggression with Marital Arts: A Meta-Analysis of Child and Youth Studies." *Aggression and Violent Behavior* 34: 96-101.
- Hernandez, James, and Kathryn B, Anderson. 2015. "Internal Martial Arts Training and the Reduction of Hostility and Aggression in Martial Arts Students." *Psi Chi Journal of Psychological Research* 20(3): 161-176.
- IBISWorld. 2019. "Martial Arts Studios Industry in the US - Market Research Report."
----- 2020. "Boxing Gyms & Clubs Industry in the US."
- Lorenz, Adam. 2018. "Hierarchy, Community, and Attachment: Integrating At-Risk Youth into Martial Arts and Combat Sports Academies." *International Journal of Evidence Based Coaching and Mentoring* 16(2): 42-54.
- Min, Ken. 1979. "Martial Arts in the American Educational Setting." *Quest* 31(1): 97-106.
- Sánchez García, R., and D. Malcolm. 2010. "Decivilizing, Civilizing or Informalizing? The International Development of Mixed Martial Arts." *International Review for the Sociology of Sport* 45 (1): 39–58.
- Shelton, Cole. 2020. "How Much is the UFC Worth? Dana Reveals its Estimated Value." *Sportskeeda*.

- Tangney, June P., Roy F. Baumeister, and Angie Luzio Boone. 2004. "High Self-Control Predicts Good Adjustments, Less Pathology, Better Grades, and Interpersonal Success." *Journal of Personality* 72(2): 271-324.
- Tilly, Charles. 1990. *Coercion, Capital, and European States, AD 990-1990*. Cambridge, Mass., USA: B. Blackwell.
- Trulson, Michael E. 1986. "Martial Arts Training: A Novel "Cure" for Juvenile Delinquency." *Human Relations* 39(12): 1131-1140.
- Twemlow, Stuart W., Bridget K. Biggs, Timothy D. Nelson, Eric M Vernberg, Peter Fonagy, Stephen W. Twemlow. 2008. "Effects of Participation in Martial Arts-Based Antibullying Program in Elementary School." *Psychology in the Schools* 45(10): 947-959.
- UWW. 2020. "United World Wrestling Goals."
- Walby, Sylvia. 2012. "Violence and Society: Introduction to an Emerging Field of Sociology." *Current Sociology* 61(2): 95-111.
- Weber, Max. 1954. *Max Weber on Law in Economy and Society*. Cambridge: Harvard University Press.
- WT. 2015. "About World Taekwondo: Vision, Mission, Strategy."
- Zivin, Gail, Nimr R. Hassan, Geraldine F. DePaula, Daniel A. Monti, Carmen Harlan, Kashfia D. Hossain, and Ksai Patterson. "An Effective Approach to Violence Prevention: Traditional Martial Arts in Middle School." *Adolescence* 36(143): 443-459.

APPENDIX: SURVEY QUESTIONS

Inclusion Information

1) Specific martial art practiced? (check all that apply)

Boxing Greco-Roman Wrestling Taekwondo Karate Other

2) Did you study this art in a martial arts academy in the United States (i.e. take lessons at a dojo or gym)?

Yes, I am currently studying at an academy Yes, I studied at an academy in the past No

3) Why did you choose this specific martial art? (free response)

4) How many years have you been practicing?

Less than 1 1-3 4-6 7-9 10+

5) How many days a week do you practice?

Less than 1 1 2 3 4 5 6 7 I no longer practice

6) How important is your martial art to you?

Very Important Somewhat Important Neutral Somewhat Unimportant
Very Unimportant

Physical Aggression

7) Once in a while I can't control the urge to strike another person.

Strongly Disagree Disagree Neutral Agree Strongly Agree

8) Given enough provocation, I may hit another person.

Strongly Disagree Disagree Neutral Agree Strongly Agree

9) If somebody hits me, I hit back.

Strongly Disagree Disagree Neutral Agree Strongly Agree

10) I get into fights a little more than the average person.

Strongly Disagree Disagree Neutral Agree Strongly Agree

11) If I have to resort to violence to protect my rights, I will.

Strongly Disagree Disagree Neutral Agree Strongly Agree

12) There are people who pushed me so far that we came to blows.

Strongly Disagree Disagree Neutral Agree Strongly Agree

13) I can think of no good reason for ever hitting a person.

Strongly Disagree Disagree Neutral Agree Strongly Agree

14) I have threatened people I know.

Strongly Disagree Disagree Neutral Agree Strongly Agree

15) I have become so mad that I have broken things.

Strongly Disagree Disagree Neutral Agree Strongly Agree

Anger

16) I flare up quickly but get over it quickly.

Strongly Disagree Disagree Neutral Agree Strongly Agree

17) When frustrated, I let my irritation show.

Strongly Disagree Disagree Neutral Agree Strongly Agree

18) I sometimes feel like a powder keg ready to explode.

Strongly Disagree Disagree Neutral Agree Strongly Agree

19) I am an even-tempered person.

Strongly Disagree Disagree Neutral Agree Strongly Agree

20) Some of my friends think I'm a hothead.

Strongly Disagree Disagree Neutral Agree Strongly Agree

21) Sometimes I fly off the handle for no good reason.

Strongly Disagree Disagree Neutral Agree Strongly Agree

22) I have trouble controlling my temper.

Strongly Disagree Disagree Neutral Agree Strongly Agree

Hostility

23) I am sometimes eaten up with jealousy.

Strongly Disagree Disagree Neutral Agree Strongly Agree

24) At times I feel I have gotten a raw deal out of life.

Strongly Disagree Disagree Neutral Agree Strongly Agree

25) Other people always seem to get the breaks.

Strongly Disagree Disagree Neutral Agree Strongly Agree

26) I wonder why sometimes I feel so bitter about things.

Strongly Disagree Disagree Neutral Agree Strongly Agree

27) I know that “friends” talk about me behind my back.

Strongly Disagree Disagree Neutral Agree Strongly Agree

28) I am suspicious of overly friendly strangers.

Strongly Disagree Disagree Neutral Agree Strongly Agree

29) I sometimes feel that people are laughing at me behind my back.

Strongly Disagree Disagree Neutral Agree Strongly Agree

30) When people are especially nice, I wonder what they want.

Strongly Disagree Disagree Neutral Agree Strongly Agree

Self Control

31) My martial art trains my concentration.

Strongly Disagree Disagree Neutral Agree Strongly Agree

32) My martial art encourages self-discipline.

Strongly Disagree Disagree Neutral Agree Strongly Agree

33) A strict schedule is necessary for practicing my martial art.

Strongly Disagree Disagree Neutral Agree Strongly Agree

34) My martial art taught me to resist temptation.

Strongly Disagree Disagree Neutral Agree Strongly Agree

35) How do you think your martial art affects your feelings toward violence? (free response)

36) What values does your martial art teach you? (free response)

Demographic Information

37) What is your current age?

38) Race (check all that apply)

White Black Asian Other

39) Ethnicity

Hispanic/Latino Non-Hispanic/Latino Other

40) Gender

Male Female Other

41) Education level

Less than High School Diploma High School/GED Some College/Associates

Bachelor's Degree Graduate School

42) Which of these describes your personal income last year?

Less than \$25,000 \$25,000 to 49,999 \$50,000 to 74,999 \$75,000 to 99,999

\$100,000 to 124,999 \$125,000 and greater Prefer not to answer