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Front Pages

BRAD STRAND & KELSEY SLATER
How do Graduate Students' Perceptions of Gamesmanship Change when exposed to a Sport Ethics Course?

MARIA KOSMA
Phenomenological Body Schema as Motor Habit in Skill Acquisition – Intentionality is in Action

PATRICE BOUVET
The Competitive Balance of the Ryder Cup: The Key Factor for the Success of the Modern Era of this Competition

GREGORY T. PAPANIKOS
The Global Media Coverage of the 2022 Qatar World Football Cup

Athens Journal of Sports

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The ***Athens Journal of Sports (AJSPO)*** is an Open Access quarterly double-blind peer reviewed journal and considers papers from all areas of sports and related sciences. Many of the papers published in this journal have been presented at the various conferences sponsored by the Sport, Exercise, & Kinesiology Unit of the **Athens Institute for Education and Research (ATINER)** & the Panhellenic Association of Sports Economists and Managers (PASEM). All papers are subject to ATINER's Publication Ethical Policy and Statement.

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Volume 10, Issue 2, June 2023
Download the entire issue (PDF)

Front Pages i-viii

How do Graduate Students' Perceptions of Gamesmanship Change when exposed to a Sport Ethics Course? 71
Brad Strand & Kelsey Slater

Phenomenological Body Schema as Motor Habit in Skill Acquisition – Intentionality is in Action 83
Maria Kosma

The Competitive Balance of the Ryder Cup: The Key Factor for the Success of the Modern Era of this Competition 95
Patrice Bouvet

The Global Media Coverage of the 2022 Qatar World Football Cup 119
Gregory T. Papanikos

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The current issue is the second of the tenth volume of the *Athens Journal of Sports,* published by the Sport, Exercise, & Kinesiology Unit of the ATINER under the aegis of the Panhellenic Association of Sports Economists and Managers (PASEM).

Gregory T. Papanikos, President, ATINER.

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23rd Annual International Conference on Sports: Economic, Management, Marketing & Social Aspects
8-11 May 2023, Athens, Greece

The Sports Unit of ATINER organizes its **23rd Annual International Conference on Sports: Economic, Management, Marketing & Social Aspects, 8-11 May 2023, Athens, Greece** sponsored by the Athens Journal of Sports. The aim of the conference is to bring together academics and researchers of all areas of sports. Please submit a proposal using the form available (https://www.atiner.gr/2023/FORM-SPO.doc).

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- Abstract Submission: **DEADLINE CLOSED**
- Acceptance of Abstract: 4 Weeks after Submission
- Submission of Paper: **10 April 2023**

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- Social Dinner
- Mycenae Visit
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The Sports Unit of ATINER will hold its **19h Annual International Conference on Sport & Exercise Science, 24-27 July 2023, Athens, Greece** sponsored by the Athens Journal of Sports. You may participate as stream leader, presenter of one paper, chair a session or observer. Please submit an abstract (email only) to: atiner@atiner.gr, using the abstract submission form (https://www.atiner.gr/2023/FORM-FIT.doc).

Important Dates

- Abstract Submission: **13 June 2023**
- Acceptance of Abstract: 4 Weeks after Submission
- Submission of Paper: **26 June 2023**

Academic Member Responsible for the Conference

Dr. Maria Konstantaki, Academic Member, ATINER & Senior Lecturer, Buckinghamshire New University, UK.

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Athens Journal of Sports - Volume 10, Issue 2, June 2023 – Pages 71-82

How do Graduate Students' Perceptions of Gamesmanship Change when exposed to a Sport Ethics Course?

By Brad Strand[*] & Kelsey Slater[±]

An important responsibility of coaches is teaching their athletes to make appropriate ethical decisions. One aspect of ethical decision-making involves gamesmanship. Making appropriate gamesmanship decisions is often influenced by the importance of winning. Coaches and athletes recognize what is appropriate but have a difficult time acting appropriately when winning and losing are on the line. This study used a pre-class post-class gamesmanship inventory to determine if an ethics course had an impact on the gamesmanship beliefs of graduate students enrolled in a leadership-focused master's degree program. It was noted that a shift in gamesmanship beliefs occurred as a result of the sport ethics course.

Keywords: *gamesmanship, ethics, morals, coaches, education*

Introduction

Gamesmanship as a concept is difficult to understand. As defined, it is the "art or practice of winning games by questionable means without actually breaking the game's rules, but violating the spirit" and "the use of ethically dubious methods to gain an objective" (Gamesmanship). The challenge for many coaches is they are judged on winning percentages while being expected by many to win fairly (Mata and Gomes 2013). The pressures put upon coaches to win can easily lead to the questionable practice of gamesmanship (Yukhymenko-Lescroart 2015).

In a sense, sportsmanship, gamesmanship, breaking the rules, and cheating exist on a continuum. It is well understood that sportsmanship is a set of moral qualities with a code of specialized behavior (Keating 1964), including traits such as truthfulness, honor, courage, respect, and fairness (Hanson and Savage 2012). On the other end of the continuum lies rule-breaking and cheating. Cheating involves breaking the rules of the game without getting caught (Daugherty 2016). Somewhere in the middle is gamesmanship which is a fine line between sportsmanship and rule-breaking/cheating. As mentioned in the first paragraph, gamesmanship is not cheating, but it certainly pushes the boundaries of the rules to gain an advantage or edge over opponents.

Because gamesmanship is not illegal, many players engage in it and many coaches teach and foster it (Strand et al. 2018). From an early age, athletes closely watch the actions of their coaches and treat what their coaches say as gospel (Becker 2009). Additionally, both players and coaches watch other players and

[*]Professor, North Dakota State University, USA.
[±]Assistant Professor, North Dakota State University, USA.

coaches win, while engaging in gamesmanship and it simply becomes an accepted norm in sports.

This study aimed to determine if a graduate course in sport ethics could lead to changes in the gamesmanship beliefs of students enrolled in the course.

Methods

Data for this study were gathered from two separate classes of a graduate course titled Ethical Leadership taught during different years. The course was offered in a graduate program titled Leadership in Physical Education and Sport.

Participants

The participants for this study were 42 (m=33, f=9) graduate students enrolled in a graduate program in a Midwestern state in the United States. Class 1 was comprised of 25 students (m=20, f=5) while class 2 had 17 students (m=13, f=4). The students were all graduate students with some being high school teachers and coaches, some university graduate assistants, and some fifth-year super seniors enrolled in the graduate program. No other specific demographic data were collected on the questionnaire.

Instructors and Class Format

The instructor of class 1 was a 60+-year-old male, a full professor, with over 40 years of teaching experience. He had been both a high school and college coach. Class 1 was offered online with structured weekly readings and assignments during a fall semester. The semester was 16 weeks in length. Once every two weeks students attended real-time online class sessions using Blackboard Collaborate. The book used for this class was titled *Sport ethics: Applications for fair play* (Lumpkin et al. 2003) with additional readings coming from *Sport ethics: Concepts and cases in sport and recreation (Mallay et al. 2003)*. Specific topics discussed in class 1 included: 1) your values and principles, 2) application and strategy, 3) intimidation, competition, and violence, 4) eligibility and sport elimination, 5) commercialized sport, 6) racial and gender equity, 7) racial and gender equity and 8) ergogenic aids.

One of the main assignments in course 1 was for students to write relevance reports on a bi-weekly basis. Relevance reports were an account of a current sporting event from some media report (TV, sports magazine, newspaper) that related to the chapter topic. The one-page reports included a concise statement of the exact moral issue involved; a supportive and critical interpretation of this event in light of sports ethics, and/or the philosophy of sport; and, one's observation of the event. The culminating activity in course 1 was for each student to prepare and record a video presentation that was shared with all students. Instructions for this activity were as follows: You will develop a video presentation of your philosophy of coaching/teaching/leadership in terms of positions relative to various ethical

dilemmas and issues typically encountered in today's coaching profession. With this presentation, you will identify what you consider three of the most pressing ethical issues challenging the sports industry. For each of the issues, you will be tasked with using specific facts and observations to demonstrate why the issue you are improving is indeed a problem in today's sports landscape. You must also include a specific way to fix the problem and why you believe the recommendation will cure this ill in society.

The instructor for class 2 was a 32-year-old female, assistant professor, with five years of teaching experience. This was her first teaching position since obtaining her Ph.D. Class 2 was offered online with structured weekly readings and assignments during a fall semester and the semester was 16 weeks in length. Once every two weeks students attended real-time online class sessions using Blackboard Collaborate. The book used for this class was titled *Fair play: The ethics of sport* (Simon et al. 2014) with additional readings from scholarly journals such as *Ethics & Behavior* (Van Der Hoeven et al. 2020), *philosophies* (Laukyte 2020), and the *Journal of Coaching Education* (Burden and Lambie 2011) as well as popular press sources including *U.S. and World Report*, *Women's Sport Foundation*, and *Harvard Business Review*. Specific topics that were discussed 1) your values and principles, 2) application and strategy 3) competition and violence 4) performance-enhancing drugs and sport 5) racial and gender equity in sport 6) sports in collegiate settings 7) commercialization of sport and, 8) match-fixing and cheating in sport.

One of the main assignments in course 2 was for students to participate in a semester-long leadership experience and reflection on the experience. Eligible leadership activities are defined as experiences that ethically and/or morally contribute to the campus or school community where each student resides, students primarily chose coaching activities where they were able to utilize what they were learning in class and translate it directly to their coaching professions. Each reflection journal included a concise statement of the exact moral issue involved and how the student reacted to the situation during their leadership experience.

Instrument

A questionnaire, "Values, Attitudes, and Behavior in Sport" was used to collect the data for this study. This questionnaire was adapted from the Josephson Institute on Ethics and has been used in previous studies (Deutsch et al. 2022, Strand 2013, Strand and Zeigler 2010, Strand et al. 2018). The researchers obtained permission from the Josephson Institute to use their instrument to collect data. The questionnaire used in this study contained 20 gamesmanship statements. Participants were asked to indicate if the action in the statement was (4) clearly acceptable - a perfectly legitimate action that can be properly taught as "part of the game", (3) acceptable - acceptable under existing standards and expectations, not improper to teach of promote, (2) improper - though many people would think this is okay, it is inconsistent with my view of sportsmanship, or (1) clearly improper - this is wrong and should not be taught or allowed.

The questionnaire was validated for content, construct, and face validity by a panel of experts who had experience in conducting survey research and were knowledgeable in the field of sport sociology. Cronbach's Alpha measure (a=0.938) indicated a high consistency and reliability for the statements on the questionnaire.

Procedures

The questionnaire was posted on Qualtrics before the start of class 1. At the beginning of the semester, class 1 students received an email with a link to the questionnaire. This email asked students to participate in the study by completing the questionnaire. Students had the option of completing or not completing the questionnaire. After class 1 students again received the email with the link for the questionnaire. All students elected to complete both the pre-course questionnaire and the post-course questionnaire. The same questionnaire was used for data collection with class 2. At the beginning of the semester, class 2 students received an email with a link to the questionnaire. This email asked students to participate in the study by completing the questionnaire. Students had the option of completing or not completing the questionnaire. After class 2, students again received the email with the link for the questionnaire. All students elected to complete both the pre-course questionnaire and the post-course questionnaire. The study was approved by the University Institutional Review Board. All subjects were asked to read and acknowledge their willingness to participate via an electronic consent form that was approved by the IRB.

Analysis of Data

Completed questionnaires were collected via Qualtrics. The data were subsequently transferred to the Statistical Package for the Social Sciences (version 28). Statistical analysis used to analyze the data included frequencies, percentages, and paired-sample t-tests to determine statistical significance at 0.05. For further analysis, the responses were combined into two categories: clearly acceptable/ acceptable (aka, acceptable) and improper/clearly improper (aka, improper).

Results

Results for classes 1 and 2 are reported separately. Class 1 results are shown in Table 1 and class 2 in Table 2. Each table shows the statement, the pre, and post-means and mean change for each statement, and the pre and post-percentage along with the percentage change of participants who indicated the action described in the statement as improper or clearly improper (aka improper).

Table 1. *Pre-Post Mean and Percentage Change for Class 1*

Statement	Pre Mean	Post Mean	Mean Change	Pre %	Post %	% change
1. In a contact sport, a coach instructs players to go after the injured shoulder of the other team's leading player to slow him/ her down or get him/her out of the game.	1.24	1.08	0.-16	100	100	0
2. In baseball/softball, a key player for X is hit by a pitch. In retaliation, X's coach orders his pitcher to throw at an opposing hitter.	1.40	1.44	+0.04	96	100	+4
3. In a contact sport, an athlete deliberately seeks to inflict pain on an opposing player to intimidate him.	1.52	1.42	-0.10	92	92	0
4. The idea that it's wrong to "run up the score" is outdated. A team should continue to score as many points as they possibly can even when the outcome is no longer in doubt.	2.16	1.88	-0.28	68	88	+20
5. In a sport where certain types of contact with an opponent is illegal (e.g., holding, hand-checking, pushing, or grabbing), a coach teaches his or her players to violate the rules in ways that will be least likely to be detected.	1.80	1.52	-0.28	84	88	+4
6. Effective taunting and trash-talking that throws an opponent off his/her game is a legitimate part of competitive sports.	1.92	1.76	-0.16	80	88	+8
7. In a sport where only a certain number of team time-outs are allowed, a coach with no time-outs left to instructs a player to fake an injury to get an "official" time-out.	1.32	1.28	-0.04	96	96	0
8. An athlete, who knows other athletes have done so without getting caught, illegally alters his/her equipment (e.g., hockey stick, baseball bat) to gain an advantage.	1.16	1.12	-0.04	100	100	0
9. In basketball, player X is fouled. Player Y, the team's best free throw shooter, goes to the line to shot the free throw undetected by the ref.	1.28	1.04	-0.24	96	100	+4
10. A coach instructs a groundskeeper to alter the field if the coach believes it will give his/her team an advantage (e.g., soaking a field to slow down opponents, sloping a foul line to keep bunts fair, letting grass grow long, etc.).	1.60	1.32	-0.28	92	96	+4
11. In soccer, during a penalty kick, a goalie, hoping the referee will not call it, deliberately violates the rules by moving forward three steps past the line before the ball is kicked.	1.60	1.36	-0.24	80	92	+12
12. On the winning point of the game, a volleyball player touches the ball before it goes out, but the referee misses the touch. The player says nothing.	2.40	2.12	-0.28	60	76	+16

13. A coach argues with an official intending to intimidate or influence future calls.	1.72	1.44	-0.28	88	88	0
14. In soccer, a player deliberately fakes a foul hoping the best player on the other team will be red carded and removed from the game.	1.36	1.28	-0.08	96	96	0
15. While on the bench, players boo, taunt, and jeer opponents.	1.40	1.32	-0.08	88	96	+8
16. In a game, an official makes a mistake in the score. The coach who benefits says nothing.	1.88	1.72	-0.16	76	80	+4
17. Before an important game, a coach receives an anonymous envelope containing an authentic and current copy of the opponent's playbook. The coach uses it to prepare his/her team.	1.36	1.20	-0.16	96	96	0
18. A coach deliberately swears at an official to get thrown out of the game in order to energize his/her team.	1.84	*1.36	-0.48	80	96	+16
19. To motivate players, a coach uses profanity and personal insults while coaching.	1.48	1.44	-0.04	88	88	0
20. After making a great play, an athlete pounds his/her chest boastfully and does an "in your face" celebration dance in front of an opponent.	1.84	1.68	-0.16	84	88	444 +4

Table 2. *Pre-Post Mean and Percentage Change for Class 2*

	Pre Mean	Post Mean	Mean Change	Pre %	Post %	% Change
1. In a contact sport, a coach instructs players to go after the injured shoulder of the other team's leading player to slow him/her down or get him/her out of the game.	1.29	1.16	-0.13	100	100	0
2. In baseball/softball, a key player for X is hit by a pitch. In retaliation, X's coach orders his pitcher to throw at an opposing hitter.	1.43	1.47	+0.04	100	95	-5
3. In a contact sport, an athlete deliberately seeks to inflict pain on an opposing player to intimidate him.	1.52	1.53	+0.01	95	90	-5
4. The idea that it's wrong to "run up the score" is outdated. A team should continue to score as many points as they possibly can even when the outcome is no longer in doubt.	2.33	2.32	-0.01	52	53	+1
5. In a sport where certain types of contact with an opponent is illegal (e.g., holding, hand-checking, pushing, or grabbing), a coach teaches his or her players to violate the rules in ways that will be least likely to be detected.	1.86	2.05	+0.19	76	79	+3
6. Effective taunting and trash-talking that throws an opponent off his/her game is a legitimate part of competitive sports.	2.67	2.53	-0.14	48	47	-1
7. In a sport where only a certain number of team time-outs are allowed, a coach with no time-outs left to instructs a player	1.90	1.37	-0.53	81	100	+19

to fake an injury to get an "official" time-out.						
8. An athlete, who knows other athletes have done so without getting caught, illegally alters his/her equipment (e.g., hockey stick, baseball bat) to gain an advantage.	1.33	1.21	-0.12	100	100	0
9. In basketball, player X is fouled. Player Y, the team's best free throw shooter, goes to the line to shot the free throw undetected by the ref.	1.57	1.21	-0.36	91	100	+8
10. A coach instructs a groundskeeper to alter the field if the coach believes it will give his/her team an advantage (e.g., soaking a field to slow down opponents, sloping a foul line to keep bunts fair, letting grass grow long, etc.).	1.81	1.58	-0.53	81	79	-2
11. In soccer, during a penalty kick, a goalie, hoping the referee will not call it, deliberately violates the rules by moving forward three steps past the line before the ball is kicked.	1.76	1.74	-0.02	81	84	+2
12. On the winning point of the game, a volleyball player touches the ball before it goes out, but the referee misses the touch. The player says nothing.	2.62	2.53	-0.09	52	90	+4
13. A coach argues with an official intending to intimidate or influence future calls.	2.29	2.16	-0.13	52	58	+6
14. In soccer, a player deliberately fakes a foul hoping the best player on the other team will be red carded and removed from the game.	1.57	1.42	-0.15	91	95	+4
15. While on the bench, players boo, taunt, and jeer opponents.	2.05	1.95	-0.1	67	68	+1
16. In a game, an official makes a mistake in the score. The coach who benefits says nothing.	2.29	2.05	-0.24	57	79	+22
17. Before an important game, a coach receives an anonymous envelope containing an authentic and current copy of the opponent's playbook. The coach uses it to prepare his/her team.	1.57	1.21	-0.36	81	95	+14
18. A coach deliberately swears at an official to get thrown out of the game in order to energize his/her team.	2.10	2.11	+0.01	67	58	-9
19. To motivate players, a coach uses profanity and personal insults while coaching.	1.76	1.58	-0.18	81	84	+3
20. After making a great play, an athlete pounds his/her chest boastfully and does an "in your face" celebration dance in front of an opponent.	2.43	2.21	-0.22	62	63	.22. +1

For class 1, the pretest mean for all statements combined was 1.61 while the post-test mean was 1.43. This is a positive change and is statistically significant at $p.<0.001$. In the pretest, the mean response for all but two statements was between 1.16-1.92, indicating the mean scores were between clearly improper and improper. The mean responses for the other two statements were 2.16 and 2.40,

indicating the action described in the statement was between acceptable and improper. In the post-test, mean scores for all but one statement were between 1.08 – 1.88. The one other statement had a mean response of 2.12. The percentage of participants who indicated a statement as improper is also shown in table 1. When comparing pre to post-test results, there was a positive percentage change for 12 of the 20 statements and no change for eight of the statements.

For class 2, the pretest mean for all statements combined was 1.90 while the post-test mean was 1.75. This is a positive change and is statistically significant at $p.<0.001$. In the pretest, the mean response for 12 of the statements was between 2.05-2.67, indicating the mean scores for these statements fell between acceptable and improper. The mean responses for the other eight statements were between 1.29 and 1.90, indicating the action described in the statement was between improper and clearly improper. In the post-test, mean scores for twelve statements were between 1.16 – 1.95, and for eight statements it was between 2.05 – 2.53. The percentage of participants who indicated a statement as improper is also shown in Table 2. When comparing pre to post-test results, there was a positive percentage change for 14 of the 20 statements, no change for one statement, and a negative change for five statements.

Discussion

Ethics in sports is a controversial subject. Two fans cheering for opposing teams and seeing the same play view it completely differently. If the play is called in your favor, all is good; but if it goes against your team, you feel cheated.

How coaches react to such calls influences their players and their players' judgment of what is right or allowed in sports (Becker 2009, Weathington et al. 2010). For example, consider the statement, "In a game, an official makes a mistake in the score. The coach who benefits says nothing." If players are aware of this mistake and their coach says nothing, it is implied that this is okay. Many would simply say, "it's the official's job to keep track of this." The idea of whatever it takes to win comes to mean exactly that. If it means cheating, so be it. If it means ignoring the obvious, so be it. If it means hurting opposing players, so be it.

The question remains, who determines what is acceptable gamesmanship? Since coaches play such an important role in athlete development, it is incumbent upon them to "do right" and "set the standard". Do right and set the standard, however, are subjective terms, and are certainly interpreted differently by various individuals. For example, in class 2, approximately 50% of respondents identified taunting and trash-talking that throw an opponent off his/her game as a legitimate part of competitive sports and as acceptable sporting behavior. Conversely, the other half identified that as an inappropriate action.

As coach educators, instructors are charged with coach training, education, and development (TED). TED happens through college coaching courses, professional development courses, graduate education, conferences and workshops, and individually by reading books and searching websites. It is well known that participation in any

of those events results in increased knowledge and better performance (Bilal et al. 2017). It was encouraging to see that both classes had a positive impact when measuring student perceptions of gamesmanship. Even though gamesmanship is a small part of ethical behavior in sports, it is an important one as athletes watch and model what their coaches say and what they do (Becker 2009).

Conclusions

The terms ethics and morals are closely related; the difference is that morals serve as guiding principles while ethics refers to specific actions and behaviors (Diffen n.d.). Seidman (2021) suggested that moral leadership is currently in high demand but is in short supply; that managers who demonstrate higher levels of moral leadership have stronger connections with colleagues; that moral leadership increases business performance; and that professional development opportunities are not doing enough to foster moral leadership. As such, one might argue that including ethics courses in the higher education curriculum could foster better moral decision-making.

Ritter (2006) used two business courses to compare the effect of ethics training. She found that women in the experimental group showed significantly improved moral awareness and decision-making processes. Myyry and Helkama (2010) studied the sensitivity to moral issues from a story with social psychology students. The experimental group students progressed in moral sensitivity from pre-test to post-test while the control group declined significantly. Walker (2011) investigated the impact of an ethics class on students' ethical decision-making. She found increased positive cognitive and affective changes in student perceptions that inform one's value and belief system, the student's ability to remain open-minded and reconsider previous beliefs and actions from a 360-degree perspective, and the student's ability to apply new information to ethical dilemmas in the workplace. Similarly, Schwitzgebel et al. (2020), found that a university ethics course influenced students' purchasing of certain products.

Based on the results of this current study and others, ethics courses should be included within the curriculum of leadership, physical education, and sport administration programs to impact the gamesmanship beliefs of coaches, educators, and athletes; leading to better moral decision-making. As these students often become the coaches and educators who teach the next generation of young athletes appropriate sporting behavior, it is important that they understand ethical reasoning and how to apply moral decision-making in sports settings.

In this and other studies (Strand 2013, 2014, 2021a, 2021b, 2021c, Strand et al. 2017, 2018, Strand and Zeigler 2010), it was found that coaches and athletes clearly understand that some gamesmanship actions are inappropriate, as demonstrated by the low scores of the items, but these actions still happen because when faced with the challenge of behaving ethically at the cost of victory, many coaches and athletes feel that winning is more important. As demonstrated by some of the responses in this study, students had differing perceptions of individual gamesmanship actions. As such, the development of standardization of

these actions may be beneficial for sports organizations as teams, leagues, and sports organizations need to have ethical standards to guide coaches, players, and spectator behavior.

Limitations

In every study, some factors limit the extrapolation of findings. In this study, the subjects were students in two graduate courses offered in a graduate program. Although students were not required to complete the questionnaire some might have believed it was a necessary part of course requirements. A major limitation is the lack of demographic data. For example, subjects could have been asked to identify social-cultural factors which might have provided greater insight into the results. However, since the n was small for each course it would have been difficult to find meaningful differences because the cells for various demographic data would have been very small, or non-existent.

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Phenomenological Body Schema as Motor Habit in Skill Acquisition – Intentionality is in Action

*By Maria Kosma**

The purpose of this concept-based paper was to showcase the importance of Merleau-Ponty's (1945/2014) phenomenological body schema as motor habit in skill acquisition and perception of the world and contrast it with the standard information processing models that are solely based on cognition. Examples of disability cases are used, including Schneider's brain damage and instances of apraxia, to exhibit that difficulty in executing certain motor skills is based on lack of body schema/motor habit and not on some gnostic disorder that inhibits representation as proposed in information processing. Habitual body movement is essential in understanding body schema as motor habit, which is a pre-reflective consciousness, an inter-sensorial unity. Motor skills are learned only via body movement because the body "grasps" and "conceives" movement by throwing itself into meaningful significations without calculating the distance between body parts and external objects. Motor skill execution is done tacitly via body schema that may involve essential external apparatus like a blind man's cane or aerial silks in aerial practice. Constant engagement with concrete, functional movements and different ways to perform abstract movements (e.g., use of preparatory actions and vision), can improve body schema/motor habit, and thus mobility, skill performance, and understanding of the world.

Keywords: *body schema, motor habit, skill acquisition and learning, Merleau-Ponty, phenomenology*

Introduction

The literature in skill acquisition is informed mainly by information processing models, whereby limited pieces of sensed information are stored in short-term memory and based on cognitive capacity, attention, and motivation, they can be encoded in long-term memory to be retrieved when needed (e.g., use of procedural information is considered key to be able to drive a car) (Vinney 2020). The purpose of this concept-based paper is to critique this cognitive and memory-based approach in learning motor skills by drawing on Merleau-Ponty's phenomenological philosophy of body schema as motor habit in acquiring and learning new motor significations (e.g., motor skills) and thus understanding the world (Merleau-Ponty 2014). This embodied approach in skill acquisition can facilitate the development of effective movement programs within diverse activity settings, including sports, exercise, leisure, dance, rehabilitation, and physical theater (Kosma 2021, 2022, Kosma and Buchanan 2021, Kosma and Erickson 2020, Kosma et al. 2021).

Drawing on Merleau-Ponty's (2014) magnum opus, *Phenomenology of Perception*, the paper starts by showcasing that skill acquisition is not achieved via

*Associate Professor, School of Kinesiology, Louisiana State University, USA.

"memory" or "representation" as proposed by information processing models; rather it is accomplished via our phenomenological body schema, which is a pre-reflective, inter-sensorial unity that provides a sense-giving experience (Carman 2009, Dermot 2017, Merleau-Ponty 2014). In the paper, Merleau-Ponty's (2014) example of Schneider is used – a patient with brain damage from World War I – to show that although he did not have cognitive issues as described in information processing models, he could not perform certain motor tasks because he lacked body schema – his habitual and pre-reflective consciousness (Merleau-Ponty 2014). Schneider could perform abstract movements only if he was allowed to see his limbs and body parts and/or execute a series of preparatory movements to get a "grasp" of his body ("find" his body schema).

In the second and third sections of the paper, the emphasis is on the role of body movement in conceiving body schema as motor habit, which is not a form of "visual representation" or an "automatic reflex"; rather, motor habit is knowledge "in hand." It reflects tacit understanding without thinking the objective location of one's body in relation to the objective space of objects in the world (Merleau-Ponty 2014, Tanaka 2011). Only via motor habit can we acquire new motor skills and renew our body schema. Cases of apraxia are presented to showcase that challenges in executing motor skills are not based on gnostic disorders but deficiencies in body schema – motor habit (Merleau-Ponty 2014).

In the final segment of the paper, I discuss how motor habit is also a perceptual habit, which is thus responsible for skill learning and understanding of the world. Certain apparatus used in activities of daily living (e.g., cane of the blind man) or exercise settings (e.g., aerial silks in dancing) have become a part of one's body schema/motor habit, facilitating the acquisition of new skills and understanding of the world (Kosma and Erickson 2020, Kosma et al. 2021, Merleau-Ponty 2014). The paper concludes with examples in designing effective movement programs for skill acquisition and expansion of existing motor repertoires.

Information Processing vs. Phenomenological Body Schema in Skill Acquisition

Before embarking upon Merleau-Ponty's philosophy of the role of body schema (as motor habit) in learning motor skills and perceiving them – and the world – I will provide a brief overview of his critique of the information processing theory in skill acquisition. The hypothesis to view skill acquisition in an entirely cognitive way, whereby our minds process sensed information like computers do, was coined in the 1950s with the emergence of the first computers (Vinney 2020). Since then, there have been several information processing models in cognitive psychology, including Miller's (1956) Information Processing Theory, Atkinson and Shiffrin's (1968) Stage Theory, Craik and Lockhart's (1972) Level of Processing Model, and Rumelhart et al.'s (1986) Connectionist Model. The main premise of all those information processing models is that limited pieces ("chunks") of sensed information are stored in short-term memory, which, based on cognitive capacity, focus, and attention, can be encoded in long-term memory

to be retrieved when necessary (e.g., procedural information is considered key to learning how to drive a car) (Vinney 2020).

In his seminal work, *Phenomenology of Perception* – a critique of the Cartesian body-mind dualism – Merleau-Ponty (2014) criticized this Cogito (Cartesian) oriented information processing model by showcasing that motor skills are learned via motor habit, which is our body schema that perceives the world. Instead of viewing movement solely as the result of cognitive elements, a Cogito – the superior mind – Merleau-Ponty emphasized the role of the body and bodily movement as the main source of skill acquisition. Based on the Cartesian philosophy, the body is erroneously objectified to be no more than a "machine" emitting meaningless sensations (Kosma 2021, 2022). Instead of viewing the body as an object like all other objects in the world, Merleau-Ponty elevated its essence to a subject, *The Lived Body*, that acts (e.g., dances, climbs, bikes, swims, runs, senses) and informs the mind (Kosma 2021, 2022, Kosma and Buchanan 2021, Kosma et al. 2021, Merleau-Ponty 2014). The body is always with us throwing itself toward an action. It is not an object like "an assemblage of organs juxtaposed in space" (Merleau-Ponty 2014, p. 100).

> "I am not in space and in time, nor do I think space and time, rather, I am of space and of time, my body fits itself to them and embraces them. The scope of this hold measures the scope of my existence; however, it can never… be total. The space and time that I inhabit are always surrounded by indeterminate horizons that contain other points of view. The synthesis of time, like that of space, is always to be started over again" (Merleau-Ponty 2014, p. 141).

Body spatiality is situational based on how the body is engaged with its tasks. Unlike the theories of information processing, the body does not form a positional spatiality by calculating the position of different body parts and how they are organized with each other (Stanford Encyclopedia of Philosophy, 2016). We are not looking for our body parts and how they move; we just know via praktognosia – a constant motor experience with actual tasks in different settings, which allows us to reach and understand the world and its objects (Stanford Encyclopedia of Philosophy 2016).

> "If I am standing and if I hold my pipe in a closed hand, the position of my hand is not determined discursively by the angle it makes with my forearm, my forearm with my arm, my arm with my torso… my torso with the ground. I have an absolute knowledge of where my pipe is, and from this I know where my hand is and where my body is, just as the primitive person in the desert is always immediately oriented without having to recall or calculate" (Merleau-Ponty 2014, p. 102).

This sense-giving experience is because of our body schema, which is "a spatial and temporal unity… an inter-sensorial unity, the sensorimotor unity of the body that is not limited to contents associated in the course of our experience… it rather precedes them and makes their association possible" (Dermot 2017, Merleau- Ponty 2014, p. 103). Our body schema, which is originary, determines our body space – without body schema there would be no body space. Body

schema exists primarily via our existence in the world. "Body schema is a manner of expressing that my body is in and toward the world" (Halák 2018, Merleau-Ponty 2014, p. 103). "Descriptions of oriented space (e.g., on, under, or next to the table) have no meaning if the person cannot be situated by his body in front of the world" (Merleau-Ponty 2014, p. 103).

Contrary to information processing approaches, this *tacit* understanding of the world via one's body does not occur through "representation" or a "symbolic function" (Carman 2009, Merleau-Ponty 2014, p. 141); rather, it is the motor experience, "motricity", which "possesses the elementary power of sense-giving" (Merleau-Ponty 2014, p. 143).

> "If bodily space and external space form a practical system, the former being the background against which the object can stand out or the void in front of which the object can *appear* as the goal of our action, then it is clearly in action that the spatiality of the body is brought about, and the analysis of movement itself should allow us to understand spatiality better. How the body inhabits space (and time, for that matter) can be seen more clearly by considering the body in motion because movement is not content with passively undergoing space and time, it actively assumes them, it takes them up in their original signification that is effaced in the banality of established situations" (Merleau-Ponty 2014, p. 105).

To challenge classical psychology and its reliance on information processing, Merleau-Ponty (2014) provided as an example the case of Schneider, who had a brain damage from World War I. Although Schneider did not have an intellectual disorder and he knew the positions of his limbs and body parts, he was unable to perform abstract movements with his eyes closed (e.g., "extend or flex a finger upon command") … "unless he was allowed to see his limb in question or execute preparatory movements involving his whole body" (Merleau-Ponty 2014, p. 105). Although he could not point to or verbally identify the location of his leg touched by a ruler, he could scratch his leg where a mosquito had bitten him. He could also perform habitual movements for his employment (e.g., "make wallets by trade" with great speed and efficiency or "take a match from a matchbox and light a lamp") (Merleau-Ponty 2014, p. 105). Even though Schneider could not point to his nose upon command (abstract movement), he could "grasp" or "touch" his nose or take a handkerchief from his pocket to blow his nose, which are actions that constitute concrete and functional movements. His pathology had nothing to do with lack of memory or symbolism or representation (positional consciousness) – as hypothesized by classical psychologists based on information processing models. Schneider knew where his nose was; thus, behaviorally, physically, and cognitively it should make no difference if he pointed to it (abstract action he could not perform) or grasped it (concrete action he *could* perform). The need for the patient to implement preparatory movements to find his limbs and body parts to execute abstract movements signifies that the issue was in his consciousness of body schema as an intersensory whole that "catches" and "understands" movement pre-reflectively in a habitual matter – the body is a power that holistically performs any kind of movement based on the milieu in which it finds itself (Merleau-Ponty 2014). In dancing and aerial dancing, the dancer "thinks on their feet" (Snowber

2012, p. 55) and the aerialist learns and improves their motor skills by sensing the silks while climbing, inverting, and posing (Kosma and Erickson 2020). It is the patient's "phenomenal hand" that reaches to the place of the mosquito bite, and it is the patient's "phenomenal hands and fingers" that use the scissors and needles to execute his employment tasks. The patient does *not* move his objective (scientific) body in objective space (e.g., looking for his hands and fingers to perform concrete and functional tasks), but his *phenomenal body*.

> "The body is but one element in the system of the subject and his world, and the task obtains the necessary movements from him through… the phenomenal forces at work in my visual field… without any calculation… In concrete movement, the patient has neither a thetic consciousness of the stimulus nor a thetic consciousness of the reaction… he is the body, and his body is the power for a certain world" (Merleau-Ponty 2014, p. 109).

The normal subject or the actor can assume various imaginary roles like different characters to be performed because their body has the "power of action" like "virtual action." However, the patient needs to execute a series of preparatory movements to perform abstract actions (e.g., make a circular motion with his hand); thus, the patient's "gesture itself loses the melodic character that it presents in everyday life… and becomes a sum of partial movements laboriously placed end to end" (Merleau-Ponty 2014, p. 107).

> "Whereas for the normal subject each motor or tactile event gives rise in consciousness to an abundance of intentions that run from the body as a center of virtual action either toward the body itself or toward the object, for the patient, on the contrary the tactile impression remains opaque and closed in upon itself" (Merleau-Ponty 2014, pp. 111–112).

Schneider did not lack memory or mental representation as proposed in information processing models, but a pre-reflective, habitual body schema. Therefore, it is showcased below how motricity (movement) is "original intentionality" (Merleau-Ponty 2014, p. 139) resulting in habitual motor acquisitions that form one's body schema.

The Role of Body Movement in Understanding Body Schema as Motor Habit

Movement is original intentionality, not because we "think" about the objects we move towards as a "representation", but because we "can" respond to different solicitations, a milieu that we "hunt" (Kosma and Buchanan 2021, Kosma and Erickson 2020, Kosma et al. 2021, Merleau-Ponty 2014, p. 139). Movement and bodily space are not separated; they are a whole within this world: "we execute our movements in a space that is not 'empty' and without relation to them, but which is, on the contrary, in a highly determined relation with them: movement and background are only, in fact, moments artificially separated from a single whole" (Merleau-Ponty 2014, p. 140). The body needs to be able to capture and understand

movement by incorporating it into its world, and this is the only way movement is learned (Kosma and Buchanan 2021, Kosma and Erickson 2020, Kosma et al. 2021). The body gestures toward a real and true object, not its representation: "to be able to move our body toward an object, the object must first exist for it, and hence our body must not belong to the region of the 'in-itself'" (Merleau-Ponty 2014, p. 140). People who suffer from apraxia have no gnostic disorder. Intellectually, they understand the action to be performed, but they cannot "localize a stimulus upon the body or reproduce a triangle, a v, or an o… The body has its world, and the objects or space can be present to our knowledge without being present to our body" (Merleau-Ponty 2014, p. 140).

The body throws itself – via motricity – towards new (motor) significations in the world, in which case the body "catches" and "understands" movement in a form of habit (Kosma et al. 2021, Merleau-Ponty 2014). Such habitual movements reflect body schema, which can be constantly "renewed and reworked" (Merleau-Ponty 2014, pp. 143–144, Purser 2017). Habit is not a "form of knowledge" (e.g., by visual representation of an object we aim at) or an "automatic reflex"; rather, it is knowledge "in hand"; it reflects tacit understanding without thinking the objective location of our body in relation to the objective space of objects in the world (Merleau-Ponty 2014, Tanaka 2011). When we are habituated to a new dance, we "integrate particular elements of general motricity" (e.g., running and walking, other dances we have learned, etc.) via the sense of "a motor consecration" (Merleau-Ponty 2014, p. 144).

> "If I possess the habit of driving a car, then I enter into a lane and see that 'I can pass' without comparing the width of the lane to that of the fender, just as I go through a door without comparing the width of the door to that of my body… The automobile has seized to be an object whose size and volume would be determined through a comparison with other objects. It has become voluminous power and the necessity of a certain free space… The blind man's cane has seized to be an object for him… the cane's furthest point is transformed into a sensitive zone; it increases the scope and the radius of the act of touching and has become analogous to a gaze... the blind man knows the length of the cane by the position of the objects, rather than the position of the objects through the cane's length… If I want to be habituated to a cane, I try it out, I touch some objects and, after some time, I have it 'in hand': I see which objects are 'within reach' or out of reach of my cane. This has nothing to do with a quick estimate or a comparison between the objective length of the cane and the objective distance of the goal to be reached. Places in space are not defined as objective positions in relation to the objective position of our body… to habituate oneself to… an automobile, or a cane is to take up residence in them, or inversely, to make them participate within the voluminosity of one's own body. Habit expresses the power we have of dilating our being in the world, or of altering our existence through incorporating new instruments" (Merleau-Ponty 2014, pp. 144–145).

The typist knows how to type without knowing the location of each letter on the keyboard. He/she "incorporates the space of the keyboard into his bodily space" (Merleau-Ponty 2014, p.146).

> "The subject knows where the letters are on a keyboard just as we know where one of our limbs is – a knowledge of familiarity that does not provide us with a position in objective space. The movement of his fingers is not presented to the typist as a spatial trajectory that can be described, but merely as a certain modulation of motricity, distinguished from every other through its physiognomy" (Merleau-Ponty 2014, p. 145).

The typist can translate the "visual structures" or "wholes" on the keyboard into a "motor response", "without having to spell out the word or spell out the movement" (Merleau-Ponty 2014, p. 145). This habitual action is part of our body in motion because habit can be acquired *only* if our body "understands" movement – "the power of habit is not distinguished from the one we have over our body in general" (Merleau-Ponty 2014, p. 145).

> "To understand is to experience the accord between what we aim at and what is given, between the intention and the realization – and the body is our anchorage in a world" (Merleau-Ponty 2014, p. 146).

To paraphrase Merleau-Ponty, "when we are asked to bring our hand towards our knee, we do so by following the shortest path, without thinking the objective positions of our hand and knee or the trajectory of the movement. Our knee is not an object or an idea, but rather a present and real part of my living body" (Merleau-Ponty 2014, pp. 145–146).

Body Schema – (Motor) Habit to Acquire New Motor Significations

It was showcased above that habitual body movements reflect body schema as motor habit, through which we can acquire new motor significations pre-reflectively or pre-cognitively. There is no need to use mental representations in skill learning and execution; the body *knows* via its existence within the world. The body, via motricity, throws itself into the world (Kosma et al. 2021) – "the body is the mediator of the world" (Merleau-Ponty 2014, p. 146).

> "At times, it restricts itself to gestures necessary for the conservation of life, and correlatively it posits a biological world around us… sometimes, it brings forth a new core of signification… new motor habits, such as dance" (Merleau-Ponty 2014, pp. 147–148).

There is a unity in our body (body schema-habit), whereby our body parts (e.g., "visual, tactile, and motor aspects") are sensed as a whole; they are "not coordinated" (Halák 2018, Merleau-Ponty 2014, p. 150). "Our body is not primarily in space but is rather of space" (Merleau-Ponty 2014, p. 149). "I am not in front of my body; I am in my body, or rather I am my body" (Merleau-Ponty 2014, p. 131). When I execute different motor significations through my body, I do not "contemplate the relations between the segments of my body and the correlations between my visual body and my tactile body" (Merleau-Ponty 2014, p. 151).

> "I do not translate the 'givens of touch' into the 'language of vision', nor vice versa; I do not assemble the parts of my body one by one. Rather this translation and assemblage are completed once and for all in me: they are my body itself" (Merleau-Ponty 2014, p. 151).

When a young child first attempts to grasp an object, they do not look at their hand, but the object. When someone reaches to pick up the phone, they can use a combination of different movements like leaning forward or leaning back in their chair while straightening their legs or bending their knees – or getting up from the chair – without thinking about all those combinations – just via their body schema-motor habit (Merleau-Ponty 2014).

In other words, new motor significations are acquired via our body schema as motor habit and not because of thought or representation (Halák 2018, Merleau-Ponty 2014). Body schema constantly evolves – it is reworked and renewed. The experienced organist can learn how to play a new instrument rather quickly, not because of the emergence of "new conditioned reflexes" (Merleau-Ponty 2014, p. 146) or mental representations, but because of her/his body schema – (motor) habit.

> "He sizes up the new instrument with his body, he incorporates its directions and dimensions, and he settles into the organ as one settles into a house… the stops, the pedals, and the keyboards are only presented to him as powers of such and such an emotional or musical value, and their position as those places through which this value appears in the world" (Merleau-Ponty 2014, pp. 146–147).

The organist uses the instrument to express herself/himself, and her/his *bodily expression* is "the origin of all other expressive spaces."

> "… his rehearsal gestures… put forth affective vectors, they discover emotional sources, and they create an expressive space... The body is eminently an expressive space… But our body is not merely one expressive space among all others, for that would be merely the constituted body. Our body, rather, is the origin of all the others, it is the very movement of expression, it projects significations on the outside by giving them a place and sees to it that they begin to exist as things, beneath our hands and before our eyes" (Merleau-Ponty 2014, p. 147).

Motor Habit is a Perceptual Habit to Understand the World

As showcased above, motricity (body movement as action and not mental representation – intentionality is in action) can help us realize that body schema is actually a motor habit, which is constantly reworked as new motor significations are acquired. In this way (via bodily, habitual movement), we can perceive the world. Motricity "sheds light on the particular nature of body space" (Merleau-Ponty 2014, p. 153), in that the motion of the body with its own space determines the space of the external objects in the world. This motor habit helps us understand the world because it is also a perceptual habit at the same time: "every habit is simultaneously motor and perceptual because it resides… between explicit

perception and actual movement, in that fundamental function that simultaneously delimits our field of vision and our field of action" (Merleau-Ponty 2014, p. 153). The blind man can explore and perceive different objects by using his cane (example of motor habit) not because he understands the positions of the external objects through the pressure of the cane on the hand – in fact, "habit relieves us of this very task" (Merleau-Ponty 2014, pp. 153–154) – but because the cane has become part of the subject's "body synthesis"; "the cane is no longer an object that the blind man would perceive, it has become an instrument with which he perceives. It is an appendage of the body" (Merleau-Ponty 2014, p. 154). The external objects explored by the cane are not signs, but appearances. The grasping of their signification is achieved via the body that throws itself into the world. In movement studies, the two pieces of fabric in aerial silks have become part of the aerialist's body schema – motor habit, through which he/she can acquire new movement skills and expand their motor repertoire (Kosma and Erickson 2020, Kosma et al. 2021). This type of body understanding will happen only via the body's ability to tacitly grasp motor tasks, to have them in hand (Merleau-Ponty 2014). We can understand new skills and the world via motor habit (Kosma and Buchanan 2021, Merleau-Ponty 2014). "There is an organic relation between the subject and the world" (Merleau-Ponty 2014, p. 154). When the child learns to distinguish between red and blue colors as different categories/significations, he/she does so because the "color category is rooted in the givens" (Merleau-Ponty 2014, p.154). The action (gaze), signification, and perception are all united to "enrich and to reorganize the body schema":

> "As a system of motor powers or perceptual powers, our body is not an object for an 'I Think': it is a totality of lived significations that moves towards its equilibrium. Occasionally, a new knot of signification is formed: our previous movements are integrated into a new motor equity, the first visual givens are integrated into a new sensorial entity, and our natural powers suddenly merge with a richer signification that was, up until that point, merely implied in our perceptual or practical field or that was merely anticipated in our experience through a certain lack, and whose advent suddenly reorganizes our equilibrium and fulfills our blind expectation" (Merleau-Ponty 2014, p. 155).

Concluding Comments and Implications

The purpose of this concept-based paper was to showcase the importance of Merleau-Ponty's phenomenological body schema as motor habit in skill acquisition and perception of the world and contrast it with the standard information processing models that are solely based on cognition (e.g., mental representation and memory). Based on the analysis in the paper, it is clear that habitual body movement is essential in capturing body schema as motor habit – a tacit understanding of the world, a pre-reflective consciousness, an inter-sensorial unity, a spatial and temporal unity (Merleau-Ponty 2014). Instead of relying on information processing models in skill acquisition and learning, the paper's take home message is that the body grasps and conceives movement by throwing itself into meaningful

significations via its body schema/motor habit (Kosma and Erickson 2020, Kosma et al. 2021, Merleau-Ponty 2014).

The body is not in space, but of space. It inhabits space and its spatiality is situational and not positional or calculative. We do not look for our limbs nor do we measure the distance between them and external objects to execute different skills (Halák 2018, Merleau-Ponty 2014, Stanford Encyclopedia of Philosophy 2016). Instead, we do so tacitly via our body schema that may involve essential external apparatus for daily functions (e.g., a blind man's cane; Merleau-Ponty 2014) or actions (e.g., aerial silks in aerial practice; Kosma et al., 2021). Only via the existence of body space can space of external objects exist. When the body moves within a myriad of changing horizons we can speak of objects under, in front of, or above it within everchanging situations and not in a constituted, objective, or measurable way (Merleau-Ponty 2014).

Drawing on this groundbreaking work of Merleau-Ponty (2014) in relation to this paper, important implications in movement programs can be realized. Movement experts must reinforce practical movement experiences among students, exercisers, and certain patients to strengthen their body schema, which can be constantly renewed and reworked. To have something "in hand," constant practice is essential by allowing the body to throw itself into meaningful motor significations for the improvement of already learned skills and the acquisition of new ones (Kosma and Erickson 2020, Kosma et al. 2021, Merleau-Ponty 2014). In rehabilitation programs for patients with certain brain damage or apraxia, it would be a colossal mistake to rely on mental representations and/or memory, partially, because their pathology relates to their lack of body schema and not to a gnostic disorder. Also, reworking one's body schema may improve cognitive functioning because body and mind are not separate entities but a whole within ever changing settings. Emphasis should be on concrete and functional movements that can be easily performed rather than abstract movements that may be meaningless to the patient. That said, if "virtual action" is important like in acting (abstract actions) (Merleau-Ponty 2014), executing preparatory movements may be essential for getting a "grasp" of an imbalanced body schema and achieving some form of equilibrium or Gestalt. A similar example would include the use of mirror therapy in managing chronic pain and phantom limb pain or in improving post-stroke mobility, in which case the patient has a chance to view a holistic body schema as they used to know it prior to their condition (e.g., amputation or stroke) (Gandhi et al. 2020, Lamont et al. 2011, Wittkopf and Johnson 2017).

Future research in movement programs should involve the examination of the effects of different forms of practical movements with or without external apparatus (depending on the situation) on body schema – motor habit and skill learning for people with and without certain disabilities. Constant engagement in concrete movements and different ways to perform abstract movements via for example the use of preparatory actions, vision, and both abstract and functional movements (e.g., grasping vs. only pointing) can improve one's body schema – motor habit, and thus their mobility, skill performance, and understanding of the world.

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The Competitive Balance of the Ryder Cup: The Key Factor for the Success of the Modern Era of this Competition[1]

*By Patrice Bouvet**

The objective of this article, using the example of recent editions of the Ryder Cup, is to discuss the importance of the concept of competitive balance as a factor explaining the interest shown by spectators and TV viewers in sports competitions. To this end, after having constructed indicators to calculate the ex-ante competitive balance of the last 20 editions of this competition, a comparison is made with the results (gaps) observed on the course. The conclusion, which may be of interest to sports economists, future organisers and technicians (captains), is that "the competitive balance does not explain everything". Other concepts need to be developed.

Keywords: *Ryder Cup, competitive balance, annual performance indicator, current performance indicator, competitive exceptionality*

Introduction

"The Ryder Cup is a unique sporting event whose originality has elevated it above other more traditional competitions" (Callow 2018). For millions of golfers this competition has a special flavour (Pugh and Lord 2010). However, after the Second World War, the Ryder Cup almost died. Since then, unforgettable moments have forged the status of this competition at the heart of the history of world sport. Sacred destiny for a match that was initiated in all simplicity in the mid-1920s. What are the reasons for this global craze? Almost every golfer has his own answer. Beyond the enthusiasm generated by the public, the attraction of this competition can also be an object of study for the sports economics researcher. Reformulated with the vocabulary specific to this type of interrogation, the question then becomes: what are the key factors for the success of this competition?

The origin of the notion of key success factor can be found in a publication by Daniel (1961) in the Harvard Business Review. Today, this "concept" is most often used in a more general perspective to refer to the elements that decisively influence the results of an organization, an action, a competition, etc. (Scelles 2009). In the strategic domain, the ambition is most often to identify them upstream in order to properly orient the company's activity. In other areas, the objective is to identify them downstream to analyse and interpret the results obtained. Since Myrdal's work (1931), economists have in this case developed the habit of distinguishing between *ex-ante* and *ex-post* analyses. In sports economics, where possible, for example for the study of the impact of major sports events, the comparison of *ex-*

*Senior Lecturer, University of Poitiers, France.

[1]Since 1979.

ante expected results with those observed *ex-post* is particularly interesting (Barget and Gouguet 2010). Often, the main obstacle to the development of this type of analysis is the difficulty of implementing them in practice. This is not the case for the Ryder Cup. In addition, to the question of the origin of the interest in the Ryder Cup, a "scientific" answer seems to be immediately available. This would lie in its competitive balance. There are two main reasons for this:

- this is the case for all sports competitions,
- since 1979, the organizers have been doing their utmost to try to equalize the opposing forces.

Therefore, perhaps even more so than for other sports competitions, the question arises with insistence: is competitive balance really the key factor for the success of modern editions of this competition?

Our objective is to provide answers to this question and more generally to discuss the importance of the concept of competitive balance, particularly in individual sports. To do this we will proceed in three steps. After having recalled the interest of the concept of competitive balance (1), we will propose intermediate indicators to evaluate it *ex-ante* during the last twenty editions of the Ryder Cup (2) which will finally allow us to draw many conclusions, in particular by putting in perspective the results obtained with those observed on the courses (3).

The Concept of Competitive Balance

Competitive Balance in Collective Sport

In sport economics, the following implication is generally accepted:

	(1)		(2)	
Equivalent sports and Level	⟹	Balanced matches for which the result is uncertain	⟹	Interest for spectators viewers

Intuitively, the reasoning is attractive. Obviously, when a high-performing team meets a much weaker team, with few exceptions, the result is clear. And the interest for the match is low, or in any case to be sought at another level. On the other hand, when two teams occupy a neighbouring position in a ranking and are therefore *a priori* close in level, it is difficult to predict the result, the more important "suspense" and the maximum interest. Historically, the permisses of this reasoning have appeared in Rottenberg. In his pioneering article, Rottenberg (1956) emphasizes the first stage of involvement ((1) in our previous scheme), to which he associates the affluence in the stadiums. A few years later, Neale (1964) insists on the second time of involvement ((2) on our previous scheme): the more uncertain a competition would be, the stronger the interest of spectators would be

and therefore the higher the league revenues (Andreff 2012). Two important consequences for the sport economy flow from this vision:

- the impossible existence of a monopoly (Jones 1969), because of the interdependence of the teams (Sloane 1969),
- the need for regulation (Rouger 2000, Dermit-Richard 2012), precisely with the aim of maintaining this competitive balance through the introduction of appropriate measures.

Nowadays the concept of competitive balance is undeniably one of the "star" concepts of the sports economy. According to some commentators, it even makes it possible to differentiate sport shows from other live shows for which the notion of uncertainty of the result make no sense. One reason for its success is the various statistical measures (Groot 2008). Among the many measures proposed in the literature[2], let us mention:

- the classification of the teams at the moment of the match,
- the "talent" of clubs considered a good indicator of the forces involved,
- the bets entered with the bookmakers on the outcome of the matches,
- the index of concentration of victories on the first five of the championship,
- the Herfindahl index,
- the Gini index,
- the standard deviation of victories,
- the Noll-Scully index (1989),
- the Groot (2008) index of surprise victories,
- the number of times a club belongs to a group of x winning clubs,
- the Spearman rank correlation index,
- the Humphreys index (2002).

Another reason is related to the analytical possibilities that can be associated with it. In a non-exhaustive way: what are the effects (effectiveness) of the various existing regulatory instruments on its evolution? (Fort and Maxcy 2003, Késenne 2000) To what extent does the design of the competitions affect it? (Szymanski 2003, Owen and King 2015) What is its influence on hearings? (Di Domizio 2010, Forrest et al. 2005) On stadium attendance? (Coates and Humphreys 2010, Schmidt and Berri 2001) How to optimize recruitment to maintain it? (Flores et al. 2010) In Europe, what is its relationship to the financial health of clubs? (Andreff 2009) Etc. There is a lot of work being done by sports economists on these issues. Do spectators and viewers in sports confrontations show the uncertainty of the result the only basis for the interest? Observation of the facts requires us to answer in the negative. At least, five other elements attract the interest of sports fans:

- "competitive exceptionality", i.e., the exceptional nature, of the performances achieved by top-level athletes (Bouvet 2020),
- the challenge of confrontations,

[2]For complete definitions, see Andreff (2012).

- the unconditional support given by some supporters to their favourite team, regardless of its ranking and the quality of the show offered,
- the presence of international stars in the opposing team,
- certain special events, specific to the confrontation.

In our opinion, this is the first limitation of this concept. A second is the difficulty of considering it for individual sports.

Competitive Balance in Individual Sport

The vast majority of work on competitive balance concerns team sports. As Sanderson already pointed out in 2002, however, it is also possible to focus on competitive balance in individual sports: "The general matter of competitive balance is not limited to team sports but is an inherent part of all competitions". Historically, Neale (1964) even chose an individual sport, boxing, to put forward the idea that, in order to guarantee the attractiveness of a sports show, competitors must be of a comparable level (Louis Schmelling paradox). In recent years, some work has focused on competitive balance in individual sports. Let us mention: Laband (1990), Kipker (2003), Klaasen and Magnus (2003), Rohm et al. (2004). More recently, Dubois and Hendeyls (2007) and Del Corral (2009), respectively, have compared the competitive balance in men's and women's tennis tours and analyzed these determinants in tennis.

Using a "structure-conduct-performance" model and different short and long-term indicators, according to Dubois and Hendeyls, men's tennis is the most competitive. From year to year, more new players enter the top 10 of the ATP ranking than do players remain in it and stability at the top of the hierarchy (leader in the ranking) is less strong. During the season, however, the difference between the men and women's tours seems less marked, as the results for men and women are also unpredictable. According to these authors, the differences in competitive balance between male and female tennis can therefore partly explain the preference of viewers and spectators for male tennis.

Del Corral (2009) wondered whether the increase in the number of seeded players in Grand Slam tournaments in 2001 (from 16 to 32) had led to a decrease in the competitive balance. Two different measures of competitive balance based on seed performance are used. In addition, differences in competitive balance due to gender and playing surface are studied. Its results: the competitive balance is higher for men than for women. More precisely, according to this author Wimbledon is the tournament where the competitive balance is strongest in the preliminary rounds, a result that is reversed as we approach the final.

Both authors were confronted with a difficulty specific to the analysis of the competitive balance in individual sport: the need to build a specific measurement indicator. The first, since there is no draw in tennis, have chosen indicators specific to this sport:

- the number of tie-breaks played during a match, with tie-breaks indicating how difficult it is for players to separate,

- the number of matches for which a decisive set (third or fifth) is required to decide between the players, to assess the competitive balance per match.

Then, to express the competitive balance during a season, they calculated a coefficient of variation in the ranking by dividing the ranking of the player considered by a number of average points. Finally, they used the Spearman's rank correlation index to measure uncertainty between two seasons and count the number of players ranked first in the rankings over a 37-year period.

On the basis of the proposals of Boulier and Stekler (1999), Del Corral has counted the percentage of seeded players passing a round of competition against a lower-ranked player (match-specific uncertainty) then compared the results of the seeded players in two periods: 1994-2000 and 2000-2008, periods during which the number of seeded players was respectively 16 and 32 (tournament's uncertainty). Unlike some of the competitive balance indicators used in collective sport listed above, these indicators have less scientific guarantee. However, as with rare exceptions, it is not possible to use them directly in individual sports (Del Corral 2009) it is essential to conceive them to integrate the specificities of the studied sport.

Unlike some of the indicators for measuring competitive balance used in collective sport listed above, these indicators have less scientific guarantee. But, as with rare exceptions, it is not possible to use them directly in individual sport (Del Corral 2009) it is essential to design them to integrate the specificities of the sport studied. This is also the case for golf competitions, for which, to our knowledge, there is no measure of competitive balance.

Why the Ryder Cup?

The Ryder Cup is a team golf competition that opposes every two years an American team and a European team. It bears the name of the one who is presented as its founder, Samuel Ryder. Businessperson, this English entrepreneur, once converted to golf[3], worked hard to create this competition (Davis 2014). Before him, some passionate golfers had already had the idea of an opposition between the best American and European golfers. In 1921 and 1926, the first two confrontations between an American team and a British team even took place. But, it was in 1927, at the Westchester Country Club (Massachusetts), that the first "official" Ryder Cup was organized.

The modern format of this competition is as follows. Two teams are formed. They fight each other for three days. The first two days are doubles, the morning in foursome[4] and the afternoon in four balls[5]. On Sunday, twelve singles are

[3]Samuel Ryder was a Methodist.

[4]In a foursome, the two players of the same team play a single ball, alternatively at the start, from the start to the hole. The team that scores the lowest score wins the hole. The team that wins the most holes wins the match.

[5]In four balls, each member of both teams plays his own ball. The team that achieves the lowest score on the hole wins it.

played in match play[6]. Introduced to promote the show, this game format mixing individual encounters and double known quickly met with great success symbolized by the record attendance of 15,000 spectators for the single on Saturday alone, during the first edition organized in Europe at Moortown golf club in Leeds. But, as Table 1 shows, American domination soon became outrageous.

Table 1. *History of the Ryder Cup between 1927 and 1977*

Date	Location	Winner	Score
1927	**Worcester CC**[7]	USA	9.5-2.5
1929	Moortown GC	RU	7-5
1931	**Scioto CC**	USA	9-3
1933	Southport & Ainsdale GC	RU	6.5-5.5
1935	**Ridgewood CC**	USA	9-3
1937	Southport & Ainsdale GC	USA	8-4
Interruption	during	the second	World war
1947	**Portland Golf Club**	USA	11-1
1949	Ganton GC	USA	7-5
1951	**Pinehurst CC**	USA	9.5-2.5
1953	Wentworth GC	USA	6.5-5.5
1955	**Thunderbird CC**	USA	8-4
1957	Lindrick GC	USA	7.5-4.5
1959	**Eldorado CC**	USA	8.5-3.5
1961[8]	Royal Lytham & St. Annes	USA	14.5-9.5
1963	**East Lake CC**	USA	23-9
1965	Royal Birkdale GC	USA	19.5-12.5
1967	**Champions GC**	USA	23.5-8.5
1969	Royal Birkdale GC	Match null	16-16
1971	**Old Warson CC**	USA	18.5-13.5
1973	Muirfield	USA	19-13
1975	**Laurel Valley GC**	USA	21-11
1977[9]	Royal Lytham & St. Annes	USA	12.5-7.5

On 22 games, only three times (1933, 1953, 1969) the United States is worried. In several editions, the final difference is consistent. In other words, despite the reduction in the number of holes played (from 36 to 18) made in 1961 in the hope of favoring the British, this competition is characterized by a strong competitive imbalance. In 1979, the United States was too dominant and the Ryder Cup was at a crossroads. Something must be done to save her. The chosen solution is to open up the British team to continental players, in other words to turn it into a European team. Other solutions had been considered, but it is ultimately this one that is retained[10]. When the 1979 edition began on the Greenbier course in West Virginia,

[6]In match-play, the hole is won by the player who gets his ball into the hole in the smallest number of shots. In case of equality the hole is shared. The game is won by the player who leads by a number of holes better than the number of holes remaining to play.
[7]In bold the editions played in the United States, the others in Europe.
[8]From this edition, the matches are played on 18 holes and not 36, with two sessions of foursomes and singles that increase the total points of play from 12 to 24.
[9]At the request of the British PGA, from this edition, the number of matches is reduced and the number of points in play limited to 20.
[10]Constitute a Commonwealth or "rest of the world" team.

two Spanish players (S. Ballesteros and A. Garrido) defended the European team's colours for the first time. In addition, always with a view to obtaining a more balanced competition, the format evolves once again, two foursomes and two four balls are added, bringing the total of singles to 12.

Even if this edition ends once again with a large American victory (17-11), it marks by turning in the organization of this competition for which one of the major concerns of the organizers will now be to try to reduce the gap in level between the two teams. Two other developments go in this direction. The possibility given to the receiving team to choose the course of its choice and to "prepare" it by following the recommendations of the team captain, which should normally make it possible to increase the competitive balance between competitions. And the evolution of the player selection method allowing players to be selected independently of their membership Tour, a source of increased intra-competition competitive balance.

This clearly stated desire of the organizers since 1979 to improve the competitive balance is the main reason that led us to take an interest in this competition.

The second reason for our choice lies in the global success of this competition. Thus, during the last edition organized at the Golf National in France, 10,000 people were mobilised for its organization, at least 280,000 people moved on the site and more than a billion viewers witnessed the European team's triumph.

Finally, and this is the third reason for our choice, because the Ryder Cup is a competition where:

- from the final difference observed, it's possible to estimate an *ex-post* competitive balance indicator (see Table 2) by dividing the final difference by the number of points involved, and,
- to develop an *ex-ante* competitive balance indicator allowing:

    - to compare the competitive balance expected and achieved,
    - to study if there is a correlation between the expected competitive balance and that of the competition, and thus to answer our initial question.

Table 2. *Ranking, Observed Differences and Ex-Post Competitive Balance between 1979 and 2018*

Date	Place	Winner	Score	Final dif.	CB *ex-post*
1979	• **The Greenbrier**	USA	17-11	6	0.21
1981	Walton Health GC	USA	18.5-9.5	9	0.32
1983	• **PGA Ntnl GC**	USA	14.5-13.5	1	0.03
1985	The Belfry	EU	16.5-11.5	5	0.18
1987	**Muirfield Village**	EU	15-13	2	0.07
1989	The Belfry	Draw	14-14	0	0
1991	**The Ocean Course, Kiawah Island**	USA	14.5-13.5	1	0.03
1993	The Belfry	USA	15-13	2	0.07
1995	• **Oak Hill CC**	USA	14.5-13.5	1	0.03
1997	Valderrama GC	EU	14.5-13.5	1	0.03
1999	**The Country Club**	USA	14.5-13.5	1	0.03

2002[11]	Sutton Coldfield	EU	15.5-12.5	3	0.11
2004	**Oakland Hills CC**	EU	18.5-9.5	9	0.32
2006	The K Club	EU	18.5-9.5	9	0.32
2008	• **Valhalla GC**	USA	16.5-11.5	5	0.18
2010	Celtic Manor Resort	EU	14.5-13.5	1	0.03
2012	**Medinah Country Club**	EU	14.5-13.5	1	0.03
2014	PGA Centenary Course, Gleneagles	EU	16.5-11.5	5	0.18
2016	**Hazeltine National GC**	USA	17-11	6	0.21
2018	Le Golf National	EU	17.5-10.5	7	0.25

The Intermediate Indicators Selected and the Calculation of the *Ex-Ante* Competitive Balance of the Ryder Cup

Approach

Why talk about the modern era of the Ryder Cup since 1979? Because, as we have already pointed out, this year is a real turning point in the history of this competition. After 18 consecutive defeats, it had become vital for the British PGA to rekindle interest in this competition at the risk of losing it (Callow 2018). The evolution concerns the forces present on the ground but also the potential spectators and viewers. From this date, all European golfers likely to see one of their compatriot join the team have a good reason to be interested. Even if the USA still won easily, the 1979 edition certainly marked an internationalization of the competition which will then be confirmed with the selection of a large number of players of different nationalities.

With this in mind, with the help of the Ryder Cup's official website[12], the first step in our analysis was therefore consisting of:

- to identify the twelve members of the two opposing teams in the twenty editions that have alternately taken place in Europe and the United States since 1979,
- to place them in a table allowing them to be associated with an annual and current shape indicator.

This type of table is used to identify competitors. On the other hand, it does not give us any indication of how it was selected. However, at this level too, several considerations have been made to increase the competitive balance of the competition. Six years before the 1979 landmark edition, Great Britain and Ireland officially formed an alliance[13] and the selection process evolved for the first time. From the 1973 edition onwards, eight players were automatically selected based

[11]The 34th edition was moved from 2001 to 2002, due to the events of September 11th.
[12]www.rydercup.com.
[13]In fact the Irish were selectable since 1953 and he winnings earned on official competitions between January 1, 2008 and August 11, 2008 (one point per $ 1,000 won) - excluding major tournaments and tournaments played in the same week as a major tournament or one of the 3 tournaments of the world championship of golf),the North Irish since 1947.

on their results and four could be freely chosen by the captain, which opened up new strategic perspectives. Since then, on the European and American sides, the selection methods have been periodically adjusted in order to present the best possible teams.

Thus, in the last edition:

- on the European side to take into account:

o the presence of the best European players on the PGA Tour,

o the ability of some players to transcend themselves during team competitions, the players making up the European team were the top four players in the European ranking, the top four European players in the world ranking and four players selected by the European captain, T. Bjorn;

- on the American side, a more "mathematical" selection process had been developed on the basis of the points earned between the first tournament of the 2017 Grand Slam and August 11, 2018, to which were added the four choices of the American captain J. Furyk according to the following scale:

  o Winnings from 2007 major tournaments (one point for every US$1,000 won), wins in official competitions between January 1, 2008 and August 11, 2008 (one point for every US$1,000 won - excluding major tournaments and tournaments played the same week as a major tournament or one of the 3 world golf championship tournaments),

  o Winnings from 2008 major tournaments (two points per US$1,000 won),

  o winnings from tournaments in the same week as a major tournament or one of the 3 World Golf Championship tournaments (1/2 point per US$1,000 won).

On similar bases, since 1979, 210 different players have been selected.

Players and Construction of Intermediate Indicators

Table 3 shows the 210 players who have participated in the Ryder Cup since 1979.

Table 3. *Players who Participated in the Ryder Cup between 1979 and 2018*

Years						**Team**	**USA**					
1979	Trivino	Kite	Hayes	Nelson	Morgan	Elder	Irwin	Green	Zoeller	Bean	Mahaffey	Wadkins
1981	Trivino	Kite	Rogers	Nelson	Lietzke	Pate	Irvin	Miller	Watson	Floyd	Crenshaw	Nicklaus
1983	Haas	Kite	Morgan	Gilder	Strange	Peete	Stadler	Zoeller	Watson	Floyd	Crenshaw	Wadkins
1985	North	Kite	Jacobsen	Green	Sutton	Peete	Stadler	Zoeller	Strange	Floyd	O'Meara	Wadkins
1987	Bean	Kite	Calcav	Nelson	Sutton	Pohl	Stewart	Crenshaw	Strange	Mize	Simpson	Wadkins
1989	Watson	Kite	Calcav.	McCumber	Couples	Beck	Stewart	Azinger	Strange	Green	O'Meara	Wadkins
1991	Pavin	Pate	Calcav.	Levi	Couples	Beck	Stewart	Azinger	Irvin	Floyd	O'Meara	Wadkins
1993	Pavin	Kite	Jansen	Love III	Couples	Beck	Stewart	Azinger	Cook	Floyd	Gallacher	Wadkins
1995	Pavin	Haas	Strange	Love III	Couples	Magert	Crenshaw	Jacobsen	Roberts	Faxon	Lehman	Mickelson
1997	Leonard	Magert	Woods	Love III	Couples	Magert	Jansen	Hoch	Furyk	Faxon	Lehman	Mickelson
1999	Leonard	Magert	Woods	Love III	Stewart	Pate	Duval	O'Meara	Furyk	Sutton	Lehman	Mickelson
2002	Azinger	Toms	Woods	Love III	Cink	Hoch	Duval	Verplank	Furyk	Sutton	Calcav.	Mickelson
2004	Perry	Toms	Woods	Love III	Cink	DiMarco	Funk	Campbell	Furyk	Riley	Haas	Mickelson
2006	Henry	Toms	Woods	Verplank	Cink	DiMarco	Wetterich	Campbell	Furyk	Taylor	Johnson	Mickelson
2008	Kim	Mahan	Leonard	Perry	Cink	Holmes	Weekley	Campbell	Furyk	Curtis	Stricker	Mickelson
2010	Johnson	Kuchar	Woods	Overton	Cink	Watson	Fowler	Johnson	Furyk	Mahan	Stricker	Mickelson
2012	Johnson	Kuchar	Woods	Dufner	Snedeker	Watson	Simpson	Johnson	Furyk	Bradley	Stricker	Mickelson
2014	Walker	Kuchar	Mahan	Spieth	Fowler	Watson	Simpson	Johnson	Furyk	Bradley	Reed	Mickelson
2016	Johnson	Kuchar	Koepka	Spieth	Fowler	Moore	Snedeker	Johnson	Walker	Holmes	Reed	Mickelson
2018	Johnson	Woods	Koepka	Spieth	Fowler	Watson	Simpson	Dechambeau	Finau	Thomas	Reed	Mickelson
Years						**Team**	**EU**					
1979	Smyth	Lyle	Gallacher	Jacklin	Ballesteros	Brown	Barnes	Garido	Faldo	Kings	Oosterhuis	James
1981	Torrance	Lyle	Gallacher	Darcy	Smith	Langer	Pinero	Canizares	Faldo	Clark	Oosterhuis	James
1983	Torrance	Lyle	Gallacher	Brand	Ballesteros	Langer	Waites	Canizares	Faldo	Way	Woosnam	Brown
1985	Torrance	Lyle	Pinero	Rivero	Ballesteros	Langer	Clark	Canizares	Faldo	Way	Woosnam	Brown
1987	Torrance	Lyle	Olazabal	Rivero	Ballesteros	Langer	Clark	Brand Jr	Faldo	Darcy	Woosnam	Brown
1989	Torrance	Raferty	Olazabal	Canizares	Ballesteros	Langer	Clark	Brand Jr	Faldo	James	Woosnam	O'Connor
1991	Torrance	James	Olazabal	Gilford	Ballesteros	Langer	Broadhurst	Montgomerie	Faldo	Feherty	Woosnam	Richardson
1993	Torrance	James	Olazabal	Rocca	Ballesteros	Langer	Haeggman	Montgomerie	Faldo	Lane	Woosnam	Baker
1995	Torrance	James	Clark	Rocca	Ballesteros	Langer	Walton	Montgomerie	Faldo	Gilford	Woosnam	Johansson

1997	Parnevik	Olazabal	Clark	Rocca	Westwood	Langer	Garrido	Montgomerie	Faldo	Bjorn	Woosnam	Johansson
1999	Parnevik	Olazabal	Clark	Sandelin	Westwood	Jimenez	Garcia	Montgomerie	Coltart	Lawrie	Van de Velde	Harrington
2002	Parnevik	Fasth	Fulke	Mc Ginley	Westwood	Langer	Garcia	Montgomerie	Price	Bjorn	Clarke	Harrington
2004	Poulter	Casey	Howell	Mc Ginley	Westwood	Donald	Garcia	Montgomerie	Jimenez	Levet	Clarke	Harrington
2006	Howell	Casey	Olazabal	Mc Ginley	Westwood	Donald	Garcia	Montgomerie	Stenson	Karlsson	Clarke	Harrington
2008	Hansen	Casey	Poulter	Mc Dowell	Westwood	Rose	Garcia	Jimenez	Stenson	Karlsson	Wilson	Harrington
2010	Hanson	Kaymer	Poulter	Mc Dowell	Westwood	Donald	Fisher	Jimenez	Molinari	Molinari	Mc Ilroy	Harrington
2012	Hanson	Kaymer	Poulter	Mc Dowell	Westwood	Rose	Garcia	Colsaert	Donald	Molinari	Mc Ilroy	Lawrie
2014	Bjorn	Kaymer	Poulter	Mc Dowell	Westwood	Rose	Garcia	Dubuisson	Stenson	Donalds.	Mc Ilroy	Gallacher
2016	Wood	Kaymer	Sullivan	Pieters	Westwwod	Rose	Garcia	Cabrera Bello	Stenson	Willet	Mc Ilroy	Fitzpatrick
2018	Hatton	Casey	Poulter	Rham	Noren	Rose	Garcia	Fleetwood	Stenson	Molinari	Mc Ilroy	Olesen

Ph. Mickelson is the American player who has participated in the most editions (12). N. Faldo and S. Garcia are his "alter-ego" but so far with only 10 participations. During this period, the two most convincing victories were obtained by T. Kite against H. Clark in 1987 and F. Couples against I. Woosnam in 1997: 8 and 7[14]. The Spanish S. Ballesteros and J.M. Olazabal are the pair with the best record: 11 wins, 2 losses and 2 games shared. Since 1979, Europeans have scored 286.5 points and Americans 273.5 points. The most prolific captain picks were L. Westwood in 2006 (3 wins and 2 games shared) and I. Poulter in 2008 and 2012 (4 wins)[15].

[14]8 holes won and 7 holes remaining to play. Principle of calculation of the ex-ante competitive balance.
[15]See: www.rydercup.com/news.

Beyond these individual statistics, since 1979, the organisers have been determined to give European and American team captains the opportunity to field the most competitive teams possible. To do this the teams must include in their rank the best golfers of the two continents the most successful on the day of the event. Consequently, the selections are established on the basis of the international rankings while allowing captains to choose several players according to other criteria: experience, technical complementarity and above all, current form. Our intermediate indicators had to integrate these dimensions. This is why we chose to define each player's performance indicator (PI) before the competition as the sum of an annual performance indicator (API) and a current performance indicator (CPI). Since this is the preferred criterion for selecting players, the annual performance indicator used is the ranking of players the month preding the event. Since according to many works (Ehrenberg and Bognanno 1990, Becker and Huselid 1992, Melton and Zorn 2000) the prize money of the tournaments is a factor that has a significant impact on player participation, our current performance indicator corresponds to the average ranking of the players in the four best remunerate tournaments in which they participated during the period preceding the Ryder Cup. So,

$$PI_{PLAYER} = API + CPI$$

Thanks to these two indicators, it was then possible for us to estimate an *ex-ante* competitive balance indicator for each edition.

Principle of Calculation of the Ex-Ante Competitive Balance

Once the API and CPI indicators have been constructed, two steps are needed to calculate the *ex-ante* competitive balance of the different editions of the Ryder Cup. First, we have to move from an individual indicator to a team indicator. For this, the IFP of the teams is obtained by adding the IP of each player:

$$IFM = \sum_{J=1}^{12} PI_j$$

Then, the competitive gap that constitutes our measure of *ex-ante* competitive balance is obtained by making the difference between the IFM of the American team and the IFM of the European team.

$$CG = IFP_{USA} - IFP_{EU}$$

Therefore, smaller the competitive gap is, stronger the competitive balance is. This competitive balance is calculated by differentiating cumulative (average) rankings. Since it is expressed as a difference, it can be approximated to the final difference calculated by making the difference between the total numbers of points

scored by the players in the competition that can be perceived as the performance level of the players lined up in both teams. This approach has three limitations:

- The API is calculated on the basis of performances mainly achieved by European and American players on their respective tours, the European Tour and the PGA Tour, and therefore by not participating in the same events. This difference, however, is tending to diminish due to the creation of so-called "World Championship" events, but also because the best European players are now participating in many PGA Tour tournaments. The creation of a world ranking starting in 1987 partly makes it possible to go beyond this limit, but only partly because the average team ranking that can be is also calculated on different bases.
- The CPI is also an overall estimate of the players' form on D-Day since not all players make the same choices to prepare the competition during the summer. Some, at the risk of starting the competition tired, have to play a lot to qualify hoping to be retained by the captain. Others play little for personal reasons or because of non-qualifications, and still others to deal with long-standing commitments.
- The CPI does not directly integrate the strategic reflections of captains sometimes choose players in relative bad shape but very experienced and/or offer a certain number of guarantees because of their playing style.

Estimates, Discussion and Comments

Data and Results

To obtain the necessary data for our various calculations, we consulted the wesites of the PGA Tour and the European Tour. To calculate the API respectively at addresses:

- Stats/Money Finishes/Official money/Year
- Race to Dubai/Ranking/Year.

To calculate the CPI at addresses:

- Stats/Schedule/Year/Tournament/Leaderboard
- Tournaments/Year/Tournament and venue.

For the twenty years studied, it was then possible to build a table identical to Table 4 relating to the 2018 edition played at The Golf National.

Table 4. *API, CPI and Therefore PI and IFP of Teams Participating in the 2018 Edition*

	Players	**API**	**CPI**	**PI**
	J. Thomas	1	12.75	13.75
	D. Johnson	2	11.25	13.25
	B. Dechambeau	4	10	14
	B. Koepka	5	16.25	21.25
	B. Watson	6	21.5	27.5
	T. Finau	7	6.75	13.75
Team USA	T. Woods	8	17.75	25.75
	W. Simpson	9	21.75	30.75
	P. Reed	12	26.75	38.25
	Ph. Mickelson	13	36.25	49.25
	R. Fowler	16	5.5	21.5
	J. Spieth	32	30.67	62.67
Total Equip		**115 (10)**	**217.17**	**332.17**
	J. Rose	3	27	30
	E. Molinari	1	43	44
	T. Fleetwood	3	14.75	17.75
	R. McIlroy	4	7.34	11.34
	A. Noren	5	55.67	60.67
	T. Olesen	6	20	26
Team Europe	J. Rham	7	44.5	51.5
	I. Poulter	28	66.34	94.34
	H. Stenson	31	49	80
	P. Casey	24	22	46
	S. Garcia	39	7	46
	T. Hatton	9	20.34	29.34
Total Equip		**160 (13)**	**376.94**	**536.94**

Finally, by taking up all the results for the twenty editions studied, we were able to build the summary Table 5.

Table 5. *Summary of the Results Obtained and Observed*

Years		**Team**	**USA**			**Team**	**Europe**		**Competitive gap**	**Score final**
	Average world ranking[16]	API[17]	CPI	PI (1)	Average world ranking	API	CPI	PI (2)	(1) - (2)	
1979 (USA)		118	332.15	450.15		168 (14)	295,92	463.92	-13.77	6 (17-11)
1981 (EU)		**108** (9)	346.04	454.04		122 (11)	370,26	492.26	-38.52	**9 (18.5-9.5)**
1983 (USA)		162 (14)	499.32	661.32		204 (17)	**219,01**	**423.01**	238.31	1 (14.5-13.5)
1985 (EU)		**131 (11)**	**547.84**	**678.84**		**130 (11)**	**348,67**	**478.67**	**200.17**	**5 (11.5-16.5)**
1987 (USA)	**18**	**223 (19)**	**374.08**	**597.08**	**40**	**125 (10)**	**307,25**	**432.25**	**164.83**	**2 (13 –15)**
1989 (EU)	14	242 (20)	423.15	665.15	32	**115** (10)	334,34	449.34	215.81	0 (14-14)
1991 (USA)	**19**	**321 (24)**	**425.58**	**746.58**	**34**	**110(30)**	**280,5**	**391.5**	**-355.08**	**1 (14.5-13.5)**
1993 (EU)	12	325 (27)	650.57	975.57	27	123 (10)	422,81	545.81	**411.76**	2 (15 –13)
1995 (USA)	24	309 (26)	644.15	953.15	39	235 (20)	508,92	743.92	209.23	1 (13.5-14.5)
1997 (EU)	15	177 (15)	360.84	537.84	37	138 (11)	379,84	517.84	20	1 (13.5-14.5)
1999 (USA)	**12**	**142 (12)**	**353.35**	**495.35**	**41**	**159 (13)**	**353,15**	**512.15**	**-16.8**	**1 (14.5-13.5)**
2002[18] (EU)	31	579 (48)	508.01	1087.01	58	361 (30)	509,84	870.84	216.17	3 (12.5-15.5)
2004 (USA)	19	334 (28)	425.09	759.09	36	140 (12)	426,34	566.34	192.75	**9 (9.5 -18.5)**
2006 (EU)	29	240 (20)	457.06	697.06	23	190 (16)	551,25	741.25	-44.19	**9 (9.5-18.5)**
2008 (USA)	25	196 (16)	405.67	601.67	22	177 (15)	303,77	480.77	120.9	5 (16.5-11.5)
2010 (EU)	17	218 (18)	311.73	529.73	18	116 (10)	494,27	610.27	-80.54	1 (13.3-14.5)
2012 (USA)	**12**	**115 (10)**	**319.16**	**434.16**	**19**	**142 (12)**	**409,61**	**551.61**	**-117.47**	**1 (13.5-14.5)**
2014 (EU)	16	175 (15)	425.91	600.91	20	107 (9)	390,41	497.41	103.5	5 (11.5-16.5)
2016 (USA)	16	218 (18)	348.17	566.17	28	312 (26)	462,95	774.95	-208.78	6 (17-11)
2018 (EU)	**9**	**115 (10)**	**217.17**	**332.17**	**11**	**160 (13)**	**376,94**	**536.14**	**-204.77**	**7(10.5-17.5)**

[16]The Official World Golf Ranking ranks the level of performance of professional golfers worldwide. This ranking was created in 1986. The number that appears as an indication in this column is the average ranking of the teams.
[17]Between brackets the average indicator.
[18]The 2001 edition was postponed to the following year due to the events of 11 September.

Discussion

In Table 5 are noted:

- the year of the last twenty editions, with in brackets the continent on which the competition took place and in bold the six editions having in the unanimous opinion of observers marked the history of this competition.
- As an indication the average world ranking of the teams aligned before the competition. According to this indicator the US team should almost always be considered as favourite (14 times out of 16), which is explained both by the way this ranking is developed - which places great importance on the most prestigious tournaments more easily accessible to PGA Tour members - and also because it does not take into account the recent performances of the players. In addition to having existed only since 1986, for these two reasons we have not used it as a reference indicator.
- For both teams, the API and CPI indicators estimated as indicated above.
- The PI indicator of both teams.
- In the right-hand side, the competitive gap (CG) and the final gap observed in the course.

When reading Table 5, several results appear:

- the "home advantage" is an important advantage: 14 times out of 16 (6 times for the USA, 7 times for Europe) the host team won.
- The annual performance index, estimated based on performances almost exclusively achieved on the tours of belonging, represents a level equality higher than that of the average world ranking.
- The CPI shows significant disparities since it is between 217.17 and 650.57, resulting from captains' choices to either trust the high-performance players, or to select experienced players despite the absence of convincing results in the months preceding the competition.
- These different editions are characterized by competitive differences prior to the competition, suggesting "tight" editions (9) for which the average ranking gap is less than one, and other editions where a favourite emerges clearly since this gap is much larger, 34 places in the 1993 edition.

From our point of view, the answer to the following question is particularly interesting: was the *ex-ante* competitive balance (i.e., the lowest competitive gap) the highest in the editions that marked the history of this competition (in bold in Table 5)? The answer to this question is rather negative: in these six editions, only that of 1999 is characterized by a very small competitive gap (-16.8). Moreover, does the "favourite" team, in other words the team for which the competitive gap was in its favour, most often prevail? Here again, the answer must be qualified since this prediction is true only in 12 editions: 1979, 1981, 1985, 1987, 1991, 1995, 1997, 1999, 2002, 2004, 2014, and 2016. More specifically, Table 6 in which puts into perspective the expected and actual differences (+ reflect expected

and/or significant deviations and - the opposite) reflects a wide disparity in the results obtained.

Table 6. *Comparison of Expected and Realized Gaps*

		Anticiped	**gaps**
		+	-
Observed	+	6	4
gaps	-	4	5

More generally, Table 7, which compares the two main predictive elements of the result with the observed results, provides a typology of the different editions studied.

Table 7. *Typology of the Last 20 Editions of the Ryder Cup*

Years	**Location**	**Beneficiary of the competitive gap**	**Winner**	**Type of final gap**	**Type of competition**
1979	**USA**	USA	**USA**	+	Confirmation
1981	EU	USA	USA	+	Confirmation despite location
1983	**USA**	EU	**USA**	-	Suspense ½ surprise (USA)
1985	**EU**	EU	**EU**	+	Confirmation
1987	USA	EU	EU	-	Confirmation with logical suspense
1989	EU	EU	Match nul	-	Suspense Surprise (USA)
1991	**USA**	USA	**USA**	-	Confirmation with suspense
1993	EU	EU	USA	-	Surprise (USA)
1995	USA	EU	EU	-	Logical suspense
1997	**EU**	EU	**EU**	-	Suspense
1999	**USA**	USA	**USA**	-	Suspense
2002	**EU**	EU	**EU**	+	Confirmation
2004	USA	EU	EU	+	Confirmation despite location
2006	**EU**	USA	**EU**	+	½ Surprise (EU)
2008	**USA**	EU	**USA**	+	½ Surprise (USA)
2010	**EU**	USA	**EU**	-	Suspense ½ Surprise (EU)
2012	USA	USA	EU	-	Suspense Surprise (EU)
2014	**EU**	EU	**EU**	+	Confirmation
2016	**USA**	USA	**USA**	+	Confirmation
2018	**EU**	USA	**EU**	+	½ Surprise (EU)

Table 7 allows distinguishing six types of editions:

- "confirmations": when the winner wins on his course and benefits from the competitive gap,
- "confirmations despite location": when the beneficiary of the competitive gap wins out,
- "½ surprises": when it is not the favourite who prevails by playing at home with or without suspense depending on the nature of the final gap,
- "logical surprises": when the favourite wins away,
- "surprises": when a team wins away (with or without suspense) without being favourite with a more or less important difference,

- "logical suspense": when the favourite team wins at home with a small gap.

Therefore, several implications for taking a position on the question posed can be drawn from these results.

Implications

The more detailed analysis of the previous results may be of interest to three groups of stakeholders: future captains of European and American teams, organisers of future editions and (sport) economists

Putting in perspective the CPI and the results makes it possible to judge the comparative efficiency of the alternative recent performances vs experience/ technical complementarities. Except for the 1983, 1991, 1993, 2010 and 2018 editions, the teams presented themselves in a comparable average form (150 points difference at least). However, in spite of this comparable initial situation, during the editions (2008, 2016) significant final gaps were observed. Conversely,

- in the 1983, 1993, 1995, 2010 and 2012 editions, despite relatively distant CPIs, the final gaps were small,
- at the time of the 1991, 2004 and 2006 editions, despite close CPIs, the final gaps were significant,
- at the 2018 edition, although the US team presents the best CPI of the 20 editions, the European team won by seven points,

The 2002 edition was the one where CPIs were closest. In the 1985 and 1997 editions, close CPIs led to tight results. Conversely, during the 1979 and 1981 editions, despite close CPIs, the final gaps were large. No clear correlation between the CPI and the final gaps can therefore be clearly highlighted. Our conclusion: the future captains, as Bjorn did in 2018, should therefore give priority to experience/ efficiency criterion to constitute their team.

In several other sports, a "home advantage" has been highlighted (Courneya and Carron 1992, Nevil and Holder 1999, Pollard and Pollard 2005, Carron and Loughead 2005, Carmichael and Thomas 2005). Can we generalize this result to the Ryder Cup? Our work does not allow us to answer this question with certainty. However:

- only six teams have imposed themselves outside (twice the US and 4 times Europe),
- only two teams managed to win away without being favoured in terms of competitive gap.

These findings therefore confirm the specialists' feeling that the choice of the type of course and its preparation can be decisive factors in the final victory. This was the case for the USA in 1983 and 2008, on the PGA National Golf Club in Palm Beach and Valhalla, courses that regularly host PGA Tour events, and maybe

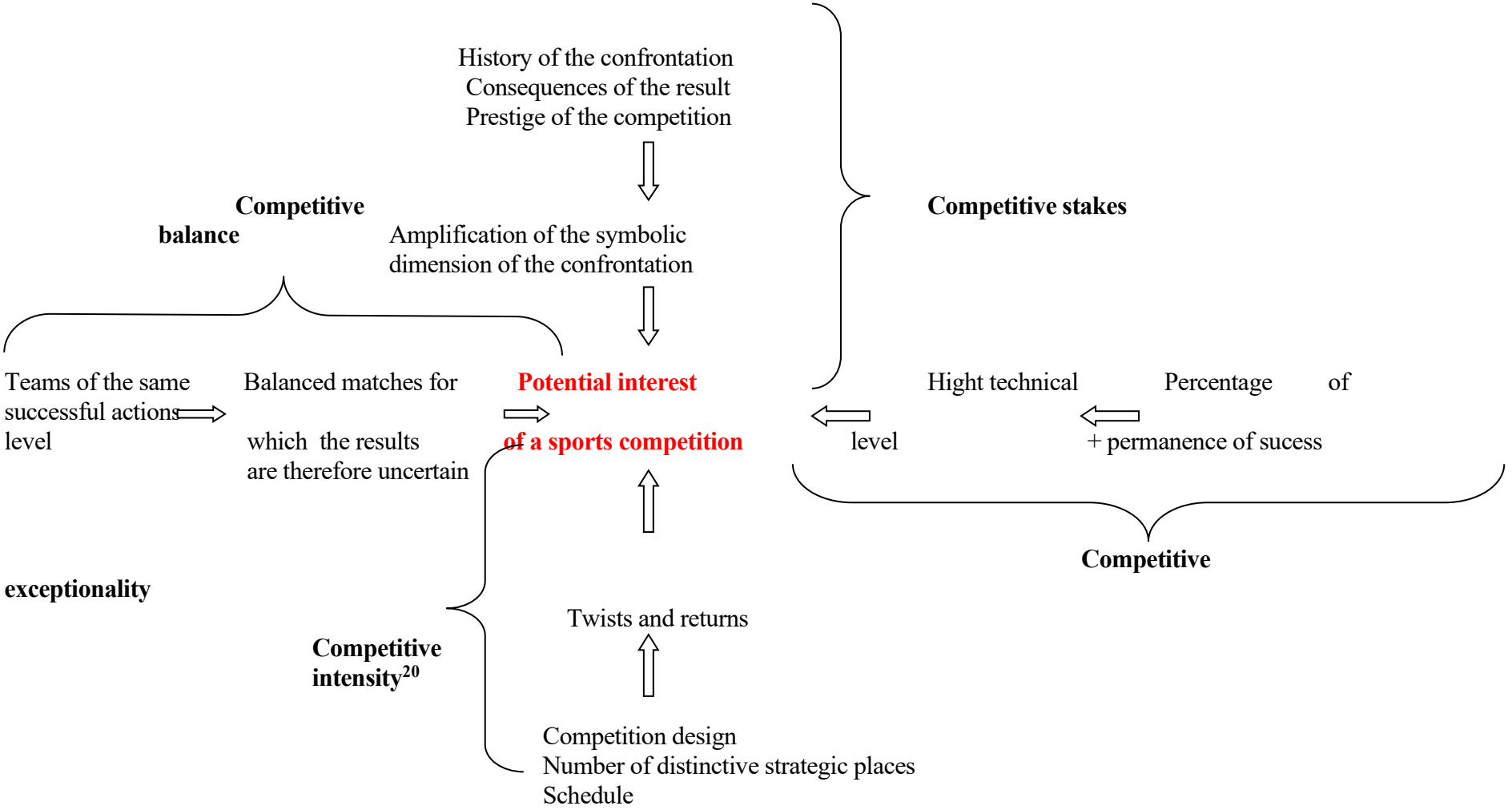
even more in favour of the European team in 2006, 2010, 2018, editions during which the preparation of the K Club, Celtic Manor and the Golf National courses, combined with difficult weather conditions, have greatly disadvantaged the US team.

In the unanimous opinion of observers, some editions have marked the history of this competition (Callow 2018): it is the one of 1985, 1987, 1991, 1999, 2012 and 2018. Only the 1999 edition was characterized by a low competitive gap and therefore a strong *ex-ante* competitive balance. The reasons for the historical success of these editions must therefore be sought at other levels. Successively it is:

- the symbolic character of the European team's first victory after 28 years of waiting,
- of the European team's first away victory,
- the extreme tension characterizing the 1991 edition due to the politico-diplomatic contex (Gulf War),
- the most successful comeback in the history of the competition made by the American team during the simples, source of controversy as the American players celebrated victory before the final outcome of the event,
- the totally unexpected comeback at the beginning of the compétion made by the European team's in America, described as "the miracle of Medinah", inspired by the memory of S. Ballesteros, emblematic player of the Ryder Cup who died in 2011,
- in 2018, the extraordinary popularity enthusiasm of this second edition organized in continental Europe where the European team won against an American team presented as one of the strongest in history and relying on the historic comeback of Tiger Woods, winner of the PGA Tour final event the previous week.

The weakness of the ex-ante competitive gap reflecting a strong competitive balance does not systematically bode the final gap. Only three editions (1997, 1999, 2010) correspond to this case. Other factors influence the interest of spectators and viewers in the Ryder Cup and certainly in other sports competitions. In view of our results and previous examples these are: the quality of the selected players capable of achieving exceptional performances three days in a row, the specific design of this competition which combines individual duels and collective confrontations, the identity aspect of the duel, its "rarity" (only one edition every two years), twists and turns that may occur, its international prestige, its history and consequences that may result even if players are not paid for participate[19]. Beyond the example of the Ryder Cup, to provide a synthetic answer to the question raised in this reflection, the following synthesis scheme seems to us to be the most meaningful.

[19]To which must be probably add the proximity of the public.



[20]On this point see: Kringstad and Gerrard (2007) and Scelles and Durand (2010 and 2012)

Conclusion

Competitive balance is currently one of the few (if not the only) specific concepts of the sport economy. Logically, it gives rise to many academic works and influences the choices of sports event organizers. Without explicitly referring to this concept, this is exactly what happened when the members of the British PGA chose to give the opportunity to the best continental golfers to join the now European Ryder Cup team. From 1979, thanks to the reinforcement of international players, but also because of the evolution of the principle of selection and freedoms left to host countries to organize the future editions, everything had to contribute to an increase in the competitive balance. Was the result there? At first glance, undeniably since, while the United States had won the competition 19 times (out of 22) between 1927 and 1977, they only won it 9 times (out of 20) between 1979 and 2018. A more precise examination of the level of the teams, the progress of the matchs and the results, led to qualify this conclusion. Table 8 summarizes the more general results highlighted in this work.

Table 8. *Competitive and Final Gaps in the Five Most Balanced First Editions*

Editions	Competitive gap	Finals gap
1979	13.77	6
1999	**16.80**	**1**
1997	20	1
1981	38.52	9
2006	44.19	9

The five editions (1979, 1981, 1997, 1999, 2006) for which the *ex-ante* competitive balance was the strongest generated twice indecisive match but also two matches where the final gap was the largest of modern editions of the competition and another where the gap was consequent. In addition, only one of these editions significantly affected the history of the competition. The success of the Ryder Cup is therefore the interest aroused by the public is multi-factorial. Its history, design, identity, concentration of talents and the twists and turns, beyond the comparative ranking of the selected players, also explain the enthusiasm for this competition. Competitive balance is a necessary condition for the success of competitions but not exclusive and always sufficient. So, for the future, we wish:

- unlike the choice made in tennis for the Davis Cup, that the organizers preserve for a long time the specificity of the Ryder Cup,
- as was the case at the 2018 edition played at The Golf National, they systematically choose courses that allow players to showcase their immense talent.

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The Global Media Coverage of the 2022 Qatar World Football Cup

By Gregory T. Papanikos[*]

Mega sporting events attract global media attention such as the Olympic Games and the World Football Cup. Countries bid to host such events for a number of reasons which include favourable global media coverage serving economic, political, national, and cultural purposes. Qatar, following a long strategy of establishing itself on the world stage as a pioneer country in the Middle East, showcased its national economic achievements by organizing the World Football Cup from 20 November 2022 to 18 December 2022. The purpose of this paper is to look at the extent of media coverage demonstrated by the international media attention that is officially licenced by FIFA to cover the games: tv, radio, mobile and internet.

Keywords: *Qatar, Qatargate, Middle East, media, sports, football, FIFA, public funds*

Introduction

Qatar organized the 22nd World Football Cup (WFC) from 20th of November to 18th of December 2022, attracting worldwide attention by international media for many reasons other than the football itself. Most of this media attention was negative beginning with the official decision by FIFA (Fédération Internationale de Football Association) to award the hosting of the games to Qatar in 2010. It was claimed by many countries[1] that this decision was the result of bribery. In addition, it was also claimed that the Qatari government bribed officials of the European Union including Members of the European Parliament (MEP) to tone down their criticism of Qatar's record on human rights. The latter political scandal called "Qatargate" monopolized the European press, if not the world mass media, which distorted the image Qatar wanted to portray to the world using the WFC. On the 9th of December 2022, the Belgian police made 20 raids and proceeded with a number of arrests for the most notorious political scandal at the European Union level, the "Qatargate".

The issue of how the international mass media covered Qatar's domestic affairs as a result of hosting the WFC is not discussed here. Qatar expected much more than solely hosting a mega sports event. As with the Olympic Games, the benefits come mostly after the end of the games and last for a long period of time,

[*]President, Athens Institute for Education and Research, Greece.

[1]This was not just a rumor. FIFA conducted an investigation but found nothing wrong. The US was very critical but the reason might be that the US came second in the bid to organize the WFC as shown below in this paper. This is not to deny that in one way or other FIFA officials are under any suspicion.

leaving a permanent effect on the economics and politics of the country.[2] It seems that Qatar, despite its negative world publicity, has shown to the world that it differs from many other Middle East and Muslim countries. It was the first such Arab country to organize a WFC. The excellent sport and tourist infrastructures built for the games will be an asset to be capitalized upon by the Qatari government in the future.

In the remainder of this introductory section, I provide an eclectic review of papers which relate to sports, football and the organization of sports events including the case of Qatar. Sports in general, and particularly football, have been examined in many studies. This review is based solely on recent papers published in the various academic journals of the Athens Institute for Education and Research and my work in the relative academic area.

Kang (2022) examines differences in media coverage of the 1998 France and 2002 South Korea/Japan WFC. They found that hosting the WFC had no effect on the positive image[3] of a host country. Along these lines, Katyal (2021) explores Qatar's use of sport and capital as a soft diplomatic tool to raise international media visibility. Also, King and King (2018) look at the global media aspect in its general framework in creating a diplomatic rift in the Middle East. Media and especially sports journalism are the means through which politics are affected by sports. The relationship of politics and sports--particularly football--with an application to Indonesia is examined by Kristiyanto and Suparman (2019). The role of sports journalists and their ethical codes are investigated by Rojas Torrijos and Ramon-Vegas (2018). In general, sports and politics is a growing area of research. Examples of such studies are provided, among many others, by Majaro-Majesty (2015), Nicoliello (2021), and Nunes and Valério (2020).

Sports is an alternative to many other leisure activities and as such, many countries try to promote[4] it especially for the benefit of their youth. The organization of mega sports events is an opportunity to promote physical activity. For example, Balatoni et al. (2020) look at physical activity versus video games in Hungary and argue that compulsory physical activity classes in primary and secondary schools have been effective, but the excitement of professional sports activities would bring even more enthusiasm around physical activity.

At the UEFA (Union of European Football Associations) level, Cincimino (2014) looks at clubs' revenues from the standpoint of Financial Fair Play searching for alternative solutions. Pfeffel et al. (2017) explore the image effects of UEFA through the organization of the UEFA under-19 European football championship. Espitia-Escuer and Garcia-Cebrian (2016) discuss teams' productivity and competitiveness playing in the UEFA champions league. Zawadzki (2015) questions the use of public funds in organizing the Euro 2012 in

[2]I have examined elsewhere the effects of the 2004 Olympic Games which were held in Athens; see Papanikos (1999, 2020, 2021).

[3]On the issue of image and reputation affected by media, see the case study by Pitluk et al. (2023).

[4]One aspect of this promotion is using the media venue and micro-celebrities in promoting fitness to UK youth which is examined by Djafarova and Thompson (2020). Fitness performance of youth who engage in soccer in South Africa is discussed by Ellapen et al. (2014).

Poland. Sports management and sports efficiency of the clubs competing in the UEFA Champions League are considered by Zambom-Ferraresi et al. (2017).

Dilger and Vischer (2022) performed an interesting study using data from the German football league. Because of COVID-19, 83 games of the 2019/20 season were held without fans. They compared these 83 games with the corresponding 83 regular games between the same teams with spectators. They found that the typical home team advantage vanishes when the game is played in empty stadiums.

Bouvet (2020) takes a theoretical approach to examining the production of sports events that attract immense media attention, suggesting what the author calls a new approach to monetizing sports events. The marketing strategy of sports organizations and the education of their managers are outlined by Gebler-Branch (2018). The effectiveness of sports sponsorship in Egypt is discussed by Ibrahim (2014). The marketing issue has also been examined in many other professional sports especially in North America; see for example the study by Newman (2014).

Harasta (2021) studies the process of how to develop a sports fan from self-identification to strong loyalism (fanatism). On this issue, see also the study by Özgen and Argan (2017) on Turkish fans. Pfeffel et al. (2016) study the fans' behavior while watching football. In a series of articles, Hebbel-Seeger (2017), Hebbel-Seeger and Horky (2018), Hebbel-Seeger and Diesch (2019) and Hebbel-Seeger et al. (2017) examined the use of drones and video in sports games as a marketing tool. In two related papers, Glebova and Desbordes (2020, 2021) focus on technology, such as mobile applications, and how these new means affect the customer experience of sport spectators. Igel et al. (2018) use two example applications of Artificial Intelligence and the Internet of Things. The first, which relates to sports, includes exercise and youth culture in the smart city. Similarly, a number of studies have used the various aspects of developing a new trend; that of e-sports—see Robeers and Van Den Bulck (2018), Lemcke and Weh (2018) and Wewer (2018).

Binjwaied et al. (2015) examine the factors which affect the attendance of football matches in the Kingdom of Saudi Arabia. They conclude that the role of media is important in attracting more fans such as via televised media, online coverage and social media. Bachan and Reilly (2016) compare 48 European football leagues with the one in Ireland and found that the Irish clubs are supported by fans as much as in the other European leagues. Borges (2018) looks at how football clubs can build constant relations with their fans. He argues that clubs represent communities[5] and as such, the football clubs employ communication and media consultants to improve their relationships with their fans. He examines three football clubs Benfica, Botafogo and Paris Saint-Germain, using an ethnographical-interview approach to examine media professionals from the club-owned media channels. In an interesting study, Harman (2022) looks at gender equality by examining male and female football performance. The gender issue in sports is also examined by Hyre et al. (2017). In the relative football literature for competitive balance, financing and the organization structure of the football leagues at national and international levels have been extensively discussed.

[5]An example of how sports interact with a local community (the Greater August Town, Jamaica) is examined by Burke et al. (2014).

Examples of this literature can be found in the studies of Huth and Kurscheidt (2022), Leite (2017), Magueta et al. (2015), Maugendre (2018), Ogunsanya and Rasheed (2019), Papanikos (2014, 2017, 2021, 2022) and Suominen (2017, 2018).

The above literature shows how extensive the subject of sports is in general, but most importantly for this study, is the connection of sports with international media—this relationship is explained by the very strong association of international politics with sports. Mega sports events have international political implications that no study can ignore. One proof of that is the huge interest as shown by the extensive media attention from so many different countries that covered the 2022 WFC. The extent of this media coverage is the subject of this paper. This paper does not look at, and therefore does not evaluate, international media costs and benefits from hosting the 2022 WFC. Instead, it only concentrates on two issues. First, the media effect starts from the time a country has decided to play a role in the international sports organization of events. This issue is explored by looking at how a country prepares a bid for such sports events which by themselves create an international media attention. Bribing or not, the FIFA officials would never be sufficient to vote in favor of awarding such a mega event to a country that does not meet some minimum organizational and infrastructure requirements. After all, the second runner up, the USA, has the money and the political "ethics" not to be beaten by such malicious practices that are ubiquitous in the international area of sports and politics. Second, this paper examines the extent of media coverage of the 2022 WFC by looking at the official license data provided by FIFA. The emphasis is on the globalization of the media coverage of the event. These two issues are discussed in the following two sections of the paper. The last section of the paper concludes.

Bidding, Preparing and Staging the Games

Qatar started its preparations to bid for the 2022 WFC long before its formal submission of application in 2010. Qatar had to prove to the world sports community that it had the capacity and the ability to organize mega sports events. It did so by showing examples, i.e., it organized many such sports events in the time period preceding the WFC. Table 1 lists the mega sports events hosted in Qatar since 1998. FIFA awarded the WFC to Qatar on 2 December 2010.[6] By 2010, Qatar had already organized 18 small and big international sports events, including three annual events that take place every year in Qatar. The first of these annual events started in 1998 and continue thereafter.

After winning the 2022 WFC, Qatar organized another 13 international sports events including two which are strictly related to football: the FIFA Club World Cup in 2019 and the AFC Champions League in 2020.

[6]For more details see FIFA's website at: https://publications.fifa.com/en/sustainability-report/sustainability-at-the-fifa-world-cup/profile-of-the-fifa-world-cup-qatar-2022/.

Table 1. *Mega Sports Events Hosted by Qatar Since 1998*

No	Year	Event	No	Year	Event
1	1998-	Qatar Masters (Golf Championship)	17	2010	IAAF World Indoor Championships
2	1993-	Qatar Open (Tennis Tournament)	18	2010	ISAF World Junior 470 Sailing Championships
3	2001-	Qatar Classic (Squash International Tournament)	19	2011	Asian Football Cup
4	2004	Asian Handball Championships	20	2011	Arab Games
5	2004	ITTF World Team Table Tennis Championships	21	2012	Asian Shooting Championships
6	2005	Asian Basketball Championships	22	2014	FINA Short Course World Championships
7	2005	World Weightlifting Championships	23	2015	IHF Handball World Championships
8	2005	West Asian Games	24	2015	Doha 2015 IPC Athletics World Championships
9	2006	Asian Sailing Championships	25	2015	World Amateur Boxing Championships
10	2006	Asian Games	26	2015	World Robot Olympiad
11	2008	Asian Indoor Athletics Championships	27	2016	UCI Road Cycling World Championships
12	2008	Asian Youth Wrestling Championships	28	2018	FIG Artistic Gymnastics World Championships
13	2008	Asian Optimist Sailing Championships	29	2019	IAAF World Championships
14	2009	Asian Fencing Championships	30	2019	FIFA Club World Cup
15	2009	FIVB Club World Championships	31	2020	AFC Champions League
16	2009	ISF World Gymnasiade	32	2022	FIFA World Cup

The organization of such international mega sports events served three purposes. First, it showed the world that Qatar has the infrastructure, the managerial ability and above all, the willingness to host international mega sport events. This by itself helped Qatar to win the bid and host the games of 2022. Second, the continuing organization of mega sports events, even after winning the bid, gave Qatar a great opportunity to acquire the necessary experience in the organization of such events which was necessary for staging the 2022 WFC. Third, all these sports events provided the opportunity to showcase Qatar to the world that a Middle Eastern Muslim country can make a breakthrough and organize sports events—something that was previously only the privilege of some Western and Asian countries. All these sports events in Qatar (Table 1) attracted worldwide publicity. Of course, the argument of "sportswashing" and using sports as a soft diplomacy tool to promote the interests of Qatari government is as true as for any other country which uses sports to cover up for many domestic problems, such as extensive poverty and violations of human rights including the rights of women and migrant workers.

Including Qatar, five countries applied to organize the 2022 WFC—among them the most powerful nation in the world today, the USA. The others were

Australia, Japan and South Korea. Table 2 shows the results of the votes. In total, 22 FIFA officials voted. There were 12 votes needed to win the bid. From round 1, Qatar was the favored country to win, receiving 11 of the 12 votes in the first round. Of interest is the fact that in the 2nd round, Qatar got 10 votes, one less than in the first round. At the end, four rounds were needed to select a winner. Qatar got 14 votes. If there were no switching of votes between the third and fourth round, then the 5 votes of the eliminating country in the third round went 3 to Qatar and 2 to the US.

Table 2. *Voting for the Countries to Host the 2022 Football World Cup*

Round / Country	1	2	3	4
Qatar	11	10	11	14
United States	3	5	6	8
South Korea	4	5	5	
Japan	3	2		
Australia	1			
Total Votes	22	22	22	22

Source: FIFA https://web.archive.org/web/20101206011341/http://www.fifa.com/worldcup/russia2018/media/newsid=1344971/index.html.

In total, eight stadiums were used for the games of the 2022 WFC. All were located in five cities. Table 3 reports the city, the name of the stadium and the capacity of each stadium. All but one stadium (Stadium 974) will remain as a WFC legacy to be used from various national clubs as well as hosting international games. The average capacity of the stadiums used was 44,089 with the smallest stadium being the Stadium 974 with a capacity of 44,089, and the largest the Lusail Stadium with a capacity of 88,966 seats.

According to FIFA,[7] three million people attended the games in 2022. The stadium capacity was 95% filled on average during the games. One million spectators came from 140 different countries to watch the 64 games of the WFC. The top fifteen countries by ticket holder were: Qatar, USA, Saudi Arabia, England, Mexico, UAE, Argentina, India, France, Brazil, Germany, Canada, Kuwait, Australia and Spain.

Nations participated in the WFC primarily because of the prestige. Sports have always been used as a soft diplomacy tool. On the other hand, players have an additional incentive apart from the pride of representing their country; they also increase the value of their football capital in the international market for players. All players are playing professional football and some of them play at the top leagues in the world which pay high salaries for the players. A world cup is like a big fair where players, especially the young players who are unknown and their skills have not been tested, to showcase their abilities and by doing so increase their monetary value. Apart from these important political and economic effects of hosting a world cup, FIFA has established a system of prize money for all 32

[7]https://www.fifa.com/fifa-world-cup-qatar-2022-ticketing-and-hospitality.

national teams that participate in the tournament. Some of these funds go to the players as well. Table 4 reports the prize money according to the ranking of the teams after all games have been played.

Table 3. *The Sports Infrastructure (Stadiums)*

	City	Stadium	Capacity
1	Lusail	Lusail Stadium	88,966
2	Al Khor	Al Bayt Stadium	68,895
3	Al Rayyan	Khalifa International Stadium	45,857
4	Al Rayyan	Ahmad bin Ali Stadium	45,032
5	Al Rayyan	Education City Stadium	44,667
6	Doha	Al Thumama Stadium	44,400
7	Doha	Stadium 974	44,089
8	Al Wakrah	Al Janoub Stadium	44,325
		Average	**53,279**
		Minimum	**44,089**
		Maximum	**88,966**

Source: FIFA.

Table 4. *FIFA Prize Money (in Millions of US$)*

	Teams	Per Team Prize	Total	Share	Preparation Costs Paid by FIFA	Total Preparation Costs	Total Amount Paid
Champions	1	42	42	9.5%	1.5	1.5	43.5
Runners-up	1	30	30	6.8%	1.5	1.5	31.5
Third Place	1	27	27	6.1%	1.5	1.5	28.5
Fourth Place	1	25	25	5.7%	1.5	1.5	26.5
5th-8th place	4	17	68	15.5%	1.5	6	74
9th-16th place	8	13	104	23.6%	1.5	12	116
17th-32nd place	16	9	144	32.7%	1.5	24	168
Total	**32**	**23.29**	**440**	100%		**48**	**488**

The winner of the world cup gets $42 million USD which accounts for the 9.5% of the total $440 million USD of the FIFA prize money. The runner-up gets $30 million USD or 6.8% of the total. The third place winner got $27 million USD or 6.1% of the total amount and the fourth placed team $25 million USD or 5.7%.

In concluding this section, Qatar was well prepared for the games. It had shown long before the WFC games that they were able to organize world class sports events successfully that attracted the interest of billions of people around the world.

If one was to judge Qatar from the strict criteria of organizing the games, Qatar did a very good job and set the foundation for organizing many more mega sporting events in the future. This will offer an opportunity to portray this small Middle Eastern, Muslim country in the Gulf that stands out in world affairs. This is demonstrated by the number of media outlets from all over the world which received accreditations to cover the games. The extent of media coverage is discussed in the following section of this paper.

The Extent of Global Media Coverage of the 2022 WFC

According to FIFA,[8] the 2022 WFC received unprecedented media coverage. FIFA issued 18,000 accredited media positions to cover the FIFA events in Qatar (Table 5). It accepted media accreditation applications from various media outlets from many different countries and provided licensing rights for all types of media: TV, radio, mobile and internet. Table 5 reports the breakdown of the media accreditations in terms of total written media, photographers, total Non-Right Holders (NRH) journalists and camera operators.

Table 5. *FIFA Media Accreditations*

Accreditations issued	18,000
Written media	
International journalists	1,765
Domestic journalists	69
Total written media	1,834
International photographers	726
Domestic photographers	33
Total photographers	759
Non-Rights Holders (NRH)	
International NRH journalists	168
Domestic NRH journalists	87
Total NRH journalists	255
International NRH camera operators	77
Domestic NRH camera operators	30
Total NRH camera operators	107

Source: FIFA.

Table 6 provides aggregated information on the number of countries and territories by continent. In total, the media from 225 countries and territories were licensed by FIFA to cover the world football cup in Qatar. African and European countries and territories accounted for 50% of the total, equally distributed between the two continents.

However, Africa comes first in the number of media licenses with 34% of them coming from African countries and territories. This is an indication of the great dispersion of the coverage in terms of countries and of course, language. Second in the license category comes the continents of Americas which accounted for 25% of the total number of licenses issued by FIFA. Third comes Europe with 22%. Asia and Oceania accounted for 12% and 7% of the total media licenses respectively.

[8]https://www.fifa.com/fifa-world-cup-qatar-2022-commercial/media-coverage.

Table 6. *Media Rights Licensees per Continent*

Continent	Number of Countries/ Territories	Percentage	Licenses	Percentage
Africa	56	25%	249	34%
Americas	50	22%	183	25%
Asia	42	19%	84	12%
Europe	56	25%	158	22%
Oceania	21	9%	52	7%
Total	**225**	100%	**726**	100%

Table 7 breaks down the media licenses by the means of media: TV, Radio, Mobile and internet. Africa tops the list in all four means. It accounted for 29% of TV licenses, 34% of radio, 30% of mobile and 29% of internet.

Table 7. *Media Rights Licensees per Means*

Continent	TV	%	Radio	%	Mobile	%	Internet	%
Africa	163	29%	190	34%	151	30%	150	29%
Americas	131	24%	151	27%	116	23%	129	25%
Asia	83	15%	58	10%	61	12%	61	12%
Europe	129	23%	133	24%	129	25%	131	25%
Oceania	50	9%	25	4%	50	10%	50	10%
Total	**556**	100%	**557**	100%	**507**	100%	**521**	100%

Note: Percentages may not add up due to rounding.

Summarizing this evidence, the WFC was well covered by all means of communication (TV, radio, mobile and internet), which were almost equally distributed across the globe if one takes into consideration the population of each regional continent. This shows that the WFC attracts the interest of the international community of spectators making it an easy channel for the host country to send non-sports related messages as well (e.g., advertising). Whether Qatar has achieved this non-sports objective is the subject of a different research focus. What is certain is that Qatar now has the sports infrastructure and the managerial capability of organizing mega sports events which can be used to attract future sports and non-sports events.

Conclusions

Qatar organized the 2022 WFC for the first time in the winter months of the northern hemisphere. As far as the sports infrastructures (which is not discussed in this paper here but very important as well to consider the hospitality/tourism infrastructure) and the management of the events, there is very little that can be said for criticism. At the end of the events, he international media had to admit that the games were well organized.

However, international mega sports events are not only sports. The host country may leverage them as a soft diplomacy tool and the term "sportswashing" is used to describe a process by which a country exploits such events to cover up

for its negative record on domestic issues such as the treatment of all kinds of minorities.

Qatar received many such criticisms by the international mass media. However, I do not think that this will affect the long-term legacy of the 2022 WFC. Qatar is a new player in the organization of mega sports events representing a new culture, the Arab, a new area, the Middle East, and a new religion, the Muslims, which had not previously had the opportunity to organize a mega event such as the WFC before.

Additionally, FIFA is more than satisfied because its mission to promote football all around the globe has been accomplished by including a new geographical area and culture in the game. Qatar opened a completely new market for FIFA. With or without bribes, a pure cost-benefit analysis on behalf of FIFA would have pointed out Qatar as the best candidate to organize a WFC. If one judges from the overall results, FIFA has been vindicated in giving the organization of the 2022 WFC to Qatar.

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