Effect of Sport Media on Social Behaviour: The Attitude and Perception Change of Chinese College Students toward the International Media Reporting the Beijing Olympics

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Abstract: This study assessed the attitude and perceptions of college students in China before and immediately after the 2008 Beijing Olympics toward the international media’s reporting of the Games and China. A total of 657 students from seven campuses eight months before the Olympics and 1,000 students from ten campuses immediately after the Olympics were randomly surveyed. The data analysis (independent t-Test) depicts that the students’ attitudes and perceptions toward the international media had positively changed from the pre- to the post-Olympic surveys. One-way multivariate analysis of variance (MANOVA) and Scheffe’s post hoc test results revealed that the survey respondents’ political preferences were the constant factors that influenced their attitude and perception change toward the international media. This study illustrates a media effect on changing the survey participants’ and their represented population’s attitude and perceptions toward the international media’s coverage of sport mega-events that is supported by the theories of mega-events and modernity, media communication and social behaviour, and social impact.

Key Words: Media effect, Mega-events, International media, Social impact, Olympic Games, Social behaviour

1. Introduction

The Olympics are the largest regularly recurring event in the modern world in terms of the time and money devoted to preparation, the number of people directly or tangentially involved, the amount of money spent distributing media accounts, the number of people in the media audience, and the prestige and status that many government leaders and others invest in the event [1]. The modern Olympic Games have been studied as one of the most influential events in today’s sports, social, and economic lives of the world [1-8]. Writing about social phenomena, social scientists have produced empirical generalizations and theoretical analyses of social processes representing differing levels of social reality. According to Nowak, Szamrej and Latane (1990), some analyses concern the cognitions, feelings, and behavior of individuals; others deal with small, medium, or large groups, collectivities, and organizations; still others involve such largescale human aggregates and systems as nations, societies, or cultures [9].

A combined effort of seven years of preparation, a total of $43 billion investment, more than 300,000 migrant workers on various Olympics-related projects, an Opening Ceremony with more than 12,000 performers backed by almost unlimited resources, more than 100,000 volunteers during the
time of the Games, and nearly 32,300 journalists from around the globe inarguably qualify the Beijing Olympics as one of the largest mega-events witnessed in the modern world [8]. At the same time, the Olympics and Olympic movement made an impact on the transformation of Beijing and its citizens and, to some extent, of China and Chinese people. This transformation process was very complex because it evolved in conjunction with various sports, social, economic, and political sectors of Chinese society; and, most of all, with certain ideological changes in a relatively short period of time in order for people to merge themselves into global society (seven years of Olympic preparation and hosting the Games versus thousands of years of Chinese civilization) [10].

Chalip, Green and Hill (2003) [11] pointed that sport events play two roles, attracting participants and spectators, thus boosting the number of visitors to the host destination during the time that the event takes place, and getting the attention that events receive through advertising and news coverage constitutes added exposure for the host destination. While the economic impact of the event relies primarily on these two aspects [12], however,

It is surprising that the sociological and social scientific study of sport – ritualized, rationalized, commercial spectacles and bodily practices that create opportunities for expressive performances, disruptions of the everyday world and affirmations of social status and belonging – was still seen as something as a joke by mainstream sociology until recently [13].

Chalip summarized (2006) [14] that, increasingly, sport event production is about spectacle rather than a festival, crowd management rather than crowd relations and economic impact rather than social value [12, 15-18]. This should come as no surprise insomuch as risks must be managed, the spectacle has media value that a festival cannot match, and public event provision must be justified in politically expeditious terms [19-22]. More often than not, the economic rationales for hosting events are mere legitimizing rhetoric sometimes for the agendas of political elites, but also because the liminoid nature of many events, particularly mega-events, makes them fun. Therefore, events offer more than economic value [23,24].

Although the 2008 Beijing Olympic Games were an unquestionable success in terms of staging the Games competitions and of the athletes’ achievements, criticism and controversies associated with the Chinese government had existed since Beijing won the bid to host the Games seven years earlier [10]. The controversies focused on China’s human rights record, the freedom of the press, and environmental issues [25-28]. China has long been plagued by state interference in the media and criticized by Western societies for the country’s lack of freedom of the press. A study [29] aimed at identifying and analyzing the recent structural changes in the media in post-WTO (World Trade Organization) China and before the 2008 Olympic Games suggested that the media sector be transitioning from a market socialism model to a state-controlled, capitalist corporation model. This pragmatic approach to structural reform of the media reflects the Chinese government’s strategy to absorb private and foreign capital and Western expertise concerning media management, without losing ownership and political control of the media sector. Even though state ownership and control of the press are the norms in China, according to Neumann (2005), [30] there is more information available than ever, as broadband Internet, cellular phone SMS (short message service), and cable and satellite television have changed the way information is delivered. Wang’s study (2007), [31] which aimed at exploring Chinese attitudes toward international norms by analysing the media’s use of the phrase “link up with the international track” indicated that, instead of abiding by prevailing international norms, as China becomes more powerful that it would continue to reject Western norms and political ideas. The finding also suggests that there would be room for change, and a minority of Chinese intellectuals have voiced their support for adopting international “social norms.”
2. Applied Theories

2.1 The Theory of Social Impact

Social impact, according to Latane (1981), means any of the great variety of changes in physiological states and subjective feelings, motives and emotions, cognitions and beliefs, values and behavior, that occur in an individual, human or animal, as a result of the real, implied, or imagined presence or actions of other individuals [32]. The theory of social impact specifies principles, social force, the psychological law, and multiplication versus division of impact, underlying how people are affected by their social environment [9]. Social impact theory has been applied to a wide variety of social processes. One of these Latane (1981) [32] defined social processes is the social impact of news events in which the news media serves as a major source of information and as a topic for conversation that helps determine the content of people’s mental lives. A great many factors determine the interest value of news events—their rarity, their consequence, the extent to which they relate to people’s needs and aspirations.

The theory of social impact suggests that among these determinants should be the strength, immediacy, and several people involved and social impact is the results of social forces operating in a social force field or social structure [32]. A given individual’s likelihood of a change of attitude will be a direct function of the strength (persuasiveness), immediacy, and a number of those advocating change, but an inverse function of the strength (supportiveness), immediacy, and a number of those sharing his or her point of view [9]. A simple model of individual influence, operating by some general principles of social impact, can if extended to reflect how individuals influence and are influenced by each other over time, lead to plausible predictions of public opinion. The functioning of higher-level units (e.g., social groups) may be partly or completely determined and therefore explained by mechanisms known from theories describing phenomena at lower levels (e.g., human individuals). Alternatively, the functioning of lower level units (e.g., individuals) may be affected by the higher level units to which they belong. In other words, individuals in a given social context behave differently than they would outside that context [9].

2.2 The Theory of Mega-events and Modernity

A mega-event can be viewed in two main respects: first, with regard to its internal characteristics—that is, primarily its duration and its scale (i.e. number of participants and spectators, number of individual sessions, and levels of organizational complexity); and second, in respect of its external characteristics, which mainly take account of its media and tourism attractiveness, and its impact on the host city [33]. Many scholars have applied the theory of media-events, defined by Dayan and Katz (1992) [34] as planned, symbolic performances presented for an international media audience, to analyze the Olympic Games as mega-events [1, 4, 5, 7]. Roche (2000) generalized that the general sociological significance of mega-events such as the Olympics and FIFA (Fédération Internationale de Football Association) World Cup is important both substantively and more formally in understanding structure, change, and agency in modern society [6]. Substantively, mega-events have been and remain important events in the orientation of national societies to an international or global society and the theory and practice of public culture and civil society. In sociological theory, modernity is a particular kind of time consciousness that defines the present in its relation to the past, which must be continuously recreated. Mega-events, more generally, provide resources for the construction of "a meaningful social life about a changing societal environment that has the potential to destabilize and threaten these things" [6].

Various studies suggest that the media channel the Olympics through the host’s national image, cultural identity, foreign policy, economic renaissance, a showcase of technology, public policy, business operational models, and transformation of the nation’s political and environmental improvement [2-6, 35]. The Olympic Games have also been intimately connected with the development of various forms of press and journalism, particularly associated with the global TV coverage for the past few decades and more recently with Internet media. At the same time, festivities, athletic performances,
cultural interests of the hosting cities and nations, and instinctual pride derived from people’s national identities and patriotism make media users (TV audiences, Internet users, readers of various print publications) feel bundled with the Olympics [8]. Characterized with the elements of media, sports, and mega-events, Roche (2000) suggested that the Olympics could be approached by applying dramatological, contextual, and macro-context multidimensional analysis because of the need to do justice to what is complex, fluid, and often ambiguous social phenomena. Also, the theoretical frame of media-event analysis tends to interpret and explain these sorts of events and their social and political effects as heavily angled toward neo-Durkheimian sociological theory [6].

2.3 The Theory of Media Communication and Social Behaviour

The media industries provide information and entertainment, but media also can affect political, social and cultural institutions [36]. Social behavior and communication, then, involve much more than people bouncing “messages” off each other. To a large extent, behaviour is shaped and modified by the socially defined situation in which people find themselves [37]. McGuire (1986) [38] also noted several of the most commonly mentioned intended media effects: (a) the effects of advertising on purchasing, (b) the effects of political campaigns on voting, (c) the effects of public service announcements (PSAs) on personal behavior and social improvement, (d) the effects of propaganda on ideology, and (e) the effects of media ritual on social control. In general, media effects are usually described as cognitive, affective, or behavioral [39-41]. Perse (2001, p. 3) [42] further explained that cognitive effects are those that concern the acquisition of information—what people learn, how beliefs are structured (or restructured) in the mind, and how needs for information are satisfied or not; that affective effects involve the formation of attitudes or positive or negative evaluations about something; and that behavioral effects are observable actions that are linked to media exposure. There is consensus, for the most part, among scholars that media do have some impact on various dimensions of social life and structure [42].

Meyrowitz (1985) [37] pointed that neither the pervasiveness of media nor the common awareness of their seemingly miraculous capacities has spawned wide-spread analysis of the impact of such new patterns of information flow on social behaviour …there remains much individual variation within a given situation, there is also a large consistency in the patterned variations most people exhibit as they move from one type of situation to another. Perse (2001) [42] also recognized,

Beyond the importance of mass communication in society, there are two main reasons for continuing to study media effects. The first reason is theoretical. Although most scholars acknowledge that mass media effects can occur, we still don't know the magnitude and inevitability of the effects. That is, we don't know how powerful the media are among the range of other forces in society. A second reason for studying media effects is practical and policy oriented. If we can elaborate on the conditions and understand the various processes of media effects-how media effects occur-we can use that knowledge.

2.4 Purpose of the Study and Research Questions

Thus, the main purpose of this study was to assess attitude and perception change of the respondents from the pre- to the post-games survey toward the international media's coverage of the Olympics and China under that particular media, political, economic, and social circumstance. The authors of this study felt that any attitude and perception change of the survey respondents could help understand such a media effect and it would be worthy of scholarly investigations as the cited theories in the previous section suggested. The fact that the Olympic coverage was broadcasted to the world in a state-controlled media environment would further signify the investigation [10].

This comparative study attempted to answer the following research questions: First, what were
the attitude and perceptions of the survey respondents toward the international media's coverage of the Beijing Olympics and China in general before and after the Games? Second, what were the respondents' perceptions of the level of freedom that the international media would have before and had during the Olympic coverage? Thirdly, if significant changes were found from the pre-games to the post-games surveys, what classified demographic variables might influence the survey respondents' attitudes and perceptions toward the international media's coverage? Finally, the survey participants' perception of the freedom of self-expression was sought. The authors hoped that the study would disclose that a mega-event's media could potentially impact on a social behavioural change. However, the authors neither attempted and nor were equipped to explain why the views of the survey respondents were either the same or different from those in Western societies (e.g., such as how the freedom of the press should be defined and what level of freedom means truly free in Chinese society).

3. Research Method

3.1 Survey Instrumentation

The survey questionnaire in this study was constructed based on Press Freedom in the U.S.: A National Survey of Journalists and the American Public, released by the Department of Public Policy of the University of Connecticut (2005) [43]. The reedited questionnaire consists of 22 ranking and selection questions inquiring about the respondents' demographics, attitude toward the international media's coverage of the Olympics and China in general, perceptions of the international media's freedom of reporting the Beijing Games, and perceptions of the freedom of self-expression. The demographic information requested from the survey respondents included gender, age, year in school, academic major, political preference, and the type of hometown in which they grew up. The year in school was categorized from freshman to doctoral level and academic majors included most commonly used categories of arts and science, business, engineering, and social sciences. Besides, the survey provided respondents with the category of "other" if their academic major did not fit into any of the provided categories and asked for a specific description of the major. Among the inquired demographics, the variable of political preference had three options for the survey respondents to choose from: liberal, conservative, and moderate. Liberal political preference refers to an open attitude toward the Western cultural values of free expression and individualism, and conservatism represents the opposite. Moderate preference falls into the traditional Chinese philosophy of the "doctrine of mean", which teaches a mild approach to issues and avoidance of extremes (left or right) in politics and life. Some of the questions or statements that inquire responses on the same issue in both the pre- and the post-games surveys were worded with minor differences because of the time when the survey was conducted about the time of the Olympic Games. Nine statements from each survey inquiring answers from the participants in correspondent perspectives were adopted for this comparative study (see Table 1).

Factor analysis was applied to the survey questions in both the pre- and the post-Olympic surveys to ascertain their fitness for the purposes and the research questions of this study. The principal-components analysis was conducted utilizing a Varimax rotation with Kaiser Normalization to test the survey questions of both surveys. Four criteria – Eigenvalue, variance, scree plot, and residuals – were used to determine the appropriate number of components to retain. The component loadings of the factor analysis are displayed in Table 2.

The criteria indicated that three retained components should be investigated among 8 out of 9 questions, excluding Question 1 in the pre-Olympic survey, and all 9 questions in the post-games survey. Component 1, named International Media's Coverage consisting of Questions 2, 3, and 4 from the pre-Olympic survey and Questions 1, 2, 3, and 4 from the post-games survey, intended to inquire about the survey respondents' perception of the international media's coverage of the Olympic Games and of China in general. Component 2, Freedom of Coverage, contained Questions 5, 6, and 7 from both surveys to evaluate the respondents' perceptions on the level of freedom the international media had while reporting the Olympics and China during the Games.
Table 1. Survey Questions

| Questions                                                                 | Pre-Olympics                                                                 | Post-Olympics                                                                 |
|--------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| 1  | Overall, how would you rate the international media's reporting about China in general? | Overall, how would you rate the international media's reporting about China in general during the Olympics? |
| 2  | How confident are you in the international media to accurately report non-Olympic news related to China during the Olympics? | The international media accurately and objectively reported non-Olympic news related to China during the Olympics. |
| 3  | How confident are you in the international media to educate the world public about the 2008 Olympic Games? | The international media objectively and effectively informed the world about the 2008 Olympic Games. |
| 4  | How confident are you in the international media to accurately report the 2008 Olympic Games? | The coverage of the Beijing Olympics by the international media was unbiased. |
| 5  | The international media should be allowed to report the Beijing Olympic Games without any government restrictions. | The international media were allowed to report the Beijing Olympic Games without any government restrictions. |
| 6  | The international media should be allowed to report all types of news and issues of China without any government restrictions during the Olympic Games. | The international media were allowed to report all types of news of China without any government restrictions during the Olympic Games. |
| 7  | What level of freedom do you think the international media enjoys in China in general? | The international media had enjoyed a high degree of freedom to report in China during the Olympics. |
| 8  | I can speak freely about whatever I think in private. | I can speak freely about whatever I think in private. |
| 9  | I can speak freely about whatever I think in public. | I can speak freely about whatever I think in public. |

Table 2. Component Loadings of Factor Analysis for the Survey Questions

| Component                                                                 | Pre-Survey Loading | Post-Survey Loading |
|---------------------------------------------------------------------------|--------------------|--------------------|
| Component 1: International Media’s Coverage                                |                    |                    |
| Educate the world public about the Olympics                               | .882               | .918               |
| Coverage of non-Olympic news related to China                              | .768               | .918               |
| Accurately report about the Beijing Olympics                               | .752               | .734               |
| Overall rating of reporting about China                                    | .378*              | .732               |
| Component 2: Freedom of Coverage                                          |                    |                    |
| Report the Olympics without government restrictions                         | .806               | .851               |
| Report news of China without government restrictions                        | .804               | .834               |
| Level of freedom to report during the Olympics                              | .657               | .673               |
| Component 3: Freedom of Expression                                         |                    |                    |
| Freely speak of mind in private                                           | .885               | .885               |
The last component, Free Self-expression, consisted of Questions 8 and 9 in each survey that allowed the respondents to disclose their sense of freedom of self-expression.

3.2 Survey Participants and Procedure

The participants were chosen based on the fact that, historically, university students in China have always been the most active group in the entire population engaging in the social, political, and economic development of this country and have represented generations of Chinese intellectuals [10]. They are presumably more intellectually informed through modern-technology-related media forms than any other major population group in current Chinese society. Also, university students would be the most accessible and responsive population compared to other potential and specifically identifiable populations for the research investigation of this study.

Pre-Olympic survey. The pre-Olympic survey was conducted at the mega-campus where ten different universities were located in Guangzhou eight months before the 2008 Beijing Olympic Games. Guangzhou, the capital of Guangdong province, is a major metropolitan in south China several hours north of Hong Kong. The survey location was determined based on the perception that Guangdong Province is regarded to be the gateway for foreign and private media trying to get a start in China. According to a report in Newsweek international edition [44],

...Guangdong [is] the only province in China even partly open to foreign and private media competition. Beijing began opening the Guangdong market on a limited, case-by-case basis in 2001, apparently as an experiment to see how mainland would fare against competition from Hong Kong, Taiwan and, most recently, the West.

The survey forms were distributed randomly by a team of graduate research assistants to willing students across seven colleges and universities’ facilities. Six hundred fifty-seven survey forms were returned and 528 (80.37%) were deemed usable without any missing answers.

Post-Olympic survey. One thousand questionnaires were evenly distributed to ten university campuses in Beijing by a team of graduate research assistants in late September 2008, with a random survey of students on each campus, immediately following the closing of the Olympic and Paralympic Games and after the universities reopened for students to return to campuses for the fall semester. Of the returned survey forms, 963 (90.85%) were deemed usable. The selection of Beijing's universities' students for the post-Olympic survey was justified as of (1) the location where the Olympic Games took place, (2) the active involvement of many potential survey participants in the Games’ volunteer programs, and (3) the survey participants’ direct access to the international media that presented in Beijing during the Olympics.

4. Data Analysis

The collected data from both the pre- and post-Olympic surveys were analyzed using SPSS for Windows. Descriptive statistics of the demographics are provided for a preliminary understanding of the survey participants' profile. The sources of daily news for the survey participants are also identified. The participants' responses to the questions between the pre- and post-Olympic surveys are compared from using frequency distribution analysis and independent t-Test to examine the international media's impact on the participants' attitude and perception changes. Finally, three components of the survey questions from factor analysis were investigated against the classified (demographic) variables by using one-way multivariate analysis of variance (MANOVA) and Scheffe's post hoc analysis to identify the influential factors that impact both the pre- and the post-games survey participants' responses to the questions.
5. Results

5.1 Participants’ Demographics

The demographics of age, year in school, academic majors, political preference, and the type of hometown of the participants from both surveys are provided in Table 3. The demographics of the pre- and post-games survey participants displayed a similar pattern in the categories of age and years in school. Eighty-nine percent of the pre-Olympic survey participants and 96.6% of the respondents in the post-games survey were under 26 years of age. There were 86% of undergraduate students in the pre-Olympic survey and 89.8% of the post-games survey participants in the same category. The academic major of arts and sciences (48.3%) in the pre-Olympic survey was more than twice the size of the post-Olympic survey participants (22%).

| Variable               | Pre-Games Frequency (%) | Post-Games Frequency (%) |
|------------------------|-------------------------|--------------------------|
| Age, years             |                         |                          |
| 18 – 20                | 116 (22.0)              | 582 (60.4)               |
| 21 – 23                | 290 (54.9)              | 290 (30.1)               |
| 24 – 26                | 64 (12.1)               | 59 (6.1)                 |
| 27 – 29                | 37 (7.0)                | 18 (1.9)                 |
| 30 – 32                | 17 (3.2)                | 9 (0.9)                  |
| 33 – 35                | 4 (0.8)                 | 5 (0.5)                  |
| Year in school         |                         |                          |
| Freshmen               | 86 (16.3)               | 277 (23.6)               |
| Sophomore              | 225 (42.6)              | 391 (40.6)               |
| Junior                 | 56 (10.6)               | 124 (12.9)               |
| Senior                 | 18 (3.4)                | 123 (12.8)               |
| Master’s               | 71 (13.4)               | 95 (9.9)                 |
| doctoral               | 3 (0.6)                 | 3 (0.3)                  |
| Academic major         |                         |                          |
| Social sciences        | 136 (25.8)              | 304 (31.6)               |
| Arts and sciences      | 255 (48.3)              | 212 (22.0)               |
| Engineering            | 56 (10.6)               | 301 (31.3)               |
| Business               | 18 (3.4)                | 104 (10.8)               |
| Education              | --                      | 24 (2.5)                 |
| Others                 | 63 (11.9)               | 18 (1.9)                 |
| Political preference   |                         |                          |
| Liberal                | 187 (35.4)              | 423 (43.9)               |
| Conservative           | 161 (30.5)              | 157 (16.3)               |
| Moderate               | 180 (34.1)              | 383 (39.8)               |
| Hometown               |                         |                          |
| Metropolitan           | 30 (5.7)                | 284 (29.5)               |
| Large city             | 122 (23.1)              | 165 (17.1)               |
| Midsized city          | 162 (30.7)              | 266 (27.6)               |
| Small town             | 111 (21.0)              | 100 (10.4)               |
| Rural                  | 103 (19.5)              | 148 (15.4)               |
Table 4. Frequency Distribution (%) of Daily News Sources

| Daily News          | Pre-games Survey | Post-games Survey |
|---------------------|------------------|-------------------|
| Television          | 67 (12.7)        | 285 (29.6)        |
| Internet            | 295 (55.9)       | 522 (54.2)        |
| Newspaper           | 131 (24.8)       | 103 (10.7)        |
| Word of mouth       | 30 (5.7)         | 34 (3.5)          |
| Other               | 5 (0.9)          | 19 (2.0)          |

The direct cause of this gap was due to the fact that the students from two music and art institutions and another normal (teacher training) university located in the mega-campus in Guangzhou were included in the pre-Olympic survey. The survey participants' political preferences in the pre-Olympic survey were quite evenly distributed (liberal: 35.4%, conservative: 30.5%, and moderate: 34.1%), and in comparison, more participants from the post-Olympic survey claimed to be liberal (43.9%) and fewer people labeled themselves conservative (16.3%). The moderate claimers were relatively close in number between the pre- and post-games survey respondents (34.1% and 39.9%, respectively).

Finally, a greater number of the post-Olympic survey participants came from major metropolitan and large cities (47.2%) than the pre-Olympic survey participants (28.8%). This difference may be explained as a large portion of the survey participants in Beijing's universities were from Beijing, the capital of China.

5.2 Sources of Information

The survey participants’ sources of daily news were sought in both the pre- and post-Olympic surveys (see Table 4). Internet identically remains as the main source of daily news for both the pre- and post-games survey participants (55.9% and 54.2%, respectively).

The notable differences between the participants of both surveys were that television as a source of daily news increased significantly for the participants from the pre- (12.7%) to the post-games survey (29.6%), and newspaper decreased drastically from the pre- (24.8%) to the post-Olympic survey (10.7%). According to Rothenbuhler (1989), [7] “The broadcast of the Olympic games provided a text that brought in members of distinct social groupings in ways that even the amorphous and always available normal television schedule cannot.” The special event of Olympic broadcasts may drove the change of increased viewings of television among the post-games survey participants.

5.3 Comparison of the Pre- and Post-Olympic Surveys

The pre- and post-Olympic survey participants’ responses to the inquired questions were compared with the frequency distribution (%) and independent t-Test for each question component in order to identify the changes of the survey participants’ attitude and perceptions toward the international media, and consequently, to depict if there was any identifiable social change taking place among the survey respondents before and after the international media's Olympic coverage.

Responses to the survey questions. The participants’ responses to both the pre- and post-games survey questions were coded from 1 (excellent) to 5 (poor) and from strongly agree to strongly disagree when the data were statistically treated. Table 5 displays the frequency distribution of the responses to the survey questions, including the means and standard deviations; lower means represent more positive responses.

Comparing the means of the responses, the post-Olympic survey participants responded far more positively to every question than the pre-Olympic survey participants did. If the responses of unsure are treated as neutral, the distributions (%) of the positive responses to the questions (very confident/confident and strongly agree/agree) from the post-games survey participants are much greater...
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than those from the pre-games survey participants. At the same time, the negative responses (not confident/not at all confident and disagree/strongly disagree) from the pre-Olympic survey participants are far more than those from the post-games survey participants. The smallest difference of the distribution (%) of the positive responses between the two surveys is to the question 6 regarding the international media's report of news of China without any government restrictions during the Olympic Games, 26.9% from the pre-games survey respondents and 37.8% from the post-games respondents. The largest difference of the positive responses between these two surveys is to question 3 about the international media's coverage of the Olympic Games, improving from 2.9% to 60.6% from the pre- to the post-games survey. At the same time, the negative responses dropped from 72.3% to 6%.

Table 5. Frequency Distribution (%) of Responses to the Survey Questions

| Question | Excellent | Good | Unsure | Fair | Poor | M | SD |
|----------|-----------|------|--------|------|------|---|----|
| 1 – Pre: | 21 (4.0)  | 38 (7.2) | 339 (64.2) | 121 (22.9) | 9 (1.7) | 3.11 | 0.719 |
| Post:    | 45 (4.7)  | 330 (34.3) | 341 (35.4) | 225 (23.4) | 22 (2.3) | 2.84 | 0.912 |
| Pre:     | Very Confident | Unsure | Not Confident | Very Confident | Unsure | Strongly Agree | Strongly Disagree |
| Post:    | Strongly Agree | Unsure | Disagree | Strongly Agree | Unsure | Strongly Disagree | Strongly Disagree |

Table 6. Independent t-Test of the Pre- and the Post-Olympic Survey Questions

| Component | Pre- vs Post-Survey* | t |
|-----------|----------------------|---|
| Component 1: International Media's Coverage |
| Educate the world public about the Olympics | $\bar{X}_1 > \bar{X}_2$ | 23.71** |
| Coverage of non-Olympic news related to China | $\bar{X}_1 > \bar{X}_2$ | 37.25** |
| Accurately report about the Beijing Olympics | $\bar{X}_1 > \bar{X}_2$ | 24.13** |
| Component 2: Freedom of Coverage |
| Report the Olympics without government restrictions | $\bar{X}_1 > \bar{X}_2$ | 10.84** |
| Report news of China without government restrictions | $\bar{X}_1 > \bar{X}_2$ | 9.99** |
| Level of freedom to report during the Olympics | $\bar{X}_1 > \bar{X}_2$ | 19.21** |
Component 3: Freedom of Expression
Freely speak of mind in private \( \bar{X}_1 > \bar{X}_2 \) 17.31**
Freely speak of mind in public \( \bar{X}_1 > \bar{X}_2 \) 12.61**

*\( \bar{X}_1 \) = Mean of the pre-Olympic survey responses; \( \bar{X}_2 \) = Mean of post-Olympic survey responses.
** \( p \leq .01 \)

Table 7. Scheffe’s Multiple Comparisons for the Questions by the Variable of Political Preference, with Significant Difference ( \( p \leq .01 \))

| Component | Pre-survey | Post-survey |
|-----------|------------|-------------|
| Component 1: International Media’s Coverage | | |
| Educate the world public about the Olympics | \( \bar{X}_i > \bar{X}_m \) | \( \bar{X}_i < \bar{X}_m \) |
| Coverage of non-Olympic news related to China | \( \bar{X}_i > \bar{X}_m \) | None |
| Accurately report about the Beijing Olympics | \( \bar{X}_i > \bar{X}_m \) | \( \bar{X}_i < \bar{X}_m \) |
| Component 3: Freedom of Expression | | |
| Freely speak of mind in private | \( \bar{X}_i > \bar{X}_m \) | None |
| Freely speak of mind in public | \( \bar{X}_i > \bar{X}_m \) | \( \bar{X}_i < \bar{X}_m \) |

Political Preference: \( \bar{X}_i \) = Mean of Liberal; \( \bar{X}_c \) = Mean of Conservative; \( \bar{X}_m \) = Mean of Moderate

**Attitude and perception changes.**
Independent t-Test was applied to compare the means between the pre- and the post-games survey participants’ responses in order to determine their attitude and perception changes toward the international media’s coverage (Component 1), the international media’s freedom of coverage (Component 2), and the respondents’ perception of their freedom of self-expression (Component 3) (see Table 6).

As the independent t-Test results depict, the numerical means of the pre-Olympic survey participants’ responses to all questions are significantly higher than the means of the post-games responses, indicating a positive change of the survey participants’ attitude and perceptions toward the international media from eight months before the Olympic Games to the time the post-games survey was conducted. The t-Test for the means of the responses excluded Question 1, the overall rating of reporting about China, because the factor analysis revealed the unfitness to Component 1 in the pre-games survey. The same was true to the rest of the statistical analyses that followed.

**Influential factor to the survey respondents.** In addition to the positive changes from the pre- to the post-games survey participants’ responses to all three components’ questions as stated in the previous section, one-way MANOVA was applied to each of the components to determine the demographic variables’ categorical differences, in another words, to disclose the influential factor(s) that potentially made significant differences to the survey respondents’ attitude and perception changes toward the international media’s coverage of the Olympics and of China in general. The MANOVA results indicated that the survey participants’ political preference was the influential factor to the respondents’ answers to the Components 1 and Component 3 questions in both surveys. The MANOVA results, with the classified variable of political preference, for the Component 1 questions reveal Wilks’ Λ = .933, F = 4.587, p = .000 among the pre-games survey respondents; and Wilks’ Λ = .950, F = 4.885, p = .000 among the post-games respondents. The same test results for the Component 3 questions reveal among the pre-games survey respondents, Wilks’ Λ = .955, F = 6.046, p = .000; and among the post-games respondents, Wilks’ Λ = .989, F = 3.950, p = .003. The Component 2 questions regarding the
perceptions of the degree of freedom the international media had while reporting the Olympics remained statistically indifferent between the responses from the pre- and post-games surveys.

Table 7 displayed Scheffe's post hoc multiple comparison tests for the Components 1 and Component 3 questions by the classified variable of the political preference, with a significant difference for both the pre- and post-Olympic surveys.

The consistent pattern of attitude and perception changes of the survey respondents with different political preferences toward the international media's coverage of the Olympics and China, in general, indicate that the liberal groups' responses displayed the most drastic change compared to the moderate groups' responses from the pre- to the post-games survey. The liberal group from the pre-Olympic survey was less favorite in their responses to the Component 1 questions than the moderate group's responses (with greater numerical means), but was more favorite (with less numerical means) than the moderate group's responses in the post-games survey. The attitude and perception differences between the liberal and the moderate respondents and between the conservative and moderate respondents toward the international media's reporting of non-Olympic news related to China from the pre-Olympic survey were not found between the respondents with different political preferences in the post-games survey. The moderate respondents in the pre-Olympic survey viewed their freedom of self-expression (Component 3 questions) more positively (with smaller numerical means) than the conservative respondents perceived in public occasion, and the liberal respondents' perceptions were both in private and in public. There were no differences found between the respondents with different political preferences in the post-Olympic survey referring to the perception of their freedom of self-expression in private. However, the liberal respondents' perception in the post-games survey regarding the freedom of self-expression in public turned to be more positive than the moderate respondents, a perception reverses from the pre-Olympic survey, indicating a significant change of perception on this issue for the liberal respondents from the pre-to the post-games. The indifference of the responses between these three groups to the Component 2 questions from both surveys might indicate that all the respondents, regardless of their political preferences, objectively perceived the media environment in China.

6. Discussion and Summary

Latane (1981) [32] characterized his theory of social impact in the sense of usefulness with the justification as of

We live in a period of great societal growth—populations are getting larger and people are becoming more interdependent. It is becoming more and more important to understand both the positive and the negative ways in which people have an impact on each other and to design our physical and social environments to maximize the quality of life for all.

The main purpose of this study was to examine the attitude and perception change of Chinese college students toward the international media's coverage of the Olympics and of China in general before and after the Beijing Games in the form of mega-events and of media-events. Roche (1998) recognized that sport is an important sector of popular culture in modern societies, particularly in its professional, spectator-involved, and media-sport forms, and provides one of the few significant arenas where collective identities can be symbolized and emotionally expressed. The Olympic television viewers worldwide during the 2008 Games topped to 4.4 billion, the highest number to date in the history of the Olympic TV coverage [45]. The rapid growth of the Internet has made the Olympics as the most attended online mega- and media-events. NBCOlympics.com, for example, increased its online live stream from 2,200 hours during the 2008 Olympics [46] to 4,500 hours during the 2016 Rio Games [47]. The online live stream of the 2018 Pyeongchang Olympics also reached 1,800 hours, a record number for the Winter Olympics [48].

The question of whether media effects are strong or substantial has certainly not been settled; some of this disagreement is definitional according to
Perse (2001) [42]. There is a consensus, for the most part, among scholars that media do have some impact on various dimensions of social life and structure. The authors believe that the outcome of this study conforming to the consensus in Perse’s statement is closely related to the particular environment – the Olympic Games, one of the most attention-drawn mega- and media-events of the modern world. While the Olympic Games continue to take place every two years, counting both the Summer and the Winter Games, the world’s media plays the more and more important role of bringing such mega-events into people’s lives as the time goes. The media has made an impact and will continue to affect shaping people’s cognitive, affective, and behavioral state in their social, political, and economic lives via covering mega-events such as the Olympic Games and FIFA World Cups. This study results revealed such media effects with a focus on the respondents’ actual feelings and opinions about the inquiring statements in the surveys. A swinging change of the respondents’ attitude and perceptions toward the international media’s coverage of the Olympic Games and of China in general from the negative to the positive mode was displayed from the pre- to the post-games surveys. The lower acceptance to the international media’s reporting of the Olympics and of China among the pre-games survey participants could be partly due to “The high level of sensitivity to the reports of China may suggest that nationalism, patriotism, and national identity and image not only played a part in the motive of Beijing and China to host the Olympics [4]. Rothenbuhler (1988) [1] also suggested that the public’s thinking about the 1984 Olympics showed a relatively consensual core of values, ideas, and sentiments that are distinct from those about other professional sports. The authors assume that the media effect through the Olympics to the people of the East (of China in this case) could be more significant and measurable than to the people of the West as the results of this study depict because the modern Olympics were created and structured by the people of Europe, the cultural origin of the West. The cultural and ideological contrast between the East and the West may be more effectively brought into play in people’s lives in the East through the Olympic Games by the Western media. This assumption could be more true to the people of China with a civilization that has been over 5,000 years to shape the people’s values and to create its own cultural heritage that differentiate in many ways contrasting to the Western culture and ideologies, not to mention the political ruling by the Chinese government that controls the country’s most and major media sources.

The higher level of acceptance to the international media’s coverage of the Olympics and of China among the post-games survey participants found in this study may have linked to the temporary relaxation of media control by the Chinese central government. As part of an agreement made in 2001 to win the Olympics for Beijing, the central government of China pledged to relax limits temporarily on foreign journalists from January 1, 2007 through October 17, 2008, saying they would be free to roam the country to report the Olympics and “related matters” [49]. As a result of this agreement, Xinhua News Agency (2006), the central government’s authoritative voice in China, released the “Regulations on Reporting Activities in China by Foreign Journalists during the Beijing Olympic Games and the Preparatory Period”. Following the release of the regulations, the Beijing Organizing Committee for the Olympic Games [50] issued the “Service Guide for Foreign Media Coverage of the Beijing Olympic Games and the Preparatory Period”. The guide intended to give client-oriented interpretations to every section and detailed step-by-step explanations of the procedures to satisfy the needs of the foreign media. This temporary relief of control on the international media’s reporting during the Olympic year provided more opportunities for the domestic audience to hear some voices that were different from what they normally hear during other times.

The positive change of attitude and perceptions of the survey respondents toward the international media’s coverage of the Olympics and of China, in general, may also result from the change of the media forms. The television as the primary source of daily news increased from 12.7% among the pre-games survey respondents to 29.6% among the post-games respondents. There were 29.98 million Internet users in China in 2008, equivalent to
22.6% of the country's population [51]. The portion of internet users among the survey respondents in this study was significantly larger than the national average at the same time. Internet was the main source of daily news, 55.9% and 54.2% respectively among the pre- and post-games survey respondents. The study results may have evidenced a media impact process described by Petty and Cacioppo (1986) [52], “when people are heavily involved in an issue, arguments will be processed centrally, and persuasion will depend on their relevance and quality.” By the end of 2017, according to the China Internet Network Information Centre (2018) [53], the Internet users in China reached 772 million in a size of 55.8% of the nation’s population with a 5.6% increase from the previous year, 4.1% more than the world’s average. Beijing will host the 2022 Winter Olympic Games, twelve years from the 2008 Summer Games, becoming the only host city in the world both for the Summer and the Winter Olympics. A future study in the same aspect during the 2022 Beijing Winter Olympics may provide further evidence on how the media effects on people are processed and witnessed during such mega-events. This kind of study may also discover the potential media effect on people's social behavioral change in a highly cyber-oriented media environment in today's China that is unlike once it was during the 2008 Beijing Olympics.

The study results revealed that the survey participants' political preferences dominated their attitude and perceptions toward the international media’s coverage of the Olympics and of China even though this study could not determine and did not attempt to explain what had significantly contributed to and shaped the respondents’ political views. The study results indicated a relatively less change of attitude and perceptions for the moderate and conservative groups in both surveys. The positive attitude and perception change were found among the liberal claimers in the post-games survey, particularly toward the international media’s coverage of the Olympic Games. Such change was not shown among the same group of respondents toward the international media reporting non-Olympic news related to China. A historical fact has perhaps made the reports on China by the foreign journalists a sensitive matter: the insecurity of the national image felt by many Chinese that was rooted in the frequent criticism by Western media of China’s political system and human rights records. Besides, the modern history of China, which recorded many foreign invasions through military oppression before the People’s Republic of China was established, has made people more sensitive to any report of China that is linked to its national image [10]. This kind of image is drawn from media products about a particular country and contains various constructs such as culture, economic and political status, historical events, international relations, traditions, industrialization, the degree of technological advancement, representative products, etc. [54, 55].

Finally, the finding of the reverse of perception on speaking their thoughts in public for the liberal groups versus those who adopted a “moderate” approach to life and politics from the pre- to the post-Olympic surveys clearly presents a clash between the Western values of freedom and individualism and the traditional Chinese philosophy of the doctrine of the mean. The respondents with moderate political preferences appeared to be more resistant to change. If the Olympics had a positive impact on political change in China, the impact has been in roundabout ways that have prompted a lively debate on more media freedom and less government secrecy [56]. Another encouraging message from this study is that the respondents—university students in Beijing—we were willing to embrace free and open international media reports on their country [10].

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