The First Women's World Ice Hockey Championship and the Emergence of the Routine of Women's Elite Hockey

by

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Abstract

Ice hockey is Canada's national winter sport (Government of Canada, 1982). While men's hockey has been an event in the Olympic Games since 1920, women's hockey was only added as an event in 1998 (IIHF, 2016). A watershed moment that advanced the growth of women's hockey was the inaugural Women's World Hockey Championship (WWHC), held in Ottawa, Canada, in March of 1990. Sociologist Nancy Theberge (2000) proclaimed the event was an important turning point in women's ice hockey. It proved to be the test event for women's hockey to be considered for inclusion in the winter Olympic Games, an accomplishment that would contribute to the legitimation of women's hockey as an elite sport.

The purpose of this current research is to investigate the WWHC in detail as a case study. Primary data encompassing the 1990 WWHC files of the Canadian Amateur Hockey Association (CAHA) were made available for this study with the permission from CAHA president M. Costello. This study benefits from the data sources and insights available by the author who served as the event's general manager. The historical description of the event utilizing data from the CAHA files corrected some misconceptions previously reported in the literature. This behind-the-scenes examination of management strategies, decisions, and solutions is the theme of the Second chapter: *Women Can't Skate that Fast and Shoot that Hard" The First Women's World Ice Hockey Championship, 1990*.

During the WWHC, two issues occurred that attracted further investigation in this study. An entrepreneurial initiative involving the color of

the Team Canada jerseys was employed to attract media attention to the event. The reaction from members of various audiences to the decision to change the traditional red and white Team Canada jerseys for pink and white jerseys proved controversial. This issue is examined through a lens of ideographic analysis in detail in Chapter three: *The Duality of Sport Signifiers and Symbols: Ideographs and the 1st Women's World Ice Hockey Championship, 1990*. The other intriguing issue had to do with the physicality rule or artifact of women's hockey at the championship. This specific artifact is what identifies the difference in the routine of men's and women's hockey. Due to local hockey legislation just prior to the 1990 WWHC, body-checking was disallowed at the 1990 event. The process of how this issue was resolved is the subject of Chapter four: *How Organizations Manipulate Artifacts to Create Organizational Routines*. The outcome of the tournament resulted in the identification of the routine of women's hockey, subtly different from the routine of men's hockey, and still in vogue today.

Preface

This research project received approval from the University of Alberta Research Ethics Board on October 19, 2016 under the project title: THE FIRST IIHF WORLD ICE HOCKEY CHAMPIONSHIP [No. Pro00067954]. A version of Chapter 2 of this thesis has been published as: Reid, P.A. & Mason, D.S. (2015). 'Women can't skate that fast and shoot that hard! The first Women's World Ice Hockey Championship, 1990. *The International Journal of the History of Sport*, 32(14): 1678-1696. I was the lead author and solely responsible for the data collection and analysis, and manuscript composition. Dr. Mason was involved throughout the study in concept formation/development and manuscript edits. The title of the study featured in Chapter 3 is: The duality of sport signifiers and symbols: Ideographs and the first Women's World Ice Hockey Championship, 1990. I was solely responsible for the collection of documents, data analysis, and manuscript composition. Dr. Mason was involved in concept formation/ development and manuscript edits throughout this study. The study presented in Chapter 4 examined the issue of How organizations manipulate artifacts to create organizational routines. I was solely responsible for contacting interviewees, scheduling and conducting the interviews, collecting documents, data analysis and manuscript composition. Throughout the study Dr. Dan Mason of the Faculty of Kinesiology, Sport, and Recreation, and Dr. Marvin Washington and Dr. Vern Glaser of the Alberta School of Business School, were involved in concept/formation/development and contributed to manuscript edits.

Dedication

This thesis is dedicated to my son Brett, daughter Taylar and to my wife Joanne.

"Once you stop learning, you start dying"

Albert Einstein

I dedicate this research initiative to the young girls, adolescent women, and adult females who have had the good fortune to pick up a hockey stick, lace on a pair of skates, and take part in Canada's national winter sport: HOCKEY.

This rich history is intended to preserve the contribution and memory of the Canadian pioneers who competed in the inaugural IIHF Women's World Hockey Championship in 1990.

Goaltenders: Cathy Phillips, Denise Caron. **Defence:** Judy Diduck, Geraldine Heaney, Teresa Hutchison, Dawn McGuire, Diane Michaud, Brenda Richard. **Forwards:** Shirley Cameron, Heather Ginzel, Angela James, France Montour, Kim Ratushny, Sue Scherer, Laura Schuler, France St-Louis, Vicky Sunohara, Margot Verlaan, Stacy Wilson, Susie Yuen. **Coaches:** Dave McMaster, Dr. Lucie Valois (MD), Rick Polutnik. **Director of Operations**: Pat Reid

Acknowledgements

Attending grad school after secondary school, I really enjoyed the world of academia, completing an undergraduate degree (B.Sc. Kinesiology), University of Waterloo, and (M.A. Physical Education), University of Western Ontario. However, numerous unique, and interesting, employment opportunities took me in other directions after that, for the next 40 years. My vocation was sport management, while my avocation was coaching high jump athletes who ranged in ability from the grassroots level to the Olympic podium. I found coaching to be a unique form of teaching and mentoring I particularly enjoyed. I also lectured in sport management subjects at the University of Ottawa and at Algonquin College part time. I always knew one day I would return to complete my PhD and pursue a full-time professorship at the university level somewhere in North America.

While working part time for an Edmonton sports commission I met Dr. Bryan Hogeveen (University of Alberta) a colleague who inspired me to return to the academic community at the University of Alberta. Encouraged and recommended by one of my favorite, former professors from the University of Waterloo, Dr. Howie Green, I decided to return to university to pursue a PhD at the University of Alberta. I had the good fortune to be linked to adviser Dr. Dan Mason. Over the ensuing 7 years Dr. Mason guided my return to the field of research, a profession I quickly found had accelerated and expanded its borders from *Current Contents* to the *Internet Highway.*

The University of Alberta has a wealth of respected professors who are also research authors who publish regularly, are experienced editors or are on editorial boards of leading, refereed, research journals. These individuals also take great pride in offering their time and expertise to mentor grad students such as myself. I am extremely thankful for the relationship I share with Dr. Mason. And I could not have asked for a more engaging, supportive, supervisory committee consisting of Dr. Dan Mason, and committee members Dr. Tom Hinch (Faculty of Kinesiology, Sports and Leisure) and Dr. Marvin Washington (Alberta School of Business). I am extremely indebted to my full examining committee which includes Dr. Tara-Leigh McHugh (Faculty of Kinesiology, Sport and Leisure), and external adviser Dr. Michael Robidoux, Faculty of Health Sciences, University of Ottawa.

I would like to thank Tracey Poberznick, Edmonton, for her timely assistance with formatting my candidacy document and this dissertation.

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I am especially grateful to my wonderful wife Joanne for her patience, perseverance, and support during this academic odyssey. We both missed time spent with Joanne's daughter Neva, husband Kyle, granddaughter Maddex, Joanne's son Evert, and his wife Diana Wright, while on this academic journey in Edmonton.

My ultimate source of motivation, pride, and joy is my daughter Taylar (Tay), and son Brett. As accomplished, intelligent and interesting individuals, both appreciate the value of a quality education as they enjoy their journey investigating the curiosities of the world.

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Acronyms

CAHA	Canadian Amateur Hockey Association
CBC	Canadian Broadcasting Corporation
CIHC	Canadian International Hockey Committee
CTV	The Canadian Television Network
EWHC	European Women's Hockey Championship
FIH	Federation internationale de hockey sur gazon
IIHF	International Ice Hockey Federation
IOC	International Olympic Committee
LIHG	Ligue international de Hockey sur glace
LOHA	Ladies Ontario Hockey Association
NFL	National Football League
NHL	National Hockey League
NBC	National Broadcasting Corporation
NOOC	Norwegian Olympic Organizing Committee
ODHA	Ottawa District Hockey Association
OHL	Ontario Hockey League
OWHA	Ontario Women's Hockey Association
TSN	The Sports Network
WWHC	Women's World (Ice) Hockey Championship

CHAPTER 1

Introduction

Introduction

Ice hockey is Canada's national winter sport (Government of Canada, 1994). The industry, or field, of hockey, had been dominated by governance and programming specifically for males, from the time of the formation of the Ligue Internationale de Hockey sur Glace (LIHG) in 1908, later called the International Ice Hockey Federation (IIHF), to the year 1990. (IIHF, 2016). In 1910 the National Hockey Association was formed and was replaced in 1917 by the National Hockey League (IIHF, 2016). The objective of the league was to remain financially viable which meant a focus on male professional hockey players (Podnieks, 2009). In 1914 the Canadian Amateur Hockey Association (CAHA) was formed providing governance for hockey in Canada (Podnieks). The focus of the CAHA was on amateur hockey played predominately by males, from 1914 to 1990 (M. Costello, personal communication, 14 November 2016).

The construct of field (Bourdieu and Wacquant, 1992) has also been referred to as organizational field (DiMaggio and Powell, 1983; Scott, 1991); institutional field (Meyer and Rowan, 1977); and local social order (Fligstein, 2001). The terms institutional field and organizational field are considered interchangeable (Hardy and Maquire, 2010). This concept, hereafter referred to as field, has been chosen in this introduction to assist in positioning the IIHF, the CAHA, and the 1st Women's World Hockey Championship (WWHC) held in 1990, in the field or institution of hockey. Field has become a key concept for understanding institutions, how they emerge, and how they evolve (Scott, 1991). The field is a bounded area (Glynn and Abzug, 2002) and "characterized by an orienting principle or goal" (Evans and Kay, 2008, p. 973). The behavior of incumbent organizations within fields is, in many cases, guided by institutions that provide stability through cultural-cognitive, normative, and regulative structures (Scott, 1995). Adherence to these structures can reflect numerous theoretical concepts including legitimacy (DiMaggio and Powell, 1991); stability (Scott, 2001; 2014); or status (Washington and Zajac, 2005). However, at the same time numerous institutional and organizational theorists have focused their attention on the dynamics of change within the institutional field (Dacin, Goodstein, and Scott, 2002; DiMaggio, 1988; Fligstein and McAdam, 2012; Greenwood and Hinings, 1996;

Seo and Creed, 2002). Fligstein and McAdam (2012) conceptualize the theoretical construct of institutional field as a space of strategic action (p. 8-9). This concept depicts the field as dynamic and susceptible to challenges by newcomers wishing to change the field through varying institutional pressures and/or events. A single event that can bring about changes at the field level has been called a field-configuring event (FCEs) (Anand and Jones, 2008). Meyer, Gaba, and Colwell (2005) reported that some FCEs "are temporary social organizations such as trade shows or professional gatherings, technology contests, and business ceremonies that encapsulate and shape the development of professions, technologies, markets, and industries" (p. 467). The 1st IIHF WWHC in March 1990, based on this study, is recognized as a field-configuring event that changed the institution, or field, of hockey.

Purpose of the Research

The objective of this dissertation was to explore the first WWHC (WWHC), held in 1990 and the contribution of the event to the development of women's hockey. Specifically, this dissertation is organized into a three-paper format focussed on the following perspectives:

(1) How was the 1990 WWHC event organized and operated?

(2) What was the reaction in the media, and impact to the decision to have the players of Team Canada wear pink and white jerseys instead of the traditional red and white hockey uniform worn by the Canadian men's team?

(3) What was the process involved in the creation and emergence of the live routine of women's hockey at the 1990 WWHC?

Research Studies

FCEs can be expressed as temporary events at which a cross-section of subject experts convene for a fixed period of time, in an attempt to change a field configuration by any number of means or mechanisms. Despite being temporary in nature, field-configuring events provide researchers the opportunity to study the creation, emergence, evolution, and ultimately the change within an institutional field (Greenwood, Suddaby and Hinings, 2002; Wooten and Hoffman, 2016). Two

mechanisms that occurred during the 1990 WWHC that ultimately effected a change in the institutional field of hockey, involved a change in a longstanding rule or artifact of the routine of hockey; and manipulation of the official uniform of the Canadian national women's team [Team Canada] at the event. The institution or field of hockey is governed by a global federation, the IIHF. It was founded in 1908, consisting of a membership at the time of the 1990 WWHC, of seventy-seven national hockey federations, each responsible for the sport of ice hockey in their respective countries (IIHF, 2016). The sport is governed by an official set of bylaws that includes the rules or artifacts of the game. One foundational practice of the routine of hockey is body-checking. Body-checking is a physical skill typified when a defensive player on one team intentionally directly contacts an offensive opponent in possession of the puck. It is normally an attempt to create a body-to-body collision intended to separate the offensive opponent from puck possession. This is termed a body-check. The practice of body-checking defines the routine of men's hockey as it is skill applied to competitive male hockey after a certain age in minor hockey in Canada. Seventy years later, this entrenched rule or artifact of hockey would be contested at the time of the 1990 IIHF WWHC, held in the city of Ottawa, Ontario. This dilemma and strategic solution is one of the areas examined in this research.

The institutional boundary of the IIHF and its member organizations is divided into a status hierarchy described as alphabetic pools A, B, C, and D, based on success in competitive performance at the IIHF world championship level (IIHF, 2016). In addition, the IIHF has a common meaning system and practices. With the advent of the IIHF official rule book for hockey, there was basic agreement on the rules or artifacts governing appropriate ways of behavior. One of the investigations in this dissertation is a focus on the physicality rule or artifact in place at the time of the 1990 WWHC. The creation of the official rule book gave the field the appearance of stability in the operations of the IIHF and its member federations and their registered players or actors began performing the routine of hockey in accordance with the rules or artifacts of the IIHF. The actors are required to perform the routine in accordance with the stated artifacts or suffer penalization from referees, also called arbiters, who are hired by the IIHF to act as organizational quality control officials of the routine.

From my data analysis emerged an understanding that the physicality artifact or rule of body-checking was manipulated at the time of the 1990 WWHC to resolve a legislative jurisdictional roadblock that affected the staging of the WWHC in Ottawa.

The presidents of IIHF member federations, whose teams dominate the A pool of international hockey at the world championship and Olympic level, are considered central or elite actors in the membership hierarchy of the IIHF (IIHF, 2016). This is a consequence of the maturation level of the field of international hockey, and the influences of long-standing field members. Presidents of these federations tend to chair the IIHF sub-committees and have a direct communication link to the IIHF president who, in 1990, was Dr. Gunther Sabetzki (IIHF, 2016). Members of federations whose teams compete in the B pool are considered middle status actors. This stratification of incumbent actors reflects who has power to accept, reject or affect change to the institutional field. This is important, for instance, when the organization or field is challenged by outsiders. It is known that members can improve their social position in the hierarchy of a field's topography by generating and accruing as much capital as possible to improve one's social position (Annand and Jones, 2008; Battilana, 2006; Bourdieu, 1985). Members regularly compete for resources, status, market share and even mindshare (Zietsma et al., 2017). CAHA president Costello, a member in the A pool, had a strong personal relationship with IOC president Sabetzki. This preferred status was a reason the IIHF awarded the 1990 WWHC to Canada (M. Costello, personal communication, 14 November 2016).

Bourdieu's (1999), theoretical framework of organizational fields focuses on what he terms the conflict within a field that results from the struggle of dominant incumbent members to generate, possess, and retain the various forms of capital within the established field. This attainment of capital, further legitimates the status of dominant field members. This competition for the various forms of capital is particularly significant when the field is being approached by an outside group wishing to enter the field. One reason is that if accepted, a new member could dilute existing accumulated capital or resources and possibly alter the hierarchical status in place at the time. This was the situation facing the institutional field of international hockey at the time of the 1990 WWHC. Sociologist Nancy Theberge (2000)

described the 1990 tournament as an important turning point in the development and legitimation of women's ice hockey. The event accelerated the growth of women's hockey from the grassroot level to the world championship and Olympic level.

The 1990 WWHC was designated an Olympic test event by the president of the IIHF and the president of the International Olympic Committee. The event was staged to evaluate the competitive state, and entertainment value of women's elite hockey at the time (Ferguson, 1990; Scanlan, 1990). A unique pact between the presidents of the IOC and IIHF was arranged. Samaranch offered a unique opportunity. If the performances at the women's world championship could attract a significant number of spectators, Samaranch promised to fast-track women's hockey as an event in the winter Olympic Games. This put significant pressure on members of the CAHA management team to ensure the event was organized such that every opportunity to maximize the size of the audience occurred. This context set the stage for numerous innovative initiatives.

The next chapter provides a historical overview of the 1990 WWHC event. During the investigation of this historical document, two issues emerged from the data that were integral to the 1990 WWHC. I decided to investigate the two areas in more detail. These two topics formed the basis for the second and third papers in this three-paper dissertation. The third chapter examines the decision to have Team Canada players wear pink and white, instead of red and white, jerseys in the tournament. The fourth chapter investigates the process of the creation and emergence of the routine of women's elite hockey that occurred during the championship.

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CHAPTER 2 (*)

Women Can't Skate that Fast and Shoot that Hard!

* A version of this chapter, co-authored by Daniel S. Mason (2015), was published in *The International Journal of the History of Sport*, 32(14): 1678-1696.

Introduction

On 20 February 2014, the Canadian women's team completed a dramatic comeback to defeat the United States in the gold medal game of the women's Olympic ice hockey tournament in Sochi, Russia. The match was the highest rated hockey game (men's or women's) in the US during the Olympics, with 4.9 million viewers watching the game on NBC (International Olympic Committee). At the same time, 1.2 million viewers watched the game online, making it "the most-streamed event in the history of NBC Sports Digital, excluding Super Bowl XLVI" (NBC Sports Group).

In Canada, 3.6 million viewers watched at least some of the US team's 3–2 win over Canada in the 2013 WWHC, while the total audience for the women's gold medal game during the 2010 Olympic Games in Vancouver was estimated at over 19 million (TSN, 2013). In commenting on the growth of women's hockey in 2000, Rick Brace, president of Canadian broadcaster, The Sports Network (TSN), claimed that "Women's hockey has evolved from a niche sport to a jewel in terms of participants, fans, broadcasters and advertisers" (Christie, 2000: S-1).

In addition to its popularity as a spectator sport, women's ice hockey is widely played, especially in North America, with 86,612 registered in programs in Canada, (Hockey Canada) and 67,230 playing in the US. Despite such growth, the rise in interest in the women's game has been very recent compared to the long organizational history of men's hockey. While men have competed in the Olympics since 1920, women's ice hockey was only introduced in 1998. The major growth period in the sport has been since 1989; at that time, Canada had an estimated 4,307 players (Noble, 1990), while in the US there were 139 women's teams registered, amounting to approximately 2,780 players (Rider, Female Council National/International Report, 1989, Hockey Canada archives).

As evidenced by the increase in participation numbers, women's hockey has flourished since the late 1980s. A watershed moment for the growth of the women's game was the inaugural WWHC, held in Ottawa in March of 1990. The event would be instrumental in showcasing the abilities of elite female players and garnering support for the inclusion of women's ice hockey in the Olympic Games. As

explained by sociologist, Nancy Theberge, the 1990 tournament "was an important turning point in women's ice hockey, in large part because it was the first time the sport received extensive publicity, including media coverage," (Theberge, 2000: ix) a sentiment echoed in the book *On the Edge: Women Making Hockey History* (Etue and Williams, 1996). However, while the popularity of the sport today remains a legacy of the 1990 WWHC, the event itself started from more modest beginnings. While initially not receiving widespread media coverage and support, the event would gain in popularity over the course of the tournament, resulting in what was considered the largest crowd to ever attend a women's hockey game up to that point. The planning and hosting of the 1990 WWHC had a tremendous impact on legitimating elite women's hockey.

Previous histories of the event did not have access to internal documents and perspectives from the key organizers of the event. This study benefits from the sources and insights available by its lead author, Patrick Reid, who served as the event's general manager. Reid kept extensive records from the event, including telefaxes, minutes of meetings, financial records, and other correspondence. As part of an agreement to use these sources, they have been turned over to Hockey Canada and made available for public use. These new sources clarify some misconceptions and misinformation regarding the event found in previous literature of the inaugural women's world championship. Importantly, these new insights and sources reveal the critical role played by the IOC and the IIHF at this time, the reasons behind the confusion over the body-checking rule in women's hockey, and further underscore the instrumental role the event had in women's hockey being added to the winter Olympic Games and its contribution to the growth of women's hockey.

Legitimacy and Women's Hockey

Men's participation in the sport of hockey has been widely studied, however, the origins of women playing hockey are less clear. Women have been playing ice hockey in Canada since the latter part of the nineteenth century (Ferguson, 1990). The first provincial governing body for women's amateur hockey in Canada was the Ladies Ontario Hockey Association (LOHA), formed in 1922 with a constitution based on the Ontario Hockey Association (OHA), which had formed in 1890

(Adams, 2009). The LOHA sought official status from the CAHA – formed in 1914, but the CAHA denied the LOHA recognition, citing the body checking aspect of hockey and a safety concern for females of all ages wanting to play the game (Adams, 2009: 114). Thus, while the men's version of the game continued to develop at all age and skill levels, the women's game was largely played as a recreational activity, utilizing a simplified set of hockey rules (Etue and Williams, 1996).

Men's hockey teams were sanctioned by the IIHF to compete for a world hockey championship starting in 1920; it would be another 70 years before a similar tournament would be organized for women (Podnieks, 2009). One impediment to the development of women's hockey in Canada occurred in Ontario, Canada's most populated province, where legislation through the Ontario Human Rights Code banned mixed-gender athletic competition (Hutchison & Petter, 1988). This meant that separate teams and leagues for females would have to be developed for the game to grow. Fran Rider, president of the Ontario Women's Hockey Association (OWHA – formed in 1975) from 1982–1993 (Avery & Stevens, 1997), felt there was little demand at the time for girls-only leagues and negligible effort by a male-dominated hockey administration system to create them: "It is important to understand that support from the minor hockey community did not exist for females, so any progress was in spite of discouragement by male hockey. We had to deal with problems like bad ice, few leagues and no support systems" (Rider, 1996: 71).

Starting in the early 1970s in the United States, organized women's hockey was overseen by university and college athletic programs (Cohen, 2001). Like many other women's sports in the US at the time, women's hockey benefitted from the advent of *Title IX of the Education Amendments of 1972* (Title IX) that, amongst other equity initiatives, forced the athletic directors of US colleges and universities to provide equal opportunities for both female and male athletes (Cohen, 19). Despite such efforts female hockey players, like those in other sports, faced considerable resistance in their efforts to grow the game.

In Europe, administrators were faced with the reality that "women's ice hockey [was] not so popular in Europe that girls are driven to this sport like they are

in North America" (IIHF 1988-90 Yearbook: Women's Hockey on the Attack, Hockey Canada archives). The number of registered female players in European countries in 1987–1989 was relatively small. For example, in France there were only 492 players; in West Germany, 450; in Finland, 250; and in Switzerland, 300 players (IIHF, 1989: 7). Some hockey registration reports listed the number of teams as opposed to registered players. Using the formula of 20 players per team, the estimated number of players was also sparse in Czechoslovakia (400); Denmark (240); Great Britain (400); Holland (100); Sweden (800); and Japan (480) (IIHF, 1989: 7). Some federations modified the rules for women's hockey, playing fewer minutes per period, while other federations did not allow body checking or slap shots. In many European nations in the early 1980s, local rule modifications in the women's game led to confusion when teams came together to play in tournaments and exhibition games between countries.

Clearly, the women's game struggled to gain acceptance and support from the wider, male-dominated hockey community. The body of research examining legitimacy and legitimation in organizations offers tools for analyzing how these processes work. According to organizational theorist, Mark Suchman (1995), "legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some constructed system of norms, values, beliefs, and definitions" (674) In this instance, women's ice hockey could be considered a *subject of legitimation*, reflecting "the idea that legitimacy is socially constructed and emerges out of the subject's relation to other rules, laws, norms, values, and cognitive frameworks in a larger social system" (Deephouse & Suchman, 2008: 54).

The larger social system of interest to the case of women's ice hockey is the broader elite hockey delivery system, which includes the IIHF and the IOC. By the mid-1980s, administrators of women's hockey in numerous countries pressured the IIHF to address the issue of creating official, consistent rules for women's hockey. If the IIHF failed to do so, the administrators threatened to form a separate women's international ice hockey federation to deal with such matters (Zwolinski, 1990). When IOC president, Juan Antonio Samaranch, was made aware of the threat of a

separate ice hockey federation, he informed IIHF president, Gunther Sabetzki, that the IOC would not communicate with separate federations in any sport; he had given a similar ultimatum to the men's and women's field hockey federations to either merge or risk being dropped from the summer Olympic program. They merged shortly thereafter (FIH, 2015).

At the same time, Samaranch and other IOC members were being lobbied by numerous groups who were unhappy with the inequity in the ratio of women to men competitors in the Olympic Games (Nicholson, 2007). One reason for the discrepancy was there was only one large team sport, hockey, and it was only played by men. If a women's hockey event were added, it would require eight teams, reducing the inequity substantially. However, before IOC members would consider adding women's hockey, they needed assurance from the IIHF that women's elite hockey games were played at a competitive level comparable to other winter Olympic sports. Sabetzki realized that for the IIHF to cooperate with the urgings of Samaranch and the IOC, the only venue where such an initial championship venture could possibly meet with any success, was Canada. He approached the Canadian federation representatives to see if they would consider accepting the challenge, which they did (M. Costello, personal communication, 23 February 2015). As a result, IIHF president Sabetzki announced on 14 April 1989, the official sanctioning of the first WWHC, which was to occur from 5–11 March 1990 hosted by the CAHA in Canada (K. Whillans, personal communication, 28 June 1989).

The CAHA leadership was aware the championship was a test event for Olympic consideration, and that both Samaranch and Sabetzki were reported to be attending to give their own assessment of the competition (Ferguson, 1990). From a legitimacy perspective, "a central issue for legitimacy research is identifying who has collective authority over legitimation in any given setting" (Deephouse & Suchman, 2008: 55). For women's elite hockey to gain legitimacy, the IIHF and IOC possessed the authority to determine future world championships and possible inclusion as an Olympic event. Thus, there was immediate pressure to ensure the event was well organized, with entertaining hockey attracting many spectators. Although the IOC and the IIHF were now considering women's hockey at the

highest international level, this commitment was not formalized by the CAHA until a board meeting, 25–26 November 1989, when the CAHA branch presidents unanimously approved the immediate lobby to have female hockey added to the winter Olympic Games (M. Costello, personal communication, 14 November 2016). Two bids (Ottawa and Brantford) were short-listed to host the world championship, but only the Ottawa bid included an arena (Civic Centre at Lansdowne Park) that could accommodate television. As a result, Ottawa was selected as host site 16 October 1989, just five months prior to the commencement of the event (M. Costello, personal communication, 14 November 2016).

As the 1989–1990 hockey season got underway, administrators from European women's teams that were going to participate in the world championship complained to the IIHF that the early March tournament dates from 5–11 March 1990 would not allow them sufficient time to complete regular league play and to select national teams. They successfully lobbied the IIHF to change the date of the championship to 19–25 March 1990. The effect of the date change created a dilemma for the Ottawa organizing committee. It meant the world championship would conflict with the Ontario Hockey League (OHL) men's play-offs; the Ottawa-based OHL team, the 67s, would have play-off games scheduled in the Civic Centre, the site of the women's championship, and the 67s had priority in terms of use for hockey games and practices as this was the club's home arena. Since the exact dates of the 67s home play-off games in mid-March would not be finalized by OHL league officials until early March, game dates and times of the women's championship could not be set until that occurred. The result was that tickets for the women's tournament could not be printed and put on sale until a short few weeks prior to the start of the tournament (J. Chiasson, personal communication, 15 September 1989).

Establishing Rules of Play

Since women's hockey did not fully follow the IIHF rule book, an issue that had to be dealt with was establishing playing rules that the various teams and federations could agree upon. In the women's national championship in West Germany in the mid-1980s, for example, teams only played two, 10-minute periods,

rather than following IIHF rule of three, 20- minute periods (German Ice Hockey Federation telefax to P. Reid, n.d., Hockey Canada archives). In Canada at the same time, the CAHA rule for the women's national championship was three, 12-minute, stop time periods for all preliminary, quarter and semi-final games; and for the consolation and championship games, teams played three, 15-minute, stop time periods (F. Libera, telefax to CAHA Branches, 5 October 1989, Hockey Canada archives).

For the inaugural European women's hockey championship, held in 1989, tournament officials applied the IIHF rule book for the most part: teams played three, 20-minute stop time periods; non-touch icing was instituted; players were authorized to clear the zone on delayed off-sides; body checking was allowed; and, after some lengthy discussions prior to the championship, the IIHF agreed to allow slap shots. Players were authorized to wear visors, but only a few chose to do so (IIHF, 1989). A year later when the IIHF established the first women's world championship, clarifying standard hockey rules and regulations again became an issue.

The IIHF membership declared the following conditions for the women's championship at their fall meeting in Zurich in 1989: each roster would consist of 20 players including two goalies, with a maximum team complement with coaches and staff of 25 persons; IIHF Council member Walter Bush (US) would be the IIHF chair for the championship; players would be required to wear a full face shield, a chest protector and a groin ('jill') protector; players' hair could not stick out of their helmets more than four inches; slap shots would be allowed; neither doping control testing nor femininity testing would be required, but both were recommended for future events; and the minimum age of players would be 16 years (teams could bring younger players with consent of their federation) (R. Neumayer telefax to M. Costello, 20 February 1990, Hockey Canada archives). The Norwegian team would later take advantage of the latter rule and included a 14, and two 15-year-old players on their world championship team roster (IIHF, 1990b).

One additional issue discussed at the meeting was whether to allow body-checking or not in the tournament. It was the opinion of the IIHF membership that

the event would depart too far from the game should something as significant as body-checking be removed from the sport. The body-checking rule had been in effect during the European women's championship (Theberge, 2000). The absence of body-checking was one of the reasons the German Ice Hockey Federation did not allow an invited club team from its jurisdiction to compete in the 1987 women's tournament in Toronto, claiming that by disallowing body-checking, the OWHA was staging an event that was "a step in the wrong direction for women's hockey" (A. Lauer telefax to F. Rider, 13 April 1987, Hockey Canada archives).

Hockey is a collision sport, meaning that the speed of the game results in physical contact between players. However, contact may be inevitable, where body-checking is allowed players may deliberately "close space" between themselves and opponents to dislodge them from the puck. Where body-contact is not allowed, players may still physically contact one another as long as this is incidental to a player working to try to retrieve the puck from an opponent. In discussing body-contact/checking in women's hockey, Etue and Williams (1996) claimed that "Although body-checking has been banned in IIHF events, body-contact is still very much a part of the games. This has caused confusion among players, coaches and referees since the point at which body-contact becomes body-checking has never been precisely defined (273). However, CAHA rules on body-contact were explained in writing to all CAHA branch presidents as early as 1989, in preparation for the 1990 event (CAHA Bulletin, 1989, Hockey Canada archives). IIHF membership was aware of the concern expressed by members of the CAHA executive committee – president Murray Costello and vice presidents Pat Reid (high performance) and Bob Nicholson (domestic) – that a serious injury could occur at this first world championship if body-checking was allowed, because of the wide range in age and playing ability of the players. If such an injury did occur, it was feared it would set back women's hockey at a time when it was attempting to gain acceptance on the world stage (Davidson, 1990b).

Officials of the IIHF and the CAHA agreed on a compromise. The IIHF technical director stated publicly that body-checking would be permissible, but he privately informed the team coaches only body-contact was allowed, no body-

checking. The IIHF director also instructed the referees to give penalties to any player body-checking, that what was in effect was a body-contact only regulation, no body-checking was allowed (M. Costello, personal communication, 14 November 2016). This compromise later led to considerable confusion at the event, for the players, the fans and even the television play-by-play announcers, who repeatedly questioned the inconsistency of the referees calling penalties for body-checking during game broadcasts. This compromise also clarifies some misconceptions regarding the rules used during the tournament. As explained by Etue and Williams (1996): "Despite the Canadian ban, at the first world championship in 1990 the IIHF insisted on body-checking, pandering to the prevailing notion that real hockey must include tough physical play" (272). The body-contact regulation was driven by a need to both protect players and ensure support from the different governing bodies, and although publicly acknowledging that body-checking was allowed, in practice, games were called as though body-checking was forbidden.

During the meeting in Zurich, the IIHF membership also decided the women would play three, 20-minute, stop time periods, and there would be two pools of four teams in the event. Pool 'A' would consist of Canada, Sweden, West Germany, and a team representing Asia. Pool 'B' would consist of the USA, Norway, Finland, and Switzerland. The women's team from the Chinese Ice Hockey Association had won the Asian championship and the right to represent Asia in the world championship, but Chinese Hockey Federation officials declined the offer, which was then accepted by the next eligible team Team Japan (IIHF, 2016b).

Initially, the IIHF had assigned 15 officials for the women's championship, 13 were men and only two were women; with the men assigned to fill all five referee positions (P. Reid telefax to M. Costello, 12 September 1989, Hockey Canada archives). CAHA president Costello was able to renegotiate the assignments with the IIHF and replaced three of the assigned male linesmen and one referee, with women (R. Neumayer telefax to M. Costello, 22 September 1989, Hockey Canada archives).

Tournament Management and Financing

The CAHA management team was slow in organizing the women's world championship. The tournament was awarded to the CAHA in April 1989. It took until October, six months later, to award the event to the Ottawa District Hockey Association (ODHA). Due to the late decision the delegation of ice time for local programming for the winter had already occurred. The only available ice time remaining was mainly in the afternoons and in outlying arenas. Besides the delay in choosing the host site, the CAHA did not budget specifically for the world championship, assuming the event would pay for itself. The tournament was initially organized by CAHA board member and volunteer chair of female hockey, Frank Libera, and a volunteer organizing committee. However, without a general manager overseeing the event, the volunteer organizers started missing deadlines.

Toward the end of October 1989, the CAHA management committee attempted to hire the event general manager who had recently organized the world junior field hockey championship in Canada (P. Reid telefax to M. Costello, 22 September 1990, Hockey Canada archives). Her salary demand was deemed unreasonable by the CAHA president, so with only five months before the championship was to occur, the CAHA president assigned the event manager duties to his CAHA vice president of high performance. (F. Libera telefax to A. Hoffman, 30 October 1989, Hockey Canada archives). The vice-president was reticent to accept these duties as he was already the director of operations (DO)/general manager of the 1990 women's team, and DO/general manager for the 1990 men's world junior team. His responsibilities with the world junior team meant he would be in Helsinki, Finland, for the world junior championship for nearly a month in December 1989 and January 1990 and unavailable to manage the various event organizing subcommittees in Ottawa during that time (F. Libera telefax to A. Hoffman, November 1989, Hockey Canada archives).

Funding sources that were expected to provide revenue for the 1990 WWHC did not materialize as expected. When the IIHF awarded the championship to the CAHA in April 1989, the IIHF president promised a $150,000 financial contribution to the CAHA to assist in hosting the event (R. Neumayer telefax to M. Costello, 22

September 1989, Hockey Canada archives). A few weeks later, the IIHF announced that as a condition of the funding the CAHA had to arrange television broadcasting of four of the women's games including simultaneous delivery to Europe by satellite, free of charge (C.W. Luthi telefax to M. Costello, 4 December 1989, Hockey Canada archives). The CAHA management committee had little choice but to agree, and immediately contacted both the Canadian Broadcasting Corporation (CBC) and Canadian Television Network (CTV), but both broadcasters had existing commitments on those dates. The only partner available to assist with airing the four games for the CAHA was The Sports Network (TSN), a specialty cable channel (P. Reid telefax to M. Costello, 12 September 1990, Hockey Canada archives). The final contract offered by Rick Brace, vice president programming, TSN, was that the company would charge the CAHA $17,000 for each game broadcast, but in return the CAHA would receive a number of the 30 second television advertising spots, valued at approximately $60,000, which they could sell to sponsors, to recoup their initial cash outlay (R. Brace (TSN) telefax to P. Reid, 12 October 1990, Hockey Canada archives). Despite this arrangement, no sponsors stepped forward and the inventory went unsold, as did the rink board advertising opportunities which were initially expected to generate $50,000 of income. The TSN 30 second commercial spots were returned to TSN (A. Spicer telefax to P. Reid, 19 February 1990, Hockey Canada archives).

The CAHA executive committee members were aware that at the 1987 OWHA tournament, organizers were unable to sell their proposed $20,000 and $10,000 event sponsor packages. Even though the Ottawa event was the first women's world championship and had national and international broadcasts confirmed, the same fate befell the organizing committee (A. Spicer telefax to P. Reid). The championship would be broadcast without a title or a presenting sponsor. At the time of the women's world championship, the CAHA was in a partnership with the original Hockey Canada organization through the formation of the Canadian International Hockey Committee (CIHC). Hockey Canada was the organization that managed professional and international business of hockey in Canada, while the CAHA managed the amateur business of hockey in the country.

The partnership allowed the two bodies to share in the organization of Canada's international hockey participation. The CAHA president approached the members of the CIHC to secure their sponsorship contribution of the women's tournament. However, the members of the CIHC declined, preferring instead to sponsor the women's national championship two weeks following the world championship (P. Reid telefax to M. Costello 25 July 1989, Hockey Canada archives). This decision meant the main sponsors of the existing men's international hockey events would not be contributing to the women's event, except for one sponsor that offered to donate beer for the closing reception (F. Libera felefax to the WWHC committee members, 27 October 1989, Hockey Canada archives).

The Canadian government had a sport hosting policy at the time that provided funds for international events hosted in Canada. Sport Canada officials granted $50,000 to the CAHA to use to support the 1990 women's world championship. However, the tournament took place just months after the 1989 Dubin Inquiry into the Ben Johnson doping scandal that occurred in 1988 at the summer Olympic Games in Seoul, South Korea. The Johnson case proved to be an embarrassment to the federal government and Sport Canada. Consequently, the funding from Sport Canada to the CAHA included the caveat that event organizers had to conduct drug testing at the event. The IIHF technical director had already informed members of the participating hockey federations that drug testing would not be undertaken; he had to reverse that decision and inform teams that drug testing would occur. Testing would be at CAHA's expense, which consumed much of the Sport Canada funding (M. Costello, personal communication 16 November 2016).

The IIHF traditionally secured a sponsor for awards for the IIHF Fair Play Cup (awarded to the least penalized tournament team at each IIHF world championship). In addition, the IIHF also provided awards for the individual players selected to the tournament all-star team. On 14 March 1990, one week before the start of the championship, Jan-Ake Edvinsson, the IIHF general secretary, sent a telefax to the CAHA. The telefax informed president Costello the IIHF was unable to secure a sponsor for the awards for either the Fair Play Cup or for the all-star team. In the same telefax Edvinsson asked that the CAHA absorb the responsibility

and cost of supplying the awards (J. Edvinsson telefax to M. Costello, 14 March 1990, Hockey Canada archives). With such financial uncertainty, on the eve of the opening game of the championship, the CAHA projected an event loss of $90,000 (P. Reid telefax to A. Hoffman, 18 June 1990, Hockey Canada archives).

With ticket sales stalled, sponsorship not materializing and time running out, the CAHA management committee was concerned the Ottawa championship might occur with little impact, jeopardizing the prospects of women's hockey becoming an Olympic event. To gain media exposure for the tournament, the event manager, contacted hockey celebrity Don Cherry to request his assistance in promoting the event during his 'Coach's Corner' television vignette. A brief promotion aired the final Saturday night prior to the medal round. The event general manager also contacted hockey celebrity Wayne Gretzky through his agent Mike Barnett to ask permission to have the organizing committee include a photo of his one year old daughter, Paulina, on a promotional poster titled 'The Future Belongs to Women's Hockey' (P. Reid telefax to M. Barnett, 8 September 1989, Hockey Canada archives). Unfortunately, the request was turned down (M. Barnett telefax to P. Reid, 11 September 1989, Hockey Canada archives).

Uncertainty During the Lead up to the Championship

The local sports media showed little interest in covering the upcoming tournament. Unfortunately for the event organizers, the Ottawa media had just experienced another women's first "world" championship, staged by Ringette Canada, in the Ottawa suburb of Gloucester, six weeks before the women's hockey event. The ringette "world" championship involved eight teams – six from Canada, and one each from the US and Finland. Canada placed first, second, third, fourth, fifth and sixth, with Finland placing seventh, while the US, who did not score a goal in the tournament, placed eighth (Ringette Canada). This context concerned the CAHA executive committee members that the members of the sports media would ignore the significance of the 1st WWHC that was to occur a few months later. They were concerned the event would likely only gain marginal media attention much like the 1987 invitational world tournament held in Toronto previously. There was only one player on Team Canada from the Ottawa area, Kim Ratushny, and she was

relatively unknown in Ottawa as an elite hockey player as she played her hockey at Cornell University where she was on a hockey scholarship. To introduce the players of Team Canada to members of the media, the event general staged an exhibition hockey game a week before the women's championship, to "introduce" the members of Team Canada to the Ottawa sports media (CAHA press release 10 March 1990, Hockey Canada archives). As an added attraction to spectators, the press release highlighted the media team would be bolstered by five retired NHL players. The two teams played at one of the main arenas in the city, the Nepean Sportsplex. They played for one period and then Team Canada played an all-star senior women's team for the latter two periods. Despite the direct exposure with members of the sports media, the celebrity game received no media coverage the following day.

Not surprisingly, when journalists did interview Team Canada players, they repeatedly framed their questions in terms of the men's game. Team Canada player, Judy Diduck, was asked to compare the level of women's play expected at the championship to men's hockey. She responded that it was comparable to a boy's triple-A midget team (Scanlan, 1990b). Team USA head coach, Don MacLeod, when asked the same question, replied it was comparable to a US boy's high school team (Allen, 1990). While these comments were meant to be complimentary, they only reinforced the fact that the women's game was largely understood within the male-dominated context of elite hockey. This would serve no useful purpose as the tournament sought to establish women's hockey as a unique, legitimate form of competition at the international, and potentially Olympic, level. At the same time, these comparisons did little to boost the excitement and promotion of the pending world championship and the CAHA management committee expressed concerns given the need to showcase games to the IOC (Ferguson, 1990).

As uncertainty around the event continued, the OHL men's play-off schedule and the Ottawa 67s games and practice schedule were finally confirmed. Remaining ice availability meant games in the WWHC had to be played at midday making it difficult for spectators to attend (MacKinnon, 1990). The CAHA executive committee had witnessed the calibre of play of Team Canada at the selection camp. They were convinced that if members of the public saw Team Canada play they

would most likely return to watch games in the medal round. To address this issue, the event general manager arranged for the distribution of 45,000 complimentary admission tickets to the public for these preliminary games, hoping for significant attendance while expressing less concern about lost revenue (MacKinnon, 1990). As explained by the event general manager "Women's hockey is an unknown quantity, we have to get people out to the first game. If we can get them in the building, they'll be back" (Scanlan, 1990c: E5).

When the IIHF tournament schedule was first released, Canada was scheduled to play Japan in the opening game, a contest slated to be featured coverage in the television contract for the event. At the IIHF meeting in Zurich where the tournament schedule was first announced, the Japanese IIHF member, Mr. Kenichi-Chizuka, explained that the Japanese team would not be very strong (M. Costello telefax to P. Reid, 16 October 1989, Hockey Canada archives). The management committee did not want the first televised game in the championship to be a rout, so the CAHA president requested the schedule be rearranged to have Canada compete against Sweden in the opening game and play Japan later in the week (M. Costello telefax to P. Reid, 16 October 1989). The members of the other competing hockey federations agreed to the change.

A Finnish hockey equipment company, Tackla, had a contract with the IIHF to provide the hockey jerseys and socks for each of the women's teams in the championship. The event general manager approached the president of Tackla, Mauri Nylund, to ask if the company would be interested in separately sponsoring the Canadian women's national team, which was considered a gold medal favorite. They agreed on a contract that included numerous items, including Tackla hockey gloves, hockey sticks, equipment bags and gym bags, as well as 150 jackets and 150 sweat shirts for organizing committee members (P. Reid telefax to M. Costello, 1 February 1990, Hockey Canada archives). The few Team Canada players who wanted to use their own hockey sticks and gloves had to either tape over or paint over the existing manufacturer's logos, to comply with Tackla's exclusive contract.

Desperate Measures?

Frustrated by the comparisons to the men's game, sparse media coverage, lack of ticket sales, and concern that the tournament would be "a huge flop" (Nicholson, 2007: 46), the event manager proposed to the CAHA president that instead of wearing the traditional men's uniform colors of red and white, that the women step on the ice wearing their own unique pink and white uniforms. (Nicholson, 2007). In the event general manager's estimation, the pink and white jerseys would not only create a unique identity for the women's team but at the same time would surely draw attention from the hockey media and get them writing about the event. Such a reaction would ultimately provide the elusive promotion and advertising event organizers were desperately seeking for Team Canada and the championship event (Scanlan, 2012). The event general manager provided some preliminary design drawings (Nicholson, 2007). Initially speechless, the president's response was, "Absolutely not" (Nicholson, 2007:44). "If we go with pink … we'll get crucified" (Scanlan, 2012: B4). It took three lengthy meetings before there was agreement to allow the team to wear the distinctive pink and white jerseys and socks (Nicholson, 2007). The CAHA president had added the condition that he would only consent to the proposal if the team and coaches were also in agreement (Scanlan, 2012). The head coach of Team Canada, Dave McMaster, and assistant coach, Lucie Valois, were worried about the lack of media interest in Team Canada and in the tournament in general. When approached with the pink jersey strategy, McMaster agreed there did not seem to be a better option, but worried the general manager was taking quite a risk (McMaster, final WWHC report, April 1990, Hockey Canada archives). Valois understood the need to give exposure to the event, discussed it with the players, and later reported, "All the players on the team love the uniforms, we have no complaints at all" (McRae, 1990: 9).

To launch the new Team Canada pink and white jerseys, the event general manager staged a CAHA press conference on Parliament Hill that was to include the presentation of one of the first jerseys, to Mila Mulroney, wife of the prime minister at the time, Brian Mulroney. Although a team jersey was created with a Mulroney name plate on the back, she was unavailable for the press conference, so Team

Canada player Judy Diduck, modeled the team's jersey (Scanlan, 1990). Toronto *Globe and Mail* journalist, Roy MacGregor, reported that when the pink jerseys were unveiled, "hockey traditionalists were outraged. The issue was even raised in Parliament. But the media ate it up, both pro and con" (MacGregor, 2013: S6).

Figure 1. Geraldine Heaney, Team Canada, WWHC. (with permission). Photo credit: Claus Andersen.

The two major newspapers in Ottawa published uncomplimentary articles following the press conference. *Ottawa Sun* sports editor, Jane O'Hara (1990) wrote:

"Sorry girls, pink stinks. Real women don't wear pink" (C1). Senior sports columnist Earl McRae of the *Ottawa Citizen* wrote:

> As if the world isn't already going nuts enough, fast enough, we now take you to the latest example of certifiable lunacy loose upon the planet: Is Canada's pink and white national women's hockey team, in town for the world championship, a dazzling statement of cool high fashion for the future or an example of degrading female stereotype of the past? (1990a: B1-8).

While the media railed about the pink jerseys, the Team Canada players quickly defended them. Thirty-three-year-old Sue Scherer, captain of Team Canada said:

> How can anyone say wearing pink means we're demeaning women? Or women's hockey? These kind of bright, flashy colors are the trend today in sports. Take a look at skiing. Tennis. Surely that kind of perception-labelling because of a color is outdated. I'm sorry I have no time for it. (McRae, 1990a: 9).

Recounting the reaction of the press years later, former CAHA president, Murray Costello recalled, "All of a sudden people knew there was a women's event. I think it played in every newspaper across the country ... the women's game was on the map" (Scanlan, 2012: B4). The last attempt at generating some promotion for the tournament with the public was an exhibition game between Team Canada and Team Sweden played in the village of Russell on the outskirts of Ottawa, on 17 March 1990, two days before the start of the championship. Once again, local newspapers did not carry any articles that mentioned the game (M. Costello, personal communication, 14 November 2016).

From the time of the press announcement to the end of the women's tournament, members of the Ottawa media appeared to become more receptive to Team Canada and its pink uniforms. Reporters and radio and television talk show hosts started describing Team Canada as possessing "pink power", and spectator interest and attendance continued to build throughout the week of the tournament. (Davidson, 1990b). One Canadian press wire story reported that "the unofficial motto of the Canadian women's hockey team is 'powerful in pink' and no one is

arguing with the boast yet" (Canadian Press, 1990: D2). Team Canada players were aware that the pink and white jerseys and the distribution of 45,000 complimentary tickets were in large part marketing and promotion tactics intended to attract spectators to the arenas to be exposed to their play. Part way through the championship Team Canada's top scorer, Angela James, summed up the pink jersey situation: "The pink jerseys were a bit of a gimmick. The girls said if that's what it's going to take to get the fans out, fine. We'll show them on the ice" (Scanlan, 1990a: D9). As one journalist who interviewed the players, reported, "The players, weary of having their game compared to the men's, immediately liked the distinctive look of the pink uniforms" (Brooks, 1990: 46).

By now Walter Bush, the IIHF council member assigned as chair of the championship, had seen the teams practice and was confident the tournament would be a success as an Olympic test event. When interviewed the day before the opening game he predicted that "there's a better than average chance it'll be in the 1994 Olympics in Norway, but to be in it, you first have to have a world tournament like this" (Zavoral, 1990: 18C).

The Championship

To the disappointment of the CAHA management committee, the CAHA received a telefax from the IIHF prior to the start of the tournament, stating that Sabetzki and Samaranch would not be attending the event after all (J. Edvinsson fax to M. Costello, 6 March 1990, Hockey Canada archives). Despite this setback, at 7:30 pm, 19 March 1990, IIHF representative Walter Bush (US), pronounced "On behalf of the International Ice Hockey Federation, I declare the games of the 1990 WWHC officially open." The national anthem was sung by future recording star, Alanis Morissette (M.Costello, personal communication, 14 November, 1990).

The tournament had commenced that afternoon at 1 pm, with three games played in outlying arenas. According to the game sheets, the first goal scored in this first world championship was by Elvira Saager of West Germany, assisted by Monika Spring, in a 4–1 victory over Japan (IIHF, 1990c). This game was played in front of approximately 150 spectators, including a lone journalist, John MacKinnon of the *Ottawa Citizen* (MacKinnon, 1990). The referee was Canadian Deb Maybury,

the first woman to referee an IIHF world championship game. The evening game featured Canada versus Sweden, won by Canada 15–1. The game was played in front of a crowd of 3,578 spectators, including about 1,000 spectators using complimentary, promotional tickets (Scanlan,1990c).

Attendance at games continued to rise throughout the week and so too did the number of spectators, wearing the color pink. One author, who attended games and later wrote a book on the tournament, reported "the city had jumped on the Pink Power bandwagon" (Nicholson, 2007: 91). Tournament public address announcer Brian McFarlane, of Hockey Night in Canada, reported "the scene in Ottawa by the final game was one of pink madness. Restaurants and hotels offered 'pink specials' in the form of pink drinks. Most spectators wore pink" (McFarlane, 1994: 156). The Team Canada coordinator was outside of the Civic Centre and commented that "the entire street was a crowd of pink! Mothers held hands with their little girls wearing pink t-shirts. Many had faces painted pink. Some people carried pink pom-poms. some waved pink flags. Some wore pink fake fur hats" (Nicholson, 2007: 93).

The afternoon gold medal game between Team Canada and Team USA was nearly sold out. US president George Bush, had forwarded a letter to Team USA, urging the players to stage another "miracle on ice," in reference to the US men's hockey team victory over the Soviet Union team at the 1980 Lake Placid Olympic Winter Games. (Scanlan, 1990d). The president's letter was fixed to the glass behind the American team bench and, according to the US coach, served to motivate Team USA, whose players scored the first two goals in the game (Davidson, 1990c). Team Canada responded with five straight goals, winning 5–2. This included a spectacular goal by Geraldine Heaney, who was checked and while airborne still managed to score (Davidson, 1990c).

Attendance at the gold medal game was finally reported as 8,784 spectators, the largest audience at the time to witness a women's hockey game (Nicholson, 2007). One reporter added, "What began with silly hype over uniform colors and lopsided preliminary games ended by winning fans with surprisingly fine hockey" (Scanlan, 1990d: E1). Reid, who in his role as event general manager had suggested the use of the pink jerseys agreed, "We won't have to talk about pink uniforms

anymore to get people out to see women's hockey" (Scanlan, 1990d: E1). The CAHA president added that the tournament had exceeded his expectations (MacKinnon, 1990). Team USA member Julie Andeberhan commented that the tournament organizers had done a great job marketing the event: "We were all surprised and amused that Canada chose to wear those loud, bright pink uniforms. Everyone has their own opinion about it, but whether it's pro or con, their marketing strategy really worked" (Avery & Stevens, 1997: 143).

The tournament finished with few player injuries, a result attributed to the application of the body-checking/body-contact rule (Davidson, 1990d). Immediately following the gold medal game, the tournament all-star team was announced. It included Dawn McGuire (Canada) and Kelly O'Leary (US) on defense; Angela James (Canada), Cindy Curley (US) and Sari Krooks (Finland), forwards; and Tamae Satsu (Japan), goaltender (IIHF, 1990c). In term of media coverage of the gold medal game, it was not only reported on by the media in Canada, but internationally as well. The US-based *Sports Illustrated* used the headline "No place for pom-poms" (Fichtenbaum, 1990: 59)" and a *TIME Magazine International* headline read, "The women of winter: An unprecedented ice hockey tournament makes seers believers" (Donnelly, 1990: 67). Meanwhile, the headline in national Canadian magazine *Maclean's* read "Equality on ice: Women hockey players win a world profile" (D'Arcy, Doyle-Driedger, & Garrioch, 1990: 58). Each of the three publications included a color photograph of Team Canada players in their pink and white jerseys.

As IIHF tournament representative, Walter Bush, stated, "The winner is women's hockey. This tournament has made people believers" (D'Arcy et al., 67). A Toronto *Globe and Mail* article contained an interview with Walter Bush, who reported that "The International Ice Hockey Federation has been lobbying the International Olympic Committee to include women's hockey in the 1994 Games in Norway and chances now are 'about 50–50' for 1994, and 'almost certain' for 1998" (Davidson, 1990d: C4). IIHF president, Gunther Sabetzki, also complimented the CAHA for generating media attention for the championship, which he expressed in a telefax to the CAHA: "In Ottawa and environs where the games were played, the

CAHA as the organizer was most skillful to stimulate echo among the media, which we cannot find elsewhere" (G.Sabetzki telefax to M. Costello, n.d., Hockey Canada archives). Shirley Cameron of Team Canada captured the sentiment of many players when she said, "I hope that hockey won't be looked upon [any longer] as a man's sport, but just as a sport that men and women can play" (Davidson, 1990c). Team Canada's Judy Diduck would prove to be prophetic when she said, "The young girls are going to benefit a lot from this" (Canadian Press Wire Story, 24 March 1990: SA2).

The competitive and commercial success of the event established women's hockey as a legitimate elite-level sport. Several years earlier, when sport activist and scholar Bruce Kidd gave testimony in the case of Justine Blainey, a girl who was banned from playing boy's hockey in Ontario, he noted that "women in the past have been restrained by social convention, by open ridicule, and by lack of opportunity" (Beardsley, 1987: 117). The 1990 WWHC gave women the opportunity to compete at the highest level, to a large audience. The caliber of play displayed in the tournament would also serve to dispel negative myths regarding the competitiveness of women's hockey.

Championship Aftermath

The event general manager commissioned a 10-minute video of game highlights of the women's championship, which he and the CAHA president took to the IIHF meeting the following month in Stockholm, Sweden, as part of the evaluation of the women's world championship as an Olympic test event (Davidson, 1990d). Initially, the reaction of IIHF members was that "women can't skate that fast and shoot that hard," accusing CAHA officials of having artificially accelerated the speed of the game footage (MacGregor, 2013: S1). After a lengthy discussion, the IIHF members conceded and agreed their president, Sabetzki, would recommend to the IOC the addition of women's hockey as a new Olympic event in the 1994 winter Olympic Games (MacKinnon, 1990).

However, it was too late for the IOC to make an acceptable arrangement with the Norwegian Olympic Organizing Committee (NOOC) for the 1994 Games (Chappelet, 2008). The NOOC had already planned to convert their 1994 Games

venues to school facilities and congress centres after the Games, and to dismantle the wooden houses of the Olympic Village and repurpose the lumber (Chappelet, 2008). As a result, there was little interest in constructing a new hockey arena which would have had limited use after the Games (Chappelet, 2008). Another disincentive for the NOOC was the fact that the Norwegian Ice Hockey Association had less than 500 registered female players and their national team had placed 6th out of 8 teams at the 1990 championship. On 17 November 1992, the IOC announced that women's hockey would be added to the Winter Olympic Games and it debuted in Nagano, Japan, 1998 (Avery & Stevens, 1997). Nancy Theberge, a leading scholar of women's hockey, has argued that "the most significant event of recent years and likely in the history of the sport is addition to the Olympic program in 1998" (Theberge, 2000, p. 17).

Conclusions and Implications

The state of women's elite hockey leading up to the first women's world championship in March 1990, was still very much at a developmental level in most of Europe and in Asia, but comparatively speaking, further advanced in the US and Canada. At the time of the tournament, there were approximately 4,300 women playing in Canada. The CAHA reported that the number of registered, female, hockey players jumped 75% in the year following the 1990 women's world championship (McFarlane, 1994). By 2013, when the world championship was again hosted in the city of Ottawa, the CAHA reported there were nearly 90,000 registered players (Scanlan, 2012). At the 2013 tournament, former CAHA president, Murray Costello, would reminisce about the state of panic the CAHA management committee was facing in 1990, resulting from the lack of media interest in the 1990 WWHC. 'At the time we were having no impact at all. No media. No ticket sales. It was crazy" (Scanlan, 2012: B4).

Hockey Canada paid tribute to the 1990 world championship team by having Team Canada wear replica pink and white jerseys at the 2007 world championship (Starkman, 2007). In 2013, the year after Costello retired from the IIHF Council, a feature article commented on how far women's hockey had come as an elite sporting spectacle. For example, in 1990, world championship game tickets cost as little as

$3.50 for adults, less than the cost of tickets to the 1990 Canadian women's hockey championship held the month after the world championship (Event tickets, 18 March 1990, Hockey Canada archives). At the 2013 women's world championship again held in Ottawa, ticket packages for all games started at $184 (Scanlan, 2012). Where Sport Canada had contributed $50,000 of event hosting money in 1990, in 2013 Sport Canada contributed $500,000 (Brady, 2013). The 1990 WWHC played an instrumental role in legitimating women's hockey as an elite sport, with widespread media coverage and featuring strong athletic performances. With the support of the media, IIHF, and IOC, women's hockey would continue to grow in the decades to come.

The intent of historical research is to provide an account of past events to help explain what happened at the time, and to establish a record of events and contexts in which they occurred. In this paper, contextual details, from both external and internal sources to the event, were important information needed to help us better understand what took place and why it had significance. The data examination helps us to understand why the women's world championship was suddenly held in 1990 despite five of the competing nations (Switzerland, West Germany, Finland, Norway and Japan) each having less than 500 registered female hockey players, including all ages and playing abilities. This paper includes an explanation from the data how Murray Costello of the CAHA was able to negotiate the inclusion of the first female referee (Deb Maybury) to officiate in an IIHF world championship. During the data examination, two issues were intriguing and attracted further investigation. The first issue was why the reaction was so strong to the jersey decision that it was reported to be the topic of radio talk shows across the country, and discussed in Parliament? The second issue was what delineated women's hockey from men's hockey that emerged at the time of the WWHC in 1990? These issues are addressed in the subsequent two chapters.

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CHAPTER 3

The Duality of Sport Signifiers and Symbols: An Ideographic Analysis of the 1990 Women's World Ice Hockey Championship

Introduction

For many sport organizations, income generated from the sale of team merchandise such as clothing, caps and accessories is a major source of revenue (Ahn, Suh, Lee & Pedersen, 2012; Branscombe & Wann, 1991). Demand for licensed apparel is driven by sports fans that identify with their favorite team or sport (Heere & James, 2007; Wann, 2006; Wann & Branscombe, 1993). These fans not only relate to their respective athletes, teams, and leagues, they also associate with team identifiers such as logos, names, colors, mascots, and team symbols (Ahn et al., 2012; Funk & James, 2001; Funk, Mahony, & Ridinger, 2002).

Over time, many organizations and teams in the sport industry have attempted to rebrand themselves by making changes to team logos, names, and/or colors (Ahn et al., 2012). However, changes are not always favorably received by fans and other stakeholders (Aaker, 1991; Ahn et al., 2012). For example, in the National Hockey League (NHL) in 1995, the New York Islanders faced a significant backlash after introducing a new team logo. The logo was widely ridiculed for, among other things, resembling the emblem of a company that sold frozen fish sticks. The Islanders quickly responded and revived the original logo as soon as NHL policy allowed the team to do so (Botte & Hahn, 2005). In addition, when new teams are introduced, complications can arise for owners or marketing managers where team logos or colors have hidden or secondary meanings to fans and consumers. This can change fan attitudes toward the organization itself and/or negatively impact merchandise sales (Foster, Greyser. & Walsh, 2006). This was the situation in 1990, in the lead up to the inaugural women's world ice hockey championship (WWHC), held in Ottawa, Canada. Instead of wearing the traditional red and white colors associated with Canadian national teams, team managers announced that players would wear bright pink jerseys with white trim. Response was immediate, with a local newspaper headline reading "Pink Stinks" (O'Hara, 1990: 41).

Through a qualitative case study of the 1990 WWHC, this paper seeks to explore the manner through which changes to team logos and colors can engender widespread reaction among stakeholders. To do so, this paper introduces ideographic analysis to investigate the significance of the pink jerseys at the event. The basic

tenets of ideographic analysis are introduced to examine why there was such a strong reaction to color of the team uniform. This is followed by a brief overview of the WWHC and the circumstances leading up to the decision to use the pink jerseys. Analysis explores reaction to the color pink by stakeholder groups, to better understand how and why the selection of, or changes to, team colors or symbols, can prompt such strong stakeholder reactions, ultimately impacting the way managers of sport organizations consider the adoption or removal of specific logos and colors.

Theoretical Framework

Initial inquiry into the significance of ideographs was centered on written and verbal rhetoric (Stassen-Ferrara, 2017), with researchers describing how ideographs, as words, have a secondary or symbolic meaning. Sapir (1934) used the term *symbolistic* to explain how, while something might initially seem trivial or unimportant, it has much more significant implications for society. Holtom (1947) extended this idea, examining the writing system of Japanese primary schools, called kanji, and referring to it as ideographic script or descriptive symbols that interpreted a broader meaning. The term *ideograph* was used by McGee (1980a,b; 1983a,b) in his research on rhetoric tied to the political and social consciousness of various groups in society. McGee (1980a) outlined that ideographs were to be examined both *diachronically* (over time) and *synchronically* (as it existed at one point in time) (14). Diachronic analysis describes the historical or stable functional meaning of the ideograph; while synchronic analysis examines the contemporary use at a specific time in society. In his research on social movements, McGee (1980b) focused on ideographs in terms of ideologies that enabled men and women to act together for political ends, and outlined a structure of ideographs where the movement or main ideology was described as a *higher order ideograph* and specific words or descriptive phrases that fit in conjunction with such an ideology or movement were called *lower order ideographs*. The term *Civil Rights Movement* was an example of a higher order ideograph, with abstract, descriptive words such as *carpetbagger* and *scalawag* that conveyed ideological concepts, used in association with the Movement, as lower order ideographs. Walzer (1967) proclaimed that ideographic words like carpetbagger were key components of symbolic language that became integral to the identity of

Southerners and influenced their political behavior, enabling men and women to act together for political ends. The term carpetbagger also generated such a strong visual ideographic image it was used as a propaganda tool during the 1867-68 Reconstruction Period in the US (Tunnell, 2006).

As explained by Stassen-Ferrara (2017), "ideographs are terms that are value laden; they are incredibly meaningful to a given community albeit often abstract and difficult to define" (p. 681). In describing the action or reaction of people to the symbolic description of ideographs, McGee (1980a) argued that individuals were conditioned "to a vocabulary or concepts that functioned as guides, warrants, reasons, or excuses for behavior and belief" of that ideology; when individuals are exposed to ideographs, they will "react predictably and autonomically, whether in support or in opposition of the concept" (6). To illustrate his point McGee (1980a) discussed the ideology of nationalism. The terms *Yankees* and *Southerners* were ideographs united by the political national entity "United States" but both groups designated by those titles disagreed with the ideology for many reasons. This type of disagreement was associated with the symbols or rhetoric that described the ideology. This is an example of the psychological attachment people have between ideographs and identification such as nationalism. "They [Ideographs] serve as an embodiment of an ideology. Not only do ideographs reveal an ideology, they further perpetuate a given ideology" (Stassen-Ferrara, 2017: 681).

North American Indigenous symbols are examples of visual ideographs referred to as "culture-types", grounded in cultural specificity (Osborn, 1986) that elicit arguments when attached to sport teams because they are communal symbols, considered sacred within the North American Indigenous culture (Eitzen and Zinn, 2001; Staurowsky, 2001, 2006, 2007). With the shift in public thinking today, these North American Indigenous symbols used as team identifiers are now "viewed as being culturally insensitive" (Staurowsky, 2000: 311); "racist imagery" (Staurowsky, 2007: 72); "damaging mythologies" (Staurowsky, 1998: 311); "invested in ignorance" (Staurowsky, 2000: 325); "trivializing American Indians" (Staurowsky, 2004: 11); and "the symbolic destruction of Indians" (Staurowsky, 2006: 205).

In addition to single word ideographs, the term *ideographic cluster* defines a series of words or phrases that symbolically describe an ideology (Martin, 1983). For example, words and phrases such as *rebellion*, *work to rule*, and *petitioning for redress of grievances*, symbolically described the ideology of the Labor Movement (McGee, 1980a) and collectively could be referred to as an ideographic cluster. A cluster is the collective of single words or phrases associated with the overarching ideology (Martin, 1983). It is difficult to collect the entire vocabulary of ideographs that describe or are symbolic of a specific ideology because different people use descriptive words and phrases differently when communicating, since they decide on the meaning of the words based on their own values and beliefs (Edwards & Winkler, 1997). Thus, the meaning of an ideographic cluster depends on what it is that the cluster represents to various communities in society, as they interpret it, at the time it is applied, since a specific ideographic meaning could change over time, as public opinion on ideologies evolves (McGee, 1980a). T

During the presidential elections in the US in the 1970s, Jimmy Carter's campaign team developed an ideographic cluster of positive terms intended to portray Carter as the 'ideal man' to be president. Negative media references existed of former president Nixon, describing him as a *bad man*, president Ford as *ignorant* and the Republican administration as *incompetent* (Martin, 1983). Carter's campaign team created a positive ideographic cluster of opposite terms to describe Carter as a *good man*, *intelligent* and *competent*, a cluster they used in print and electronic media and in campaign speeches, to create a positive framework of the idealized behavior for politicians and political leaders, in the eyes of the public (Martin, 1983).

Since McGee's initial work, scholars have expanded the understanding of what constitutes an ideograph to include objects, places and images (Stassen-Ferrara, 2017). This understanding evolved beyond the written and spoken word to include objects or representational ideographs (Moore, 1993; 1994; 1996) and images or visual ideographs (Edwards & Winkler, 1997; Osborn, 1986; Palczewski, 2005; Pineda & Sowards, 2007). Objects and images can portray important ideological implications and hidden meanings (Ballard, 2016; Meidani, 2015; Smith, 2015). An audience viewing certain pictures can experience a lasting memory from those images

that can resonate with that audience (Osborn, 1986). Edwards and Winkler (1997) described how the 1945 photograph of the US flag-raising at Iwo Jima, was an illustration of how a visual image can be perceived as "depictive rhetoric that functions ideographically", a term they referred to as a representative form (Edwards and Winkler, 1997: 289). The photograph depicts an image of war to some viewers, but to others, the photograph has a secondary, symbolic meaning of US victory, democracy, military preparedness, or freedom (Edwards & Winkler, 1997). They argued that certain pictures or images portray a cultural projection of an ideology that causes a reaction in people, and that reaction to the image is based on their personal beliefs, attitudes, and values in society (Edwards & Winkler, 1997).

Furthermore, endless numbers of pictures of communal symbols can be interpreted differently by different people based on each person's cultural specificity and ethnic origin (Osborn, 1986). Visual ideographs, as an example of depictive rhetoric that functions ideographically, can cause a confrontational reaction in people, eliciting arguments in support or in opposition to what it is the visual ideograph represents (Edwards & Winkler, 1997; Moore, 1996; Osborn, 1986; Palczewski, 2005; Pineda & Sowards, 2007).

Similarly, objects and places are considered representational ideographs within public and political debate (Moore, 1993, 1994). Examples of representational ideographs introduced by Moore include the *spotted owl* (Moore, 1993); the *handgun* (Moore, 1994); and the *cigarette* (Moore, 1996). Each of these items functions as a synecdoche for an ideograph and ideological commitments (Burke, 1969). A synecdoche is a figure of speech that means to represent, in this case an ideograph or an ideology (Stassen-Ferrara, 2017). Burke (1969) explained that synecdoche emphasizes a relationship or connectedness between two sides of an issue. A visual or representational ideograph is a symbol of that issue where both parties in the debate identify with the ideograph, from opposing perspectives, creating social conflict.

The cigarette is a visual or representational ideograph in the debate over environmental tobacco smoke (Moore, 1996). The competing social realities in the debate about the cigarette are between a "threat to life" anti-smoking group and a "threat to liberty" tobacco industry.

Identification of the handgun as a visual ideograph came to prominence in 1993 during what became known as the Brady Bill Debate that resulted in a law in the US requiring a five-day waiting period for background checks on all handgun purchases (Moore, 1994). This issue pitted members of the public who viewed the handgun as a "threat to life", and members of the National Rifle Association who considered the handgun as "a protector of liberty" (Moore, 1994: 434). The spotted owl was a visual or representational ideograph in the controversy over land management of the old-growth forest and a public argument between environmentalists and the timber industry (Moore, 1993).

Flags have also been recognized as a synecdoche for an ideograph and ideological commitment. During the 2006 immigration rallies in the US, flag waving by immigrants was examined by Pineda and Sowards (2007) as a visual argument, a visual form of refutation that was both supported and rejected at rallies. Immigrants waved flags of their various countries of origin as a visual ideograph that represented cultural pride, unity and civic participation. Meanwhile, non-supporters saw the flags at the rallies as symbols that immigrants failed to assimilate, had deviant cultural practices, and the failure of law enforcement to deal with the immigrants' protests (Pineda and Sowards, 2007). The rainbow flag became a representational ideograph for the social movement for rights of the lesbian, gay, bisexual, transgender, and queer (LGBTQ) community (Stassen-Ferrara, 2017). On one side of the debate was a community promoting the ideographs of equality and marriage; and on the other side those who viewed the ideological force behind the flag as a threat to their own conceptualization of marriage and religion (Stassen-Ferrara, 2017).

A regular ritual in American sport is the playing of the US national anthem before the start of competition (Branch, 2017). As pointed out by Edwards and Winkler (1997), the American flag is considered a visual ideographic icon to Americans. Recently, American Colin Kaepernick, who played in the National Football League (NFL), created a controversy when he refused to stand for the playing of the US national anthem prior to NFL games (Branch, 2017). Kaepernick's position was that the US flag did not represent for him traits such as equality, and liberty for all (Branch, 2017). While some athletes and the former president of the US

accepted Kaepernick's constitutional right to make a statement, many others (including the current president) viewed Kaepernick's actions differently, condemning the act as a representative form that was disrespectful, anti-American, and unpatriotic (Mansbridge, 2016). The American flag once again served as a visual ideograph pitting Kaepernick against a segment of the population who considered the American flag sacred. A secondary meaning of the flag is that it indicates to individuals what they ought to believe and how they should act, and as such embodies collective commitment (Stassen-Ferrara, 2017).

The above discussion of ideographs shows how different communities will react in certain conditions in accordance with their personal beliefs. Statements or actions, being iterative, can be interpreted differently by some segment of society, depending on their personal beliefs, values, and opinions. Not everyone will necessarily react or react in the same manner. Some individuals may not care about the issue to worry about a potential secondary meaning or ideographic interpretation. Others may feel offended, while others may be in full support. Since this study is examining the reaction of individuals to the jersey decision, ideographic analysis may help to explain why some people react the way they do. Researchers have examined historical documents and newspaper accounts of past activities to identify how ideographs have affected change (Kuypers & Althouse, 2009; Martin, 1983; Palczewski, 2005; Smith, 2015; Walzer, 1967). One such area of investigation is sport. It is well documented that people highly identify with sport (Heere & James, 2007; Kunkel, Funk, and Lock, 2017; Reysen & Branscombe, 2010; Wann, 2006; Wann & Branscombe, 1993) and in turn with team branding such as logos, colors, jerseys, and mascots (Ahn et al., 2012; Funk & James, 2001; Funk et al., 2002). In sport management there is a body of work that looks at consumer behavior and the way in which people identify with teams and team branding (Funk et al., 2002; Heere and James, 2007; Inoue, Sato, Filo, Du, and Funk, 2017; Kunkel et al., 2017). This research implies that the more identified one is with a team, the more likely one is to attach these representational forms to some broader ideograph (Edwards and Winkler, 1997; Inoue et al., 2017; Kunkel et al., 2017).

For this reason, changes or suggestions of change to such team identifiers can cause reactions by people that are more far-reaching than what might originally be expected (Funk and James, 2001; Funk et al., 2002). An example of this occurred during the 1990 Women's World Hockey Championship (WWHC). The tournament was beset by many complications including disinterest from the media and sparse reporting of the championship in advance of the event (Reid & Mason, 2015). Organizers were also faced with negligible ticket sales (Scanlan, 2012). A management decision was made prior to the start of the tournament to change the color of the team jersey of the host national team, Team Canada. The following provides an overview of the event for context.

The Case

Through the late 1980s, the International Ice Hockey Federation (IIHF), the governing body for international men's and women's ice hockey, was under increasing pressure to do more to develop women's hockey (IIHF, 1989). At the same time, the president of the International Olympic Committee (IOC), Juan Antonio Samaranch, was attempting to resolve inequities in the ratio of female to male athletes in the Olympic Games. The inequity could be partly explained by the fact that there was just one Winter Olympic team sport, ice hockey, as it was played only by men. To address this issue, Samaranch approached IIHF president Gunther Sabetzki to inquire if women's ice hockey was competitive enough to merit inclusion as an Olympic event (Scanlan, 2012). If women's elite hockey could attract an "Olympic caliber" audience, Samaranch was prepared to fast-track the addition of the event into the winter Olympic Games (Scanlan, 2012).

To evaluate the level of competitiveness of women's hockey, the IIHF first staged the European Women's Hockey Championship in 1989 (Scanlan, 2012). Following the success of this event, Sabetzki announced on 14 April 1989, the official sanctioning of the first WWHC which was to occur from 5-11 March 1990, awarding the event to the Canadian Amateur Hockey Association (CAHA) (Cardillo, 1989). It was with this context that the CAHA undertook a bid process to select the city to host the women's championship. The CAHA moved slowly. It took six months to select the City of Ottawa, in association with the Ottawa District Hockey

Association (ODHA), to organize the event, which was to take place just five months later.

From the time of the host announcement, complications arose that threatened the success of the tournament. For example, the IIHF changed the dates of the championship, which resulted in conflicts between the event organizers and Ottawa's local major junior (men's) hockey team (the 67s), who had priority use of the arena, the Civic Centre. This was the only Ottawa arena that met the criteria for national television broadcasting, a requirement of the IIHF in return for financial assistance in organizing the event (Leuters, 1989). Since the 67s' playoff schedule would not be set until the end of league play in March, game dates and times of the WWHC could not be finalized until that occurred (Chiasson, 1989). This meant that tickets for the event could not be printed, promoted or sold very far in advance of the world championship (Chiasson, 1989) which, along with the lack of promotion of the event by the CAHA, likely contributed to the lack of interest in the championship by members of the Ottawa media.

Concerned about the media malaise that would leave the public uninformed and unaware of the event, the CAHA management committee, although not in full agreement, made a bold marketing decision announced at their opening press conference. This first female Team Canada would wear unique bright pink and white colored jerseys, instead of the red and white colors worn by Canada's senior and junior men's national teams. The reaction to the decision was met with outrage by some members of the media. The topic was brought up in the House of Commons (MacGregor, 2012) and was a controversial subject of radio talk shows across the country (Scanlan, 2012). Journalists reacted both positively and negatively to the decision (Scanlan, 2012). By undertaking an ideographic analysis, I further explore how the pink jerseys resonated with stakeholders, to better understand their various reactions to the decision.

Method

Text in coverage of an event in newspapers, magazines, and books can provide information that can be coded and aggregated to identify categories, patterns, or themes, to better understand the opinions expressed by stakeholders about the

event before, during, or after it was held (Entman, 1993; Gans, 1979; Lowe & Goyder, 1983). To obtain newspaper and magazine articles of the 1990 WWHC event, search terms such as *women's hockey; women's ice hockey; women's hockey championship*, and *women's world ice hockey championship*, were utilized with the Canada Newsstand and Factiva search engines. The search for newspaper articles about the WWHC resulted in more than seventy articles located in various North American newspapers including the *Globe and Mail*, *New York Times, Boston Globe, Washington Post*, and *Chicago Tribune*. In addition, articles appeared in national periodicals such as *Sports Illustrated, TIME Magazine International*, and *Maclean's*. Since the event was held in Ottawa, Ontario, Canada, archivists for the two Ottawa newspapers, the *Ottawa Citizen* and the *Ottawa Sun*, were contacted to provide copies of any archived articles from 1989-90 pertaining to the event.

The CAHA files of the 1990 WWHC were also examined. This information was obtained with the permission of officials from both the CAHA and Hockey Canada, as the CAHA had merged with Hockey Canada in 1994. These CAHA files included copies of committee reports, budgets, financial statements, letters, coach's reports, telefaxes, and internal memos. In addition, video of the four games of the women's championship that were nationally telecast by The Sport Network (TSN), a cable broadcast company and the only network to carry the games, was examined. A qualitative content analysis (Saldana, 2013) was undertaken to code the data. The unit of measure was the sentences and paragraphs of text in the data. An iterative process was used that involved reading and rereading the material, coding words, phrases or paragraphs of the data, also noting whether the articles appeared before, during or following the WWHC. Structural coding (Saldana, 2013) and a manual scan were undertaken to code for themes. Once themes were identified they were examined to see the extent to which they were representative of ideographs. The manual scan for ideographs included single word (McGee, 1980a, b), multiple word clusters or phrases (Martin, 1983), and photographs or descriptions of visual objects or images (Edwards & Winkler, 1997; Moore, 1993, 1994, 1996; Pineda & Sowards, 2007).

McGee (1980a) described that when individuals are exposed to ideographs, they will "react predictably and autonomically, whether in support or in opposition of

the concept" (McGee, 1980a: 6). Emotion codes were used to identify whether the point of view was positive, negative or neutral in nature (Saldana, 2013). Process codes were used to incorporate the dynamics of time (Saldana, 2013), to ascertain whether the point of view expressed during the initial quote changed over the course of the tournament, in relation to other events that occurred during the championship. This provided insights into the tournament, its participants, issues that arose during the event, and the general context of the WWHC.

Results and Discussion

There were three overarching themes that emerged from the analysis of data, relating to the jerseys worn by the women's Team Canada. The three themes in this hockey setting, were summarized as relating to nationalism, traditionalism, and an expression of feminism. McGee (1980a) argued that the reaction of individuals exposed to ideographs is predictable whether they supported or opposed the concept the ideograph represented. In the case of each theme, there was a deeper visual and symbolic representational meaning of the color pink and the pink jersey, a synecdochic construction of competing social realities.

Nationalism/Traditionalism

Sport has long been tied to nationalism, as evidenced by global interest in the Olympic Games (Dyreson, 1995, Llewellyn, 2011). Examples of links to nationalism include the playing of the national anthem at competitions, display of the national flags of competing nations, and identification of participating teams in uniforms the color of their national flags (Llewellyn, 2011). When Canadian men's teams played international hockey at the time, they wore red and white colored jerseys that were predominately one solid color with alternate colored bands on the arms. This was considered the traditional, national standard international hockey jersey worn by Canadian teams. When CAHA president, Murray Costello, was initially approached with the idea of putting Team Canada in pink and white colored jerseys, he expressed, "people might say, 'our flag is red and white, our national uniform is red and white. Now you put the women's team into pink and white?'" (Brooks, 1990: 46). The president of the OWHA lamented, "I was very surprised to see they weren't wearing our national colors" (McRae, 1990: 8). Members of the women's hockey team at the

1990 world championship supported the unique look of their national team jerseys. Sue Scherer, captain of Team Canada argued:

> How can anyone say wearing pink means we're demeaning women? Or women's hockey? These kinds of bright, flashy colors are the trend today in sports. Take a look at skiing. Tennis. Surely that kind of perception-labelling because of a color is outdated. I'm sorry. I have no time for it (McRae, 1990, 16 March: 9).

There was a significant reaction when it was announced the women's national hockey team would be wearing fluorescent pink and white jerseys that did not resemble the traditional graphic style or color of the jersey worn by men's hockey teams. As an ideograph, the stylized pink jerseys worn by the women's national hockey team were viewed by some members of society as having a secondary meaning that was culturally bound to existing ideologies, in contrast to another visual ideograph – the traditional, solid color, red and white hockey jersey worn by male Team Canada players when representing Canada at the world championship level. Thus, the switch from traditional red and white jerseys to pink and white jerseys challenged the social consciousness of some people. While visual ideographs provide a representative look of the ideology associated with that social consciousness, ideographs can separate audiences from that community into those in support and those who may disagree with that look (Edelman, 1995). This was the case at the WWHC where the non-traditional pink jersey was an example of a visual or representational ideograph with a separate, distinct, synchronic representation, detached from the traditional red and white men's jerseys to a segment of society. Thus, reaction was often couched in terms of the traditional national team uniform. "The players, weary of having their game compared to the men's, immediately liked the distinctive look of the pink uniforms" (Brooks, 1990, July: 46), as the distinctiveness of the visual ideograph of the team jersey cut across the cultural narrative of a common Canadian look for hockey national team members competing in international competition. The change challenged the themes of not only nationalism with some stakeholders (who abhorred the absence of "Canadian" colors), but also the tradition in hockey of wearing solid colors.

A wire story in the *Vancouver Sun* on 17 March 1990, proclaimed "traditionalists have lamented the absence of red and white on the backs of Canadians in international play" (B1). An even stronger sentiment was expressed in an article in the *Globe and Mail*: "hockey traditionalists were outraged. The issue was even raised in Parliament" (MacGregor, 2012: S1). These comments reinforced a diachronic ideological commitment reinforcing a past attachment to the idea of what a Canadian hockey jersey *should* look like to some stakeholders. However, some other stakeholders expressed an opinion reflective of a synchronic or contemporary viewpoint, suggesting the sport of hockey, with traditional jersey colors and designs, was out of step with modern day sport. As sales representatives Frank Fansescutt, of Tackla (the Finnish company who manufactured the jerseys for the teams in the world championship) declared, "We are known for our bright colors. More and more, teams in Europe are asking for our designs. It's the trend of the '90's. Hockey uniforms have been the last to change" (McRae, 1990: 9). Shirley Cameron of Team Canada expressed the opinion that there was more at stake at the championship from the players' perspective than the controversial discussion, and apparent distraction, of the color of the team jersey. "They could have put us in lime green and it wouldn't have made us feel any less Canadian or any less motivated to win the gold medal" (McRae, 1990, 16 March: 9). The pink jersey evoked a range of reactions from positive to negative from stakeholders who, in conjunction with the 1990 WWHC, linked the jerseys to both the flag and its colors, and hockey's tradition of wearing solid colors with a single band of a different color on the arms of the jerseys and on the hockey socks.

The Appropriateness of the Colour Pink

While the discussion above illustrates how reaction to the jersey manifested itself in terms of nationalisms and traditionalism, an even stronger reaction related to association of the color pink with a women's team at a time when women were lobbying for equality, particularly after the passage of the Charter of Rights and Freedoms that legislated equality. As evidenced by the response to the jerseys, there were various reactions and different interpretations to the color pink. Stakeholders were divided on the question of appropriateness of the color pink being associated

with women generally. Some stakeholders expressed disapproval of the connection; while others supported the colorful jerseys for the women's team. Abby Hoffman, Director General of Sport Canada and well-known feminist, when asked what she thought of the pink jerseys for the women's team said, " it is one of those things that if you took it literally, you kind of hate it, but if you look at it for what I believe the event general manager and others were attempting to do, this is a bit of a different matter" (Hoffman, personal communication, September 27, 2017). This social issue can in part be better understood by examining the functional meaning of the color pink over time, and its socially created link as a gender identifier during the 1970s and 1980s.

Edelman (1995) outlined how responses vary to images in different contexts depending on the "dispersal of values with respect to strong social norms" (175). There was a time during the last century when pink was an identifier of the male gender (Paoletti, 2012). For example, in 1918, an issue of *Earnshaw's Infants' Department* (a children's clothing publication) disclosed "the general accepted rule is pink for boys, and blue for girls" (Paoletti, 2012). An article in *TIME Magazine*, 14 November 1927, announced that Princess Ingrid of Belgium had given birth to a baby girl and "the cradle had been optimistically outfitted in pink, the color for boys, that for a girl being blue" (Paoletti, 2012: 6).

Thus, the contemporary stereotype of clothing colors as gender identifiers for males and females emerged sometime in the middle of the last century, learned through social and environmental cues" (Paoletti, 2012). After WWII, blue was used extensively for men's uniforms (Frassanito and Pettorini, 2008). From the 1940s onward, pink had been pushed as a woman's color and *think pink* was a marketing slogan used in the US to encourage women to embrace their femininity (Frassanito & Pettorini, 2008). In the labor market, jobs were generally described as white collar and blue collar, until the late 1970s when the socially constructed term *pink collar* emerged to describe jobs held by women (Howe, 1977: 21). Most pink collar jobs were in fields such as nursing, teaching, and food services (Howe, 1977). At the time, it was proposed that women naturally sought such jobs as the result of the

socialization process of female upbringing, described as the *pink blanket theory* (Howe, 1977).

However, women were divided on the subject. Some women defended their jobs as important and fulfilling, while others felt there was a conspired lack of advancement for women to management positions, a situation that was described as a *pink ceiling* blocking their advancement (Howe, 1977). The terms *pink collar*, *pink blanket* and *pink ceiling* comprised an ideographic cluster that, viewed diachronically, was controversial in its representation of femininity. Therefore, the color pink, a symbol that became synonymous with femininity, was a term both defended and opposed by women (Paoletti, 2012; Gleeson and Frith, 2004). As Stassen-Ferrara (2017) announced "an ideograph sheds light on the political and social consciousness of a collective of people" (681).

The issue of women's fashion was one of the most significant and sensitive, markers of gender identity at the time (Barnes and Eicher, 1992). Observers were divided as to whether to interpret wearing pink as a positive or negative symbol of femininity (Gleeson and Frith, 2004). The division was between feminists who celebrated their femininity and freedom of choice to wear whatever color they decided, and those who were distancing themselves from the socially constructed image (Gleeson and Frith, 2004). The latter group felt portrayed as women "weak, passive and even gullible in terms of women's fashions being presented to them" (Howard, 2010: 34). For this reason, pink, as a positive or negative gender identifier for women, remained a complex and controversial issue at the time of the first women's world hockey championship.

Thus, responses to the announcement of Team Canada's use of the pink jerseys were divided in support or opposition based on the interpretation of the meaning of the color. The president of the OWHA proclaimed, "If they [jerseys] have been manufactured in pink because they are women, we find that offensive" (Kalchman, 1990: C4). A similar opinion was expressed by the sports editor of the *Ottawa Sun*: "Real women don't wear pink" (O'Hara, 1990: 41). As a visual ideograph, the pink jersey served as an identifier of an ideology that could be supported by some but not by others, but it was value-laden and meaningful for

different reasons to different communities. In terms of the Team Canada players, the group wearing the jerseys and performing in the world championship, the fluorescent pink and white jersey was their uniform, and was what they would wear while competing in the world championship whether other non-playing stakeholders liked the jersey or not. When the players heard criticism of the color of the jersey, some players publicly defended the look. “I love them,” Shirley Cameron said. “They are different, and this is the first women’s championship. I don’t think they used pink to make it more feminine; they just wanted us to look sharp” (Kalchman, 1990: C4). This opinion was expressed by other players in a news article: “as for associating female athletes with pink, the players didn’t consider it sexist” (Kalchman, 1990: C4). The decision to have Team Canada wear pink uniforms to stir up media attention was not lost on Team USA player Julie Andeberhan. “We were all surprised and amused that Canada chose to wear those loud, bright pink uniforms. Everyone has their own opinion about it, but whether it’s pro or con, their marketing strategy really worked” (Avery and Stevens, 1997: 163).

Research on media first impressions describes how the media create structures interpreting how to understand controversial issues and they become the primary definers creating the main interpretation of the controversy (Hall, Critcher, Jefferson, Clarke, and Roberts, 1978). Consequently, these first media impressions set the limit for all subsequent discussion by framing what is the issue from their perspective (Hall et al., 1987). The jersey decision angered some members of the media, most notably reporters of the newspapers in Ottawa where the tournament was being held. *Ottawa Sun* sports editor Jane O’Hara’s headline, “Sorry Girls, Pink Stinks!” left little to interpretation how she felt about the choice of jersey color (O’Hara, 18 March 1990: 41). Earl McRae of the *Ottawa Citizen* wrote:

> As if the world isn’t already going nuts enough, fast enough, we now take you to the latest example of certifiable lunacy loose upon the planet: is Canada’s pink and white national women’s hockey team, in town for the world championship, a dazzling statement of cool high fashion for the future or an example of degrading female stereotype of the past? (McRae, 16 March 1990: 9).

Interestingly, after the initial negative reaction, reference to the jerseys and the color pink began to change over the course of the tournament. Examination of the data revealed that in the four days immediately following the initial press conference before the start of the tournament, there were 49 references to the color pink in the media, and thirty times it was in a negative context. However, after the opening game, in which Team Canada dominated Team Sweden 15-1, there were 38 more references to the color, pink, over the ensuing week, none of the references were in a negative context. With the success of Team Canada, the media began using the term *pink power* when describing the teams' dominant performance (Hickey, 1990; Zwolinski, 1990). This moment in time coincided with the increasing numbers of spectators identifying with Team Canada by wearing pink items of clothing or carrying pink flags (Davidson, 1990; Scanlan, 1990).

As McGee (1980a) noted "human beings in collectivity behave and think differently than human beings in isolation. The collectivity is said to 'have a mind of its own' distinct from the individual qua individual" (p. 2). McGee (1980a) argued that individuals will decide for themselves how to believe, act, and feel based on their own existing, normative values on the matter. CAHA president Costello observed that many of the spectators wearing pink were mothers and daughters attending the Team Canada games (Scanlan, 2012). Media articles at the time provided a window of understanding of how the visual ideographic nature of the team jersey reflected the social consciousness of a collective of people: "Canadian women's hockey in the pink" (Hickey, 20 March 1990); "Canada's hot play matches uniforms" (Zwolinski, 20 March 1990); and "pink power rules rink at tourney" (wire story, 22 March 1990).

Conclusion and Implications

This study undertook an ideographic analysis of the pink jerseys worn by the Canadian national team during the 1990 Women's World Ice Hockey Championship. While wearing articles of clothing corresponding to home or national teams has been studied in sport management literature (Branscombe and Wann, 1991; Funk and James, 2001; Funk, Ridinger, and Moorman, 2003; Inoue et al., 2017), this case study illustrates the potential risks that exist when decisions are made to change corporate identifiers such as team names, colors, mascot or logo (Ahn et al., 2012). For

example, professional sports teams rely on a positive connection to their fans who are the main consumers of team apparel (Ahn et al., 2012; Branscombe & Wann, 1991; Walsh, Winterich, and Mittal, 2011). Since the funds generated from the sale of licensed merchandise is one of the major revenue sources for many sport organizations (Walsh et al., 2011) and contributes greatly to the manner through which fans identify with their teams, any changes to team logos or colors, or the assigning of culturally-sensitive names, logos, or symbols to new teams, can be risky (Foster, Greyser & Walsh, 2006).

In addition, the original selection of a team name, logo, symbols, mascots and colors can also be affected with the passage of time as the interpretation of some ideographs changes, "falling in and out of favor as shifts in public thinking occurs about a subject" (McGee, 1980a: 10). Numerous professional baseball and football teams in the US find themselves in debates over the functional and pragmatic meaning of American Indian symbols that team management decided years ago to utilize in their team names and team logos. The Washington franchise of the National Football League finds itself in a debate over the functional and pragmatic meaning of its team name, an American Indigenous symbol team management decided upon decades ago to utilize in their team name and team logo. As with most ideographs, the public is divided either supporting or opposing the team name. In 2014 the US Patent and Trademark Office cancelled six federal trademarks for the Redskins' trademark protection of the name because the term was "disparaging to Native Americans" (Schilken, 2017).

We know that sport fans, through direct and indirect consumption behavior, are the pillars on which the professional spectator sport industry survives (Mason, 1999), and in recent years many corporations and sports teams have attempted to rebrand themselves in a competitive marketplace, to change trends, to generate higher profits or to simply stay competitive (Ahn et al., 2012). With this case study, that introduces ideographs to the sport management literature, we have shown that when sport team owners or marketing managers are considering a change in team identification such as logos, colors, uniforms, names, and team mascots images, they must be wary of hidden or secondary meanings that may elicit a negative reaction

from shareholders, stakeholders and fans and inadvertently undermine this decision. In addition, ideographic analysis has also revealed how some decisions become outdated and damaging to stakeholders in ways that should warrant reconsideration, as they now have increasingly negative meanings and associations.

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CHAPTER 4

How Organizations Manipulate Artifacts to Create Organizational Routines

Introduction

Routines are "repetitive, recognizable patterns of independent actions, carried out by multiple actors" (Feldman and Pentland, 2003: 95). Organizational routines provide insight in understanding organizational change (Nelson and Winter, 1982; Parmigiani and Howard-Grenville, 2011; Salvato and Rerup, 2011). There are many different types of routines. It is difficult to discuss routine dynamics even at a macro-level without some comparative understanding of exactly what is the type or description of the routine in question. Cohen (2007) distinguished between *dead* routines: hardened, solidified, for example a computer program; and *live* routines: enacted by humans involving their life experience. There are other references in the literature to live, dead, high level, complex, individual, organizational, mindless, and simple routines to name a few. In this chapter routines are defined as either biological/live (a sequence of actions performed by living things, for example people or animals), or non-biological (a sequence of actions performed by some aspect of technology or inert system). In routines literature the performers are referred to as 'actors' and rules are referred to as 'artifacts' Biological/live routines have a cognitive and performative aspect involving action. Non-biological routines, can be theorized as managers being the cognitive component and the resulting routine as the performative component.

Pentland and Feldman (2008) describe a live routine as any organizational routine that involves people capable of learning from experience (240). The same authors also differentiate between individual routines and organizational routines, the latter characterized by multiple actors and interdependent actions (Pentland and Feldman, 2005a: 795). "Agency breathes life into routines in a very immediate and intuitive way" (D'Adderio, 2011: 198) such that organizational routines are dynamic, they are generative systems enacted by participants (Pentland and Feldman, 2008) and they involve action. Sport performances such as singles tennis performed by individual actors, or ice hockey performed by teams or multiple actors, provide a unique environment for studying biological or live organizational routines.

The routine of hockey is a recognizable product that has an uncertain outcome, occurring in real time (Mason, 1999; Soebbing and Mason, 2009; Sutton

and Parrett, 1992). The product is the performance itself, the game, exhibiting the four parts of the Feldman and Pentland (2003) definition, described in detail by Pentland and Haerem (2015: 467). The practices within the routine of skating, checking, shooting and scoring are 'repetitive'; the skills are carried out by 'multiple actors'; and the game is a 'recognizable pattern'; involving a series of 'independent actions'. The product is consistent with the performative aspect of live routines: actions taken by actors. A defining artifact of the routine of hockey is the physicality artifact, embedded in the sport since before the formation in 1908 of the governing body for the sport globally, the IIHF. It is this specific, articulated artifact that separates and defines the organizational routines of men and women's hockey (Etue and Williams, 1996).

Artifacts are known to influence routines (Becker, Lazaric, Nelson and Winter, 2005; Cohen, Burkhart, Dosi, Egidi, Marengo, Warglien and Winter, 1996; D'Adderio, 2008, 2011; Feldman and Pentland, 2003; Pentland and Feldman, 2003, 2005, 2008). D'Adderio (2011) positions artifacts at the very centre of routine theory. Artifacts take many different forms including written rules (Pentland and Feldman, 2005a: 794-5), and can influence the emergence and persistence of organizational routines (D'Adderio, 2011, Glaser, 2017).

The routine of women's hockey has numerous defining artifacts to govern the performance, and flexibility allowing for creativity by the actors in the performance. The routine provides an action-oriented attraction with an uncertain outcome. Spectators pay to watch the actors perform the routine (Mason, 1999). An example of the significance of the attraction of the routine of women's hockey is the television viewership of the 2010 Olympic gold medal women's hockey game. That performance is among the top ten most watched television program broadcasts in Canadian history (CTV, 2016).

What is of interest from a research perspective is the process by which this organizational routine of women's hockey was created and emerged at the 1990 WWHC held in Ottawa, Canada. The process was in part a reaction to the conflict between the existing IIHF physicality rule that allowed body-checking, and recent CAHA legislation that did not allow body-checking specifically for women's hockey

games or tournaments sanctioned by the CAHA. The CAHA legislation was undertaken in conjunction and support of the Female Council of the CAHA at the time, due to the underdeveloped state of CAHA sanctioned female hockey programming (M. Costello, personal communication, 14 November 2016). Many unsanctioned female hockey tournaments were occurring that had no restrictions on player age, body weight, or skill level. This meant less-experienced, younger players were at risk of serious injury competing against adults in games with body-checking. In the 1990 WWHC there were players entered who ranged in age from fourteen-years to thirty-seven years; in height from 123 cm. [4'4"] to 184 cm. [6']; and in weight from 42 kg. [92 lbs.] to 82 kg. [180 lbs.] (IIHF, 1990b). The solution to the conflict of opposing physicality rules involved the president of the IIHF strategically manipulating the IIHF physicality artifact of body-checking that had existed in the routine of hockey for approximately seventy years. The president of the IIHF did not want to publicly acknowledge the removal of body-checking in the women's event for fear of a legitimacy backlash from the media and the public. So the president told members of the media and the public that the longstanding IIHF artifact of body-checking would be employed at the 1990 WWHC. He then privately told the coaches, players/actors, and referees/arbiters the tournament would not be played employing body-checking. The actors could not perform full frontal checks, they had to maneuver their opponents toward the boards without body-checking. However, the actors, coaches, and arbiters were not provided with any written explanation of what the lesser physicality artifact entailed. The intent of the requirement would get worked out between the arbiters and the actors as the tournament progressed. The actors would have to perform with less aggression, to avoid being penalized. While practicing the act of checking, the actors had to interpret the intent of the directive of less physical contact and incorporate this intent into their performance. At the same time, the arbiters were deciding how much physical contact to allow. This predicament caused confusion for not only the actors and coaches, but also for members of the media and the public. The research question is: How was the globally recognized routine of women's ice hockey, that is still in vogue today, created during the 1st WWHC?

Theoretical Framework

How a live, complex, organizational routine is initially created and emerges is of interest to researchers of routine dynamics. Described as 'entanglement' (Howard-Grenville, Rerup, Langly, Tsoukas, 2016), live routines are dynamic as they exist through a process of production and reproduction, over time and space, through the ongoing effort and action of actors (Feldman et al., 2016; Howard-Grenville and Rerup, 2016). In this study we theorize the simultaneous adaptation of a complex organizational routine (women's hockey) taking place during the 1st WWHC, an artifact (body-contact) being created at the same tournament that underpins the routine, and the resulting live performance by multiple actors (hockey players). This process of routine formation could be described as involving the interaction or entanglement of artifacts, actors, and action (Jarzabkowski, Bednarek, and Spee, 2016).

The concept of production and reproduction of routines by the effort and action of actors allows for a deeper investigation of the internal structure and dynamics of routines. Routines are influenced by artifacts that underpin the routine (D'Adderio, 2011). Routines by definition, are constituted of repetitive actions and are performed by multiple actors (Feldman and Pentland, 2003). Routines are performed until they are recognized patterns of independent action.

Artifacts

Artifacts are human-made objects that are involved in changing routines (D'Adderio, 2011, Glaser, 2017). Artifacts provide actors with boundaries defining certain behaviors by "encoding the intentions of managers or designers" (Pentland and Haerem, 2015: 470). However, the intentions projected may not result as planned as actors have to comprehend the intent of the artifact and must translate that understanding into performance (Pendland and Feldman, 2005). D'Adderio (2011) argues that one feature of artifacts is they represent the intentions of managers because they shape the course of action of organizational actors. Artifacts can embody social norms and worldviews that belong to the agencies or individuals that have created or adopted them (Cohen et al., 1996). Artifacts created by management retain an imprint of the agencies that create them and enforce their application,

revealing the deeper influence of agency in shaping routines (D'Adderio, 2011: 199). However, even though an artifact or standard operating procedure can be created, the degree to which it is incorporated in the performance of a routine is at the discretion of the participants (Pentland and Feldman, 2005a: 796). Pentland and Feldman (2005a) state that "organizational routines depend on the connections, the stitching together of multiple participants and their actions to form a pattern that people can recognize and talk about as a routine" (795).

D'Adderio (2011) argues "moving beyond the extant view of artifacts as passively 'guiding' and 'constraining', to viewing them as entities that can actively shape the course of routines" (222). Actors are aware of the artifacts on which an organizational routine is based, and usually they attempt to perform in accordance with the intent of the artifacts. This regulation-by-rules (artifacts) is an example of what Geiger and Shroder (2014) described is a rule-based model of an organizational routine ranging from actor behavior that ranges between rule-making and rule-breaking.

Actors and Action

Recently scholars have focused on the agency of actors within routines (Turner and Fern, 2012). Routines have been described as generative systems referring to the variety of performances that could result from a live routine performed by actors (Feldman and Pentland, 2008). Regardless of the provision of detailed artifacts, an actor repeating a performance of a routine a second or subsequent time, will never produced an identical routine (Pentland, Haerem, and Hillison, 2011; Salvato, 2009). Actors repeatedly performing the routine themselves play a central role in shaping the pattern of action that is the routine (Turner and Fern, 2012). This is suggested to result from actors gaining experience in performing the routine over and over and therefore having greater understanding of the routine and its context (Turner and Fern, p. 1408). This understanding is then considered to aid the actor in adjusting performance in response to changes in context.

Turner and Fern tested this hypothesis in a study of municipal garbage collection in San Diego. They reported that whether contextual constraints increased or decreased, there was an increase in divergence in routine performance (1428). This

result was not consistent with other research in this area undertaken by Becker (2005) which suggested an increase in contextual constraints resulted in less divergence in the routine performance. The frequency of repetition was sited as a possible reason for the discrepancy; however, the consistent factor was that actors involved may alter their performance depending on any number of contextual circumstances.

A second study involving garbage collection was undertaken by Turner and Rindova (2012). They studied actors working in six waste management organizations to see how the actors balanced the pressures of trying to perform a consistent routine in the face of changes. They found the coping strategy of the workers was to simultaneously establish and maintain two ostensive understandings: attempt to be consistent in your work and maintain some flexibility to adjust to unforeseen and unavoidable changes in the work environment. Each performance the workers undertook each day was slightly different, but as a routine never changed. With each performance the actors faced a different context, had a new experience, and consequently changed and adapted, however slightly, their performance of the routine (Salvato, 2009; Feldman, 2000; Howard-Grenville, 2005).

The actors in the Turner and Rindova waste management study faced pressure from their customers who put out their garbage. Customers planned to take their refuse to the curb just before the time the garbage trucks would normally arrive. If the trucks and actors arrived earlier, the customers missed having their refuse picked up and would phone the waste management company to complain. This feedback loop pressured the actors to try and repeat their routine performance the same time each day. This meant the customers and actors were “co-organizing” the routine (Turner and Rindova, 2012). This duality of consistency and change centred on two key mechanisms. The first was artifacts used to standardize routine actions, and the second was for internal staff to maintain a mindset of flexibility to allow for micro changes in process to allow flexibility in completing the routine. This latter requirement was somewhat stressful as different internal staff had varying responsibilities they were expected to follow. Expecting these individuals to maintain flexibility was not always easy (Turner and Rindova, 2012).

Interaction of Artifacts and Actors

It is known that numerous artifacts are attached to organizational routines (Pentland and Feldman, 2005: 794). In an organizational routine, artifacts are often used to try to ensure a stable, unique pattern of action (Pentland and Feldman, 2008). This path dependence notion suggests a boundary on performance with little or no organizational drift. "By path dependence, we mean the process through which past actions influence the likelihood of future actions" (Sydow, Schreyogg and Koch, 2009). Some authors argue that routines performed by humans always have the possibility of some organizational routine drift as actors interpret and apply the artifacts in their performance (Rerup and Feldman, 2011).

Members of management who create artifacts may employ quality control officials to enforce the application of the artifacts. However, at the operational end, the actors expected to perform in accordance with the artifacts have to first interpret the meaning or intent of the artifacts, and then integrate this meaning into their performance (Feldman and Pentland, 2003). Despite the presence of company quality control officials, actors may still violate the intent of artifacts in their performance depending on the contextual issues they face at the time. This act of violating the artifacts of performance is referred to by some authors as organizational drift (Mandis, 2014; Martinez-Moyano, McCaffrey and Oliva, 2014; Reid, 2014). Howard-Grenville et al., (2016) describe the combination or interaction of artifacts and actors as 'entanglement' within the cycle of action that is the formation of the organizational routine.

Routines as Process

The extant literature in organizational theory includes a common interest in focusing on process (Langley, Smallman, Tsoukas, and Van de Ven, 2013; Pentland, Haerem and Hillison, 2010, 2011; Salvato, 2009) as well as on the parts that constitute routines (Salvato and Rerup, 2011; Parmigiani and Howard-Grenville, 2011). Feldman and Pentland elaborated on the role of routines as processes (Feldman, 2000; Feldman and Pentland, 2003), investigating the internal process of live routines, focusing on the relation between actions and patterns (Feldman, 2000; Pentland and Feldman, 2008; Pentland, Haerem, and Hillison, 2011). Routines

provide a stable means for organizations to perform interdependent actions consistently (Rerup and Feldman, 2011). However, at times organizations are forced to change their routines for any number of reasons, for instance, to implement a strategic initiative (Rerup and Feldman, 2011; Cohendet and Simon, 2016).

There is a certain amount of improvisation inherent in the execution of routines. When the actors undertake a performance, there is a risk the result may not be what the members of management envisaged when they created the initial artifact (Pentland and Feldman, 2008: 249). Numerous research articles report an unsatisfactory result due to a change in a strongly embedded artifact (Edmondson, Bohmer and Pisano, 2001; Feldman, 2003; Gersick and Hackman, 1990). In the pursuit of stability in an organizational routine, members of management require actors to understand, and to adhere to the artifacts, including new artifact additions. This comprehension or understanding of the intent of the artifact is an example of the cognitive process described by Pentland and Feldman (2005a) as ostensive adjustment. However, actors performing routines can somewhat creatively reinvent the course of action depending on the context of performance 'impediments' (Boudreau and Robey, 2005) or 'opportunities' the actors encounter. This multiplicity of the ostensive adjustment means actors may have different ideas on what constitutes an appropriate performance (Turner and Rindova, 2012). It is argued that live, complex, organizational routines are systems that are generative and dynamic and enacted by human agents (Bapuji, Hora and Saeed, 2012; Feldman and Pentland, 2003; Lazaric, 2000; Lazaric and Denis, 2001), and this performance or playing out of the live routine is an example of a process described by Pentland and Feldman (2005) as performative adjustment.

The Case

It is essential to describe hockey in routines terminology. Each hockey game is described as a PERFORMANCE. The players are referred to as ACTORS. The play of the game of hockey is an example of a DYNAMIC, LIVE, ORGANIZATIONAL ROUTINE. Within the organizational routine of hockey are numerous PRACTICES such as face-offs, offensive plays, defensive plays, the powerplay, the penalty kill, and the act of checking an opponent. ARTIFACTS are

the affordances such as the rules of the game, hockey sticks and skates, nets, and uniforms. Body-checking and body-contact are artifacts that govern the practice or engagement of the behaviour of 'checking'. These specific PHYSICALITY ARTIFACTS define the difference between men's hockey (body-checking), and women's hockey (body-contact). The difference between the two is that a hockey game allowing body-checking allows actors to generate body-to-body frontal or side collisions with opponents to separate them from possession of the puck. A hockey game permitting body-contact does not allow frontal or side collisions, actors can only skate alongside an opponent and direct them or steer them toward the side boards, but they cannot collide directly with them or they will receive a penalty from the game referee. The term for the game referee is ARBITER, the official who observes and evaluates each contact between actors during the performance. If the intent of a specific artifact is not adhered to, the arbiter can assign a penalty to the actor who perpetrated the violation.

Each hockey performance lasts sixty minutes, divided into three periods each twenty-minutes in length. There is an intermission or rest time frame between each of the periods. The objective of the routine for each team is to score the most goals on your opposing team to be declared the winner of that performance. Team coaches are positioned on the sides of the playing surface where they direct the performance strategy for the actors performing the routine of hockey on the ice. Coaches encourage actors to perform the routine in accordance with the team strategy. Non-compliance by actors can result in the coach restricting the actor's performance time enacting the routine on the ice.

Members of the IIHF decide the universal artifacts of the routine of hockey, and they also sanction such prestigious events as the IIHF men's and women's world championships respectively. The IIHF chief of officials assigns the arbiters to each performance at IIHF tournament events. The IOC is the governing body for the winter and summer Olympic Games. The IIHF is a member federation of the IOC and when asked, the IIHF, through qualifying sanctioned IIHF tournaments, provides the representative hockey teams that perform in the winter Olympic Games. Spectators, referred to as the audience or customers, often pay to observe the actors performing

the routine of hockey. The spectators can positively or negatively influence the practices of the actors and ultimately the performance of the routine by cheering or booing the efforts of the actors during the performance. This audience influence can encourage or discourage creative play by the actors.

Women's Hockey

In 1990, women's hockey was under-developed, and at the elite level, virtually an unknown commodity to the public (Etue and Williams, 1996). While there were approximately 2,800 registered female hockey players in Canada, and 4,300 in the US, there were less than 500 registered female hockey players in each of most European and Asian countries where organized ice hockey was played (Reid and Mason, 2015). In addition, many women's leagues the world over did not adhere to the IIHF artifacts of the game. For example, some European ice hockey federations allowed the practice of a modified version of body-checking while other federations did not. Additionally, the length of time of the performance was about half the regulation time of the men's routine (Reid and Mason, 2015). Compared to the men's routine of hockey, the women's routine was rarely broadcast, had few nationally known actors, and few national sponsors (Etue and Williams, 1996; Reid and Mason, 2015).

The WWHC was initially not a popular entertainment attraction for spectators in Ottawa. The opening performances held in the afternoon of the first day of the tournament drew approximately 150 spectators (MacKinnon, 1990a: C1). The evening performance held that same day between host Team Canada and Team Sweden attracted an audience of approximately 3,500 spectators in the 10,000 seat Civic Centre Arena (Kirsh, 1990). This attendance was encouraged by the distribution of 45,000 complimentary tickets by the tournament general manager, through retail store outlets across the city the week of the game (Reid and Mason, 2015).

Due to the under-developed state of women's hockey at the time, and the fear that serious injuries would discourage growth of the game, members of the CAHA passed injury-prevention legislation disallowing body-checking in CAHA sanctioned women's hockey. This CAHA legislation was in place prior to the WWHC. The legislation replaced the *body-checking* artifact employed in male hockey with a

loosely-defined *body-contact* regulation for female hockey performances sanctioned by the CAHA, played in Canada (Costello, personal communication, 14 November 2016). This change was intended to reduce the head-on collisions and resulting concussions that were occurring in men's hockey (Polutnik, 1988). However, this local legislation created a dilemma for the president of the IIHF, Gunther Sabetzki. The Canadian artifact had not been adopted by the IIHF. Sabetzki expected the women's tournament to be played by the IIHF official artifacts of hockey, which included the embedded physicality artifact of body-checking. Sabetzki did not want to risk the IIHF being criticized for staging a less than legitimate first women's world championship by not allowing the longstanding artifact of body-checking. He also did not want to risk IIHF endorsement of a separate women's hockey routine performed based on an official body-contact artifact, without first having some evaluation of its acceptability to members of the media and the public. He could arrange such an evaluation involving the spectators and members of the media at the tournament in Ottawa. His strategy was to publicly state body-checking was the artifact of the 1990 WWHC tournament, then privately instruct the actors, coaches, and arbiters the tournament was to be played in accordance with the intent of a less violent body-contact regulation. Any actor caught performing the practice of body-checking would be penalized. Referee Deb Maybury recounted that since there was no IIHF penalty for body-checking, the referees had to call this new infraction interference or holding (D. Maybury, personal communication, 10 March 2017). By manipulating the physicality artifact in this fashion, the president of the IIHF could view the creation and emergence of the routine of women's hockey played in accordance with the intent of a body-contact artifact, without first having to commit publicly to adopting such a significant change.

Howard-Grenville (2005) noted that we often know too little about the context in which individual actors influence a change in an organizational routine. "Understanding the political and contested nature of organizational routines is useful for understanding phenomena: such as organizational learning and organizational change" (Pentland and Feldman, 2005a: 809). Two contextual circumstances pressured management members of both the Canadian and international hockey

federations to accelerate the staging of the first WWHC in 1990. The first circumstance occurred in 1982 when the Canadian government passed the *Canadian Charter of Rights and Freedom* legislation (Government of Canada, 1982). This legislation was to be enacted by 1985 by provincial and territorial legislators, granting equal rights to Canadian men and women (Government of Canada, 1982). Numerous lobby groups were pressuring many organizations that were targeted as displaying bias toward female involvement or opportunity. Some of the organizations in contempt included organizations in the field of sport, including the CAHA and the IIHF (Avery and Stevens, 1997; Etue and Williams, 1996).

The second circumstance was the staging of the 1988 winter Olympic Games. Women made up only 22% of the Olympic competitors at the time (Brooks, 1990). Numerous lobby groups were pressuring IOC president, Samaranch, to increase the number of female actors in the Games. Samaranch was aware that in the winter Games there was only one team sport, hockey, played by men. If a separate women's hockey tournament were added, the required eight teams, each with a roster of 20 actors, would immediately result in the addition of 160 female actors in the Games. This addition would significantly improve the existing female-to-male competitor ratio. Samaranch approached IIHF president Sabetzki to inquire if the routine of women's elite hockey was at a competitive, entertaining enough level to attract a significant spectator audience. If it was, Samaranch promised to fast track the addition of a women's hockey event into the winter Olympic Games (Ferguson, 1990; Scanlan, 2012). Both the president of the IIHF, and president of the CAHA, wanted to appease Samaranch. The IIHF received considerable funds from the IOC. It was speculated if the IIHF could satisfy Samaranch's wishes there could be a financial dividend for the IIHF, of which the CAHA was a member (Costello, personal communication, 14 November 2016).

The strategic management solution of the IIHF president to manipulate the physicality artifact caused confusion at the 1990 WWHC for many stakeholders. Not everyone was aware of the details of the strategy. This confusion affected the actors on the ice, the arbiters, coaches, the spectators, members of the media, even historians recounting the event years later. The IIHF strategy was so convincing members of the

print and electronic media publicly chastised the arbiters early in the tournament for penalizing actors for the practice of body-checking opponents (Reid and Mason, 2015). The authors of the publication *Too Many Men on the Ice: Women's Hockey in North America* (Avery and Stevens, 1997) and the publication *On the Edge: Women Making Hockey History* (Etue and Williams, 1996) inadvertently reported that body-checking was the artifact employed at the 1990 event. The same misinformation was reported by Fichtenbaum (1990) in *Sports Illustrated* and Donnelly (1990) in *Time Magazine.*

The lead author of this research paper was the general manager of the championship. Resulting from this circumstance, he gained access to extensive primary data of the event. He also had interview access to the president of the CAHA who agreed with the president of the IIHF to allow the ruse of playing the tournament under the guise of the body-checking artifact to take place. He had access to the actors of Team Canada who performed the routine in accordance with the intent of the body-contact regulation during the tournament. He also had access to an arbiter who officiated some of the performances, ready to penalize any actor who undertook the practice of body-checking as part of the routine of hockey. These data afford the opportunity to examine in detail the process of the formation and emergence of what is still today recognized globally as the organizational routine of women's hockey.

Method

The primary data was reviewed from a historical perspective describing the information in a temporal fashion. The time frame investigated was from April 1989 with the announcement the WWHC was to be held in Canada, to July 1992 with the official announcement by the IOC that a women's hockey event was added to the 1998 winter Olympic Games (Reid and Mason, 2015). One of the initial themes that emerged following the tournament was recognition by the IIHF of the routine of women's hockey based on body-contact. The data were subsequently examined as a qualitative, inductive case study focusing on the research question (Yin, 2014). The women's world tournament is a case study of a bounded system that provided an approach to "support the deconstruction and subsequent reconstruction of various phenomena" (Baxter and Jack, 2008: 544).

An effective case study relies on multiple data sources (Yin, 2014). One source of data in this study was the primary CAHA files of the 1990 championship. These files include telefaxes communicated between executive members of the CAHA and the IIHF; minutes of IIHF and CAHA meetings; and internal memos and notes shared among CAHA executive members and tournament organizers. These data also include minutes of meetings of the members of the sub-committees of the 1990 event; coach's reports; the IIHF official rule book; and personal memos, letters, and telefaxes exchanged with event sponsors and other stakeholders involved in the 1990 tournament. Permission was granted to use these primary data in this research paper by officials of the CAHA and Hockey Canada (Costello, personal communication, 14 November 2016).

TSN nationally broadcast live, four performances of the 1990 WWHC. These telecasts were linked by satellite to Europe to allow broadcasting through European networks. Copies of these four national telecasts were a second source of data (TSN, 1990). The broadcast host was Michael Landsberg of TSN. Also examined were the interviews Landsberg conducted with numerous hockey knowledgeable guests during the game intermissions. Newspaper, magazines and text articles from 1989 to 1999 were a third source of data. A media search was undertaken utilizing words and phrases such as the 1990 WWHC, IIHF, CAHA, women's ice hockey, routine of women's hockey, women's ice hockey rules, hockey body-contact, hockey body-checking, and hockey penalties. The search utilized the Canadian Newsstand Database and Factiva**.**

A fourth source of data, were interviews conducted with twenty-three individuals, some within the championship and others situated externally to the 1990 event. The interviewees were representative of many of the stakeholders involved with Team Canada in the event. The interviewees included eleven actors on Team Canada, a team coach, four hockey administrators, four members of the media, an arbiter, and two federal government officials including the Director General of Sport Canada. Sport Canada is the federal government department that contributed significant funds to the CAHA to stage the 1990 WWHC. A snowball interviewing technique was employed to locate the players and coaches. The 1990 team captain,

Sue Scherer, was working at Sport Canada and provided contact information for the other players interviewed as they had kept in contact over the years. Sixteen of the interviews were conducted in person and seven were completed by telephone. With permission granted from each interviewee the interviews were recorded electronically and later transcribed and examined. The average length of time of each interview was one hour. Numerous subject areas were probed including asking actors who were quoted in 1990 to clarify their responses.

Questions asked of actors, coach, and arbiter focused on hockey league physicality artifacts that each actor experienced prior to and during the 1990 world championship. For example, each actor was individually asked what was his or her knowledge and experience of body-checking and body-contact in 1989-90; and secondly, to describe his or her resulting performance in the championship played in accordance with the intent of a body-contact artifact that was developing during the tournament. Comments about the 1990 WWHC from more recent interviews were compared to quotes individuals made in 1990. Such data can provide positive and negative reflections, and personal opinions, of an event participated in whether taken from data at the time of the event or from interviews or written reflections years later (Hess, 2000).

Data were examined using an iterative process searching for examples of how actors interpreted (ostensive adjustment) the intent of the physicality regulation and how they performed (performative adjustment) in accordance with the intent of the regulation. Any contextual details that may have influenced either the interpretation or the practice of the artifact were recorded and analyzed to better understand how the organizational routine of women's hockey emerged. The 1990 WWHC provides a deeper view, a micro-level view of how actors, artifacts, and action are inter-related in complex ways during the creation and emergence of an organizational routine.

Results

The results are presented in four components: the influence of artifacts; the resulting confusion and frustration; the reaction of the actors in terms of ostensive and performative adjustment; and the resulting routine of women's hockey.

The Influence of Artifacts

At the 1st IIHF European Women's Hockey Championship (EWHC) in 1989, there was no change in the physicality artifact, body-checking was employed. However, this form of body-checking did not allow open ice frontal collisions as the body-checking witnessed in the men's routine of hockey in North America. Due to increases in injuries, particularly concussions, the CAHA enacted legislation to eliminate body-checking from female hockey sanctioned by the CAHA in Canada (Polutnik, 1988). Sari Krooks of Team Finland who played in the 1989 EWHC had also played most of that hockey season in North America for the Toronto Aeros. She was aware of the wide discrepancy in potential severity of the body-checking standard of hockey around the world. "If we have North American referees, they will let the play be rougher. If we have European referees it will not be so rough" (Kalchman, 16 March 1990: D7).

The president of the CAHA, Murray Costello, initially did not agree with the strategy of the IIHF president, Sabetzki, of informing the media and the public that the longstanding artifact of body-checking was to be part of the WWHC when it was not. However, Costello was aware it was the only solution Sabetzki would agree to in terms of solving the dilemma created by the CAHA legislation. The two presidents finally agreed to go along with the ruse and the first WWHC started 19 March 1990. The eight-team tournament, held in Ottawa, Canada, consisted of three preliminary games for each team. Each preliminary series of games was described as rounds one, two, and three, with each round consisting of the same number of games. The results of the three games decided the match-up of teams for the semi-final series of games and the final series to decide the medalists and teams placing fourth through eighth. The tournament was organized by a committee of hockey volunteers from Ottawa under the direction of members of the IIHF. For example, the arbiters of the on-ice performance were under the direction of an IIHF European official. The coach's meetings were also under the direction of an IIHF European official. The tournament in general, was under the direction of American Walter Bush, a member of the IIHF executive council assigned by the IIHF as the tournament chair (Davidson, 1990d).

Confusion and Frustration

Members of the cable television broadcast company, TSN, that aired the four tournament games, were also not apprised that body-checking was disallowed in the tournament. Examination of the TSN national broadcast coverage of the first period of the opening game between Team Canada and Team Sweden illustrates the confusion that plagued the announcers. Broadcast host Michael Landsberg, and color commentator, Howie Meeker, repeatedly complained that the practice of legitimate body-checks was being unfairly penalized (TSN, 1990). An exasperated Landsberg says at one point, "Well I think we should yell down [to the referee] and say, 'there is body-checking allowed here!" "The referee is clearly out of his depth," responds Meeker (TSN, 1990). Landsberg later commented during the public broadcast, "This is big time world hockey folks, we have great skating and great shooting and questionable officiating" (TSN, 1990).

At the time there was no written definition of the intent of what the arbiters would allow to replace body-checking which further added to the confusion for actors on each team (Yuen, personal communication, 29 October 2016). Each actor involved in the performance of the routine had to decide how to interpret the intent of the body-contact regulation from the initial verbal message. Then they had to decide how they would incorporate this information into their performance. Adapting to the intent of what would later become known as a body-contact artifact proved difficult for some of the actors. This was most noticeable in the first round of performances in the tournament. This was the first women's world hockey championship. Most of the national teams were newly formed, and many actors were playing with teammates they only met at the three-day pre-tournament training camp (Kalchman, 1990). Interviews revealed that some of the actors, Cameron, Heaney, James, Montour, and Scherer, were coming from either women's or co-ed leagues that applied the body-checking rule. Other actors on Team Canada, Ginzel, St.-Louis, Ratushny, and Sunohara, were coming from women's leagues that employed less aggressive checking or no checking.

Team Canada's France St-Louis was aware that some of the competitors on European team were as young as 14-years of age. St-Louis described the confusion

and concern of actors attempting to play employing less aggressive contact, in accordance with the intent of the artifact the arbiters were formulating.

> The first game we were all over the place, lots of collisions, it was unbelievable. I thought wow we can't keep playing like this. If we keep this up we are going to kill people, seriously, you know some of us were pretty big girls, but finally they said no body-checking, it is too dangerous, especially in the middle of the ice (St-Louis, personal communication, 3 September 2017).

The arbiters assigned to the WWHC by the IIHF were also initially confused with the lack of explanation provided by the IIHF director of officiating. Arbiter Deb Maybury recalled the frustration the arbiters felt because the IIHF director of officials could not define or describe to them the standard of officiating of the engagement of checking. "I remember the American referees asking what the heck are we supposed to call? The European referees were the same, even Bob Best, the Canadian. They didn't have any experience officiating women's body contact rules" (Maybury, personal communication, 10 March 2017). Maybury who was officiating the Canada - Sweden performance recalls being called to the Swedish player's bench by the Team Sweden head coach who complained about the aggressive checking by Canadian players. Maybury was then called to the Canadian player's bench and was asked by Team Canada head coach McMaster what was the checking standard. She recalls telling the Canadian coach, "take it down a notch, we will have to work this out together" (Maybury, personal communication, 10 March 2017). This meant both the actors, and the arbiters evaluating the performance of the actors, had to interpret the intent of a less aggressive checking practice from the experience of calls from the arbiters during the performance.

Since body-checking was the only physicality artifact recognized by the IIHF, the arbiters did not have a definition for the assigning of a penalty for women caught delivering a body-check to an opponent. Consequently, when an arbiter wanted to penalize an actor for body-checking, the arbiter had to reference it in terms of a violation of some other existing IIHF artifact. Oftentimes the arbiter decided to call a body-checking infraction 'holding' or 'interference', both official IIHF artifacts

described in the official rulebook of hockey, that most closely resembled body-checking (Maybury, personal communication, 10 March 2017). Each arbiter officiated two performances in each of the three preliminary rounds of tournament play. Each performance was 60 minutes in length. Each shift by the actors on the ice lasted approximately 45 seconds. This meant each arbiter had ample opportunity, each performance, to witness numerous collisions by actors, ranging from minor contact to actual body-checking that the arbiters had to evaluate, and decide whether to penalize or not. The lack of a relevant call for performing a body-check, and the inconsistency of the arbiters deciding the level of acceptable collisions, added to the confusion experienced by actors performing, by the members of the media reporting, and by spectators reacting to the performance by cheering or booing. Some of the actors interviewed expressed their confusion and resulting frustration. Since the first round of games in the tournament had started without this matter being clarified, ostensive and performative adjustments had to be made every shift on the ice during this first performance and every subsequent performance during the remaining rounds of the event. The confusion and resulting frustration was expressed by Team Canada actors. “I always loved to hit other opponents. I played a lot of full contact and it was difficult switching from stepping into an opponent to riding them off into the boards” (McGuire, personal communication, 15 January 2017). Angela James said, “You know hitting was a big part of our performance and how we played it. They kinda hand-cuffed you with that [body contact] rule and it made you wonder what was going on” (James, personal communication, 14 November 2016). James added, “Every now and then you know, I hit someone because it was hockey.” Shirley Cameron of Team Canada said, “I lined up a few opponents and afterwards thought, ‘I’m lucky I didn’t get a penalty’”(Shirley Cameron, personal communication, 17 January 2016). Cameron’s teammate Heather Ginzel said, “We were told there is no intentional body-checking, but body-contact would be allowed, just like in basketball. And then Angela laced someone! Oops” (Ginzel, personal communication, 14 November 2017). The actors were exasperated by the inconsistent penalty calls by the officiating because removing body-checking did not mean removing all body contact from the performance.

Rule Interpretation, Performance Adjustment

The first period of the first-round performance between Team Canada and Team Sweden was fraught with penalties for contact violations. The two teams combined for 10 penalties in the first twenty-minutes of performance. The coaches of both teams were visited by the arbiters during the intermission. The coaches were told to inform their actors to reduce the aggressive play and to stop the practice of the open-ice collisions, or they would continue to be penalized (Maybury, personal communication, 10 March 2017). Each actor had to re-evaluate their perception of what was an acceptable interpretation of the intent of the body-contact regulation being enforced. Consequently, each actor had to adjust their performance. Only one infraction was called during the second twenty-minutes of play (IIHF, 1990e). "I thought we showed a lot of maturity in adjusting to the refereeing," said head coach Dave McMaster (Hickey, 1990: E2). "We talked about it and we're going to check intelligently. We don't want to be emotional in our body-checking. But it's part of the game," said McMaster (Zwolinski, 1990: F2). Angela James was the top scorer for Team Canada. She understood that team advancement to the play-offs could be decided by goals scored, so scoring often was important. She also understood the importance of not only winning the contest but also keeping the spectators entertained. "Winning is the first thing you want to do, but selling the game is right up there, said forward Angela James, who had an awe-inspiring night with four goals" (Zwolinksi, 1990: F2).

A newspaper account of the performance in the first round between Team Canada and Team Sweden reported the overly-aggressive play of Team Canada. "France Montour led the Canadian hit parade, twice leaving Swedes decked on the ice surface writhing in pain for several moments" (Zwolinski, 1990: F2). Later, Sue Scherer, who was Team Canada captain in 1990, reminisced the rationale management had for wanting the actors to perform in accordance with the intent of a body-contact regulation.

> It was explained that there was a perception that the game might not be marketable to younger girls if there was full checking. The organizers wanted to ensure coming out of the '90 Worlds that they could

> mitigate that going forward that it would not deter other countries from participating or deter other players from coming in (Scherer, personal communication, 22 January 2017).

During the second round the actor's performance was much more controlled resulting in less penalties and more controlled play against Team West Germany. The actors were content to score a number of goals to take a comfortable lead and then controlled the pace of the performance in an entertaining display of passing and maintaining puck possession. Then during an on-ice collision, a German player struck France St.-Louis of Team Canada in the throat with a high stick. St.-Louis was removed from the ice surface on a stretcher and taken to hospital. The spectators voiced their displeasure by booing Team Germany (TSN, 1990). Team Canada actors were upset and immediately increased the performance tempo scoring nine unanswered goals without taking a penalty (Scanlan, 1990c: E1). This creative play with fewer violations by the actors is an example of the routine of women's hockey being shaped.

In the third round of play Team Canada dominated Team Japan with nine goals in the first period (Davidson, 1990d: A17). This prompted a change in the performance of the routine that Team Canada actors were accustomed to performing. "[Head coach] McMaster asked his team to take five passes before making a shot on goal – a strategy foreign to players taught intensity, to drive to the net since childhood" (Davidson, 1990c: A18). "We're not trying to humiliate anyone – believe me," said coach Dave McMaster. "When we get way ahead, we try to concentrate on practicing our plays – but sometimes the puck just goes into the net no matter what you do" (Davidson, 1990c: A17). "Scherer [Team Canada] acknowledged that playing with the brakes on is difficult" (Davidson, 1990c: A18).

According to newspaper reports during the early stages of the tournament the behavior of the actors reflected an aggressive body-checking style of performance by the actors who played hockey previously utilizing the long-standing official artifact of body-checking. As the championship progressed and the actors grew accustomed to the intent of play the arbiters wanted, the routine of the performance changed to a less-aggressive style with fewer collisions and less penalties called by the arbiters

(Davidson, 1990b; Scanlan, 1990b). From an examination of the data it was revealed that of the 120 actors performing on the eight teams, there were 61 violations recorded by the arbiters in the first round, 56 violations in the second round, and 32 in the third round (IIHF, 1990e), with each round having the same number of performances. In terms of the actors on Team Canada, some did not register a penalty during their performances in the tournament, while three other actors were among the top 10 most penalized (IIHF, 1990e). As the tournament progressed, the emerging organizational routine of women's hockey was noticeable. Arbiter Maybury recounted,

> The removal of body-checking changed the style of play. It opened up the game, making it faster for the players that could really skate, and carry the puck. They had more time, and less fear, coming through the middle. It elevated the whole level of the game across the board (Maybury, personal communication, 10 March 2017).

By the end of the tournament media reports complemented the performance of women's hockey which had fewer interruptions in the flow of the game with the restriction on checking, compared to the men's routine of hockey with which they were familiar.

> The brand of hockey this team played made savvy hockey people reflect that they'd let the men's game slip away. Here was how the game was meant to be played: strong skating, crisp passes, clean body checks, slap shots low and on the net, few off-sides; no retaliatory stick work, no boarding, no fights, and no dumping the puck in from the blue line (Brooks, 1990: 44).

The publication *TIME Magazine International* included an article of the WWHC in their 9 April 1990 edition. The headline of the article proclaimed the acceptance of the routine of women's hockey. The headline read 'The Women of Winter: An Unprecedented Ice Hockey Tournament Makes Seers Believers' (Donnelly, 1990: 67). Similarly, the headline in the national Canadian magazine, *Maclean's*, read 'Equality on Ice: Women Hockey Players Win a World Profile' (D'Arcy, Doyle-Driedger and Garrioch, 1990: 58).

A New Artifact Forms

At the annual IIHF Congress in Bern, Switzerland in April 1990, the IIHF Council discussed whether to adopt the body-contact rule for female hockey. When members viewed the video recording of highlights of the tournament and were made aware of the small number of injuries, they were impressed with the final product and additionally impressed that the performance attracted 8,874 spectators. At the time, the performance was attributed to the absence of open ice collisions eliminated by the body-contact artifact. Support for the body-contact rule was expressed by Walter Bush who attended the 1990 WWHC as the IIHF director of the event, by IIHF vice-president Canadian Gord Renwick who also attended, and by IIHF member and president of the CAHA, Murray Costello (M. Costello, personal communication, 14 November 2016). Following deliberations, the IIHF Council voted to add body-contact for female hockey as an official IIHF artifact and it was added to the 1990 edition of the official IIHF rulebook as a subsection of Rule 606: Charging (M. Costello, personal communication, 14 November 2016). The addition to the IIHF rule book read as follows: "In women ice hockey a direct body-check shall be penalized by a minor penalty" (IIHF, 1990: 42). This brief statement confirmed the IIHF had officially adopted the body-contact artifact. Over the ensuing two years from 1990 to 1992 the IIHF instructed its members to incorporate the body-contact artifact for women's hockey.

Over the body-contact artifact to performances of women's hockey in their respective jurisdictions. This allowed female actors to explore, experience, test, and eventually integrate the intent of the new artifact into their performances. At the subsequent women's world championship in 1992, the IIHF officially announced to the public the tournament would be played utilizing the body-contact artifact (IIHF, 1992). The current IIHF rule book contains the following reference: "Rule 169 – Illegal Hit (Women) Definition". This title is followed by a page of text describing different circumstances of how the body-contact artifact applies in women's hockey (IIHF, 2017). A copy of the artifact and its application is included as Appendix A.

Discussion

The research question was how was the globally recognized routine of women's ice hockey still in vogue today, created during the 1st WWHC? To answer this question, it is necessary to zoom in (Nicolini, 2009), and untangle the interaction of artifacts, actors, and action. The discussion is divided into the following four components: contextual details, the influence of artifacts and arbiters, actors and action, and ostensive and performative adjustments

Contextual Details

An organizational routine consists of the abstract idea or structure of the routine, and the actual performance of the live routine by specific people (Feldman and Pentland, 2003). These two components are referred to in routines literature as an ostensive component and a performative component (Feldman and Pentland, 2003). Live routines are temporal structures enacted at a specific time and place (Feldman, 2000). The detailed process of change of the singular existing routine of hockey performed in accordance with official artifacts of the IIHF, had to be triggered or shocked to initiate such a radical change. It has been reported that routines generally emerge in response to a problem or problems that need to be addressed (Cohen et al., 1996). When investigating change in a routine the role of the social setting is important (Bapuji, Hora and Saeed, 2012). Contextual factors at the time of initiation of a change in a routine usually define the problem or problems that triggered the change. At the time of the 1st WWHC there existed exogenous pressure from a strong Feminist Movement challenging the CAHA, the lobby effort targeting the IOC and IIHF, and pressure from IOC president Samaranch directed at the IIHF to quickly decide if women's hockey warranted addition to the Olympic Games. Examples of endogenous pressure at the time included the CAHA legislation that eliminated the IIHF artifact of body-checking for female hockey in Canada, and the desire of IIHF members to appease Samaranch in return for possible financial contributions in the future. An initial interaction between people can play an important contextual role in the formation of the eventual routine (Dionysiou and Tsoukas, 2013). These pressures were also an example of how routines are entangled with contexts (Howard-Grenville et al., 2016). In the case of the longstanding routine of hockey, the CAHA concern for

injury in women's hockey is an example of a social condition that ultimately altered the embedded routine of hockey. A social condition is a mechanism that can initiate a process of radical change in routines (Pentland and Jung, 2016). Sabetzki's strategic solution to manipulate the perception of the media and the public to ease the endogenous and exogenous pressures on the organization is an example of "the role of tensions and contradictions in driving patterns of change" (Langley et al., 2013:1).

The Influence of Artifacts

Body-checking is the artifact that defined hockey for seventy years leading up to the 1990 WWHC. The knowledge that an artifact inscribes, can channel or influence the behaviour of actors (Howard-Grenville, 2005). Before the 1990 WWHC the IIHF expected women to play hockey by the one set of IIHF approved rules. Those rules had one physicality artifact, body-checking. Even so, women's hockey was played many places in North America and Europe, in accordance with a variety of less-violent physicality artifacts than body-checking, but none of these artifacts were recognized by the IIHF. As Sari Krooks of Finland noted prior to the 1990 WWHC, a considerable discrepancy existed between what North American and European referees considered as the appropriate level of physicality in the routine of women's hockey (Kalchman, 19 March 1990: D7). After the 1990 event, when the IIHF adopted body-contact as the physicality artifact for women's hockey, no longer did the one physicality artifact apply to all hockey. Body-checking defined men's hockey, and body-contact defined women's hockey.

D'Adderio (2003) reported that artifacts play a role in coordination of a routine performance by being an abstract representation of some aspect of that performance (199). The knowledge properties inscribed in artifacts both enable and constrain performances as a routine is created (Howard-Grenville, 2005). The reduction in penalties in each successive round of performances indicated the actors were interpreting more closely the intent of what the arbiters expected in terms of physical contact with opponents as the tournament progressed. "The rule is, at any given time, what the practice has made it" (Taylor, 1993: 57-58). The actors were performing the routine of women's hockey. The arbiters were performing the routine of officiating the routine of women's hockey. Between the feedback the actors

received from the arbiters, and the repeat practice of checking by the actors, the two parties were jointly involved in the formation of the organizational routine of women's hockey. This is an example that routines are not performed in isolation and should not be studied in isolation (Pentland, Feldman, Becker, and Liu, 2012). This interaction, referred to as entanglement of actors and artifacts (Orlikowski, 2007), supports the necessity of the study of routines without having to privilege one component over the other in the examination of action (D'Adderio, 2014; Orlikowski, 2007; and Pentland et al., 2012).

From their initial experience throughout the first round of performances, each arbiter had to decide what is a level of acceptable physical contact. This decision would be based in part on their previous experience (officiating), their current experience (opening round of performances), and their understanding of future expectations (of the creation of an IIHF official body-contact artifact). "While organizational routines are commonly portrayed as promoting cognitive efficiency, they also entail self-reflective and other-reflective behavior' (Feldman and Pentland, 2003: 95). To add to the confusion, this interpretive exercise of self-reflective and other-reflective behavior "may not be the same from person to person…" (Pentland and Feldman, 2005: 797). However, in the role of quality control officials, it was important the arbiters, together, developed a common interpretation of the boundary of acceptable physical contact. It was important this exercise occurred as quickly as possible, since the first round of performances in the tournament had already commenced. The actors needed guidance in terms of the physicality component of their performance.

We know that artifacts "must be interpreted and translated into practice (routine) before they have any practical effect" (Pentland and Haerem, 2015: 469). The quotes of St-Louis, James, McGuire, and Cameron of Team Canada, confirms the difficulty some of the actors had in the interpretation and translation of the intent of body-contact into performance early in the tournament. Numerous scholars have reported that even with a coherent explanation of an artifact, an actor's resulting performance may still be unpredictable or novel (Deken, Carlile, Berends and Lauche, 2016; Dittrich, Guerard, and Seidl, 2016; Feldman, 2000; Kremser and

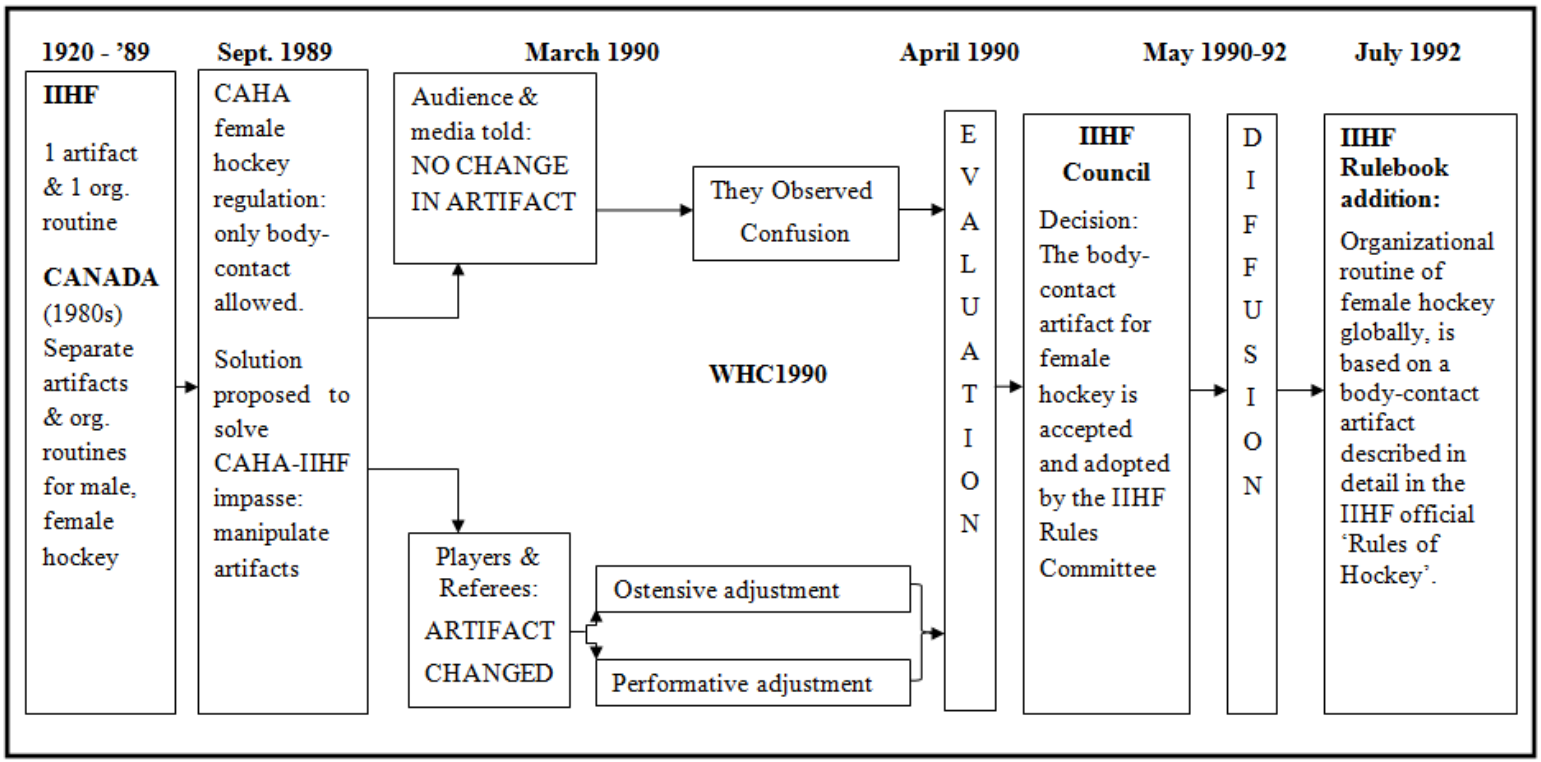
Schreyogg, 2016). The interpretation of the artifact by the arbiters and actors performing the routine is an interaction described as a process enabled by intermediaries (Bapuji et al, 2012).

Bapuji et al., (2012) used a towel-exchanging routine in a hotel to describe messaging or intent of meaning of an artifact to an actor as an intermediary. They concluded that if the intention was not clearly transmitted, the result was a weak routine. Conversely, if the intention or intermediary was clearly transmitted, then a strong routine emerged (Bapuji et al., 2012). Since the artifact of body-contact at the time of the WWHC was being created the same time as the routine of women's hockey, the transmission of intentions was transitioning from weak to strong with repeat performances of the routine of women's hockey. The number of penalties recorded in the three preliminary rounds of the tournament reflect this transition as the players in the tournament were penalized 61 times in the opening round, 56 times in the second round, and only 32 times in the third round (IIHF, 1990e).

Actors and Action

In producing the work of a routine, actors and artifacts are not analytically separate but are entangled with each other (Orlikowski, 2007). Had the artifact body-contact been in existence for some time, it would have been defined and would have provided a degree of standardization within the performance of the routine of women's hockey. However, this was not the case. Multiple actors and arbiters had to be involved in the performance of the customized routine, multiple times, to arrive at a consistent, readily recognizable body-contact artifact and concomitant routine of women's hockey based on that artifact. The examination of the 1990 WWHC afforded the opportunity to study the formation and emergence of both the artifact and the routine of women's hockey, with the involvement of actors. Figure 1 is a macro-level view of the formation process of the emergent routine of female hockey.

Figure 2. The Design Performance Process that Created the Routine of Women's



Despite variability in the performance of the actors during the formation stage of the routine, the routine continued to be recognizable. I call this channeling, a term describing the numerous ways to perform an organizational routine. For example, in the absence of a written description of the body-contact regulation, not all actors agreed on how to perform the routine in accordance with the intent of the regulation. Ginzel, of Team Canada, used a description of a similar artifact from a different organizational routine (basketball) as an analogy to better understand the intent of body-contact in hockey. Teammate Angela James expressed frustration at being hand-cuffed by the intent of the regulation, so this allowed her performance to momentarily drift as she intentionally checked an opponent out of frustration. Shirley Cameron continued to test the acceptable boundary of the intent of the regulation by purposely body-checking opponents, thankful she was not penalized. These distinct variations in performance involved the actors' memory of former experience, their cognitive interpretation and understanding of the intent of the regulation, and their current experience performing in the presence of the current arbiters, and audience. This is an example of performing a routine-in-theory toward a future routine-in-practice (D'Adderio, 2011: 205).

It is argued that artifacts can be an important resource for actors (Giddens, 1984), but they do not determine performances (Giddens, 1984). However, they can guide performance in creating a new routine or in achieving stability or change in a routine. The term 'guide', like channeling, is appropriate since there are many paths actors can pursue attempting to attain the goal of the routine. At the centre of such a discussion is the decision-making, and performance-channeling, of the actors performing the routine outlined in Table 1. In terms of decision-making, each time an actor is situated within contextual details and is required to act, there is an effect on the actor and on the organization. The actor obtains new information. Following an understanding or cognitive awareness of this new information, in the final decision the actor decides to act or not, and to do so incorporating the new information in that decision.

Table 1. Decision-Making and Performance-Channeling in an Organizational Routine.

CONTEXTUAL SITUATION	EFFECT ON ACTOR	EFFECT ON ORGANIZATION
Actor informed of the new artifact **CONSEQUENCE**	Cognitive awareness Ostensive understanding	Prescribing new routine based on new artifact Management prescribing
Actor's performance following the intent of the artifact (rule-making) **CONSEQUENCE**	Acceptable performative behavior Performing in accordance with intent of the artifact	Start of a new routine Management hopeful a new routine is emerging
Actor's performance stretching the intent of the artifact (rule-bending) **CONSEQUENCE**	Tolerable performative behavior Performing on the boundary of the intent of the artifact	Routine development continues Management watchful of possible routine drift
Actor's performance violating the artifact (rule-breaking) **CONSEQUENCE**	Unacceptable performative behavior Penalized: ostensive reset performative adjustment	Management designates referees to penalize behavior Management attempts to correct routine drift
Competition gives rise to actions & reactions **CONSEQUENCE**	Repeat rule-making, bending and breaking performance Adapting: performing new routine based on the new artifact	Routine oscillates between org. drift & path dependence Performance channeled, new routine emerges

At the start of the 1990 world championship, the actors were only given a cursory, verbal description of the intent of allowable physicality during the performances. The actors had to contend with trying to understand the intent of the physicality artifact that was unfolding, while at the same time trying to integrate the practice into the performance of the routine of women's hockey. In terms of

theorizing how routines function, the examination of the text of the interviews with the actors provided some understanding. The analysis revealed that some actors on Team Canada were able to 'figure out', or think through, what level of physicality would be allowed by the arbiters and did so more quickly than some of their teammates. At the same time, each actor had to comprehend how to perform the routine of women's hockey with increasing consistency, while still allowing for some flexibility while the arbiters figured out the boundaries of allowable physicality during the routine.

It was important that Team Canada actors understood the two issues of artifact and routine, to avoid being penalized, and to predict the level of physicality to expect from their opponents performing the routine of women's hockey. The establishment and maintenance of the two ostensive patterns, striving for consistency while allowing for flexibility, was a similar result reported by Turner and Rindova (2012) of garbage collectors who tried to routinize waste collection while at the same time allowing flexibility in the routine to accommodate customers wishes. From the analysis of the dialogue recorded in actor interviews, it was apparent the Team Canada actors were similarly maintaining two ostensive patterns. One pattern was to comprehend performing the routine of women's hockey with a degree of consistency along with the connection of teammates. At the same time, actors had to maintain an ostensive pattern of flexibility leveraging the physicality artifact as the arbiters developed the boundaries of acceptable and unacceptable physicality during the performance of the routine. The process of actors figuring out what is the intent of the physicality artifact, and how to incorporate that meaning in performance, leads to a discussion of the ostensive and performative aspects of routine formation.

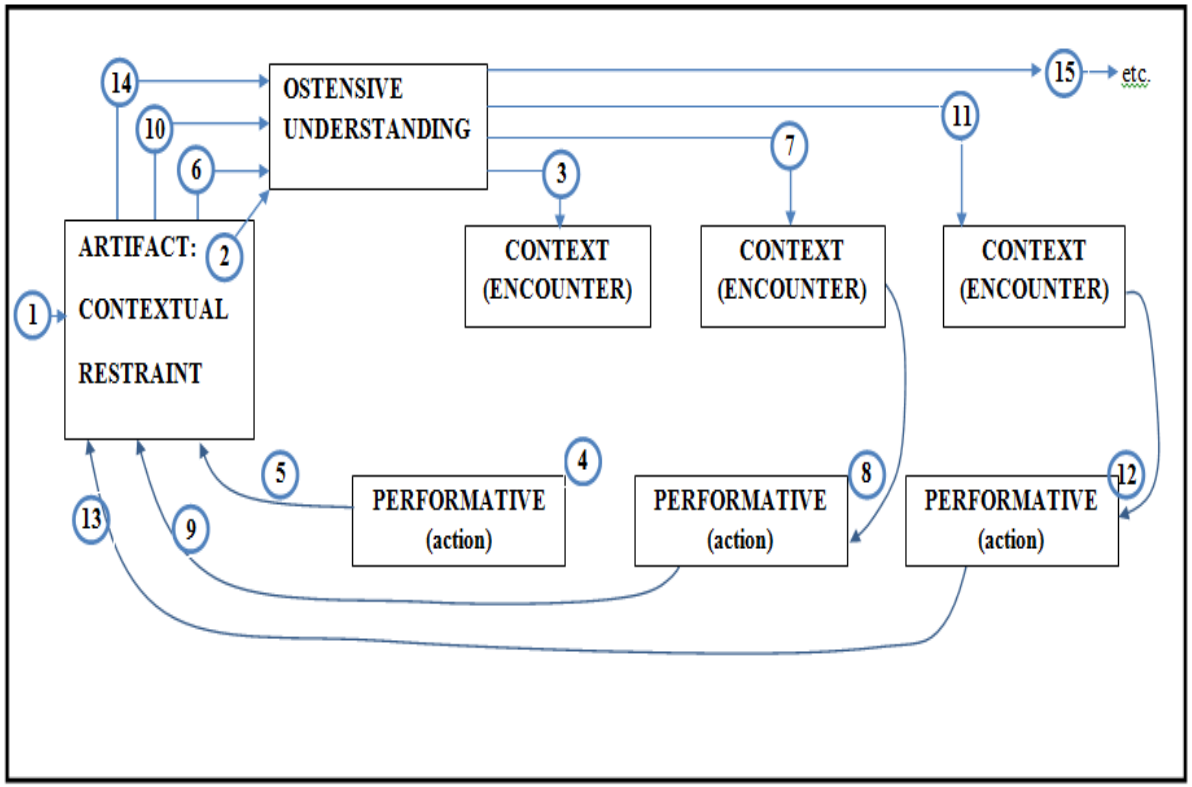
Ostensive and Performative Adjustment

It has been argued that contextual changes during the performance of a routine can encourage or discourage certain behaviors (Bapuji et al., 2012; Spee, Jarzabkowski and Smets, 2016). From both a practical and theoretical perspective, the performance aspect of an organizational routine is an example of what Pentland and Haerem (2015) argue is improvisational, and constantly changing due to contextual changes that arise during the performance. As the world championship event

progressed the actors, performing at high speed, were repeatedly faced with contextual issues during their performance that forced them to make split-second decisions. This meant actors had to observe the situation, decide what action to take that was in accordance with the artifacts of the routine, and then act or react accordingly. If an opponent in the routine countered with movement, the actor had to again interpret how to act or react, immediately. On occasion, this meant taking action that was at times within the prescribed boundaries of the intent of the artifacts of the routine, was pushing the boundary of the intent of the artifacts or was in a violation of the intent resulting in penalization from the arbiter of the performance.

This cycle of observation, translation, action (or reaction), and movement, describes a deeper understanding of the repetitive cycle of ostensive and performative aspects of actors performing a live routine (Pentland and Feldman, 2005). This transfer of knowledge is a form of road-mapping (Howard-Grenville, 2016) or replication (Winter and Szulanski, 2001). This cycle is graphically depicted in Figure 2. In the routine of hockey this cycle of actor's comprehension and reaction to contextual details occur and reoccur over, and over again, throughout the execution of the routine. Observing routines as generative systems that have dynamics, reflects the argument by Rerup and Feldman (2011) that action in routines may represent a trial in a trial-and-error process channeling behavior in the development of a new routine. Through repetition of the routine, actors cognitively comprehend how far they can stretch the boundary of their performance in accordance with the assigned artifacts without penalty. This empirical finding is comparable to the theoretical result reported by Geiger and Schroder (2014) "the performance of organizational routines operates between behavioral expectations, its interpretation, and organizational responses to observable performances" (179). Figure 2 also represents the recursive duality of the ostensive and performative aspects of a biological or live routine (Pentland and Feldman, 2005a). In addition, it offers a deeper understanding of why the original purpose of an artifact "is often quite removed from its original design or intention" (Pentland and Feldman (2005a: 797). Figure 2 provides an account of how contextual factors link the performance of routines to abstract understandings of these

Figure 3. Recursive Duality of the Ostensive and Performative Aspects of an Actor's Performance of a Dynamic Live Routine



factors and how they contribute to both the flexibility and change of routines over time (Howard-Grenville, 2016). The recursive relationship of the ostensive and performative aspects of performing a routine is essential for the ongoing accomplishment of the routine (Dionysiou and Tsoukas, 2013; Feldman and Pentland, 2003; Feldman and Rafaeli, 2002). However, without a firm understanding of the practice of body-contact, both actors and arbiters were involved in a collective learning process (Edmonston et al., 2001) in performing a set of practices that can be called a routine. With each shift on the ice performing this set of practices, the actors and the arbiters, were creating the new routine of women's hockey based on a rapidly developing artifact of body-contact.

In terms of trying to comprehend the level of allowable physical contact during performances, there are many suppositions intended to explain how these actors 'figure it out'. It is a complex issue, more complex than the simple explanation of think-and-act. Additional factors to be considered, that are beyond the scope of the present study, include endogenous factors such as emotion, motivation, demands of the coaches, and actor's personal objectives versus team objectives. Hockey performance is an example of a live routine performed by actors at high speed. The aspect of successfully performing the routine at high speed requires actors to make split-second, cognitive decisions and act, or react, to innovate their performance. "Creativity is a natural part and consequence of enacting routines" (Sonenshein, 2016: 741). Emotion is a factor present in a live routine, especially one involving multiple actors engaged in action. Any number of contextual issues can lead to emotional reactions by actors that can affect both the cognitive and performative aspects of a routine. This was apparent in the performance of Team Canada's top goal scorer, Angela James, who expressed the irritation of trying to perform to the best of her ability while 'handcuffed' by the arbiters attempts to decide an appropriate amount of physical contact during the performance of the routine. At one point, out of frustration, she reacted and 'hit someone because it was hockey'. This divergence in routine could have been to test the level of acceptable contact arbiters would allow. March (1991) referred to such deviation by an actor as generally exploring for the purposes of learning.

Since the routine of hockey is a live, dynamic, organizational routine, different actors interpreted the ostensive aspect of the expected performance differently. “Indeed, multiple and divergent understandings are probably more the norm than the exception” (Pentland and Feldman (2005a: 797). This interpretation or mental calculation is then used “to guide, account for, and refer to specific performances of the routine” (Pentland and Feldman, 2005a: 796). The ostensive aspect may be described as a narrative of a routine that has a goal or objective with endless variations on the appropriate way to achieve that end with performance adjustments throughout the performance. However, the members of the IIHF do not want deviant behavior by actors on the ice to slow down or excessively disrupt the entertainment component of the existing routine of hockey. Hockey performance is currently described as a routine that is fast-paced, unpredictable, variably officiated, and offers opportunity for creative performances by highly-skilled actors. It is also highly entertaining, attracting an audience willing to pay a significant dollar amount to watch the actors perform the routine. To discourage deviant behavior, the IIHF hires, and assigns, arbiters to observe and ‘police’ or officiate the performance and to penalize *excessive* violations of artifacts that occur. This regulation-by-rules is an example of the rule-based model of Geiger and Shroder (2014).

Geiger and Shroder (2014) argue that what drives the dynamics of routines is the subtle relation between *rule-making* and *rule-breaking* (p.172). In the performance of the routine of hockey at the WWHC, Team Canada actors Yuen, Wilson, Ginzel, Ratushny, Cameron, and Verlaan performed in all five tournament games and did not register a penalty (*rule-making*) (IIHF, 1990c.) Team Canada actors Hutchison, Montour and James enacted the same routine but registered numerous penalties, including the violation by James who intentionally collided with an opponent “just because it is hockey” (*rule-breaking*) (James, personal communication, 14 November 2016). However, results from the analysis of the creation and emergence of the routine of women’s hockey, provides an addition to the expanded rule/artifact-based model. Shirley Cameron’s experience performing the routine resulted in moments when she body-checked someone and admitted, “I was lucky I didn’t get a penalty” (Cameron, personal communication, 17 January 2016).

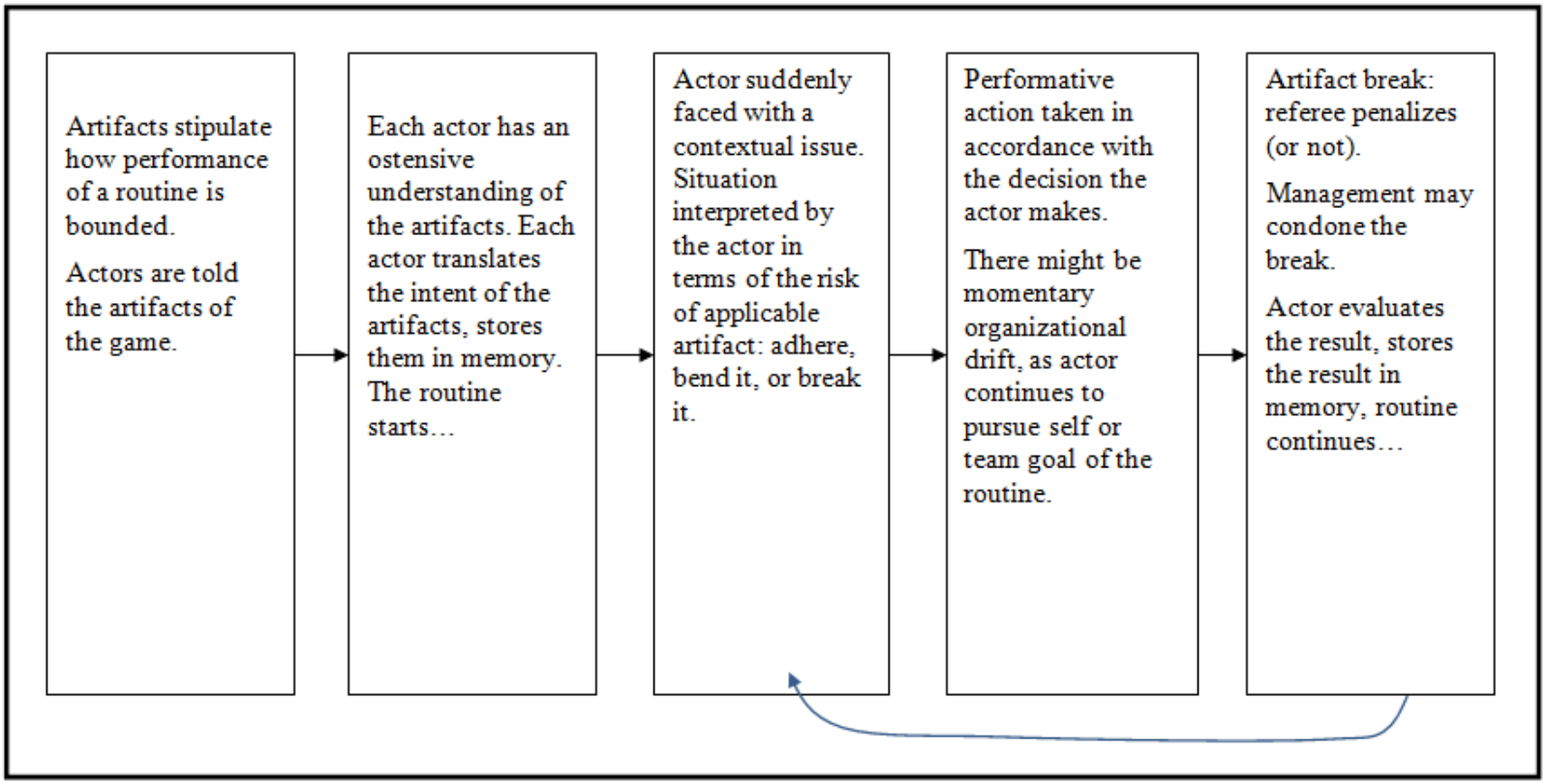
This example introduces the term *rule-bending* to the existing rule-based model of Geiger and Shroder (2014). Rule-bending describes actors whose ostensive interpretation and resulting performative adjustment creatively stretches the intent of an artifact to the point of violation but not beyond. This action exhibits a performance that lies between rule-making and rule-breaking, hereby defined as rule-bending. The referee, who is the arbiter of whether an action is a violation or not, may recognize the behavior of the actor as a violation. However, the arbiter may decide the behavior did not result in sufficient harm, so the arbiter does not assign a penalty to the actor for the violation.

Another circumstance that touches on the Geiger and Shroder (2014) rule-based model is the concept of *acceptable rule-breaking*. The organizational routine of hockey involves two teams each trying to score more goals than their opponents during the sixty minutes of play that defines the beginning and the end of the performance. Actors on occasion violate artifacts accidentally and may be penalized. Sometimes actors violate artifacts intentionally. An intentional violation may occur to prevent an opponent from scoring, or to rouse a passive crowd by instigating a fight with an opponent. Team management oftentimes will condone the rule-breaking performance if it prevented a goal from being scored, or if it enticed the home audience to react in support of the home team. When management condones these otherwise deviant behaviors, it allows actors a unique margin of error in performing the routine. This in turn allows for a variety of ways to perform the routine. Hence the term *channeled* instead of *prescribed* is used to describe the different methods of performing the routine.

The term ‘channeling’ also projects the oscillating nature of performance of actors who repeatedly follow, bend, or break the established artifacts of a routine. Figure 3 is a graphic depiction of how the rule-based model of Geiger and Shroder (2014) is applied in performance of a live routine. This depiction suggests the definition of artifacts be expanded: ‘directives that operate within a particular realm of knowledge dictating what action is preferred or allowed’. Including the words ‘what action is allowed’ incorporates those performances when an actor intentionally violates the intent of an artifact for endogenous or exogenous reasons and is

subsequently penalized by an arbiter or quality control official, but the infraction is condoned by management as the 'violation' benefits the organization at the time. This expansion of the Geiger and Schroder (2014) model, in terms of routine dynamics, is an example that routines are practices with internal dynamics that contribute to both stability and change in organizations (Feldman and Pentland, 2003; Feldman, Pentland, D'Adderio, and Lazaric, 2016). As the actors of Team Canada faced different teams and different contexts, the actors adjusted performance accordingly. For example, the actors accelerated the tempo of performance against Team Germany following the injury to France St.-Louis. The actors held back the tempo of performance against Team Japan, altering the routine to include five passes in the offensive zone before being allowed to shoot on net (Davidson, 1990b: A18). This ability to adjust is an example of what Feldman (2000) terms effortful accomplishment or the ability of actors to alter different actions to produce the same or similar behaviors or outcomes. Overriding the necessity to defeat opponents was an understanding among the Team Canada actors that if they defeated opponents by too large a margin, the event may no longer be entertaining to the audience. "They could turn off spectators who prefer a closer, more competitive game" (Davidson, 1990b: A17). So, Team Canada varied its performance regime depending on the opposition. With this experience, the actors had the ability to perform within the boundary of acceptable performance behavior and still perform in an entertaining fashion for the audience. This is an example of flexing, stretching or inventing routine work as described by Deken et al., (2016) in their ethnographic study of an automotive company (659). It is affirmation of the argument expressed by D'Adderio (2011) "moving beyond the extant view of artifacts as passively 'guiding' and 'constraining', to viewing them as entities that can actively shape the course of routines" (222). D'Adderio (2011: 219) revealed that with repetitive performance, it was possible to perform in accordance with the intent of an artifact that was being shaped at the same time, in the same series of performances. This theoretical position is supported by this current empirical study.

Figure 4. Depiction of the Rule-Based Model of an Organizational Routine (Geiger and Schroder, 2014).



Legitimacy of the Routine of Women's Hockey

Following the conclusion of the tournament in March 1990, the IIHF held their spring Council meeting in April. The members of the IIHF Council discussed the success of the inaugural women's championship. At that meeting the membership discussed the practice of body-contact as part of the routine of women's hockey. A decision was made at the time to add body-contact as the official IIHF physicality artifact for women's hockey. This artifact, which effectively distinguished the female routine of hockey, separate and distinct from the routine of women's hockey, was added to the 1990 IIHF Official Rules of Hockey (IIHF, 1990) legislated at that meeting. This decision was circulated to all IIHF member organizations and in turn to the actors performing the routine of women's hockey in their respective jurisdictions. Over the ensuing two-year period from May 1990 to May 1992, the application of this newly-established physicality artifact diffused through the IIHF membership. The adoption of this artifact established and maintained path-dependence of the recognized organizational routine of women's hockey identifiably different from men's hockey. In July 1992 the IIHF announced future IIHF sanctioned women's hockey events would be played in accordance with the body-contact artifact. A detailed description of the artifact is attached as Appendix A.

Conclusion

Scholars continue to theorize how routines function. In this study involving artifacts, actors, and action, I have outlined the process of the creation and emergence of the routine of women's hockey. This current research builds on the logic expressed by Turner and Fern (2012) "that routines develop through the process of performing them" (1430). In this case study, members of Team Canada performed and gained experience and repetition as the routine of women's hockey developed into a recognizable form. This research unveiled the definable difference, after gender-type, between men's and women's hockey: the physicality artifacts of body-checking and body-contact. The results of the data examination revealed the recursive relationship between the theoretical concepts of ostensive and performative adjustments of actors performing a live organizational routine (Feldman and Pentland, 2003; Pentland and Feldman, 2005). Additionally, the results of the current

hockey study point to the importance of examining all components of routine formation, including the entanglement of artifacts, actors, and action.

Prior to the start of the 1990 WWHC the IIHF recognized one firmly embedded official physicality artifact: body-checking. Through strategic design performances that included manipulation of the physicality artifact of the routine of hockey, the organizational routine of women's hockey was created at the 1990 WWHC. This unique routine of hockey for women, officially recognized by the IIHF continues to this day. This is an example of how design performances influence routine dynamics when the design performance is tightly bound to the ongoing performance of routines and is performed completely within an organization. D'Adderio (2011) reported that the initial discussion in the routines literature of the exact nature and role of formal artifacts, and how they shaped the course of actual routines, failed to make significant progress towards assessing their reciprocal influence (203). This present study, where the routine and the artifact on which the routine is based are both being shaped at the same time, illustrates the reciprocal influence between the two. This study also serves as a reminder of the importance of the recursive relationship of the ostensive and performative aspects of live routines (Pentland and Feldman, 2003). Examples are provided of decision making and performance channeling of actors (Figure 2). This study helps us to understand that ostensive adjustments and performative adjustments are very much dependent on each other in a live routine and both can be constantly changing at the same time during the performance. In addition, actors can stretch the boundaries of performance as they generate new ways of performing within the intent of performance artifacts, which I refer to as performance channeling. Since the actors performing the routine can alter the ostensive understanding of the artifacts, administrators of the parent organization must continue to add, subtract or modify the intent of the existing artifacts of the routine. Essentially, by creating these new ostensive understandings, the actors are contributing to the variation and selection of artifacts that control their actions in performing the organizational routine. This means actors represent a source of continuous endogenous change in a routine and underscores the importance of actors in the performance of live organizational routines.

In this study I describe how each actor performing the routine of hockey make a situational assessment interpreting the understanding of the intent of the artifact, and then decided how that would affect their individual performance before commencing action. The responses of the Team Canada players performing in the first round of the tournament reveal the ostensive aspect varied. Consequently, because the ostensive aspect varies, the performative aspect will also vary. This demonstrates the recursive duality of ostensive and performative adjustments and their dependence on each other in a live organizational routine. This supports the findings of Feldman (2000) who suggested the same conclusion when studying the annual housing routines in a student housing department. She found that participants made emergent changes in the hiring, training, assigning of students into residences. These changes were considered improvements in the housing routines and were incorporated over time (Feldman, 2000).

The results of this study of the creation of the routine of women's elite hockey suggests there are many performance variabilities that can occur with little resulting change in the routine. The intent of the routine is to generate stability and relative path-dependence, which is why the IIHF director of officiating assigns arbiters to officiate performances at IIHF sanctioned events. The flexibility divergence may well result in some organizational drift in the performance, but it is the responsibility of the arbiters, as quality control officers of the IIHF, to channel or align the performative component of the routine of women's hockey during each performance. When an actor is being held accountable by an arbiter, this is intended to cause the actor to rethink the ostensive aspect of performance and make an adjustment accordingly. This hockey study is an example of a complex, organizational routine. Consequently, when researching routine dynamics, it is important not to isolate single components; instead examination should include all entangled components such as: context, actor, artifact, action and audience influence.

The IIHF president's demand to switch artifacts for the first WWHC is an example of Glaser's (2017) findings that "efforts to intentionally change a routine often involve organizational actors in the present, attempting to influence organizational actions in the future, by creating artifacts to shape the ongoing

performance of a routine" (Glaser, 2017: 5). This study describes how a change in a longstanding artifact in an organizational routine can result in the creation and/or emergence of a different organizational routine. The development of the new, live organizational routine that emerged during the WWHC tournament, is a reminder that in routine dynamics the development of live routines is not always linear. The development can change for any number of reasons reminding researchers of the entanglement of artifacts, actors, and action and the importance of studying the three components individually, and interactively, in terms of routine dynamics.

This research study also contributes to the discussion of the drivers of organizational change, particularly change enacted by an entrepreneurial member within a mature organization. The action by the president of the CAHA to demand the practice of body-checking be disallowed at the 1990 WWHC, replaced by a loosely-defined practice of body-contact, is an example of how a senior member of management, or an entrepreneur, attempting to make an organizational change, can create and employ an artifact to articulate intentions to fellow members who may be in opposition to such change (Pentland and Haerem, 2015). The explanation of the process of change in the organizational routine in this study contributes to the field of research addressing how incumbent or mature firms with established organizational routines do or do not cope with a radical shift (Pentland and Jung, 2016).

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CHAPTER 5

Summary of Research Findings and Directions for Future Research

Summary of Research Findings

The purpose of this dissertation was to examine the emergence of the routine of women's elite hockey from three distinct but related perspectives. The data analysis through a historical lens utilized in the research study in Chapter 2, provided a behind-the-scenes perspective of political negotiations and promises, between two of the most powerful power brokers in sport: the president of the IOC, and the president of the IIHF. The result of their negotiations contributed to the accelerated staging of the 1st WWHC as an Olympic test event, and the inclusion of a women's ice hockey in the winter Olympic Games. Pentland and Haerem (2015) argued that artifacts can be used by senior management to articulate intentions to fellow federation members of potentially controversial organizational change. In this case, CAHA president Costello employed this tactic.

The study reported in Chapter 3, utilizing an ideographic analysis and explanation of visual ideographs, helped to explain the reaction to the decision to have Team Canada players wear pink and white jerseys in the 1st WWHC. The data analysis revealed various ideological interpretations of the color pink among the players, members of the media, and the public in accordance with their personal beliefs, values, and convictions, at the time. Ideologies are mythical social constructs and they fall in and out of favour with society with the passage of time (McGee, 1980). For instance, recently a first division men's soccer team in France adopted pink-colored uniforms without controversy. The NFL players wear pink-colored components of their official team uniforms to support breast cancer. Different ideographic perspectives will evolve about aspects of ideologies represented in visual symbols, single words, or word clusters, depending mainly on the culture, values, beliefs, and assumptions of members of society,

The research study reported in Chapter 4 employed routine dynamics to examine the creation and emergence of the complex organizational routine of women's hockey. This case study examined the formation of a routine based on a description of the intent of a physicality artifact that did not exist but was being created in the same event, in the same location, at the same time. Artifacts are central components of routine formation (D'Adderio, 2008). The results of this study

provided information that addressed an issue reported by D'Adderio (2011) that study of routines based on artifacts, had failed to make significant progress towards assessing their reciprocal influence (203).

The components of a routine such as artifacts, actors and action were individually examined in this research study of routines. The data encompassing these three components of a routine changed over the course of the championship event. An examination of the data revealed the entanglement of the three components resulting in a recommendation that all three be analyzed in studies of routine dynamics. Similarly, it revealed the reciprocal relationship of the ostensive and performative aspects of the players/actors performing the routine. This finding contributes to the debate by researchers whether the process of performing routines is more heavily weighted toward ostensive or performative adjustment (Feldman and Pentland, 2003) that both are weighted heavily. Following from this study, I would recommend both the ostensive and performative aspects of organizational routines require examination in research of routine dynamics, not one at the expense of the other.

During interviews, the players discussed they ad to make continuous adjustments in their performance of the routine of women's hockey throughout the tournament. The team accelerated the tempo of the performance against Team Germany following the injury to France St.-Louis, and decelerated performance with stall tactics, against the weaker, Team Japan. Hence, actors stretched the boundaries of performance as they generated new ways of performing the routine against different opponents, and in accordance with the intent of a physicality artifact that was still taking shape. I referred to this action as performance channeling due to the multiple methods of performance that can occur while maintaining recognition of the routine.

The Team Canada actors performing the routine of women's hockey had to maintain two ostensive patterns during the tournament, one of consistency of performance, and one of flexi*bility in performance. This meant the actors represented both consistency and change in performing the routine over the course of the event (Aroles and McLean, 2016; Feldman, 2000; Turner and Fern, 2012).

During the interviews with the Team Canada actors it was revealed that during the 1990 WWHC, some actors did not violate the arbiter's interpretation of allowable physical contact, while others did, and still others violated the intent but were happy they did not get caught by the arbiters officiating the performance. This result recommended an expansion of the theoretical rule-based model of Geiger and Schroder (2014) with a rule-bending category to define action between rule-making and rule-breaking. Actors perform the routine and physicality violations do occur. It was revealed that actors who violate the artifacts are not always penalized. Some infractions are not considered by the arbiters to be severe enough to warrant a penalty. Irrespective of penalization by arbiters, at times rule-breaking by an actor is not automatically punishable by members of management. Sometimes breaches of artifacts by an actor in an organization are acceptable to management, such as breaching an artifact to save another employee from injury, for example. In the routine of hockey, violating a rule to stop an opponent from scoring can go unpunished by management. Such situations suggest an expansion of the definition of artifact as 'directives that operate within a particular realm of knowledge dictating what action is preferred *or allowed'*. This addition to the definition helps to explain those actions by actors in an organization that violate company policy, but go unpunished by management, under certain circumstances or situations.

Direction for Future Research

Future research could examine some important issues today that have aspects of ideologies that were not contentious in the past, have changed, and are contentious today. In the field of sociology such issues as Afro-Centrism, white nationalism, and issues related to political-correctness, and to transgender, are important issues that could be examined in a sports context. Similarly, ideographic analysis could be used to examine and help understand how aspects of ideologies that were considered contentious in the past, may today be less contentious.

The research conclusions from the examination of routine formation in Chapter 4, continued the focus on understanding the entanglement of artifacts, actors and action in routine formation (D'Adderio, 2008, Feldman et al., 2016, Glaser, 2017, Pentland and Jung, 2016). Two additional components emerged from the data that

suggest future direction for research. One component was audience. Future research could examine the aspect of audience effect in the formation and execution of organizational routines. The second component was the role of entrepreneurs who orchestrate organizational change but who are not presidents, or part of the management team of the organization. The topic of entrepreneurs and the influence of power, including "relations of power" (Dionysiou and Tsoukas, 2013: 194) of actors performing the routine, are additional topics for future research.

Limitations

Comparable to most studies of live routines, this research was limited to a small sample, one team of twenty-one actors. Also, the actors were creating a routine contingent on an artifact that did not exist at the time, rather it was being formed simultaneously. While this circumstance magnified the recursive nature of the ostensive and performative adjustments in routine formation, any conclusions drawn must be qualified by the limitation of the sample size and the unique context in which the routine was formed. No doubt there are additional factors affecting change in organizational routines other than artifacts, actors, action and the suggestion offered here of audience. It is expected that with additional research of routine formation, other components will emerge.

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Appendices

Appendix A

RULE 169 – ILLEGAL HIT (WOMEN) DEFINITION – In women's hockey, a player is not allowed to deliver a body-check to an opponent. i. An illegal hit in women's hockey refers to body-checking an opponent. ii. A player who body-checks an opponent will be assessed one of: (1) a minor penalty; (2) a major penalty and automatic game-misconduct penalty; (3) a match penalty. iii. A player who injures or recklessly endangers an opponent by body-checking will be assessed either a major penalty and automatic game-misconduct penalty or a match penalty. iv. If two players are in pursuit of the puck, they are reasonably allowed to push and lean into each other provided that possession of the puck remains the sole object of the two players. v. If two or more players are fighting for possession of the puck, they are not allowed to use the boards to make contact with an opponent to eliminate her from the play, push her into the boards, or pin her along the boards. All of these actions indicate an absence of interest in gaining possession of the puck. vi. A player who is stationary is entitled to that area of the ice. It is up to the opponent to avoid body contact with such a player. If that player is stationed between the opponent and the puck, the opponent is obliged to skate around the stationary player. vii. If a player with the puck is skating directly at an opponent who is stationary, it is the obligation of the puck carrier to avoid contact. But, if the puck carrier makes every effort to avoid contact and the opponent moves into the puck carrier, that opponent will be assessed a minor penalty for body-checking. (IIHF, 2015) *IIHF Official Rule Book, 2nd Edition).*

Appendix B

Information Letter and Consent Form

Title of Study: The First Women's World Ice Hockey Championship and the Emergence of the Routine of Women's Elite Hockey

Background

You are invited to participate in an academic research project. You are invited to take part in this research project because of your involvement with the first International Ice Hockey Federation (IIHF) sanctioned Women's World Ice Hockey Championship (WWHC) held in Ottawa in 1990. As you may remember I was the Director of Operations of Team Canada at the tournament. I was also designated as the event general manager a few months before the event commenced.

I am interested in interviewing you and a number of other players, hockey administrators, and members of the media about their recall of various aspects of the event. The results of this study will be used in support of my PhD thesis.

Purpose

The purpose of the study is to examine the WWHC in 1990 as a "field-configuring event" in the legitimation process of women's hockey as an elite sport. There are few studies that examine specific events that alter "fields" – in this case the field is elite hockey and the study will provide evidence of the role of the week-long championship played, in advancing women's elite hockey.

Study Procedures

I would like to meet with you at a time convenient to you to conduct an interview that should last no longer than 90 minutes. If meeting in person is not possible, then the request is to conduct a telephone interview. Although I do not think any of the questions are of a risk to you, you do not have to answer any question you do not wish to answer. In addition, you will have up to a month following the interview to ask to be removed from the study if you should change your mind for any reason. If you do ask to be removed from the study the notes of your interview will be removed from the study, shredded and disposed. Again, I do not think any of the questions will put you at risk, but you are guaranteed this safeguard in case you are uncomfortable in being included in the study for any reason.

Benefits

You were involved in the 1990 WWHC which was historical significance as the Olympic test event for the winter Olympics. However, very little has been written about the event other than the few media articles that were reported at the time. This research will generate a number of academic papers that will chronicle this event. This information will be useful to anyone wishing to know more about the development of women's elite hockey and the corporate history of it with Hockey Canada.

Voluntary Participation

I foresee collecting some interesting historical data that can be not only used in my thesis but also used in a conference presentation and in teaching. I also have permission from the Canadian Amateur Hockey Association (CAHA) former president Murray Costello, to use the CAHA files of the 1990 event. You are under no obligation to participate in this study. Participation is completely voluntary. In terms of your interview responses I will guarantee you anonymity of any or all of your answers if you so desire. This is a condition of the University of Alberta Ethics Board and a standard we maintain in all research studies.

Confidentiality and Anonymity

All data will be kept in a secured, locked filing cabinet located in my office 3-156 in the Van Vliet Centre, University of Alberta. The only other person besides me who will have access to the data is my adviser Dr. Dan Mason. If for any reason you decide after your interview that you wanted to drop out of the research project, you have a month after your interview to make such a decision and to contact me. If you opt out my interview notes will be shredded and destroyed and any electronic recordings will be erased.

The interview questions are not considered to be of high risk or to cause you any emotional discomfort. It is more a conversation of your recollection of the event and the effect it had, if any, on the development of women's elite hockey.

In accordance with Ethics Board requirements, interview data will be retained for five years before being shredded and destroyed, ensuring privacy an confidentiality of all involved. You are certainly welcome to receive a copy of my final report if you so

wish. You can tell me at the time of the interview if you wish a copy and I will secure from you at that time an electronic address to forward a copy to you.

The two researchers involved in this study are Dr. Dan Mason and I. Our contact information is provided at the beginning of this form. If you have any further questions about this study, please do not hesitate to contact either of us at any time during this study. The plan for this study has been received for its adherence to ethical guidelines by a Research Ethics Board at the University of Alberta. For questions regarding participant rights and ethical conduct of research, contact the Research Ethics Office at (780) 492-2615.

A formal consent statement follows. I would ask that you read it and sign two copies if you consent, and I will sign two copies so that we each have a copy.

Consent Statement

I have read this form and the research study has been explained to me. I have been given the opportunity to ask questions and my questions have been answered. If I have additional questions, I have been told whom to contact. I agree to participate in the research study described above and will receive a copy of this consent form. I will receive a copy of this consent form after I have signed it.

_____ . _____

Participant's Name (printed) and Signature Date

_____ . _____

Name (printed) and Signature of Person Obtaining Consent Date