Msit no'kmaq

49th Annual

Atlantic *S*chools of Business Conference

2019 Conference Proceedings

September 27th-29th

Cape Breton University

Shannon School of Business

Sydney, Nova Scotia

Shannon School of Business
CBU

Territorial Acknowledgment

Cape Breton University (CBU) is located in Mi'Kma'ki, the ancestral and unceded territory of the Mi'Kmaq nation. This territory is covered by the "Treaties of peace and Friendship" which Mi'kmaq and wolastoqiyik (Maliseet) peoples first signed with the British Crown in 1726. The treaties did not deal with surrender of lands and resources but in fact recognized Mi'Kmaq and Wolastoqiyik (Maliseet) title and established the rules for that was to be an ongoing relationship between nations.

Cape Breton University (CBU) est située dans Mi'kma'ki, le territoire ancestral non cédé de la nation des Mi'kmaq. Ce territoire est régi par les "Traités de paix et d'amitié" que les peoples Mi'kmaq et Wolastoqyik (Maliseet) ont signé à partir de 1726 avec la Couronne britannique. Les traités ne portaient pas sur la reddition des territoires ni des ressources, mais en fait reconnaissaient le titre des Mi'kmaq et des Wolastoqiyik (Maliseet) et établissaient les règles de relations futures entre nations.

Conference Team

The 49th Atlantic Schools of Business Conference has been coordinated by the following team:

Conference Co-Chairs: Mary Jane Morrison and Mary Beth Doucette (CBU)

Proceedings Chair: Laura Syms

Program Chair: Mary Beth Doucette

Conference Web Master: Ian Feltmate (Acadia U.)

Awards Co-Chair: Richard Watuwa and Bishakha Mazumdar

Treasurer: Mary Jane Morrison

Local Sponsorship Chair: Keith Brown

Communication Chair: Stephanie MacPherson

Local Organizing Cmte: Bishakha Mazumdar, Jamileh Yousefi, Keith Brown, Stephanie MacPherson, Richard Watuwa, Jennifer Currie, Derrick Hayes, Ida Steeves

Track Chairs

Accounting	Mary Oxner (STFX)
Business Communications	Nick Deal (St. Mary's U)
Business and Organizational History	Gabrielle Durepos (MSVU)
Cooperatives/Solidarity	Doug Lionais (CBU)
Cases and Cases-in-Progress	Robert MacDonald (Crandall U.)
Entrepreneurship	Kevin McKauge (CBU)
Ethics and Social Issues	Brad Long (St.FX)
Finance	Stephen MacLean (Acadia U,)
Gender & Diversity in Organizations	Kelly Dye (Acadia U.)
Human Resources	Stephanie Gilbert (CBU)
Leadership	Terrance Weatherbee (Acadia)
Management Education	Ellen Shaffner (SMU)
Management Information Systems	Yinglei Wang (Acadia U.)
Marketing	Wenxia Guo (Acadia U.)
Organizational Behaviour & Theory	Xiao Chen (UPEI)
Open Stream	Robert Campbell (CBU)
Strategy	Mark Fuller (StFx University)/Alidou Ouedrago (UdeM)
Student Case Competition	Daphne Rixon (SMU) / Karen Lightstone (SMU)
Doctoral Consortium	Ryan MacNeil (Acadia U) / Danielle Mercer-Prowse (Acadia U)

ASB 2019 Program

Saturday September 28, 2019   9:00am-10:15am

Conference Theme Symposia (Chair – Robert Campbell)   *SB 100*

Siblings, Story, and Spirit: A Critical Critique of Modern Management, Management Education and Management Theory	Shelley T. Price, Christopher M. Hartt, & Cathy Driscoll

Indigenous Economic Development (Chair- Kevin McKague) *SB 200*

Indigenous Works' Framework for Partnership Engagement	Craig Hall, Kelley Lendsay
Pathways to Success: Measuring the Performance of Indigenous Economic Development Corporations	Greg Finnegan, Wallace Lockhart

Gender and Diversity in Organizations I (Chair- Kelly Dye)   *SB 202*

Using Institutional Ethnography to Introduce Care Ethics to MOS: How Combining Two Feminist Approaches Might Tell New Tales	Nina Winham
Gender Differences in Venture Financing: A Study among Canadian and U.S. Entrepreneurs	Yves Robichaud, Jean-Charles Cachon, and Egbert McGraw
The Gendering of the Administrative Sciences Association of Canada	Blake Kanewischer

Accounting (Chair- Mary Oxner)   *SB 203*

Attributes Personnels du CEO et Conservatisme Compatable au Canada	Mohamed Zaher Bouaziz, Sebastian Deschenes and Caroline Pomare
The Curiuos Case of Canadian Corporate Emmisions Valuation	Paul A. Griffin, David H. Lont,Caroline Pomare
Auditing the Values in Public Private Partnerships (PPP): A Work in Progress o Auditing PPP in NB	Brent White

Strategy (Chair – Mark Fuller)   *SB 204*

The CSR-Strategy Parabola: The U-shaped Relationship between Corporate Social Responsibility and Strategic Management in Corporate Reporting	Mark Fuller, William Warren
Résilience et création de valeur : le rôle du modèle d'affaires	Hélène Delerue, Alidou Oueraugu, and Pierre-Yves Boyer

Cases and Cases in Progress (Chair- Robert MacDonald)   *SB 209*

Escape Outdoor: The Herschel Brand Mix Decision	Sherry Finney, Meghan Finney, and Gemma Whyte
Employment Versus Environment: The Complexities of Managing the Interests of Northern Pulp's Multiple Stakeholders	Mairi McKinnon and Brad Long
Any Given Sunday?	James D. Grant
For Everything there is a Season: New Life Mission's Uncertain Future Managing an NPI through Fundamental Environmental Change in the Midst of Unfocused Governance	Robert A. MacDonald

Saturday September 28, 2019   10:45 am – 12:00pm

All Conference Session (Chair- Kevin McKague) *SB 100*

Transforming the Indigenous Economy Symposium	Craig Hall, Kelly Lendsay
Institutionalizing indigenous protocols for government-to-government consultation and negotiations	Rachel Starks

Management Education (Chair- Ellen Shaffner) *SB 200*

Awakening moments: A video-based analysis of Zen koan pedagogy	Tianyuan Yu, and Albert Mills
Damsels in distress: Discourses of entrepreneurship in Canadian management textbooks	Tasha Richard, Nicholous Deal, and Albert Mills
Developing Foresight Through the Evaluation and Construction of Vision Statements	John Fiset and Melanie A. Robinson

Marketing (Chair- Wenxia Guo) *SB 202*

How and Why Do They Use Dietary Supplements? A Literature Review of Dietary Supplements Consumption	Yun Wang, Leighann C. Neilson
Engaged Customers Spend More: A Latent Profile Analysis	Gordon Fullerton
Organizing Complexity: Beginning to Understand the Heterogeneity of Wineries in Wine Business Studies	Donna Sears, Terrance Weatherbee

Finance I (Chair- Stephen MacLean) *SB 203*

The Sovereign Wealth Funds Risk Premium: Evidence from the Cost of Debt Financing	Hatem Ghouma and Zeineb Ouni
Housing Finance: Impact of Heavy Interest Income Tax	Igor Semenenko
The Mean Impact Curve: An International Comparison	Saikat Sarkar

Business and Organizational History (Chair- Gabrielle Durepos) *SB 204*

Viola Desmond: A fictocritical account	Kristin Williams
Where in the When is Waldo? A Theoretical Physicist, A Futurist, and a Management Historian Walk Into a Bar…	Terrance Weatherbee and Ryan MacNeil
Service clubs as CSR intermediaries: Kiwanis in Sydney 1924- 1984	Robert Campbell and Shuming Ma

Open Track I (Chair- Robert Campbell) *SB 209*

Sectors and businesses in the circular economy of Nova Scotia	Sahand Ashtab and Zhu Yiran
The Importance of Sustainability in Canadian home purchases and the relevance of justice motivation theory	Leslie Wardley and John Nadeau
An optimization model to configure a reverse logistics network	Babak Tosarkani and Saman Amin

Saturday September 28, 2019   2:45 pm - 4:00 pm

All Conference Symposium (Chair- Donna Sears)   *SB 100*

The business of place in the 21st century: Yours, mine, or theirs?	Terrance Weatherbee and Donna Sears

Organizational Behaviour & Theory (Chair- Xiao Chen)   *SB 200*

Exploring the Role of Vocational Interests in Balancing Work and Family Demands	Yu (Jade) Han and Greg J. Sears
Modelling Envy and Bullying at Work	Zhe Peng and Zhuoyi Zhao
Pharmacists' Perceptions of Error Reporting Systems in Nova Scotia	Chris Hartt, James Barker, and Ashley MacDonald
From robots to micro-entrepreneurs: Deciphering Intraplatform ties among ride-hailing drivers in China	Xiao Chen, Wei Chi

Entrepreneurship I (Chair- Kevin McKague)   *SB 202*

Profile Self-Employed Indigenous Workers: What We Can Learn From The 2011 Census of Canada Data	Greg Finnegan
The Entrepreneurial Exit Experience of Micro and Small Business Owners	Mathew Pauley
The Entrepreneurial Propensity of Women Revisited 10 Years Later	Tasha Richard

Human Resources I (Chair- Stephanie Gilbert)   *SB 203*

Grief At Work: The Complex Reality Of Employee's Experience In The Workplace After Loss	Stephanie Gillbert, Jennifer Dimoff, Jane Mullen, Kevin Kelloway, and Michael Teed
The Legalization Of Recreational Cannabis: A Qualitative Examination Of The Perceived Effects In The Workplace From A Canadian Perspective	Jenna Robertson and Jim Grant
A Working Paper On Challenges Faced By Retirees In Bridge Employment And The Importance Of Achieving A Proper "Fit	Bishakha Mazumdar and Theresa Corsano

Finance II (Chair- Stephen MacLean)   *SB 204*

Financial Decision Under Stress	Nason, Sundararajan, and Sheehan
Annual Reporting, Agency Costs, and Firm Valuation	Igor Semenenko
Getting Published in Top Journals: Is the Deck Stacked Against Faculty at Smaller Academic Institutions?	Andrew Carrothers and Liufang Yao

Gender and Diversity in Organizations II (Chair- Kelly Dye)   *SB 209*

I Spent a Year Mentoring A Small Group of International Students: This is What I Learned	Dr. Susan C. Graham
He Still Gets the Check, or the Endurance of Implicit Gender Bias in Restaurant Check Placement	Mallika Das
A Critical Discourse Analysis of Women and Leadership in Management Textbooks	Nia MacFarlane

Sunday September 29, 2019   9:00 am 10:30 am

Management Education Workshop (Chair - Ellen Shaffner)   SB 100

Wise practices that encourage reconciliation in business classrooms	Mary Beth Doucette, Keith Brown, Wendy Wadden

Finance III (Chair – Stephen MacLean)   SB 200

Corporate Communication as a Governance Mechanism: Evidence from Substitution-Complementary Effect	Kolahgar, Babaghaderi, and Bhabra
Portfolio Choice Under Ignorance: Price-Adjusted Fundamental Indexing	Pysarenko, Alexeev, and Tapon
The Continued Decline of US Public Pension Funds	Stephen MacLean

Ethics and Social (Chair- Brad Long)   SB 202

But Who Will Pay? The Willingness to Adopt of Dairy Farmers	Ashley MacDonald, Michael Urso, Gordon Burns, Daniel Crowe
Waste Not Want Not: Where the Consumer sits in the Food Waste Phenomenon	Ashley MacDonald
Exploring and optimizing energy networks for sustainable growth of small and medium size communities	Hamid Afshari
Interdisciplinary Agriculture/Environmental Research: A Student Ethnography	Gordon Burns

Management Information System (Chair- Yinglei Wang)   SB 203

Consumers' Perceptions of Online Influencers' Commercial Social	Jenna Evans and Hsin-Chen Lin
Social Networks and Career Discovery: A Report on LinkedIn	Enayat Rajabi
Applications of Complex Adaptive Systems: A Literature Review	Maarif Sohail
Msit no'kamaq – honouring all my relations: An AI perspective	Maarif Sohail

Open Track II (Chair- Robert Campbell)   SB 204

Non-farm employment and poverty reduction in Mauritania	Anwar, Amar, Mughal, Mazhar, and Ba, Mamoudou.
Social media in retail applications	Ayse Ersoy
Distributed Leadership in Decentralized Teams: Learning from Close Calls in Turbulent Environments	Mary Furey, Daphne Rixon,

Sunday September 29, 2019   11:00 am 12:15 pm

All Conference Symposium (Chair- Robert Campbell)   *SB 100*

Enacting the Halifax School: Exploring tensions & strategies	Nicholous Deal, Gabrielle Durepos, Ellen Shaffner and Tianyuan Yu

Entrepreneurship II (Chair- Kevin McKauge)   *SB 200*

Opportunities and Opportunities Forgone: Economic Impact of Investment in Female Founders by Investors in Atlantic Canada	Ellen Farrell
Développement des innovations de rupture par les petites entreprises, dévoilé par la phénoménographie: le cas des nanotechnologies	Hélène Delerue
Social Business: By Any Other Name	Kelly Dye and Bruce Dye

Human Resources II (Chair- Stephanie Gilbert)   *SB 202*

The Role Of Managerial Sales Coaching In Customer-Oriented Selling Behaviour	Peter Kerr
Complexity And Management Attributes: A Model For Assessing Manager	Rick Nason
A Multi-Theoretical Approach To Understand Bystanders' Responses To Workplace Cyberbullying	Utkal Baliyarsingh, Monalisa Mahapatra
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Abstracts

Accounting Track

ATTRIBUTS PERSONNELS DU CEO ET CONSERVATISME COMPTABLE AU CANADA

Mohamed Zaher Bouaziz, Université de Moncton
Sébastien Deschênes, Université de Moncton
Caroline Pomare, Mount Alisson University

Abstract

Il a été reconnu dans la littérature depuis les dernières décennies que les dirigeants font preuve de discrétion dans la rapidité de diffusion des bonnes et mauvaises nouvelles et donc dans l'application du conservatisme comptable. On attribuait souvent cette latitude aux différences des contextes économiques et réglementaires entre les pays ou entre les périodes. Peu d'études s'attardent à l'apport des attributs personnels des dirigeants dans l'explication de cette latitude pourtant on reconnait de plus en plus l'influence des facteurs extra-économiques tels que la religion, la langue et l'organisation sociale sur les choix et pratiques comptables. Notre étude se penche sur l'explication de la discrétion au niveau de conservatisme comptable à travers une perspective culturelle et individuelle des CEO des sociétés canadiennes faisant partie de l'indice TSX Composite. En utilisant le modèle de Basu, nous trouvons que les CEO conservateurs, qui privilégient la diffusion des mauvaises nouvelles comparativement aux bonnes nouvelles, sont les plus âgés, de sexe féminin et ayant la portion de rémunération variable qui est la plus faible. Contrairement, les CEO moins conservateurs, caractérisés par la rapidité de diffusion des bonnes nouvelles par rapport aux mauvaises, sont ceux de culture anglo-saxonne et ayant le plus d'expérience de travail. Les résultats demeurent inchangés même en appliquant le nombre d'années d'expérience comme facteur modérateur. Nos résultats permettent de conclure que la propension des dirigeants vers le conservatisme est guidée par la volonté envers une information comptable fiable et peu volatile alors que l'aversion au conservatisme est guidée par une vision stratégique et économique de la comptabilité.

THE CURIOUS CASE OF CANADIAN CORPORATE EMISSIONS VALUATION

Paul A. Griffin, University of California
David, H. Lont, University of Otago
Caroline Pomare, Mount Allison University

Abstract

This study examines the relevance to investors of the greenhouse gas (GHG) emissions of publicly traded Canadian firms over 1980–2014. We document that, other than in the early years, shareholder value increases in the level of GHG emissions for these firms. Curiously, this finding might seem counterintuitive given the prior work on Canada's neighbor concluding that US firms' shareholder value varies negatively in the level of GHG emissions, arguably because of unrecognized off-balance sheet future regulatory and compliance costs and high climate litigation risk. The Canadian setting differs from the US setting, however, notably because of lower climate litigation risk and higher and increasing levels of environmental investment by industry and the government to mitigate the impact of GHG emissions on the economy. While environmental investment to mitigate emissions increases firms' on-balance sheet costs and reduces profits, investors reflect the future returns on this investment as a net benefit to shareholder value, which is an off-balance sheet item reflected in current share price. Consistent with this result, we find that the positive GHG valuation effects in Canada are amplified for high GHG-intensity firms, whose payoffs to environmental investment are predictably greater compared to low GHG-intensity firms. Our firm level results on the positive valuation effects of GHG emissions are consistent with the government's and firms' environmental investment policies to decarbonize Canadian industry. They are also robust to the source of emissions information.

AUDITING THE VALUE IN PUBLIC PRIVATE PARTNERSHIPS (PPP): A WORK IN PROGRESS ON AUDITING PPP IN NEW BRUNSWICK

Brent White, Mount Allison University

Abstract

This work-in-progress examines how New Brunswick's legislative auditor inserted the Office into the accountability framework governing Public-Private Partnerships (PPP, 3P) in the education sector in New Brunswick. This paper looks at two separate case studies of public-private partnerships for school construction that were separated by 13 years. It offers a rare chance to track the evolution of the Auditor General's audit practices over time. Further, it examines how the Government of New Brunswick employed its own definitions of value-for-money. The findings of the Office of the Auditor General in both instances challenged the credibility OF government's Value-for-Money assertions. In doing so, the Office cast serious doubt on the notion that public-private partnerships are value-creating.

Business Communications Track

INTERDISCIPLINARY AGRICULTURE/ENVIRONMENTAL RESEARCH: A STUDENT AUTOETHNOGRAPHY

Gordon Burns, Dalhousie University

Abstract
Working within multiple faculties on a University campus provides many new perspectives for an undergraduate student. Working on the Agriculture Greenhouse Gases Program has been my first experience working in academia. This experience has taught me a lot about doing research with various academics, who have different educational backgrounds. As I worked with theses academics, I observed their interactions and operations. When observing, I noticed cultural-like differences between each department. This project has shown me the importance of proper communication and organization when doing research. I have learned how to interact and work efficiently with members from other departments while building relationships. I found importance in having strong relationships between academics, in order to build an on-campus community.

Business and Organizational History Track

SERVICE CLUBS AS CSR INTERMEDIARIES: KIWANIS IN SYDNEY, 1923-1984

Robert Campbell, Cape Breton University
Shuming Ma, Cape Breton University

Abstract

Small business owners and professionals, characterized by a deep level of embeddedness and identity within their local communities than would typically be the case with larger, externally owned corporations, have long sought opportunities to support the populations they rely on to keep their businesses viable. However, on an individual basis, these parties may lack the necessary resources to engage in the sorts of activities and initiatives they recognize would contribute to the well-being of their communities. In this regard, service clubs have provided an organizational intermediary through which collective social action could be coordinated, administered, and delivered in an efficient manner. Based on available archival records, this study examines the composition, activities, and accomplishments of the Kiwanis Club in Sydney, Nova Scotia, from its inception in 1923 up to 1984.

Cases and Cases in Progress

ESCAPE OUTDOORS: THE HERSCHEL BRAND MIX DECISION

Sherry Finney, Cape Breton University and Escape Outdoors
Meghan Finney, Escape Outdoors
Gemma Whyte, Cape Breton University

Abstract

Sherry Finney, shareholder and marketing manager at Escape Outdoors, is considering the decision to carry Herschel at her retail outdoor store, located in North Sydney, Nova Scotia. She questioned whether the brand was still relevant among teens/young adults today, if it "fit" with the active lifestyle that Escape Outdoors was encouraging, if it would sell among Escape Outdoors' customers, or be popular enough to attract a new segment. With input from marketing staff member, Gemma and business partner, Meghan, together they reviewed EO's product mix, outdoor industry trends, Herschel's target markets and diversification plans, and potential for product cannibalization. This case can be used for an introductory marketing principles course to introduce the concepts of market segmentation, target market selection, product cannibalization, retail trend analysis, market size and growth, and consumer behavior. Students may use the case data to conduct a qualitative analysis of the decision at hand.

EMPLOYMENT VERSUS ENVIRONMENT: THE COMPLEXITIES OF MANAGING THE INTERESTS OF NORTHERN PULP'S MULTIPLE

Mairi McKinnon, St. Francis Xavier University
Brad Long, St. Francis Xavier University

Abstract

Northern Pulp has been a major contributor to the economy in rural Nova Scotia since 1967. It has also been a significant environmental polluter. While local residents have compromised their health and environment for jobs and economic stability for 52 years, people are fed up with both Northern Pulp and the provincial government's disregard for their wellbeing. This is particularly true of the Pictou Landing First Nation, on whose land Northern Pulp's effluent treatment site is situated. In response to pressure from its citizens, the provincial government has passed the Boat Harbour Act, which legislates that Northern Pulp close its current effluent treatment site by January 31, 2020. As this date draws nearer, Northern Pulp must determine an ethical course of action that best balances the interests of its multiple stakeholder groups. What should Northern Pulp do?

ANY GIVEN SUNDAY?

James Grant, Acadia University

Abstract

This is the story of a mid-level employee of Hydro One terminated for breach of his employer's zero tolerance policy on discrimination and harassment, and because his behaviour reflected poorly on his employer. However, his termination seems to be more connected to the furor on social media, or at least as much as it was to his behaviour. This case and notes consider the ethical and legal issues involved in managing employee misconduct and discipline, the methods and principles used by the court to resolve a case of alleged misconduct – from the employer's perspective – and a possible wrongful dismissal, as well as the use of human resource management practices, such as progressive discipline and due process. Students may find this case especially challenging in that it requires them to balance the ethics of creating a gender-inclusive workplace with the legal rights of the worker in the context of a social media frenzy.

FOR EVERYTHING THERE IS A SEASON: NEW LIFE MISSION'S UNCERTAIN FUTURE MANAGING AN NPI THROUGH FUNDAMENTAL ENVIRONMENTAL CHANGE IN THE MIDST OF UNFOCUSSED

Robert MacDonald, Crandall University
Heather Steeves, Crandall University

Abstract

New Life Mission is a Moncton, New Brunswick based non-profit institution (NPI) that works with "at risk" youth, seeking to provide "a safe, comfortable, and nurturing environment to enable [them], regardless of their socio-economic environment, to realize their God-given potential and empower them to become active contributors to their community." With only three years under her belt as Executive Director, Pam Carlin is wrestling with what she perceives to be two significant environmental changes that are threatening the organization's mission: a shifting client base as Moncton's downtown core undergoes a process of gentrification, and a shifting donor base as NLM's traditional supporters age and are not replaced. While Pam feels that these are significant threats to the Mission's viability, the Board does not seem to share her sense of urgency. With a number of long-serving members and several empty seats, the Board appears more concerned with the vagaries of daily operations than strategically planning for the future. Can New Life Mission thrive – or even survive – in the years ahead? The case is intended for use in Strategic Management or Non-profit Management courses that deal with environmental change and governance. Topics explored include NPI leadership, NPI board governance (composition and effectiveness), NPI financial management (issues of donor reliance), and change management (with an exploration of urban gentrification).

Entrepreneurship Track

SOCIAL BUSINESS: BY ANY OTHER NAME

Kelly Dye, Acadia University
Bruce Dye, Crest Business Development Ltd.

Abstract

Our paper argues that social business motives can not only be observed within the entrepreneurial activity of opportunity-driven entrepreneurs, but also within the entrepreneurial activity of necessity-driven entrepreneurs. Despite necessity-driven entrepreneurs, by definition, needing to enter entrepreneurship to better their personal circumstances, they can also enter entrepreneurship to fulfill a social agenda. After discussing the literature pertaining to social business, social enterprise, and social entrepreneurship, we present the cases of five female, necessity-driven entrepreneurs functioning within the developing economy of The Philippines who entered entrepreneurship with clear social development agendas. We conclude that by excluding necessity-driven entrepreneurs from the discussion of social business, we are doing disservice not only to the necessity-driven entrepreneur but to the very development and change social businesses aim to achieve.

REASSESSING THE STATE OF FIRST NATIONS BUSINESS IN CANADA: PROFILE OF THE FIRST NATION SELF-EMPLOYED

Greg Finnegan, Na-cho Nyak Dun DevCorp
Wallace Lockhart, University of Regina

Abstract

As of 2011, Canada's Aboriginal population comprised 4.2% of the national population and represented one of the fastest growing and youngest demographics in the country. As such, First Nations employment trends and patterns are important arenas which are gaining more attention. This paper comprises a section of a much larger longitudinal research program being managed by the Canadian Council for Aboriginal Business (CCAB) in partnership with the Assembly of First Nations. This research program seeks to assess the state of First Nations self-employment in Canada, with this specific research report aiming to develop a baseline analysis of those individuals of First Nations ancestry who have self-identified as self-employed.

THE ENTREPRENEURIAL EXIT EXPERIENCE OF MICRO AND SMALL BUSINESS OWNERS

Matthew Pauley, University of Prince Edward Island

Abstract

The subfield of entrepreneurial exit continues to develop, yet there remains a lack of qualitative contributions focusing on the motivations of why entrepreneurs are making exit decisions. Drawing from the entrepreneurial exit and extant literatures, this study develops a conceptual understanding of the motivations behind exit decision-making that culminate in financial (proactive) and non-financial outcomes (reactive). This typology and test explore the retrospective narratives of 40 common (operating under typical resource constraints) micro and small business owners who previously own a business in the ranging industries: agriculture, construction, manufacturing, medical, and service from Southern Ontario, Canada. The research analyzes the experiences and dynamic decisions within the entrepreneurship and entrepreneurial exit processes that culminate in the specific exit types: acquisition, bankruptcy, buyout, default, dissolve, private sale and succession. Results indicate that entrepreneurs experience five distinct stages within the entrepreneurship process: starting, operating, triggering, exiting, and post-exiting. Due to the nature of these entrepreneurs, there is a lack of exit planning in the early stages of single-owner ventures, with a primary focus on survival and/or growth. Moreover, there is a tendency for entrepreneurs to *experience* the journey of entrepreneurship and exiting through dynamic decisions and events. Temporal motivations, age, and management factors have associations with specific exit types. Poor wellbeing and a lack of financial rewards are primary factors triggering the exit process. Collectively, the findings add significant contributions to the understanding of the entrepreneurial exit process and how common micro and small business owners experience it.

Ethics and Social Issues Track

BUT WHO WILL PAY? THE WILLINGNESS TO ADOPT OF DAIRY FARMERS

Ashley MacDonald, Dalhousie University
Michael Urso, Dalhousie University
Gordon Burns, Dalhousie University
Danielle Crowe, Dalhousie University

Abstract
With an increased pressure on greenhouse gas-producing industries to limit their impact in the climate, farmers and the agricultural industry as a whole needs to be adaptable and receptive to new innovations and technologies that will meet these new 'greener' goals. A survey of dairy farmers was conducted to evaluate farmer's willingness to adopt an irrigation system that would potentially reduce their impact on the environment. The results showed that many factors contribute to the farmers' decision to adopt new technologies with them placing importance on environmental, social and economic motivators. Moving forward the willingness of the farmers must be considered when developing technologies or policies as they are essential for the success of such initiatives.

WASTE NOT WANT NOT: WHERE THE CONSUMER SITS IN THE FOOD WASTE PHENOMENON

Ashley MacDonald, Dalhousie University

Abstract
Food waste is a globally damaging phenomenon impacting our environment, economy and society. A consumer survey was completed asking participants their purchasing behaviour, waste separating behaviour, level of environmental concern, and household waste beliefs in order to develop a model to predict the waste separating behaviour of consumers. These were developed into four experimental constructs using Likert scale questions. The resulting model has an r-squared value of 56.2%. The Nova Scotia waste separating model is shown to have a significant impact on the waste separating behaviour of consumers. Avoiding terminal food waste and encouraging the reuse and recovering of food waste is an important step in dealing with the food waste phenomenon.

EXPLORING AND OPTIMIZING ENERGY NETWORKS FOR SUSTAINABLE GROWTH OF SMALL AND MEDIUM SIZE COMMUNITIES

Hamid Afshari, Cape Breton University

Abstract

Atlantic Canada consists of several rural area and small communities with promising green energy sources. Such energy sources consist of biomass generation, tidal energy, solar energy, and wind power. Using the growing market for green and renewable sources of energy, this talk reviews the potential application of energy symbiosis to supply energy demands in small and medium size communities. Industrial symbiosis is a cost-effective and environmentally-friendly solution for industries. It reduces the consumption of energy and virgin material by extracting value from waste, lost heat and by-products. Energy symbiosis could fulfill a portion of industrial and non-industrial energy needs. This study discusses the opportunities and challenges of energy symbioses for non-industrial purposes, and develops a multi-objective mixed integer linear programming model for that purpose. In future, the author plan to extend the study for other renewable sources of energy to fit the energy demand in small and medium size communities.

Finance Track

HOUSING FINANCE: IMPACT OF HEAVY INTEREST INCOME TAX

Igor Semenenko, Acadia University

Abstract

Heavy taxation of interest income becomes a structural driver of property prices in a low-interest rate environment. Inflation-adjusted price appreciation in 1996-2017 is approximately 200 basis points higher in 14 countries allowing no exemptions on interest income than in 37 countries that tax interest income at favorable rates or provide exemptions. Results for average returns over long-term periods are confirmed in models with annual frequencies, city-level data and in a sample of 39 OECD countries for which price/rent ratios are available. It appears that investors view direct real estate, a heavily tax-favored asset, as an inflation hedge and/or alternative to fixed income asset. Higher interest income taxation may be fueling demand for direct real estate investments by retail investors. Separately, my empirical findings suggest that easy monetary policy effects can be magnified through the housing channel in countries that do not allow exemptions on interest income. Consequently, we should expect larger investment misallocations due to asset prices departure from fundamentals in some geographies.

THE MEAN IMPACT CURVE: AN INTERNATIONAL COMPARISON

Saikat Sarkar, Mount Allison University
Vance Martin, University of Melbourne

Abstract

The transmission of shocks between global and national stocks markets is investigated for a broad range of countries. A special feature of the modelling framework is the interaction between .rst and second order moments and co-moments based on the multivariate mean impact model of Kahra, Martin and

Sarkar (2018), which allow for both linear and nonlinear transmission mechanisms. Using daily data from August 1992 to June 2018, the empirical results provide strong evidence of linear and nonlinear mechansims connecting global and national asset markets.

FINANCIAL DECISION UNDER STRESS

Richard Nason, Dalhousie University
Binod Sundararajan, Dalhousie University
Lorn Sheehan, Dalhousie University

Abstract
We report a research plan based on preliminary results from an exploratory usability and emotions-based research on the decision-making process and decisions made by students doing financial trades. We observed participants as they made simulated financial trade decisions (buying and selling financial assets such as equities, currencies and commodities) under data/information pressure situations. Participants, provided with varying numbers of pieces of data, made trades using Bloomberg screens and traded up to four trading assets. We tracked what they looked at, i.e. do they look at all pieces of data, the time they take to do a trade, what are the response times, what is the retention, what are the biases and how they make these decisions in limited time periods?

ANNUAL REPORTING, AGENCY COSTS AND FIRM VALUATIONS

Igor Semenenko, Acadia University

Abstract
Shareholder valuations are economically significantly and statistically negatively correlated with the length of 10K filings or their digital file sizes, whereas annual reports posted on corporate websites are uninformative. Firms with longer 10K filings are likely to experience slower growth, lower profitability, experience free cash flow problems and write off goodwill and intangible assets from past acquisitions.

GETTING PUBLISHED IN TOP JOURNALS: IS THE DECK STACKED AGAINST FACULTY AT SMALLER ACADEMIC INSTITUTIONS?

Andrew Carrothers, University of Prince Edward Island

Abstract

The purpose of this paper is to generate discussion at ASB 2019 about the challenges of publishing in top academic journals faced by faculty members at small universities. We introduce a new data set summarizing 30 years of articles at the three top finance journals. We first examine the number of articles and authors per year at each journal then comment on repeat authors and institutional affiliation. Our results show that a small number of academics and institutions dominate the available publishing space in these journals. We then investigate trends in the coverage of behavioral finance in these journals. Our results suggest an editorial bias against this arguably important field of study.

PORTFOLIO CHOICE UNDER IGNORANCE: PRICE-ADJUSTED FUNDAMENTAL INDEXING

Sergiy Pysarenko, Cape Breton University
Vitali Alexeev, University of Technology Sydney Australia
Francis Tapon, University of Guelph

Abstract

We consider portfolio choice under ignorance (when the distribution of possible returns is ignored). Based on this, we propose a Price-Adjusted Fundamental Index (PAFI) portfolio to improve on the Arnott Fundamental Index (FI) portfolio construction methodology. We use data on S&P 500 constituents to compute Sharpe ratios that test the performance of the Arnott FI, the Global Minimum Variance (GMV), and PAFI portfolios against appropriate benchmarks. We also test an alternative way to blend the FI and GMV portfolios, based on Markowitz

mean variance optimization. Finally, we test the performance of the proposed portfolios on different industries taken separately. We find that PAFI and some of PAFI-based portfolios outperform FI and FI-based portfolios in for several industries and super-industries.

THE CONTINUED DECLINE OF US PUBLIC PENSION FUNDS

Stephen MacLean, Acadia University

Abstract

This paper documents and investigates the significant decline in U.S. State Public Pensions' funded ratio exhibited since early in the 21st century. The paper looks specifically at guidance changes for fund discount rates as provided by the Governmental Accounting Standards Board. Results suggest that these changes in the calculation of fund discount rate had minimum impact on funded ratios. The political affiliation of state governments was also found to have no impact on funded ratio over the sample period.

THE SOVEREIGN WEALTH FUNDS RISK PREMIUM: EVIDENCE FROM THE COST OF DEBT FINANCING

Hatem Ghouma, St. Francis Xavier University,
Zeineb Ouni, Université du Québec à Trois-Rivières,

Abstract

We build on recent SWF literature that documents an equity discount for SWF investments and extend it to bond markets to investigate whether SWFs represent a threat or an opportunity to bondholders. We test two competing hypotheses: the political agenda hypothesis that advocates that SWFs pursue a non-value maximization agenda and the superior monitor hypothesis that claims that SWFs could mitigate agency problems. Using a manually constructed international dataset, we find robust evidence supporting the political agenda hypothesis which suggests the existence of a "SWF bond premium". Our study shows that the presence of a SWF as shareholder as well as the magnitude of its ownership stake increase the target firm bond spreads. These results are statistically significant and robust to alternative specifications.

CORPORATE COMMUNICATION AS A GOVERNANCE MECHANISM: EVIDENCE FROM SUBSTITUTION-COMPLEMENTARY EFFECT

Sam Kolahgar, University of Prince Edward Island
Azadeh Babaghaderi, Concordia University
Harjeet S. Bhabra, Saint Mary's University

Abstract
We examine whether corporate communication is a stand-alone governance mechanism and if there exist substitution-complementary effects with other governance mechanisms. By utilizing the content-analysis technique on more than 150,000 mandatory and voluntary filings of 98 Canadian firms listed on TSX/S&P Composite Index from 1999 to the end of 2014, we find that firms' communication practices have governing powers. Specifically, our findings show a strong substitution relationship between corporate communication and board size, board education, board expertise, and CEO incentive compensation package, and weak substitution evidence for board independence, CEO duality, and frequency of board meetings. Moreover, we show that corporate communication has an inverted U-shaped association with Tobin's Q, and a U-shaped relation with risk, supporting the cost-benefit analysis hypothesis that has been established in the literature of communication and disclosure.

Gender and Diversity in Organizations Track

I SPENT A YEAR MENTORING A SMALL GROUP OF INTERNATIONAL STUDENTS: THIS IS WHAT I LEARNED

Susan Graham, University of Prince Edward Island

Abstract

Many international students continue to lag behind their domestic counterparts in terms of achieving academic success. The reasons for the gap in performance are varied -- and not always tied to academic abilities or preparedness. A pilot mentoring program was developed and implemented at the University of Prince Edward Island targeting international students in the business program who appeared to be falling short of their potential. Small group sessions were used, focusing on specific themes aimed at addressing some of the root causes of student underperformance among international students. The program, called *Coffee Coaching*, was led by a Faculty of Business member – me. Upon program completion, I reflected on the resulting conversations, interactions, and observations – this is what I learned.

A CRITICAL DISCOURSE ANALYSIS OF WOMEN AND LEADERSHIP IN MANAGEMENT TEXTBOOKS

Nia MacFarlane, St. Francis Xavier University
Shelley Price, St. Francis Xavier University

Abstract

This study explores the ways in which management textbooks portray women in case study examples. Specifically, this research looks at whether women are cast in leadership or followership roles, and studies the language used to engender such experiences.

Human Resources Track

RETURNING TO WORK AFTER GRIEF: THE COMPLEX REALITY OF EMPLOYEE'S EXPERIENCE IN THE WORKPLACE AFTER A SIGNIFICANT LOSS

Stephanie Gilbert, Cape Breton University
Jennifer Dimoff, Portland State University
Jane Mullen, Mount Allison University
Kevin Kelloway, Saint Mary's University
Michael Teed, Bishop's University

Abstract

Despite the fact that almost the entire workforce will experience grief at some point during their careers, (Eyetsemitan, 1998; Wilson et al., 2019) little research has examined best practices for accommodating grieving employees. This study specifically examines employees' experiences of working while grieving. A total of 13 employees who had lost a close family member within the past five years and who continued working full-time afterwards participated in hour-long semi-structured interviews asking about their experiences in the workplace following their loss. Interviews were coded by three independent coders using thematic analysis, and themes were identified. Three key themes, that were common to grieving employees' experience, emerged from the interviews: support, stressors and communication.

THE LEGALIZATION OF RECREATIONAL CANNABIS: A QUALITATIVE EXAMINATION OF THE PERCEIVED EFFECTS IN THE WORKPLACE FROM A CANADIAN PERSPECTIVE

Jenna Robertson, Acadia University
Jim Grant, Acadia University

Abstract

The recreational use of cannabis was legalized on October 17th, 2018, sparking attention worldwide. In anticipation, Canadian employers, educational institutions, and various levels of government, asked what relevance this had to work and society. In addition, stakeholders such as human resource (HR) consultants, lawyers, and practitioner-oriented organizations, have begun to offer training courses, seminars and informational content, occasionally for free but mostly for purchase, in order to capitalize on this unique opportunity. We chose the richer and more comprehensive data of a qualitative methodology, which employed semi-structured interviews, constant comparison method, and grounded theory, to explore how senior managers and others involved in HRM *perceive* the workplace issues and challenges of the legalization of cannabis.

THE ROLE OF MANAGERIAL SALES COACHING IN CUSTOMER-ORIENTED SELLING BEHAVIOUR

Peter Kerr, Cape Breton University

Abstract

Managerial sales coaching and customer-oriented selling behaviour have both become important topics within the sales management literature and in practice. This study unpacks the role managerial sales coaching plays in customer-oriented selling behaviour by investigating the underlying mechanisms responsible for the coaching – customer-oriented selling relationship. Using partial least squares structural equation modeling and a sample of 122 business-to-business salespeople, results suggest that salesperson attitudes and subjective norms fully mediate the relationship between managerial sales coaching and customer-oriented selling behaviour. This study adds to the scant literature on managerial sales coaching by shedding some light on the underlying mechanisms used by managerial sales coaching to shape salesperson behaviour.

Keywords: attention-based theory, theory of planned behaviour, coaching, customer orientation

A MULTI-THEORETICAL APPROACH TO UNDERSTAND BYSTANDERS' RESPONSES TO WORKPLACE CYBERBULLYING

Utkal Kumar Baliyarsingh, Memorial University
Monalisa Mahapatra, Memorial University

Abstract

The omnipresent nature of new technologies created an avenue for a new and enhanced form of bullying known as cyberbullying. Researchers have extensively studied the phenomenon amongst children and adolescent population, from both the victims' and perpetrators' perspectives. However, research on bystanders' intervention in Workplace Cyberbullying (WCB) is in its nascent state. In this research in progress paper, using an integrated theoretical lens of social bond theory (Hirschi, 1969) and the modified Bowes-Sperry and O'Leary-Kelly's (2005) model of observer intervention, we proposed a theoretical framework to examine the supportive responses of bystanders towards the victims of WCB. Our study stated that bystanders having high social bonds with the WCB victims are more likely to feel informal accountability for others and thus more likely to intervene. However, this decision is further moderated by the cost and benefit analysis.

A WORKING PAPER ON CHALLENGES FACED BY RETIREES IN BRIDGE EMPLOYMENT AND THE IMPORTANCE OF ACHIEVING A PROPER "FIT"

Bishakha Mazumdar, Cape Breton University
Theresa Corsano, Cape Breton Uinversity

Abstract
Considering the gravity of workforce aging, policy makers are urging organizations to take steps in making retirees return to the workforce (popularly known as bridge employment) more conducive (Saba, 2014). But employers seem skeptical about prolonging employees' work life and are slow to customize policies to accommodate the changing physical and psychological needs of retirees. Based on the scanty research in understanding bridge employment experience, our working paper lists major challenges faced by retirees when they re-enter the labour force. We emphasize that many of the challenges result from failing to appreciate the unique transition process during retirees' immersion in job market. Building on person-environment fit theory, we propose a framework to aid human resource managers in designing proper jobs for bridge employees.

COMPLEXITY AND MANAGEMENT ATTRIBUTES: A MODEL FOR ASSESSING MANAGERS

Rick Nason, Dalhousie University

Abstract
This paper develops a simple four category matrix for categorizing the complexity readiness of managers. Complexity science is still relatively unknown in management practice although its applications amongst academics have been discussed for some time. However, the rise of digital techniques for business management mean that complicated management tasks are increasingly adapted for management by bots. This has increased the importance of a manager's complexity attributes in order to stay relevant. This paper gives a brief review of the main distinguishing characteristics between complicated and complex systems, explains how the different characteristics have implications for management, proposes a framework for characterizing managers in the changing context of complexity and provides suggestions for the raising of complexity awareness amongst managers.

THE MUNICIPAL MISTREATMENT MANAGEMENT MODEL (THE 4M SYSTEM)

M. Anne MacDonnell, Saint Francis Xavier University

Abstract

The municipal mistreatment management model is presented as a reverse public-private partnership opportunity for the Province of Nova Scotia. It was developed in response to existing practices in Nova Scotian municipal units where instances of workplace mistreatment regularly go unaddressed and the workplace culture is described as 'toxic' or 'in distress'. It seeks to establish the Province as an equity holder in a for-profit business established by the Province and a private sector participant. A five-year operating horizon with two considered states of nature is presented. Savings to a municipal unit over that time period range from $390,000 – $540,000; if sold at the end of the period the project's terminal value is $3.31million – $6.69 million against investment of $409,000 – $472,000.

Leadership Track

DISTRIBUTED LEADERSHIP IN DECENTRALIZED TEAMS: LEARNING FROM CLOSE CALLS IN TURBULENT ENVIRONMENTS

Mary Furey, Memorial University of Newfoundland
Daphne Rixon, Saint Mary's University

Abstract

This paper examines the role of leadership learning from close calls in the context managing offshore and onshore employees in decentralized teams, working in a dangerous environment, during a time of crises. The research uses a case study comprised of interviews with oil rig workers to identify how leaders responded to close calls. Findings from this research highlight the connection between distributed leadership in decentralized teams and the importance of fostering an environment where employees and management learn from close calls.

Management Education Track

AWAKENING MOMENTS: A VIDEO-BASED ANALYSIS OF ZEN KOAN PEDAGOGY

Tianyuan Yu, Mount Saint Vincent University
Albert J. Mills, Saint Mary's University

Abstract

In this paper, we argue that Zen koan pedagogy, a traditional Zen Buddhist teaching practice originated from the East, provides a promising approach to intuition enhancement and creativity training, which are known to have positive effect on management decision-making process (Nelson *et. al.*, 2014, p.162). We firstly introduce the historical origin of Zen koan pedagogy. Then we present a video-based analysis of how koans are being used by modern Western Zen masters, based on Suzuki's (1958) theoretical framework. At last we identify some implications of Zen koan pedagogy for business educators and practitioners in terms of intuitive decision making and creativity training.

Keywords: Zen koan pedagogy, creativity, intuition, video research

DAMSELS IN DISTRESS: DISCOURSES OF ENTREPRENEURSHIP IN CANADIAN MANAGEMENT TEXTBOOKS

Tasha Richard, Dalhousie University
Nicholous Deal, Saint Mary's University

Abstract

As part of a research collective that has critiqued management textbooks over two decades, this paper continues in this tradition by focusing on the constitution of management education in Canadian business schools. Specifically, we explore the trend of entrepreneurship in Canadian texts through a critical discourse analysis that problematizes the gendering process of small business praxis. Using poststructural feminism as a framework, we found the entrepreneurship texts studied to be overly gendered in masculine terms serving to privilege the experience of 'male business' while simultaneously marginalizing the representation of women in entrepreneurial training and practice.

Keywords: Canadian management theory; entrepreneurship; management education; poststructural feminism; critical discourse analysis; textbooks.

DEVELOPING FORESIGHT THROUGH THE EVALUATION AND CONSTRUCTION OF VISION STATEMENTS

John Fiset, Memorial University of Newfoundland
Melanie Robinson, HEC Montréal

Abstract

This article describes a two-part exercise based on visionary leadership scholarship and theory designed to teach students to develop foresight abilities through the articulation of an organizational vision statement. The first phase of the exercise focuses on assessing the vision statement effectiveness of several notable organizations by evaluating the degree to which each captures the required and optional characteristics of vision statements outlined in the literature. The second half of the exercise asks participants to draw on the characteristics introduced in the first phase along with empirically validated techniques to encourage future thinking. The exercise is adaptable to a variety of courses including organizational behavior, strategy, and leadership–and is suitable for an online classroom setting.

Marketing Track

ENGAGED CUSTOMERS SPEND MORE: A LATENT PROFILE ANALYSIS

Gordon Fullerton, Saint Mary's University

Abstract

There are multiple perspectives on customer engagement but one of the commonalities among them is that engaged customers are satisfied, affectively committed, repurchase and give recommendations. These are four well-investigated constructs in the discipline of marketing. Using these four distinct constructs as a base, a latent profile analysis of customers of a coffee shop revealed 4 distinct engagement profiles; the Fully Engaged, the Unengaged, the Unsatisfied and the Transactional. The Fully Engaged had very high levels of satisfaction with high affective commitment towards, high willingness to repurchase from and high willingness to advocate on behalf of the service provider. Customers in the Fully Engaged profile had weekly spending levels that were significantly higher than all of the other profiles. This has implications for using customer engagement as a base of segmentation.

ORGANIZING COMPLEXITY: BEGINNING TO UNDERSTAND THE HETEROGENEITY OF WINERIES IN WINE BUSINESS STUDIES

Donna Sears, Acadia University
Terrance Weatherbee, Acadia University

Abstract

The dominant focus on marketing in wine business research has shaded the literature with a product and consumer lens. One important consequence of this narrowed view is the disappearance of wineries as organizations. We propose that applying business model research to the study of wineries, as organizations, could surface differences and provide insights that will inform both research and practice. In so-doing, addressing this shortcoming will make an important contribution to the wine business literature. Arguably, without understanding the organization and activities of wineries in toto, and the differences between and amongst them, the marketing study of both customer and product will remain sub-optimal.

FROM 'ROBOTS' TO 'MICRO-ENTREPRENEURS': DECIPHERING INTRA-PLATFORM TIES AMONG RIDE-HAILING DRIVERS IN CHINA

Xiao Chen, University of Prince Edward Island
Wei Chi, McGill University

Abstract

This qualitative study explored the phenomenon of *informal* intra-platform ties, namely, the "dyadic patterns of recurrent interaction" among on-demand workers. Narratives and demographic surveys of 7 Chinese ride-hailing drivers in Beijing were analyzed. The results revealed (1) the scarcity of formal intra-platform ties established by the platform, (2) the emergence of informal ties based on social identities, (3) the presence of both instrumental and affective ties, and (4) the evolution from formal to informal ties. Critical individual (e.g., perceptions and sentiments associated with traditional and on-demand work) as well as platform-level contingencies (i.e., customer feedback infrastructure) are both relevant to intra-platform ties. Implications for both on-demand workers and platforms and future directions are addressed.

SOCIAL MEDIA AND RETAIL APPLICATIONS

Ayse Begum Ersoy, Cape Breton University

Abstract

Firms are not only using social media more and more to engage with customers but are making this digital form of brand engagement a high strategic priority (Brown, Sikes, & Willmott, 2013). Moreover, recent studies suggest that consumers are increasing their participation in social media and leverage on it as channels of distribution tools (Hall-Phillips, Park, Chung, Anaza, & Rathod, 2016). Retail businesses have been growing fast particularly during the last decade. High penetration rates of mobile communication devices such as smart phones and high usage of Social Media make the retailers especially in food across the world with Fee WIFI access, very attractive off-line and on-line social venues. The growth of internet is continuous and offers many e-commerce opportunities for retail businesses to penetrate, grow and achieve loyalty also supported by the globalisation. This research paper aims to identify how retail businesses can optimize social media usage in order to increase their customer base, reach higher level of customer satisfaction and increase rate of customer loyalty in the long run. The literature review focuses on social media engagement by small businesses and retailers.

Keywords: Social Media, Retail, Retail Applications, on-line distribution channels

Management Information Systems Track

CONSUMERS' PERCEPTIONS OF ONLINE INFLUENCERS' COMMERCIAL SOCIAL MEDIA POSTS

Jenna Evans, Stiletto Consulting
Hsin-Chen Lin, University of New Brunswick

Abstract

Social media marketing has become an important tool for companies to market their products or services online. Companies can use online influencers to reach wider audiences and consequently increase sales. However, Canada recently implemented a regulation that online influencers must disclose the commercial nature of posts if they are being compensated. We designed a four-condition (2x2) experimental survey-based study to understand consumers' perceptions about disclosed sponsored posts vs non-disclosed sponsored posts, with product placement or without product placement. Our findings reveal that disclosing sponsorship on the post has the potential to improve the overall brand and post perceptions.

SOCIAL NETWORKS AND CAREER DISCOVERY: A REPORT ON LINKEDIN

Enayat Rajabi, Cape Breton University

Abstract

The use of internet access and social media has been grown dramatically worldwide. The People utilize social networks tools for different purposes including career discovery. Social network applications can connect people's business with a huge portion of the population. In this article, we focus on LinkedIn, as a business-oriented social networking tool and review its usage by users. Specifically, we will discuss how the connections in LinkedIn can effect on finding jobs and improve career discovery. We also describe the importance of first-level connections in LinkedIn and highlight a set of factors that should be considered when connecting people in this social media. We finally conclude that the quality of LinkedIn connections is more important than quantity from a job discovery perspective.

APPLICATIONS OF COMPLEX ADAPTIVE SYSTEMS: A LITERATURE REVIEW

Maarif Sohail, McMaster University

Abstract

This paper considers the phenomenon of Complex Adaptive Systems (CAS). CAS has many definitions which focus on its attributes and possible applications. The body of knowledge continues to add newly identified attributes. Thus, a consolidated description is still a work in process. Researchers find that the CAS is still not sufficiently developed to an acceptable theoretical level. Three key issues include the inadequate comprehension about complexity and complex theory; the suitability of CAS for modeling nondeterministic behaviors; and the applications related to the CAS concept. We review the existing literature on CAS, and present an original framework " Research Evaluate Analyze Develop(READ)" using "thematic analysis." The framework allows CAS research identified into fundamental, core, periphery, and application categories. Finally, we provide applications of CAS.

Msit no'kmaq- Honouring my relationships

Maarif Sohail, McMaster University

Abstract

Msit no'kmaq-Honouring my relationships is a philosophy that can guide individuals as well as organizations, especially businesses in general and Information Systems (IS) in particular. IS over the last few decades have influenced the productivity, efficiency, effectiveness, and socialization of individuals. Under ideal conditions, Artificial Intelligence (AI)-enabled personal assistants are supposed to enhance the comfort of the end-user. We have different common AI-enabled personal assistants like Siri, Alexa, Cortona, Google Home, and Amazon Echo, etc. We carry mixed-method research based on Para Social Relationship Theory with AI-enabled personal assistants within the context of Msit No'Kmaq philosophy. Keywords: Msit No'Kmaq, AI-enabled personal assistants.

Organizational Behaviour and Theory Track

MODELLING ENVY AND BULLYING AT WORK

Zhe Peng, Wilfrid Laurier University
Zhuoyi Zhao, Wilfrid Laurier University

Abstract

Envy and bullying happen when a perpetrator persistently sabotages a target's work ethics on purpose and inflicts physical and/or mental suffering on the target. Despite their threats to the sustainability of the organization, envy and bullying are lasting and widely practiced. We therefore conjecture that there exist some economic motivations. We model a simplified organization where there are a perpetrator and a target. We show that envy and bullying occur when the organization maximizes its output while retains a level of instability, should it hire employees with different levels of productivity. We find that there is an optimal level of violence that can steer the workplace towards an equilibrium.

Keywords: workplace violence, workplace bullying, workplace envy, aggressive behaviors, Shannon entropy, behavioral modelling, organization behavior

Open Stream Track

AN OPTIMIZATION MODEL TO CONFIGURE A REVERSE LOGISTICS NETWORK

Babak Tosarkani, Cape Breton University
Saman Amin, Ryerson University

Abstract

A reverse logistics (RL) network includes some activities such as recovering and remanufacturing for the purpose of either creating value, or proper disposal over the entire life cycle of products. There are some not-for-profit stewardship agencies in Canada that manage returning and recycling activities of beverage containers. The most components of used containers (e.g., aluminum can, plastic and glass containers) can be utilized in production of new products after recovery. On this matter, designing the locations of the facilities involves strategic decisions and affects the total cost of reverse logistics (RL). In this study, a novel optimization model is developed to configure a multi-echelon, multi-product, multi-period beverage container reverse logistics (RL) network. To illustrate the impacts of the proposed model, a network is examined in Vancouver, Canada.

SECTORS AND BUSINESSES IN THE CIRCULAR ECONOMY OF NOVA SCOTIA

Sahand Ashtab, Cape Breton University
Yiran Zhu, Cape Breton University

Abstract

This research aims at quantifying the circular economy of Nova Scotia via identifying the businesses operating in the recycle, reuse, repair, rental, and waste management and remediation sectors. A comparison of our collected data on the Circular Economy of Nova Scotia from 2019 with the secondary data available from Statistics Canada, which was last updated in 2016, reveals a positive trend in the number of businesses operating in the recycling sector; that is, the number of businesses active in the recycling sector in Nova Scotia is almost four times the number of active businesses in 2016 in this sector. Contrary to this positive trend, the number of businesses operating in the repair and rental sectors in Nova Scotia in 2019 is almost half, and one third of, the ones operating back in 2016 in these sectors, respectively.

INSTITUTIONALIZING INDIGENOUS PROTOCOLS FOR GOVERNMENT-TO-GOVERNMENT CONSULTATION AND NEGOTIATIONS

Rachel Starks, University of Arizona

Abstract

The study of Indigenous sovereignty, especially in the United States, has focused on government as the locus of self-determination. However, Indigenous nations and communities have maintained knowledge systems from pre-contact time. In many cases, this rich knowledge comes into the public sphere as Indigenous nations must interact with other governments to assert their sovereignty and protect what is sacred. The Mi'kmaq have put their knowledge to use: to define it, state who holds the knowledge, and protocols of how to use that knowledge. This article applies collaborative governance frameworks as it considers the historical and cultural influences that led to formalizing an ecological knowledge protocol, and demonstrates the complex nature of sovereignty when applied to institutions outside the formal western-recognized governments.

THE IMPORTANCE OF SUSTAINABILITY IN CANADIAN HOME PURCHASES AND THE RELEVANCE OF JUSTICE MOTIVATION THEORY

John Nadeau, University of Nippising
Leslie Wardley, Cape Breton University

Abstract

This paper examines the understudied topic of sustainability as a factor in the Canadian residential real estate purchase decision. Drawing from 14 qualitative interviews with realtors and residential buyers in three different Ontario cities, the paper adopts an exploratory perspective to investigate justice-based motivations related to sustainability in the real estate decision process. The research finds that the three requirements of justice motivation are satisfied in the context of a broad understanding of sustainability that includes social, economic and environmental dimensions. The residential real estate decision offers opportunities for sellers to appeal to those motivated by justice. This paper makes a unique contribution by arguing that the social psychology theory of justice motivation helps explain the role of sustainability in the residential real estate purchase decision-making process.

NONFARM EMPLOYMENT AND POVERTY REDUCTION IN MAURITANIA

Amar Anwar, Cape Breton University
Mazhar Mughal, Pau Business School
Mamoudou Ba, University of Pau and Pays de l'Adour

Abstract

This study examines whether the effect of participation in the non-agricultural sector has an impact on poverty reduction in Mauritania. We verified the relationship not only in terms of incidence but also in terms of the intensity and severity of poverty. The study is the first to highlight the contribution of the non-agricultural sector to rural poverty reduction in Mauritania. We applied the probit model, average treatment effects using propensity score (PSM) and inverse probability weighting (IPW) matching techniques to determine the sign and impact of the impact of participation on poverty reduction. The results show that the probability of being poor, not poor is 5.9% lower among households that have at least one member participating in the non-farm sector compared to agricultural households. Participation has an impact on reducing the intensity and severity of the poor by 3.6% and 1.9% compared to agricultural households. We also find that the surplus-labor released by the agricultural sector is redirected to the non-agricultural sector. The allocation of labor is sanctioned by the increase in household income in the non-agricultural sector compared to households that are exclusively agricultural. Diversification into non-farm activities seems to be an effective way to reduce poverty in rural areas, an insurance instrument against adverse shocks. The paper confirms the literature on the benefits of the non-agricultural economy on the well-being of rural populations, in a particular context, where the agricultural sector has been neglected for several years at the expense of other sectors such as mining and public infrastructure, where land reform policies have not had the expected effects.

Keywords: nonfarm employment, rural, poverty, Mauritania

Strategy Track

THE CSR-STRATEGY PARABOLA: THE U-SHAPED RELATIONSHIP BETWEEN CORPORATE SOCIAL RESPONSIBILITY AND STRATEGIC MANAGEMENT IN CORPORATE REPORTING

Mark Fuller, St. Francis Xavier University
William Warren, St. Francis Xavier University

Abstract

This paper explores the intersection of strategic management and corporate social responsibility (CSR). A documentary analysis of 84 large cap Canadian firms suggests a parabolic distribution of firms in terms of strategic integration of CSR, with some firms having little more than a vision statement, other firms having a greater degree of embeddedness.

RÉSILIENCE ET CRÉATION DE VALEUR : LE RÔLE DU MODÈLE D'AFFAIRES /

Hélène Delerue, L'Université du Québec à Montréal
Alidou Ouedraogo, L'Université de Moncton
Pierre-Yves Boyer, Institut d'Administration des Entreprises Réunion

Abstract

L'objectif de cette recherche est d'étudier dans quelle mesure la capacité des entreprises à innover les processus de création de valeur peut contribue par la suite à leur résilience. L'étude est menée sur 61 PMEs manufacturières localisées sur l'île de la réunion.

Papers

THE ENTREPRENEURIAL PROPENSITY OF WOMEN REVISITED 10 YEARS LATER

Tasha Richard, Dalhousie University

Abstract

This paper seeks to understand the current entrepreneurial propensity of women. Langowitz & Mininni (2007) is the most cited research using GEM data. Their results showed that subjective perceptual variables were important in the entrepreneurial propensity of women. Using a behavioural economic approach with the most recent 2014 GEM data, I conducted a duplication study to see how the propensity of women has changed. Results show not all perceptual variables remain significant today. Of most significant difference is the fear of failure on the propensity to start a business whereby men are no longer negatively impacted by a fear of failure while women remain significantly and negatively impacted. A call to examine how we address the fear of failure within our support for women entrepreneurs is put forth.

INTRODUCTION

The Global Entrepreneurship Monitor's (GEM) special report on Women and Entrepreneurship in 2006 demonstrated a clear gender gap between the number of men and women starting businesses around the world. The gender gap in 2006 was reported as being the greatest in the high-income country group where men were almost twice as likely to be early stage or established business owners versus women (GEM 2006). The GEM framework divided individuals into two classifications with the first being opportunity entrepreneurs. These are individuals who want to exploit a perceived business opportunity. The second were necessity entrepreneurs who are pushed into entrepreneurship because other options perceived to be available to them are either absent or unsatisfactory. The 2006 GEM report identified that, upon closer examination of the data collected, there was no gender gap among necessity entrepreneurs. The gap existed among opportunity entrepreneurs exclusively.

Fast forward to the 2016/17 GEM special report on Women and Entrepreneurship; Among 63 economies (out of 74) featured in 2016/17 report and the previous one issued two years prior, the gender gap (ratio of women to men participating in entrepreneurship) narrowed by 5% (GEM 2017). While it is motivating that we are making progress in supporting entrepreneurial activity among women, GEM outlines several remaining challenges for women entrepreneurs, including a higher instance of necessity motivation for female entrepreneurs, lower growth expectations, and higher rates of discontinuance versus their male counterparts (GEM 2017). These challenges imply that support for new and established businesses, including coaching, access to capital, education and training could be critical factors in continuing to close the gender gap in entrepreneurship.

Why is encouraging entrepreneurial activity among women so important? Governments in G7 countries are focused on the gender dimension of entrepreneurship, recognising that a greater level of entrepreneurship among women can contribute to innovation, job creation and social inclusion

(OECD, 2016). There is an increasing recognition across G7 countries that female entrepreneurs create new jobs for themselves and others while providing society with a unique perspective and approach to business, management and organizational issues (OECD, 2016). A recent McKinsey report on the power of parity estimates that advancing women's equality can add $12 trillion to global growth (McKinsey & Company, 2015, p.3).

Entrepreneurship gender studies in academia is an established area of research, gathering momentum from the late 1990's and continuing today, concurrently with governments' interest in promoting entrepreneurial activity among women. Understanding what motivates a person to start a business can help governments and entrepreneurial support organizations better promote entrepreneurship as viable option. Given that entrepreneurial activity can transform the GDP of a nation (Stel *et. al*, 2005), there is strong motivation in understanding why the gender gap exists in entrepreneurial activity. Women represent an untapped source of economic growth thus nations are interested in stimulating entrepreneurial activity among women. In order to understand the gender gap we must first understand the entrepreneurial propensity of both men and women. Is each gender motivated the same way to start businesses? If there are differences in motivations then in order to encourage entrepreneurship do we need to tailor our support by gender?

This paper seeks to understand the current entrepreneurial propensity of women and if it differs from that of men. Using the most recent GEM data available from 2014, we will duplicate a seminal study of the entrepreneurial propensity of women done in 2007 using 2001 GEM data (Langowitz & Mininni) to see if and how the propensity of women starting businesses has changed in the last fourteen years. In this paper I take a behavioural economic approach using individual-level survey data collected in 2014 for the Global Entrepreneurship Monitor project to see what variables influence the entrepreneurial propensity of women and whether these variables have a statistically significant correlation with gender. Data consists of a stratified sample of at least 2000 individuals per country across 17 countries.

The contribution I am making to the women's entrepreneurship literature is twofold. First, if the growth women's entrepreneurship remain important to the economic viability of a country it is important to understand what factors mobilize or prevent women from starting new businesses. As shifts in societies occur so may the entrepreneurial propensity of women. This paper will contribute to the understanding of what factors currently influence women's propensity to start businesses. Secondly, given the size of the data set I am using, I am able to establish, as with the original study conducted, whether these factors are universal and what size of the gender gap do they account for as it relates to entrepreneurial behaviour.

THEORETICAL OVERVIEW AND HYPOTHESIS DEVELOPEMENT

The Entrepreneurial Propensity of Women (Langowitz & Mininni 2007) is the most cited published research using GEM data since the inception of the Global Entrepreneurship Monitor (*Sánchez et.al.* 2016). This seminal research used GEM data from 2001 to understand what was driving the gender gap among entrepreneurs. Their results showed that subjective perceptual variables had an important role in the entrepreneurial propensity of women and accounted for much of the entrepreneurial gender gap in 2001. They specifically found that women tended to perceive themselves and the entrepreneurial environment in a less favorable light than men across all countries in their sample both among opportunity and necessity entrepreneurs. The authors suggested that perceptual variables may be significant universal factors influencing entrepreneurial behavior (Langowitz and Mininni 2007).

The original paper used behavior economics, challenging neoclassic economic theory, to explore the entrepreneurial propensity of women using GEM data. Given that this is a duplication study I have used the same theoretical lens.

The decision to start a business can be a complex one based on many, and sometimes conflicting, factors. In neoclassic theory it is assumed that the decision maker can calculate which

alternative has the potential to yield the greatest personal utility given their knowledge of probabilities, alternatives and outcomes. Behaviour economics takes into account not only classic economic theories but also the effects of psychological, cognitive, emotional, cultural and social factors that play into economic decision making. One such theory of behavior economics is Prospect theory, which helps to explain why people choose between alternatives where the probabilities of outcomes are uncertain, such as in the case of the risk and reward associated with starting a business (Kahneman, Slovic, & Tversky, 1982).

One of the earliest studies of an entrepreneur's propensity towards entrepreneurship was done by Gartner in 1985. He concluded that there are four major perspectives in separating entrepreneurs from non-entrepreneurs. These include the characteristics of the individuals who start the venture, the organization that they create, the environment surrounding the new venture and the process by which the new venture is started (Gartner, 1985). Since then there have been dozens of studies done on the propensity of entrepreneurs. In the early 1990's academic researchers increasingly began focusing more on whether the decision to start a business differed between genders. Numerous studies have shown that females tend to be more sensitive than men with nonmonetary issues and the decision to start a business is much more complex for females than males (Bird & Brush, 2002; Burke, FitzRoy & Nolan, 2002).

Langowitz & Minniti (2007) used a framework in their research proposed by Arenius and Minniti (2005) that grouped factors influencing entrepreneurial decisions in into three main groups: sociodemographic factors, perceptual variables, and contextual factors. They then proposed the following ten hypothesis which I will re-test and compare results using the most recent GEM data available to see if the entrepreneurial propensity of women has changed over the last 15 years.

Hypothesis 1: Across all countries in the sample, age, income, employment status, and education are all significant in determining women's propensity to start new businesses.

Hypothesis 2: Across all countries in the sample, knowing other entrepreneurs is positively correlated to women's propensity to start new businesses.

Hypothesis 3: Across all countries in the sample, alertness to existing opportunities is positively correlated to women's propensity to start new businesses.

Hypothesis 4: Across all countries in the sample, fear of failure is negatively correlated to women's propensity to start new businesses.

Hypothesis 5: Across all countries in the sample, the subjective belief of having adequate skills and knowledge is positively correlated to women's propensity to start new businesses.

Hypothesis 6: Across all countries in the sample, the relative importance of socio-demographic and/or perceptual variables to the entrepreneurial propensity of women is contingent on entrepreneurial motivation.

Hypothesis 7: Across all countries in our sample, socio-demographic variables explain a significant portion of the differences in the propensity to start a business across genders.

Hypothesis 8: Across all countries in our sample, knowing other entrepreneurs explains a significant portion of the differences in the propensity to start a business across genders.

Hypothesis 9: Across all countries in our sample, perceptual variables explain a significant portion of the differences in the propensity to start a business across genders.

Hypothesis 10: Across all countries in our sample, difference in the relative entrepreneurial propensity of men and women is contingent upon differences in entrepreneurial motivations.

METHOD

The ten hypothesis all work towards investigating what variables influence the entrepreneurial propensity of women and whether these variables have a significant and systematic relation with differences across genders (Langowitz & Minniti, 2007). Because the GEM data extends to many countries I am also able to test the universality of the relationships. Because the study extends across thirteen countries all at various levels of development the results should be representative across various macroeconomic country contexts providing universal traits of entrepreneurial behavior.

The GEM data used for this duplication study was collected in the spring of 2014. Of the original 17 countries studied, I was only able to access full data sets for 13 hence the duplication study does not include New Zealand, South Korea, Iceland or Israel. (See Table 1 for a comparison of countries in each study) In each country, a standardized survey was administered to at least 2000 adults between the ages of 18 to 64. The total number of cross-country individuals available for my study was 38,781. GEM data distinguishes between those who are actively involved in an entrepreneurial venture compared to those who were in the process of starting a business. Those in the start up stage are categorized as nascent entrepreneurs. In order to measure entrepreneurial propensity I focused on those specifically who were identified as nascent entrepreneurs.

Table 1: Countries Included in Each Study

2007 Study using 2001 Data	2018 Study using 2014 Data
Russia	Russia
Hungary	Hungary
Denmark	Denmark
Sweden	Sweden
Poland	Poland
Germany	Germany
Argentina	Argentina
New Zealand	United States*
Singapore	Singapore
Japan	Japan
Korea	France*
India	India
Canada	Canada
Portugal	Portugal
Finland	Finland
Isreal	Netherlands*

*denotes replacement country different from 2007 because of lack of data for original country

Survey respondents were first asked if, at the time of the interview, they were alone or with others, trying to start a business, including any self employment or the sale of goods or services to others (GEM 2016). The respondents that responded yes to this question were then asked if, over the preceding 12 moths from the interview time, they had done anything to help themselves start a business. This included looking for a location or equipment needed for the business, saving money for the business, writing a business plan and/or bringing together a team to support start-up initiatives. They were also asked if they would personally own all, part or none of the business. Nascent entrepreneurs were

identified and coded based on an affirmative answer to the first follow up question on activity and "all" or "part" to the second follow up question on ownership. Thus, in this article, as with the original study being duplicated and in line with GEM methodology, a nascent entrepreneur is defined as an individual who is in the process of starting a business, has committed resources to their business and is planning on owning all or part of the business (Langowitz & Minniti, 2007; Gem 2016).

Those classified as nascent entrepreneurs were also asked about their motivations in starting a business; was it based on necessity because there were no better employment choices (necessity nascent entrepreneurs) or because they recognized an opportunity in the marketplace that they wanted to exploit (opportunity nascent entrepreneurs)? GEM data (2014) indicates that more than 95% of respondents to the survey could be classified into one of these two categories. Additional information about the GEM 2016 survey questions and all dependent variables used in my study can be found in the appendix.

The independent variables in my study are country of origin (*name of country*), age (*age*), educational attainment (*gemeduc*), work status (*workstatus*), household income (*gemhhinc*), and whether the respondents in the study knew other entrepreneurs at the time of the interview (*knowent*). A dummy variable, *gender*, was used in the models where men and women were included together.

The GEM data also includes a set of perceptual variables that I used in my modeling. *Opport* describes the participant's perception on whether there are good opportunities to start a business in the area where they live. *Suskil* is the perception of the participant on whether they have the required knowledge and skills to start a business and *fearfail* describes the extent to which survey participants identify with having a fear of failure that would prevent them from starting a business. The Appendix includes detailed information for all independent variables used in the analysis.

In analyzing the data I took direction from the initial 2007 study by Langowitz & Minniti and used the statistical technique of probit models. Probit models suit the nature of the hypothesis and the type of data used in GEM research. They are similar to performing a regression analysis however extend the principles of generalized linear models to better treat the dichotomous and polytomous dependent variables (Langowitz & Minniti, 2007). I tested three probit models where all co-variables in all models were dummies. In each model I controlled for country of origin (*name of country*- reference category: United States), household income (*gemhhinc*- reference category: lowest 33%), educational attainment (*gemeduc*- reference category: some secondary schooling), work status (*workstatus*), and for knowing other entrepreneurs (*knowent*). I also included perceptual variables by controlling for *fearfail, suskill* and *opport*.

Table 2

Correlation Table

	Mean	1	2	3	4	5	6	7	8	9
1 Suboanw	0.69									
2 Age	40.0	-.063**								
3 Gender	1.51	-.044**	.025**							
4 Workstatus	2.09	-.081**	-.110**	.162**						
5 Gemeduc	3.28	.016**	-.090**	-.026**	-.095**					
6 Gemhhinc	2.10	.041**	-.007**	-.089**	-.178**	.222**				
7 Opport	0.22	.132**	-.0076**	-.051**	-.093**	-.003	.070**			
8 Suskill	0.46	.184**	-.029**	-.119**	-.130**	.042**	.089**	.197**		
9 Fearfail	0.34	-.078**	.002	.076**	.032**	.006**	-.043**	-.101**	-.181**	
10 Knowent	0.35	.143**	-.112**	-.077**	-.118**	.054**	.100**	.211**	.246**	-.057**

** Correlation is significant at the 0.01 level (2-tailed) Significant variables at the 95% confidence level or above

Table 2 shows the correlation coefficients across all variables for both men and women combined. All nine independent variables have a strong correlation with nascent entrepreneur variable *suboanw* (p< .001). Table 2 shows that entrepreneurial propensity is positively related to being male, being employed regardless of gender, knowing other entrepreneurs, and having positive perceptions of one's own skills and existing opportunities but is negatively correlated with age and fear of failure. This is consistent with the original study (Langowitz & Minniti, 2007).

RESULTS

Results of my analysis are shown in Tables 3, 4 and 5. As with the original study, I have shown the results first by testing women's entrepreneurial propensity; this is found in Table 3. Model 1 shows the result of the probit model when all women in the sample are considered. Model 2 shows the results for women who are opportunity driven while Model 3 shows the results for women that are necessity driven. Table 4 repeats the same models using men only (models 4 through 6) and Table 5 shows the results with men and women combined (model 7).

In the original study, the researchers found that almost twice as many men were involved in were involved in starting a business (1.7x) with the differences across genders showing as statistically significant overall and for each individual country (Langowitz & Minniti, 2007). My study revealed that there were 1.4 times more men involved in starting a business versus women. Gender was also statistically significant overall.

Table 3: Probit Models Women

	Model 1		Model 2		Model 3	
	Women All		Women Opportunity		Women Neccessity	
	df/dx	Z	df/dx	Z	df/dx	Z
Russia	-.3974838*	-3.72	.0319859	0.08	.1504975	0.34
Netherlands	-.1084062	-1.37	.058755	0.21	Omitted	
France	-.2590916*	-2.52	.7256176	1.34	Omitted	
Hungary	-.1357197	-1.58	-.4358559	-1.37	-.2249436	-0.59
Denmark	-.4327329*	-3.80	.1958577	0.49	Omitted	
Sweden	-.2406008*	-2.71	.6775911	1.18	Omitted	
Poland	-.1746881*	-2.27	.2096244	0.73	.3241631	0.87
Germany	-.2288696*	-3.43	.2284867	1.01	.6812163	1.20
Argentina	.1365614*	1.72	.1074502	-.35	.8375759*	2.12
Singapore	.104643	1.27	-.6662448*	-3.26	-.3478605	-0.60
Japan	-.3793046*	-2.38	Omitted		Omitted	
India	-.1642004*	-2.65	.294956	1.10	.1528308	0.47
Canada	.1213757	1.86	.1984236	1.04	.272514	0.63
Portugal	-.0833654	-0.97	-.4121243	-1.53	.3692076	0.79
Finland	-.2582047*	-2.74	.5443204	1.22	Omitted	
Gemhhinc (middle 33%)	-.0380906*	-2.06	-.0464823	-0.75	-.1493952	-1.83
Gemhhinc (upper 33%)	-.0295743	-1.58	-.1927363*	-3.24	-.1143467	-1.36
Age 18-24	.4468184*	9.56	.0821384	0.43	.3884854	1.64
Age 35-44	.4286487*	9.51	.0985621	0.53	.3514775	1.54
Age 45-54	.3008487*	6.54	.0002865	0.00	.3830694	1.65
Age 55-64	.1106555*	2.26	-.1609575	-0.80	.4546595	1.83
Gemeduc (sec degree)	-.0958532*	-3.76	-.2041388*	-2.39	-.2705151*	-2.56
Gemeduc (postsec)	-.1003479	-4.72	-.0952294	-1.35	-.2953326*	-3.18
Gemeduc (grad.exp)	-.0551366	-2.50	-.0520318	-0.75	-.1365593	-1.29
Workstatus	-.0512706*	-13.24	.1219124*	8.12	.1890837*	1.05
Knowent (yes)	.30352*	20.26	-.1953963	-3.96	-.1536066*	-2.25
Opport (yes)	.1931579*	16.43	-.0226731	-0.60	.0045682	0.09
Suskill (yes)	.5503448*	35.22	.054259	0.96	-.1240242	-1.55
Fearfail (yes)	-.175948*	-12.29	-.0295429	-0.60	-.049662	-0.73
	Model Diagnostics					
Pseudo R2	0.1170		0.0371		0.0688	
Log-likelihood	-16709.765		-1957.7451		-942.65392	

Table 4: Probit Models on Men Sample

	Model 4		Model 5		Model 6	
	Men All		Men Opportunity		Men Neccesity	
	df/dx	Z	df/dx	Z	df/dx	Z
Russia	-.4374185*	-4.09	-.0453237	-0.13	1.055268	1.83
Netherlands	-.1709204*	-2.49	.170923	0.83	.4564752	0.92
France	-.2898364*	-3.26	.2442509	0.95	Omitted	
Hungary	.1269125	1.95	-.2590885	-1.33	-.424459*	-1.83
Denmark	-.3318199*	-3.71	1.014293*	2.69	Omitted	
Sweden	.1057279	1.70	.4808555	1.81	.1099641	0.20
Poland	.0327022	0.51	.3995827	1.78	.4509424	1.68
Germany	-.2259015*	-4.11	.4689819*	2.49	.1907781	0.55
Argentina	.15649*	2.26	.2380939	1.05	.6179491	1.66
Singapore	.289607*	4.38	-.2863719	-1.99	-.3773722	-1.21
Japan	.0283942	0.30	.5547054	1.80	.1347736	0.25
India	-.2265766*	-3.87	.1053623	0.44	.4331332	1.57
Canada	.0342041	0.56	-.3371295*	-2.55	-.2606084	-0.75
Portugal	-.0394448	-0.51	-.1592033	-0.75	-.1843051	-0.50
Finland	-.263166*	-3.19	1.254133*	2.59	.237895	0.32
Gemhhinc (middle 33%)	-.0179482*	-1.01	-.0323865	-0.60	.0782156	1.01
Gemhhinc (upper 33%)	.0541586*	3.22	-.1000396*	-2.07	-.1293582	-1.73
Age 18-24	.4164735*	9.49	.3628976*	2.83	-.1900058	-0.75
Age 35-44	.3675711*	8.65	.2482243*	2.00	-.0390778	-0.16
Age 45-54	.3003925*	6.99	.3225405*	2.55	-.1661963	-0.67
Age 55-64	.1138218*	2.53	.2465141	1.83	-.069442	-0.27
Gemeduc (sec degree)	-.1383509*	-5.89	-.0071242	-0.11	-.1034216	-1.02
Gemeduc (postsec)	-.1253537*	-6.48	.0096007	0.18	.1460139	-1.66
Gemeduc (grad.exp)	-.0514996*	-2.60	-.0580847	-1.15	-.1581183	-1.67
Workstatus	-.0379074*	-9.91	.0788567*	3.45	.1499097*	2.07
Knowent (yes)	.3293996*	24.44	-.2590724*	-6.39	-.2739036*	-4.33
Opport (yes)	.2018308*	28.87	.0344615	1.13	-.0148461	-0.30
Suskill (yes)	.5183676*	34.70	-.1935377*	-3.78	.0844162	1.20
Fearfail (yes)	-.1510319	-11.18	.0473485	1.11	-.0077592	-0.12
			Model Diagnostics			
Pseudo R2	0.0981		0.0270		0.0524	
Log-likelihood	-21486.33		-3268.3797		-1154.1349	

Table 5: Probit Models for Pooled Sample (Men and Women)

	Model 7	
	Pooled Sample plus Gender Dummy	
	df/dx	Z
Russia	-.4190038*	-5.54
Netherlands	-.1448241*	-2.79
France	-.2761128*	-4.10
Hungary	.0208527	0.41
Denmark	-.3722112*	-5.31
Sweden	-.0218487	-0.43
Poland	-.0558797	-1.15
Germany	-.2273095*	-5.36
Argentina	.1450111*	2.78
Singapore	.2156633*	4.20
Japan	-.1033843	-1.29
India	-.1988667*	-4.67
Canada	.0736681	1.65
Portugal	-.0582582	-1.01
Finland	-.261931*	-4.22
Gemhhinc (middle 33%)	-.0292638*	-2.29
Gemhhinc (upper 33%)	.017737	1.43
Age 18-24	.4293041*	13.44
Age 35-44	.3935056*	12.75
Age 45-54	.30011302*	9.58
Age 55-64	.113528*	3.44
Gemeduc (sec degree)	-.118175*	-6.85
Gemeduc (postsec)	-.1139188*	-7.97
Gemeduc (grad.exp)	-.0525932*	-3.58
Workstatus	-.0439293*	-16.17
Knowent (yes)	.3177998*	31.75
Opport (yes)	.1975168*	24.99
Suskill (yes)	.535316*	49.61
Fearfail (yes)	-.1628484*	-16.58
	Model Diagnostics	
Pseudo R2	0.1089	

Table 3 allows me to test the first six hypotheses. Table 2 shows that, in my sample, age, work status, income level, and having a degree have a significant relationship to women's propensity to start a business thus supporting hypothesis one. The 2007 study found the exact opposite, rejecting hypothesis one. In Model 1 all but the upper 33% of income, post secondary education and graduate experience showed significant. In Model 2 where women are classified as starting a business because of a perceived opportunity, having higher income, a secondary degree and currently working are statistically significant with women's propensity to start a business. For women who are considering entrepreneurship out of necessity (Model 3), having secondary or post secondary education, knowing entrepreneurs and work status decreases their likelihood of starting a business. This is somewhat different from the 2007 study where it was only higher income that decreased their propensity.

Similar to 2007, there were some country specific effects though no country shows significant coefficients across all models. Table 2 shows that, overall, knowing other entrepreneurs significantly and positively affects their propensity to start a business thus allowing an acceptance of hypothesis two. Interestingly it was not significant for Model 2 and negatively significant for Model 3. This one is a bit hard to interpret the meaning of. On one hand, knowing another entrepreneur may either reinforce or take away from one's understanding of the magnitude of opportunity that may or may not exist in a particular industry. Based on the information provided by the GEM data, however, one can not definitively explain these results.

All three models in Table 2 showed significant coefficients on the three perceptual variables (*opport, suskill,* and *fearfail*) and their signs support hypothesis 3 to 5. Alertness to existing opportunities and the subjective self-assessment of having adequate skills and knowledge are both positively related to women's propensity to start new business. Fear of failure is negatively related to women's propensity to start a business. This aligns with the 2007 study. In subsequent research it would be interesting to explore if fear of failure has decreased over time or whether it differs by type of country and what the ramifications are for women entrepreneurship support organizations.

In 2007 there was no support for hypothesis 6; socio-demographic variables were not contingent on entrepreneurial motivation. Contrary to the 2007 data I actually found support that women looking to start a business were negatively impacted by knowing an entrepreneur.

The analysis in Table 3 tests the hypotheses 7 through 9. As with women, some country effects were visible but again, none were significant across all three models. In 2007 there were five countries that showed significance across all three models. No support was found for hypothesis 7. Further, I found no support was for hypothesis 8; both women and men react positively to entrepreneurship when knowing other entrepreneurs. In 2007 the researchers concluded that there was support for hypothesis 8. This indicates that there has been a shift over time and knowing other entrepreneurs no longer explains a significant portion of the differences in the propensity to start a business across gender. In terms of the perceptual variables tested in hypothesis 9, both *opport* and *suskill* are positively and statically significant for both men and women, which aligns with the 2007 results. *Fearfail*, however, has shifted. In 2007 both men and women were negatively and significantly impacted by the fear of failure. Fast-forward to 2018 and, while women are still negatively and significantly impacted by the fear of failure, men are no longer significantly impacted by the fear of failure nor is the coefficient negative.

I found significant support for hypothesis 10 in the 2014 data set. Women and Men that were considering entrepreneurship (models 2 and 5) because of perceived opportunity respond differently to perceptual variables. Further, many of the socio demographic factors differ. This is a departure from the 2007 study.

Model 7 considers the pooled sample of all men and women but with a dummy variable for gender to test for the significance of gender effects. The 2007 study showed a negative and highly significant coefficient for the gender dummy variable (*gender*) meaning a gender effect did exist and it was significant (Langowitz & Minniti, 2007). In my results the gender variable in Model 7 was positive and significant. This means that, based on the variables used in the study, being a women reduces the likelihood that a person will be involved in starting a business.

DISCUSSION AND CONCLUSION

Subjective perceptual behaviours continue to play a crucial role on the entrepreneurial propensity of women. The 2007 report concluded that women tend to perceive themselves and the entrepreneurial environment in a less favourable light than men across all countries they sampled, regardless of whether they are starting a business out of necessity or because of perceived opportunity (Langowitz & Minniti, 2007). This accounted for much of the difference in entrepreneurial activity between the sexes based on 2001 data. My study, based on data collected over 10 years later, shows somewhat of a shifting story. While knowing entrepreneurs was positively impactful for both men and women, not all perceptual variables remain significant today. Both men and women remain most impacted by whether or not they believe they have the skill set, experience and knowledge required. In close second is their perception that an opportunity exists for them to start a business. Of most significant difference is the impact of the fear of failure on the propensity to start a business. Over the last ten years men are no longer negatively impacted by a fear of failure. Women, however, remain significantly and negatively impacted. This raises many questions for me; despite a marked increase in encouragement and support for women around the world to start businesses I wonder if HOW we are offering the support (i.e. through skills and networking) addresses one of the bigger roadblocks that women face in dealing with their fear of failure?

These findings should be of interest to policy makers and support organizations alike. How can we address the perceived barriers (subjective perceptual variables) to encourage and support women beyond skills and through their fear of failure? What sort of training programs can address this fear? "Closing the gender gap in entrepreneurship will be feasible only if the entry rates of women will become more similar to the entry rates of men. Increasing female entry rates into entrepreneurship might become a crucial policy target as entrepreneurs benefit economies through innovative activities, new job creation, increased productivity, and competition, or because they accelerate structural change. Economies with fewer females engaged in entrepreneurship have, therefore, untapped potential" (Global Entrepreneurship Monitor 2005).

Future areas of study that would be beneficial would be to better understand the thoughts and perceptions driving the fear of failure for women and why men are not impacted by the fear of failure. It would also be beneficial to do an in-depth analysis on how entrepreneurial support programs by country may differ for men and women. As an example, Canada has specific programs for women entrepreneurs but not men. Does this inadvertently create a larger divide, sending women a message that they need "special" support to succeed?

Appendix: Data Description

Nascent Entrepreneurs

In the GEM 2016 adult population survey, all respondents were asked:

1. Are you, alone or with others, currently trying to start a new business, including any type of self-employment? (Yes, No, Don't know, Refuse) (*bstart*)
2. Are you, alone or with others, trying to start a business or a new venture with your employer- an effort that is part of your normal work? *Yes, No, Don't know, Refuse) (*bjobst*)
3. You mentioned you were trying to start a business. Over the past twelve months have you done anything to help start this new business, such as looking for equipment or a location, organizing a start-up team, working on a business plan, beginning to save money, or any other activity that would help launch a business (Yes, No, Don't know, Refuse) (*suacts*)
4. Will you personally own all, part, or none of this business? (All, Part, None, Don't know Refuse) (*suown*)
   The respondents were coded s "nascent entrepreneurs" (*suboanw*) if, in addition to 1 or 2, they answered "yes" and "all" or "part" to items 3 and 4, respectively.
   All respondents that had been classified as nascent entrepreneurs were then asked the following question which then categorized them into two groups: necessity entrepreneurs or opportunity entrepreneurs.
5. Are you involved in this start-up to take advantage of business opportunity or because you have no better choices for work? (Take advantage of business opportunity, no better choices for work, Other) (*surreason*)

ASB 2019: Msit no'kmaq "honoring all my relations"

Table A1 Definition of Independent Variables

Variable and Corresponding Survey Questions	Possible Values
Gender Respondents were asked their gender	Male Female
Age Respondents were asked their age	18-24 24-34 35-44 45-54 55-64
Work Status Respondents were asked to provide their work status at the time of taking the survey. Answers were consolidated and then classified as either working full time, part time or not working.	Full Time/ Part Time Part Time Only Retired/ Disabled Not Working Other/ Missing
Gemhhinc Respondents were asked about their household income. Data was classified in three groups.	Lowest 33% Middle 33% Upper 33%
Gemeduc Respondents were asked about the highest level of education attained. Data was classified into 5 groups.	Some Secondary school Secondary Degree Post Secondary Degree Grad experience No education
Knowent Respondents were asked if they knew someone personally who started a business in the past 2 years.	Yes No Refused
Opport In the next six months, will there be good opportunities for starting a business in the area where you live?	Yes No Refused
Suskill Do you have the knowledge, skill and experience required to start a new business?	Yes No Refused
Fearfail Would fear of failure prevent you from starting a business?	Yes No Refused

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THE GENDERING OF THE ADMINISTRATIVE SCIENCES ASSOCIATION OF CANADA

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Abstract

This paper conducts a content analysis of four years' worth of Administrative Sciences Association of Canada (ASAC) conference proceedings[1], applying Acker's (1990) gendered organization process framework. Three of Acker's five gendering processes are operationalized in the context of a voluntary and scholarly association's conference proceedings. Evidence of all operationalized processes was noted in the corpus, and areas for further study and methodological improvements are suggested.

Introduction

This paper explores the visible outputs (i.e., conference papers) that mark the gendering of a learned society for the study of management (i.e., the Administrative Sciences Association of Canada [ASAC]) during the period 1979 to 1994, measured at five-year intervals. These outputs can be used to ascertain how inputs, processes, and systematic barriers have changed over time—that is, how gendering processes have changed.

This paper's contribution is to provide concrete evidence of the relative prevalence of articles making gendered-aware contributions to the ASAC conference. This will enable further research to be done regarding the systems and processes in place that reinforced or broke down barriers over time.

The upstream implications of this research frame the interactions among participants in ASAC and its conference, which then have downstream implications on management education and organizational culture more broadly.

This paper will briefly address the history of the Administrative Sciences Association of Canada to provide context and situate the society. A discussion of gendering of organizations provides a framework for understanding the multilayered influences that create gendered outcomes and processes within organizations. The anticipated contribution of the paper is explicated, leading to presentation of the results of a content analysis of four years' worth of conference papers, with implications noted. The paper concludes with a discussion on its limitations and considerations for future research.

The Administrative Sciences Association of Canada

The Administrative Sciences Association of Canada was founded in 1957 by business school deans from Canadian universities (Austin, 1998). The deans defined its original mission as "the promotion and improvement of higher education in the various fields of commerce and business administration." (ASAC, 1957, as cited in Austin, 1998). The goal was to elevate their faculties' and schools' statuses to be on par with other professional schools (Austin, 1998).

Today, ASAC hosts a "collegial," multi-track conference annually (ASAC, n.d.-a), with 20 divisions represented (ASAC, n.d.-b). While acceptance rates are higher than comparable organizations such as the Academy of Management, this is largely due to the breadth of disciplines and small population base (Austin, 1998).

Gendered Organizations

Acker argues that organizations are gendered, meaning "that advantage and disadvantage, exploitation and control, action and emotion, meaning and identity, are patterned through and in terms of a distinction between male and female, masculine and feminine" (Acker, 1990, p. 146).

She suggests that five interacting processes serve to gender an organization:

1. Gendering Practices / Structures: An outright division of processes and actions by gender, particularly with reference to power and its preservation or formation;
2. Gendering Cultures: Symbols or images that interact with gender divisions, whether they come from inside or outside the organization;
3. Gendering Interactions: Interactions between and among the genders, with particular emphasis on hierarchical relations enacted in these interactions;
4. Internal Gender Constructions: Self-gendering processes that emerge from the above noted processes; and
5. Creating and Conceptualizing Social Structures: The framing and expression of social structures (Acker, 1990; headings from Dye & Mills, 2005).

While Acker frames these processes as "analytically distinct," she acknowledges that they are interrelated (Acker, 1990, p. 146). Indeed, the interdependencies between these processes will be made explicit later in this paper, as the operationalization of the processes overlap significantly. Whilst not the holistic approach to studying the gendering of organizations suggested by Dye and Mills (2005), it acknowledges the interdependencies.

Limiting the Analysis Ground of a Gendered Organization

Prior to applying these processes to ASAC, a distinction must be made, differentiating ASAC from a traditional, paid work organization. Following Etzioni's (1975) typology, normative, coercive, and utilitarian organizations can be distinguished. Acker's framework implicitly frames gendering processes within the sphere of paid work, as evinced by her use of words such as "work," "labour," and "management" (Acker, 1990). Utilitarian organizations provide a material benefit for affiliation, whereas a normative organization provides non-material benefits to entice membership (Etzioni, 1975). There is, to be sure, some overlap between the normative and utilitarian functions with a professional society such as ASAC, in that ASAC publishes a journal and hosts conferences, which provide a venue for authors to publish, which leads to tenure, promotion, and salary increases (Miller, Taylor, & Bedeian, 2011).

However, because all authors in the sample papers reviewed are affiliated with a utilitarian organization, ASAC will be treated as a normative organization, in that its benefits accrue to authors affiliated with utilitarian organizations.

Framing the gendering processes within a normative organization requires some adjustment to the definitions of each process. The framing is further constrained by the methodology and data used. Taking the latter first, ASAC is an organization ripe for ethnographic or interview-based methodologies to uncover gendering and power dynamics at play within it. However, by conducting a content analysis of conference proceedings, these methodologies are not available. Further, since the analysis did not explore meeting minutes, the composition of leadership roles, or other artifacts associated with the internal workings of ASAC, the question of gendering and power dynamics within the organization writ large is not accessible to us. However, Austin (1998) notes the tensions during several gatherings, so there is almost certainly evidence within these formal documents and available through interviews of key actors.

Second, the selection of appropriate venues for publication and presentation is outside the scope of this paper; ASAC struggles to attract the same caliber of paper as other international conferences (ASAC, 1995, as cited in Austin, 1998; Hartt, Yue, Mills, & Helms Mills, 2009), which implies author decisions regarding venue are in play. Further, the processes of peer review and editing are similarly inaccessible though a content analysis, even though they inexorably frame the outputs of a conference.

Finally, the intent of any academic conference or journal is to produce and disseminate knowledge—with the ultimate intent of having a societal impact. The path of knowledge from conference presentation to management education and societal impact is not direct, lacking a reliable connection.

Thus, a key limitation of the chosen methodology is that the processes shaping this production of knowledge can only be inferred. Absent the voices of those involved in the production, only shadowed processes can be observed, which must not be mistaken for the actual processes and forces that shape them.

Analysis of a Gendered Organization Through Outputs

Analyzing the outputs (i.e., content) of an organizational process for evidence of gendering processes implies a poststructuralist approach to the work, in that the outputs represent the interplay of Foucault's concept of "power/knowledge" (Prasad, 2018; Townley, 1993). The outputs, therefore, illuminate the inputs and processes that shaped them, within the bounds of the above-noted limitations. These outputs represent a phenotypical outcome of a conference genotype interacting within and upon the ASAC environment.

When exploring gendering practices and structures, "ordinary organizational practices produce gender patterning of jobs, wages, and hierarchies, power and subordination" (Acker, 1992, p. 252). The analysis is defined in terms of hierarchies, power, and subordination. Power can also be attached to the topics presented in the paper. That is, which ideas are privileged? Whose voices are heard? How do these ideas and voices shift over time? What does this say about the organization and its members?

Gender construction at a cultural level explores symbols internal and external to the organization. Specifically, "the creation of symbols, images, and forms of consciousness that explicate, justify, and more rarely, oppose gender divisions" (Acker, 1992, p. 253). Slogans, taglines, and related marketing and promotional material could be instances of internal symbols, and societal norms and symbols could be

explored as an example of the external symbological influences. These are not accessible through a content analysis of conference papers, and so will be excluded from this analysis.

Interactions, through a gendered lens, are defined by Acker as the "interactions between individuals, women and men, women and women, men and men, in the multiplicity of forms that enact dominance and subordination and create alliances and exclusions. In these interactions, at various levels of hierarchy, policies that create divisions are developed and images of gender are created and affirmed" (1992, p. 253). Interactions between and among the genders can be framed in terms of author hierarchies, and choice of paper topics. The gender balance of paper authorship, relative position in the authorship list, and the prevalence of sole-authored papers by gender can be used to examine this process.

Internal gender constructions represent the "internal mental work of individuals [necessary to] construct their understandings of the organization's gendered structure of work and opportunity and the demands for gender-appropriate behaviours and attitudes" (Acker, 1992, p. 253) is the fourth process Acker posits. An attentiveness to gendered assumptions in a paper (i.e., the absence of gender blindness) (Mills, 2011) is at least partially an outcome of gender-appropriate behaviours.

Finally, there exists a set of meta-processes and documentation that inform a gendered substructure (Acker, 1990). These take the form of "written work rules, labour contracts, managerial directives, and other documentary tools for running large organizations" (Acker, 1990, p. 147). While these exist in the context of a set of conference proceedings as the "operating system," they are not accessible from the output, and so must be set aside for the purposes of this analysis.

Having now operationalized Acker's gendering processes in the context of both a voluntary organization and conference proceedings, the anticipated significance of this paper is demonstrated.

Significance

This paper is significant in three ways. Several analyses of gendering processes have been undertaken on an occupational level, including primary education, airline-specific occupations, and education (e.g., Marks, 1997; Mills, 1994; Sargent, 2005), and within a range of organizations, including prisons, higher education, and the airline industry (e.g., Britton, 1997; Chandler, Barry, & Berg, 2004; Mills, 1994). However, less work has been done on voluntary associations (e.g., Acker, 2006; Popielarz, 1999). Only one article could be located that addressed gendering processes, through unwinding and challenging them, in a learned society (Roby, 1992). Thus, the analysis frame, as both a voluntary organization and learned society, is relatively understudied.

There has been a reasonable amount of exploration of ASAC itself (e.g., Austin, 1998; Cocosila, Serenko, & Turil, 2011; Hartt et al., 2009). However, it does not appear that the process of gendering has been systematically explored, apart from the methodological analysis previously cited (Hartt et al., 2009).

Finally, it is unclear that a content analysis, particularly of conference proceedings, has been used to explore gendering processes within a learned society. This paper thus provides insight into the gendering process of a voluntary organization *qua* learned society, into a specific learned society, whilst using an atypical methodology, which is the next section.

Methodology

Electronically scanned copies of four years' worth of Administrative Sciences Association of Canada conference proceedings were reviewed to perform a content analysis specifically focused on gender and gendered topics published in the proceedings. A cross-sectional design was employed, covering the years 1979, 1984, 1989, and 1994. These were chosen to provide a sampling of proceedings at a sufficiently broad interval so as to capture frequency changes over time.

Data were coded and analyzed with respect to several entities. Authors and articles formed the primary units of analysis, with the former being coded to identify a unique identifier, (apparent) gender, institutional affiliation, academic rank, and author precedence relative to other co-authors. The author's gender was determined based on the genderedness of the name, or, when inconclusive, Google searches were performed to ascertain an author's gender. Due to limitations of the dataset, gender was coded as male, female, or unknown; non-binary, trans*, and gender-fluid expressions were not accounted for.

The institutional affiliation and academic rank (if known), were taken directly from the paper itself. Author precedence was coded as the author's position within the set of authors on a paper, ranging from 1 to *n*, where *n* represents the number of authors credited on the paper.

The latter were coded to identify year of presentation and track of presentation, language, and whether or not gendered constructs were used in the article. Additionally, the topic(s) of the paper were noted for articles presented in English.

An article was coded as having feminine gendered constructs when explicit conceptualizations of gender or family status (since it is tied to gender) as an analytical lens were used. It was insufficient to use gender as a categorical analytical variable, although single-gendered research was considered feminine for the purposes of this analysis. No distinction was made between articles evincing no gender constructs (i.e., gender-neutral) and those assuming masculine constructs. When the article was an abstract, in French, or otherwise corrupted, it was coded as "Unknown" relative to gendered constructs.

The data were evaluated using SPSS, primarily using frequencies and crosstabs. 528 articles with 902 authors, representing 689 unique authors, were reviewed across 21 tracks. Note that 1979 did not represent a complete ASAC conference—rather it represented a plenary session in Saskatoon.

Results

Gendering Practices / Structures

The ideas presented in a paper operationalize the first of Acker's gendering processes. Of the 23 articles coded as having a gendered analytical lens, which are noted with an asterisk in the references list, the keywords were very distinct. Women's portrayal in advertising was explored in two papers (Calantone, Pope Sr., & Picard, 1984; Vredenburg, Flatt, & Vredenburg, 1984). The role of gender in occupations was identified in four papers (Crane & Clarke, 1989; Dolan & Zeilig, 1994; Dyer, 1989; Mills, 1994), and several contributions explored family status and its differential impacts within organizations, with child care and telework being common topics (Andiappan, Reavley, & Silver, 1989; Austroa & Levanoni, 1984; Duxbury, 1989; Herbert & Minas, 1994; Karambayya, 1994; Picard, Lee, & Duxbury, 1994). The role of gender in presenting at work was explored by two authors (Korabik & Ayman, 1989; Rubin, 1994). The presence of gender bias or sexism was studied in two papers (Loeb & Arogyaswamy, 1994; McShane, 1989). The impact of management style on women was explored in two papers (Belcourt,

1984; Campbell, 1989). Finally, several papers were not easily categorized, including an account of competitors at an MBA case competition (Faseruk, 1994), an exploration of feminism and entrepreneurship (Barrett, 1994), an evaluation of pay equity (Cole, 1994), explanations of job preferences between men and women (Irving & Meyer, 1994), and understanding the earnings gap between male and female MBA graduates (Langton, 1994).

Gendering Interactions

Thus, exploring the relationships between the genders is the next gendering process to fall under the microscope. The gender composition of author teams, as well as the author position serves to operationalize this concept.

To establish a baseline for further discussion of author relationships by gender, an analysis was performed of the gender of each author of an article, as demonstrated in Table 1. Women represented 19.3% of the article authors, overall. Between 1984 and 1994, the percentage of female authors more than doubled, from 10.1% to 27.7%.

Table 1 • Author Gender, by Year

	Article Year				
Author Gender	1979	1984	1989	1994	Total
Female	1 (20.0%)	21 (10.1%)	48 (15.3%)	104 (27.7%)	174 (19.3%)
Male	3 (60.0%)	182 (87.5%)	255 (81.5%)	270 (71.8%)	710 (78.7%)
Unknown	1 (20.0%)	5 (2.4%)	10 (3.2%)	2 (0.5%)	18 (2.0%)
Total	5	208	313	376	902

Note: $\chi^2 = 44.737$, df = 6, $p < 0.01$

In addition to exploring author gender on an individual basis, author team composition can be analyzed to demonstrate the "interactions between individuals…in [their] multiplicity of forms" (Acker, 1992, p. 253). Articles can be coded as to whether or not the mix of authors is all female, all male, of mixed genders, or unknown (where the gender of at least one author is unknown). As seen in Table 2, the proportion of all-female author teams nearly tripled from 1984 to 1994, and the proportion of mixed female-male author teams doubled between 1984 and 1994, yet overall, male-male teams still represented 69.9% of the total articles in the corpus.

Table 2 • Author Team Gender Mix, by Year

	Article Year				
Author Gender Mix	1979	1984	1989	1994	Total
All Female	1 (20.0%)	8 (6.1%)	21 (11.4%)	40 (19.2%)	70 (13.3%)
All Male	3 (60.0%)	106 (80.9%)	134 (72.8%)	126 (60.6%)	369 (69.9%)
Mixed	0 (0.0%)	12 (9.2%)	21 (11.4%)	40 (19.2%)	73 (13.8%)
Unknown	1 (20.0%)	5 (3.8%)	8 (4.3%)	2 (1.0%)	16 (3.0%)
Total	5	131	184	208	528

Note: $\chi^2 = 44.149$, df = 12, $p < 0.01$

This gender breakdown of author teams suggests homosocial relationships are still the norm with respect to developing academic papers, which negates the potential benefits of proactively and forthrightly challenging gender norms from a place of privilege. By contrast, sole authorship implicitly asserts one's position in the academic conversation, as the next table shows.

Table 3 • Sole Author Gender, by Year

| Sole Author Gender | Article Year | | | | |
	1979	1984	1989	1994	Total
Female	1 (20.0%)	8 (12.3%)	18 (20.2%)	29 (31.9%)	56 (22.4%)
Male	3 (60.0%)	54 (83.1%)	69 (77.5%)	62 (68.1%)	188 (75.2%)
Unknown	1 (20.0%)	3 (4.6%)	2 (2.2%)	0 (0.0%)	6 (2.4%)
Total	5	65	89	91	250

Note: Only papers with a sole authorship are listed in this table.
$\chi^2 = 51.937$, df = 9, p < 0.01

As Table 3 reveals, there were 250 sole-authored articles, comprising 47.5% of the articles reviewed. Women represented 22.4% of sole authors, but this belies a statistically significant increase in women's sole authorship over the period of the study, from 12.3% in 1984 to 31.9% in 1994. Further review of the topics and tracks papers were presented on will be needed to ascertain the degree to which sole authorship represents a challenge to dominant ways of thinking in various disciplines.

Internal Gender Constructions

Turning now to the presence of gendered constructs in the articles, the vast majority of articles (71.4%), represent masculine or gender-neutral constructs; excluding articles where it was not possible to make a determination as to the gendered nature of the analysis, 94.6% of articles did not use gender as an analysis lens, as can be observed in Table 4.

Table 4 • Gendered Constructs in Articles, by Year

| Gendered Constructs | Article Year | | | | |
	1979	1984	1989	1994	Total
Feminine	0 (0.0%)	4 (3.1%)	7 (3.8%)	12 (5.8%)	23 (4.4%)
Masculine	5 (100.0%)	116 (88.5%)	127 (69.0%)	155 (74.5%)	403 (76.3%)
Unknown	0 (0.0%)	11 (8.4%)	50 (27.2%)	41 (19.7%)	102 (19.3%)
Total	5	131	184	208	528

Note: $\chi^2 = 21.066$, df = 6, p < 0.01.

The relative lack of a gendered analysis lens in the corpus suggests that internal gender constructions associated with academia, particularly in the management disciplines comprising ASAC's field, are nominally gender-neutral. Thus, examining gendered constructs within ASAC conference tracks should yield insight into the prevailing gender constructs within subdisciplines, as seen in Table 5.

Table 5 • Gendered Constructs by Conference Track, by Year

Gendered Constructs	Article Track																		Total
	PLE	RE	FIN	MSC	MKT	IS	OB	POL	POM	IB	WIB	HR	ACC	MED	OT	TOU	HIS	ENT	
Feminine	0	0	0	0	3	0	3	1	0	0	11	5	0	0	0	0	0	1	23
Masculine	5	4	29	30	77	32	52	29	22	44		21	1	21	12	12	6	5	403
Unknown	0	0	35	6	25	10	1	2	6	3	2	6	0	1	0	0	0	5	102
Total	5	4	64	36	105	42	56	32	28	47	13	32	1	22	12	12	6	11	528

Note: $\chi^2 = 318.874$, df = 34, $p < 0.01$.

Note: PLE = Plenary; RE = Real Estate and Urban Management; FIN = Finance; MSC = Management Science; MKT = Marketing; IS = Information Systems; OB = Organizational Behaviour; POL = Policy; POM = Production & Operations Management; IB = International Business; WIB = Women in Business combined with Women in Management; HR = Human Resources combined with Personnel & Human Resources; ACC = Accounting; MED = Management Education & Development combined with Management Education; OT = Organizational Theory; TOU = Tourism; HIS = Business History; ENT = Entrepreneurship

There were no papers leveraging gendered constructs in plenary session, the single Real Estate and Urban Management track studied, or Finance, Management Science, Information Systems, Production & Operations Management, International Business, Accounting, Management Education, Organizational Theory, Tourism, or Business History. Only six disciplines had any papers referencing gendered constructs, with Women in Business and Human Resources comprising the majority, and the remainder scattered across Marketing, Organizational Behaviour, Policy, and Entrepreneurship.

The results are more confirmatory than surprising, since the majority of the tracks that had no papers making gendered assumptions are more quantitatively-oriented, and thus less likely to have critical lenses turned upon them. This reinforces the sidelining of gendered approaches to research in business.

Finally, Acker's fifth gendering process, as it relates to "creating and conceptualizing social structures" (Dye & Mills, 2005, p. 92) can not be operationalized within this context.

Discussion and Implications

Evidence of all operationalized gendering processes was found. The majority of the papers that took gendered constructs into account did so at a fairly straightforward level, taking gender, product, or occupation as a unit of analysis, and exploring the stereotypes or representations associated with the given unit of analysis. Some articles looked more closely at differential impacts between genders, and still others explicitly framed organizational justice as a gendered issue.

Turning to gendered interactions, homosocial pairings were the norm, representing approximately 80% or more of author teams, as Table 2 demonstrates. Of note is that the proportion of female author teams is significantly higher than pure chance would suggest. Thus, self-selection of author teams may potentially represent a conscious challenge to the gender interaction norms otherwise in play.

The prevalence of women's sole-authored articles, shown in Table 3, further appears to serve as a refutation to gender interaction norms, operating on the assumption that, as a solo author, it may be easier to make more provocative claims.

Finally, internal gender constructions were explored by operationalizing an awareness of gendered constructs and topics in articles. Table 4 shows that less than 5% of articles reviewed were attentive to the gendered substructures and means of reproduction of gender and gender differences. The genesis of this work emerged in the early 1970s and built through to the 1990s (Acker, 2006), though Acker's seminal work (1990) was not available to researchers in this sample. Even accounting for the impact of Acker's work, there was no appreciable difference in awareness of gendered constructs across the corpus' sample of texts.

Distinct patterns were further observed regarding sensitivity to gender constructs by conference track. More quantitatively-oriented disciplines demonstrated less awareness of critical assumptions, including gendered assumptions than did more qualitatively-oriented disciplines. Unsurprisingly, the tracks explicitly devoted to Women in Business demonstrated the most use of gendered assumptions, as shown in Table 5.

In summary, the outputs of the ASAC conferences of 1979 to 1994, measured quinquennially, demonstrated evidence for all three of Acker's gendering practices that could be operationalized given the data set. This lays the groundwork for further research, both to extend and expand the data set and address known limitations, which will be the focus of the next section.

Limitations and Areas for Further Research

As previously noted, by narrowing the focus to the output of the conference process, *viz.* papers published in proceedings, the full scope of the gendering processes at play within ASAC and the knowledge production and dissemination processes it participates in cannot be studied.

To further explore these gendering processes at play, ethnomethodological and ethnographic research should be conducted with participants, with the explicit intent of surfacing the gendered forces at play in their experiences. This could be supplemented with post-structural, Foucauldian archeological research of available archival material, such as minutes of meetings, analysis of office-holders, and so on. This work follows in the footsteps of White, Jacobson, Jacques, Fondas, and Steckler (1995) and Roby (1992).

The process of selecting venues for publication and presentation of papers is also outside the scope of this paper, and would require additional participant-driven research (Locke, 2011). It may be possible to explore submission and acceptance rates across journals, conferences, and conference tracks as an indicator of selection processes (Austin, 1998). Specific research methodologies seem to have a gender-driven component, which likely influences publication venues (Plowman & Smith, 2011). Gendered research is often not seen as being in the purview of top-tier journals, and specific outlets are often recommended to authors of such work (Hall-Taylor, 1997). This research would provide useful context for further study in this area.

As previously stated, management education, particularly at the graduate level, is influenced and shaped by numerous forces—at least some of which are related to the production and dissemination of knowledge. Work to the impacts of conferences and journals' emphasis on non-gendered constructs needs to continue, to address concerns raised regarding management education (Mavin & Bryans, 1999; Sinclair, 1995, 1997).

Limitations of the present study include the small number of proceedings analyzed—four, on a quinquennial basis. Additional data should be gathered, both so that trends can be ascertained and further

analysis conducted, but also to enable a focus on the junctures (Mills, 1994) associated with ASAC, extending Austin's (1998) work past 1995. This would also enable a fuller representation of the social discourses (Mills, 1994) at play within three fields: Canada writ large, management education and research, and the sociology of management knowledge. Additional demographic information should be sourced to better understand the representativeness (or lack thereof) of ASAC vis-à-vis its primary membership base in Canadian business schools.

An attempt was made to explore the role of tenure (or lack thereof) in pursuing research on gendered topics, following Plowman and Smith (2011), but there was insufficient data to draw firm conclusions. Similarly, researcher affinity as a potential explanatory factor should be explored, whether that affinity results from shared experiences (White et al., 1995) or from existing collaborative or supervisory relationships (e.g., MacNeil & Mills, 2015).

Finally, the data collection process can be improved; a concept dictionary could be built to distinguish research that is aware of gendered constructs from research that does not address gendered constructs. Two such improvements would include coding the articles with reference to Acker's gendered process framework (Acker, 1990), and eliminating or minimizing coding associated with articles that do not evince a gender-aware framework, since the overwhelming majority of articles reviewed did not surface gendered assumptions. Such a dictionary should also be extended to French, to better represent the bilingual nature of ASAC.

Conclusion

This paper has operationalized Acker's gendering processes within the ground of a national, multi-disciplinary conference and association, using conference proceeding outputs as the primary investigative technique. Evidence was found to support the existence and operation of gendering processes in a limited study, albeit indirectly observed from the outputs of the conference. Avenues for further research have been suggested, as well as improvements to the research protocol.

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HE STILL GETS THE CHECK, OR THE ENDURANCE OF IMPLICIT GENDER BIAS IN RESTAURANT CHECK PLACEMENT

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Abstract

This paper discusses the preliminary results of an on-going study on the impact of gender on check placement in male-female dining situations. Data was collected from both Canada (n=62) and the US (n=57) over a 24-month period starting in the fall of 2014. Volunteer participants completed a survey after having a meal at a restaurant. Of the sample, 82 were male-female pairs and the rest were single-sex pairs. Results indicate that gender stereotypes may be alive and well, as women are still not seen as equals in this social situation. Even when women take a dominant role in a dining situation, the check goes to the male co-diner. Practical implications of the findings are also discussed.

Introduction

Scholarship on tipping practices has overwhelmingly focused on the actions, assumptions, and expectations that drive customer behavior. This makes sense inasmuch as the customer's thinking defines the gratuity and can reveal a great deal about social norms and prejudices. A few studies have also explored how servers regulate their behavior based on their perception that a customer will—or will not— provide a good tip. But between the server's behavior during the exchange and the customer's behavior during the calculation of a tip lies a small action that can offer similarly striking insights about social norms and prejudices: the placement of a check.

This paper uses a preliminary study of check-placement practices in American and Canadian restaurants to explore how servers assign gender stereotypes to diners. Check-placement is a somewhat under-examined aspect of the dining experience: only one study seems to have asked what check placement can tell us about interactions between servers and diners. This is a bit perplexing since check-placement *does* tell us a great deal about the social dynamics at play, it has the potential to powerfully affect diner perceptions of the meal, and it is fairly easy (and fun) to study.

Because there is so little scholarship on this topic, we offer the quantitative results reported in this paper as a call for further exploration rather than as a definitive statement on the subject. Check-placement works exceptionally well as a window into gender dynamics (among other things) because it is both a *discrete* action that restaurants might regulate with express protocols and a *small*, often hurried, action that is especially likely to be informed by the server's prior assumptions notwithstanding such protocols.

We also present these results as a call for more interdisciplinary collaboration in areas, like this one, where the interests of business scholars coincide with the interests and methods of historians, anthropologists, and other social scientists. When our attention was first drawn to the issue of check-

placement we naturally looked to hospitality scholarship but soon found that the stereotypes and behavioral patterns we were encountering had also sparked the interest of scholars working on gender equality, the history of the restaurant industry, and the performance of class in public spaces (Segrave, 1998; Azar, 2004). Like the literature on tipping practices, very little of this related scholarship is directly on point—but, also like the work on tipping, much of it is deeply illuminative.

We begin with a brief look at recent empirical studies on tipping to show that check-placement may reflect economically rational responses to gender stereotypes that could be driving the results of our study. In addition, we also present arguments for studying check placement and why reducing bias in check placement is a critical part of customer service. Next, we describe our methodology and findings, which suggest that the although women have come to participate in every aspect of public dining, they still do not figure as primary customers in restaurants. Put differently, a woman might have run for president in 2016 and the Canadian cabinet might have become 50% female in 2015, but women would still have had trouble getting the dinner check. We conclude by acknowledging the limitations of our study and outlining some directions for future research.

Gender stereotypes in the hospitality industry

Researchers in the hospitality industry have focused on many ways in which gender impacts dining experience; yet, one important part of the dining experience – the gender of the diners and its impact on check presentation – has been rarely examined. In fact, we found only one study (Laner, et al., 1979) that examined the impact of gender on check placement. It found that, regardless of the role that a female diner played in the dining situation, she was less likely to get the check (Laner et al., 1979). Most of the research on check presentation has focused on check presentation as a way of increasing tips received by the server (Rind et. al., 1996; Stillman et. al., 1980).

Perhaps this focus on the intersection of gender and tipping rates reflects the deeply gendered history of public dining. Relatedly, servers' check-placement practices may reflect a kind of economically rational behavior if men are simply better tippers than women. There is a great deal of scholarship on tipping, examining everything from its likely origins in sixteenth century England to its contemporary effects on wage workers who may receive lower guaranteed pay or experience more income volatility as a result of their reliance on tips (Azar 2004; Segrave 1998; ROC United 2015). Rather than exhaustively surveying this literature, this section focuses on recent empirical research that has sought to understand tipping practices as a kind of customer expression as well as tip-eliciting practices as a kind of server response.

Scholars studying gender stereotypes in tipping practices have largely focused on two popular beliefs: that male consumers give more generous tips and that female servers receive more generous tips (McGaw 2014). Neither is unequivocally true. Hospitality research and economic modeling outside the hospitality context both suggest that men are only likely to be more generous than women when the bill is small (Conlin et al 1999; Andreoni & Vesterlund 2001). Since their altruistic impulses are more price-sensitive than are women's, male diners are more perfectly selfish or selfless. Yet, men are generally perceived— by servers of both genders—to be better tippers (McCall & Lynn 2009).

But it *does* seem to be true that when female servers earn more in tips (controlling for other variables pertaining to diner, server, and establishment characteristics) it is because they are more attractive or otherwise conform to gender stereotypes (Lynn & Simons 2000). Female servers who possess physical attributes that are considered appealing (e.g., youthfulness, blonde hair, large breasts) or who modify their physical appearance in ways that are stereotypically feminine (e.g., wear a flower or other ornament in

their hair) receive larger tips than female servers who lack or don't adopt these characteristics (Lynn 2009; Stillman & Hensley 1980; Jacoby, et al., 2012). Likewise, female servers who behave in ways that exemplify traditionally feminine traits—for instance, communicating warmth by sketching a friendly happy face on the reverse side of the check—earn higher tips than both female servers who don't do so and male servers who *do* (Rind & Bordia 1996).

The research examining differentiated gratuity practices suggests—as we might indeed expect from a voluntary payment made after the fact—that tipping blends cost-benefit analysis with *a priori* attitudes more than it captures perfectly rational behavior. But it is also probably true that servers blend preexisting beliefs, especially about the relationship between demographic indicators and tipping practices, with a kind of strategic (if not quite rational) allocation of good service.

In the only other study that examined this issue (Laner, et. al., 1979), the researchers hired five M-F student pairs and gave them specific roles (Executive – or dominant – role, equal role); they also had one single female dining out as control to see where the check would be placed. The researchers found that regardless of the role that the female diners played, the check was placed towards the male diner. Even when a woman dined alone, the check was more likely to be left at the centre rather than closer to her (Laner, et al., 1979). The authors conclude that gender stereotyping was at play and that a woman is not seen as the dominant diner when she has a meal with a man.

Given the paucity of research on this specific topic in the field of hospitality, we also examined research in the other related disciplines for further explanations for the existence of gender stereotypes in check placement. The literature on sex-role stereotypes indicates that men are generally thought to be more powerful in social interactions due to several reasons (Rudman & Kilianski, 2000): gender stereotypes (e.g., men as agentic, women as communal), gender roles (e.g., men in occupational and women in caregiving roles), and gender status (men in predominantly higher status occupations than women). Others (e.g., Eagly, 1987; Fiske, et al 2002), state that women are less likely to play the dominant role in social interactions than men. The higher social status of males is also reflected in findings that show that men are more likely than women to interrupt others in work situations (Harvey & Larsen, 2015). Overall, the literature from other disciplines does provide a basis for the hypotheses in this study: that there will be a bias in check presentation when a male and a female dine together and that the check will be presented more often to the male diner than to the female diner in M-F dining dyads regardless of the role played by the female diner.

Research methodology

As stated earlier, the main issues examined in this project are: (1) will check placement in male-female dining situations be biased and (2) will females be less likely to get the check in male-female dining situations than males? Based on the literature review, our hypotheses were:

H1: In male-female (M-F) dining situations, there will be bias in check placement regardless of the roles played by the diners.

H2: In male-female (M-F) dining situations, the bias in check placement will favor males rather than females - i.e., males will get the check more often than females regardless of the role they play during the meal.

Due to resource constraints, we used volunteers to gather data. Family, friends, and colleagues were recruited through emails and invited to participate in the study as volunteers (i.e., the diners paid for their own meals) whenever they participated in a two-person dining situation (male-female, or same gender). The protocol for the study (including the definition of key variables) was given in writing to all volunteers and was also explained in person and/or over the telephone. Respondents were encouraged to ask questions and the researchers made sure that respondents clearly understood the protocol. Ethics clearance was obtained from the lead researcher's institution and informed consent forms were signed by all participant. Diners were asked to make sure that they sat at tables that provided equal access to both and to ensure that the table was equally cleared at both ends to enable the check to be placed anywhere. They were instructed to note focus on the following: whether the server asked if the check was to be split and to examine where the check was placed. The diners had to reach an agreement on all key issues and submit one report on the dining experience to the researchers.

Data collection and key variables: A short (one-page) questionnaire was used to collect demographic information (gender, race, and age) of both the diners and the server (as perceived by the diner), details of the meal (date, restaurant, type of meal, and location), who played the role, check placement, and other variables of interest (e.g., whether the server asked if the check was to be split, whether one of the diners asked for the check).

Data was collected during a 24-month period starting in the fall of 2014. A total of 119 dining situations were included in the study; 62 were from Canada and 57 were from the USA. Of these, a total of 82 were mixed-gender dining situations and the rest were single-gender situations. Other details of the sample are provided in Table 1. The same-sex dyads served a control group in this study.

Bias in check placement: Check placement was considered to be unbiased if: (1) the check was given to the diner playing the lead role, or (2) the check was placed in the middle or center – equidistant between the two diners – when the diners played an equal role in the dining situation.

Lead role: A diner was considered to play the lead role if he/she placed most of the order for both diners, and/or talked more to the server. Lead diners were also asked to respond "No" if the server asked if the check was to be split between them and to ask for the check if that became absolutely necessary. Thus, the lead role is largely measured from the diners' perspective. However, the last two variables are probably likely to affect the server's perception of who played the lead role.

In 'neutral' or equal role situations, either one of the diners could respond to the 'split check' question, but the other diner was asked to look equally involved in the decision and indicate agreement by nodding or smiling at the server.

Data was analyzed using the Statistical Package for Social Sciences (SPSS). Chi-square analysis, t-tests, and one-way analysis of variance tests were using to test the hypotheses.

Table 1: Sample Characteristics

Variable Name	Canada n (%)	US n (%)	Total n (%)
Diner Pairs	62 (52.1)	57 (47.9)	119 (100)
M-F pairs	35 (56.5)	47 (82.5)	82 (69.5)
F-F pairs	27 (43.5)	9 (16.1)	36 (30.5)
Lead in M-F pairs			
Equal roles	22 (62.9)	33 (70.2)	55 (67.1)
Female lead	10 (28.6)	11 (23.4)	21 (25.6)
Male lead	3 (8.6)	3 (6.4)	6 (7.3)
Age			
<30	-	-	-
30-49	14 (22.6)	11 (19.3)	25 (21.0)
50-64	24 (38.7)	24 (42.1)	48 (40.3)
65+	24 (38.7)	22 (38.6)	46 (38.7)
Race/ethnicity			
Caucasian	33 (54.1)	18 (31.6)	51 (43.2)
South Asian	21 (34.4)	22 (38.6)	43 (36.4)
African-American or African-Canadian	3 (4.9)	3 (5.3)	6 (5.1)
Other	4 (3.4)	14 (24.6)	18 (15.3)
Server Gender			
Female	45 (77.6)	28 (50.9)	73 (64.6)
Male	13 (22.4)	27 (48.7)	40 (35.4)

Figure 1: Bias in check placement: Summary of results of Male-Female dining situations

Check placement	Lead = Neither n=55 (%)	Lead = Female n=21(%)	Lead = Male n=6 (%)
In the center (n=36)	*Not biased* n=27 (49.1)	Biased n=9 (42.9)	Biased n=0 (0)
Towards Female	Biased n=4 (7.3)	*Not biased* n=1 (4.7)	Biased n=1 (16.6)
Towards Male	Biased N=24 (43.6)	Biased n=11 (52.4)	*Not biased* N=5 (83.3_

Results

Of the 82 male-female (M-F) dining situations, in 55, both diners played an equal role, in 21, women played the lead role, and men played the lead role in the remaining 6 instances. In total, the check was placed in an unbiased way in 33 (40.2%) situations and in a biased way (not to lead or not in the center in equal role situations) in 49 (59.8%) cases.

Male/Female Lead	Biased?		Chi-square Results
	Not biased n (%)	Biased n (%)	(Exact test, 2 sided)

Table 2a: H1 - Bias in check placement (M-F pairs with a lead role)

To understand bias in check placement, we first ran two sets of cross-tabulations (with Monte Carlo correction). To begin with, we examined bias in dining situations with a clear lead diner (n=27). As can be seen in Table 2a, when a woman played the lead role, the check was placed in a biased way over 95% of the time (or 20 out of 21 instances). However, when the man was the lead diner, the check was placed in a biased way only 16.7% of the time (or once out of the six times a man played the lead role). The results were significant at p<.0001. Next, we looked at dining situations in which both diners played an equal role (n=55). Of these, the check was placed in an unbiased way (i.e., in the center) 27 times or nearly 47% of the time (Table 2b). It was given to the male 24 times but to the female only 4 times. Clearly, even when the woman

played a lead role, the check was not given to her; and when both played an equal role, the check as nearly as likely to be given to the man as to be placed in the centre. The results were statistically significant at the p<.001 level (Tables 2a and 2b).

We also conducted a one-way analysis of variance (ANOVA) to test the first hypothesis that there would be bias in check placement in M-F dining situations with bias in check placement (unbiased=0; biased=1) as the dependent variable and the lead role (male lead, female lead, both equal role) as the independent variable (Table 2c). As can be seen from Table 2c, regardless of the role played by the diners, check placement was biased in M-F dining situations (F value=10.652, p<0.001). The mean for female leads was 0.952 while the mean for male leads was 0.167 indicating that there was more bias when the female was in the lead role than when the male played the lead role; for equal role situations, the mean was 0.51. Overall, the results strongly support the first hypothesis that there would be bias in check placement regardless of the roles played by male and female diners.

Female Lead	1 (4.8)	20 (95.2)	X^2=16.688; df=1; p<.001
Male Lead	5 (83.3)	1 (16.7)	Standardized Stat=-4.006

Table 2b: H1 - Bias in check placement (M-F pairs; Equal Role situations)

Check placement	Biased?		Chi-square Results
	Not biased **n (%)**	**Biased** **n (%)**	**(with Monte Carlo correction)**
Check in center	27 (46.9)	0 (0)	X^2=55.00; df=2; p<.001
Check to female	0 (0)	4 (14.3)	Standardized
Check to male	0 (0)	24 (85.7)	Stat=7.096

Table 2c: H1 - Results of One-way ANOVA (M-F pairs only)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.188	2	2.094	10.652	<.001
Within Groups	15.531	79	.197		
Total	19.720	81			

To test the second hypothesis that males would get the check more often than the females regardless of the role they played in the dining experience, a one-sample test (with bootstrapping) was conducted. For this analysis, check placement – the dependent variable – was coded differently (1=Female got the check; 0=check in center; 1=male got the check). Thus, a positive mean score for check placement would indicate that males were more likely to get the check than females and a negative mean value would indicate the opposite; a score close to zero would indicate that the check was more likely to be placed in the middle. As can be seen from Table 3, the results were statistically significant (t=5.983, df=81; one-tailed p<.001); the mean score was positive (0.4146), indicating that males were significantly more likely to get the check than females. As can be seen in Figure 1, of the 46 times that the check went to a diner (i.e., was not placed in the center), the male received the check 40 times (or 87% of the time) while the female received it only 6 (or 13%) of the time. This is noteworthy as the male was in a lead role only 6 times and hence was in an equal role 34 of the 40 times! Thus overall, the results also support the second hypothesis: males are far more likely to get the check regardless of the role they play in the dining situation – i.e., whether they are the lead diners or play an equal role while dining.

Could check placement have been influenced by other variables? As mentioned earlier, this study examined check placement using diner perceptions of who played the lead role (talking more to the server

and/or ordering for both diners). However, it is possible that servers may have decided on check placement based on other more concrete cues, such as who asked for the check and/or who said "no" when the server asked if the check was to be split. Hence, the data was re-analyzed using "check requests" and saying 'no' to the split check question as the independent variables. Chi-square tests and one-way ANOVAs did not yield significant results, indicating that bias in check placement was unrelated to these variables.

Table 3: H2 - Bias in check Placement and gender: Results of One Sample t-test*

| | | Bootstrap (1000 bootstrap samples) | | | |
| | | | | 95% Confidence Interval | |
	Statistic	Bias	Std. Error	Lower	Upper
Check placement					
N	82				
Mean	.4146	-.0009	.0696	.2778	.5522
Std. Deviation	.62758	-.00486	.03942	.54631	.69943
Std. Error Mean	.06930				

*t value= 5.983; df=81; p < .001
.

Finally, we also examined whether check placement could be related to server characteristics or sentiments. Results of one-way ANOVAs indicated that the bias in check placement could not be explained by the server's race, gender, or age. Similarly, we examined whether the bias in check placement could be the result of the server's overall comfort level with one of the two diners using a one-way ANOVA with server comfort as the independent variable and bias in check placement as the dependent variable. Again, results of the ANOVA indicated that bias in check placement is unrelated to the servers' comfort levels with male or female diners. In addition,
survey results suggested that servers appeared equally comfortable with both diners in over 75% of the cases (62/82 cases) and were often more comfortable with female diners than male diners (15 vs. 5).

Comparison with same-gender dining pairs: The control group for this study consisted of same-gender dining pairs. Analysis of these (n=37), indicated that the check was more likely to be placed in an unbiased way (i.e., towards the lead diner and/or to the person who responded with a "No" to the split-check question). Also, bias in check placement was not related to the roles played by the diners. One-way ANOVAs were conducted to examine whether bias in check placement was related to the following variables in same-gender (S-G) situations: lead role, asking for the check, answering the split check question, server's perceived comfort level, server's perceived demographics (gender, and age). The results of all the tests were insignificant indicating that bias in check placement was not related to any of these variables.

Canada vs. the US: Since the sample came from two different countries, we analyzed bias in check placement by country using chi-square analysis and one-way ANOVAs. There was no bias in check placement in the Canadian sample; however, this was not the case with the American sample. With the American sample, instances in which male diners took the lead role (n=3) had a 100% unbiased check placement (i.e., it was towards the male), while when the female took the lead role (n=11), the check was placed in a biased way 100% of the time, while when both took an equal role (n=33), check placement

was biased 57.6% of the time. It should be noted that the sample sizes (especially male-lead sizes) are not large enough to draw very strong conclusions.

In summary, the results provide strong support for both H1 (there will be a bias in check placement regardless of the roles played by the diners) and H2 (males will be more likely than females to get the check regardless of the role they play in the dining situation). Other variables such as who asks for the check or who answers "no" to the split check question (if it is asked) are not related to check placement. In addition, even in M-F pairs where both played an equal role, the bias in check placement was evident and favored the male. Finally, bias in check placement was absent in same-gender pair dining situations. In combination, these results lend support to both our hypotheses and indicate that gender-stereotypes may be at play in dining situations.

Discussion and Future Research

Our results strongly suggest that gender stereotypes are still at play in this decade. Women are clearly less likely to be perceived as the person who pays for the meal or as the dominant player in the social sphere of restaurant dining by both male and female servers. This seems to be true even when they take an active role in the dining situation. While this may not come as a surprise to many of us, what was surprising was the extent of the bias. The finding that men got the check even when women took an active role while the reverse never happened was disturbing. Perhaps women have not come a long way since 1978!

From a practical point of view, some may question why check presentation matters. In other words, even if there a bias against women (or same-sex couples) in check presentation, why is this an important area of study? We contend that there are several reasons - both practical and theoretical – why check placement needs to be examined. Societal changes – especially women's entry into management levels and their increasing financial clout as consumers - make careful handling of check presentation important to avoid embarrassing situations and diner dissatisfaction. While it is true that many factors may lead to diner dissatisfaction (e.g., poor quality of food and/or service, the noise level in a restaurant, etc.), there is evidence that one cause of dissatisfaction is perceived discrimination or unequal treatment (Trocchia & Luckett, 2013). When a customer is treated negatively by a service provider based on his/her fixed, primary dimensions of diversity (e.g., sex, age, race, sexual orientation), the customer is likely to perceive a lack of recognition respect' – i.e., respect that is due to someone as a fellow human being (Trocchia & Luckett, 2013). This sense of disrespect may be heightened when that diner has also played the dominant role in a dining experience and the check presentation is still biased. This may lead to the person feeling that he/she is not treated with 'performative respect' – i.e., respect due to a person based on his/her actions – in this case, taking the lead role in the situation. (Bird, 2004, Trocchia & Luckett, 2013).

Dissatisfaction with a service (or a service failure) has been shown to lead to negative word-of-mouth with reports of up to 75% telling one other person of the negative experience (Keaveney, 1995). This, in turn, can have a negative impact on the bottom line of a business. Equally important is the fact that while only a small proportion of customers are likely to complain when they encounter negative service experiences, non-complainers are more likely than complainers to take their business elsewhere (Blodgett & Anderson, 2000). Thus, the service provider may not even get the opportunity to correct inappropriate behaviours such as incorrect check placement. Finally, we would like to point out noting and correcting gender stereotyping is important in a border, societal context: stereotyping not only reflects existing social norms, it also tends to maintain and reinforce them (Dates & Barlow, 1980; Allan & Coltrane, 1996). Thus stereotyping in social situations such as dining out is not harmless behaviour. In other words, to reduce negative stereotypes, it is essential to identify and remedy such behaviours.

From a restaurant management point of view, this is an aspect of restaurant dining that can be easily addressed by proper training practices. Yet, informal discussions with people in the restaurant industry and academics indicated that while restaurants have training manuals that cover many aspects of a server's behaviour, check placement is not addressed by most restaurant managers. Thus, from a practical perspective, this study provides an area for improvement in skills training and customer service.

As researchers, we do recognize the limitations of our study: most of these arise from the fact that our sample consisted of volunteers instead of paid participants. This made it difficult for us to control some of the important aspects: the meal (there were more dinners than lunches), and the role (there were more neutral role situations than M/F lead ones). Besides, almost all the M-F pairs were in a relationship (while the F-F pairs were not) and that might have influenced both the type of meals (dinner/lunch) and the results; servers might have assumed that since the diners are in a relationship and given gender roles in our society, jumped to the conclusion that the male would pay for the meal. This leads to our suggestions for future researchers: future studies should use paid, well-trained participants who are not romantically involved, and should control for the type of meal. Further, a larger sample size and a more equal division of lead and neutral roles would lead to more generalizable results and robust conclusions. In fact, we are already taking steps towards that; we are involved in another study on the same topic with paid participants with both the meal-type and roles being more controlled.

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HOW AND WHY DO THEY USE DIETARY SUPPLEMENTS? A LITERATURE REVIEW OF DIETARY SUPPLEMENTS CONSUMPTION

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Abstract

Dietary supplements (DS) are used by consumers all over the world to treat disease, prevent disease or promote health. However, in spite of the fact that research shows DS do not always fulfill their functional purposes, some consumers continue to take DS even if they have been shown to be ineffective in clinical experiments. This apparent paradox leads us to ask, "Why do consumers use DS?" This paper argues that, in order to answer the 'why' question, another question, "How do consumers use DS?", also needs to be addressed. Based on a comprehensive review of the literature from both the marketing and the nutrition fields, this paper develops a model for DS consumption research and identifies potential research opportunities.

Keywords

Dietary supplements, use, input-process-output, literature review

Introduction

According to the US Dietary Supplement Health and Education Act of 1994 (a.k.a. DSHEA 1994), Dietary Supplement means "a product intended to supplement the diet that bears or contains one or more of the following dietary ingredients: (A) a vitamin; (B) a mineral; (C) an herb or other botanical; (D) an amino acid; (E) a dietary substance for use by man to supplement the diet by increasing the total dietary intake; or (F) a concentrate, metabolite, constituent, extract, or combination of any ingredient described in clause (A), (B), (C), (D), or (E)". From a broad perspective, the health and wellness marketplace covers three major segments: drugs (prescription drugs and over-the-counter drugs), nutraceuticals (DS and functional foods), and complementary and alternative medicines (CAM) (DS and therapeutic practices) (Jain, Roy, Damle, & Jagani, 2016; Spence & Ribeaux, 2004; Bolton, Bhattacharjee, & Reed, 2015). We can see that DS is positioned uniquely and importantly in the health and wellness marketplace by situating it at the intersection between nutraceuticals and CAM. DS products in the marketplace fall into two major categories: 1) Vitamins and Minerals (VM); 2) other supplements (Radimer, Subar, & Thomspon, 2000). VM include single-ingredient vitamin and mineral (SIVM) and multi-vitamins/-minerals (MVMN), while the "other supplements" include many sub-groups of products such as herbal supplements (e.g., ginseng, cranberry), sport performance supplements (e.g., amino acids, protein powder), and other biological products (e.g., fish oils, lecithin) (Radimer et al., 2000; Starr, 2015).

The DS industry is burgeoning, with more than 60,000 products emerging in the marketplace in 2018 alone; in comparison only 3,400 DS products were available in total in 1994 (Ordonez, 2018). The

DS industry is complex, with some categorizations based on the ingredients contained by the DS (e.g., Omega-3/-6) but other categorizations based on the purposes of the DS (e.g., weight loss and sleep aids). Furthermore, the DS industry is regulated with a reactive falsification approach in many countries, for example the United States, rather than the proactive verification model used to ensure the safety of prescription drugs (Quinones, Winsor, Patino, & Hoffmann, 2013). The above-mentioned facts, combined, create challenges for consumers when making an informed decision regarding whether they need to take a supplement, which supplement to take, and how to evaluate the effectiveness of dietary supplementation. A recent US Report examined the problems that will be faced by the healthcare field by 2030 in terms of caring for the large number of aging Baby Boomers. Knickman and Snell (2002, p.849) identified one of the challenges as, "taking advantage of advances in medicine and behavioural health to keep the elderly as healthy and active as possible." We argue that it is important to understand individuals' DS consumption behaviours and reveal their underlying motivations (i.e., how and why they consume DS).

If we could identify whether DS consumption helps improve public health, and in which aspects DS consumption helps (e.g., functional benefits or psychological benefits), we could provide implications for public policy makers in terms of resource allocation and effective long-term healthcare system development. Moreover, the answers to these questions would aid in individual consumer's health-related decision making, such as whether they should spend their money on DS products, or invest in other health practices. Lastly, by understanding how consumers use DS and why they use DS in those particular ways, marketers will know how to appeal to particular consumer segments and strategically act to enable consumers to achieve their desired benefits.

To achieve our goal of understanding how and why consumers use DS, we decided to first "analyze the past to prepare for the future" (Webster & Watson, 2002), by conducting a comprehensive literature review. The remainder of the paper is structured as follows. Section 2 explains our research methodology. Section 3 discusses the result of the literature review – an identification and discussion of research opportunities associated with DS consumption. Section 4 discusses the limitations of our research and concludes the paper.

Method

Data Collection

To begin, we introduce the methodology for literature collection. Initially, we conducted a systematic search of papers across various databases by searching ("dietary supplements" OR "nutritional supplements") AND ("marketing" OR "consumption") in *title*, *keyword*, *subject term*, and *abstract*. The databases were: Business Source Complete, Emerald, Scopus, Web of Science, and SpringerLink Journals. We did not restrict the search to a specific timeframe or journal. Hence, both papers published in the marketing discipline and the nutrition discipline are included in our literature review. Through this step, 35 papers were identified. We reviewed the abstracts of the papers and assessed their quality and relevance to our study. We removed the duplicate papers and selected a subset of papers (25 papers) that were closely related to marketing aspects or consumer behaviour. Then, we followed the references cited by this core subset of papers, to expand our dataset while guaranteeing the relevance and quality of

papers. This step resulted in 46 additional papers being added to the dataset. As we read, analyzed and synthesized papers, we became aware of additional relevant concepts, which prompted additional literature search (i.e., we expanded the search terms to include "complementary and alternative medicine", "alternative therapy", "nutraceuticals", and "functional foods"). Thus, the process of completing our dataset was ongoing and iterative. Eventually, another 8 papers were included in our research. Our final dataset includes 79 papers. Our subsequent review was based on those 79 papers. Distribution of the papers across years is shown in Figure 1. We can see that the nutrition field started to publish DS consumption research much earlier than the marketing field; the number of publications in the nutrition field reached its peak in the early 2000s (2001-2004). Marketing scholars have become increasingly interested in DS consumption since the late 2000s (2005-2008); the number of papers published in the marketing field has exceeded that in the nutrition field in the most recent years (2013-2018). Details of the papers are shown in Table 1.

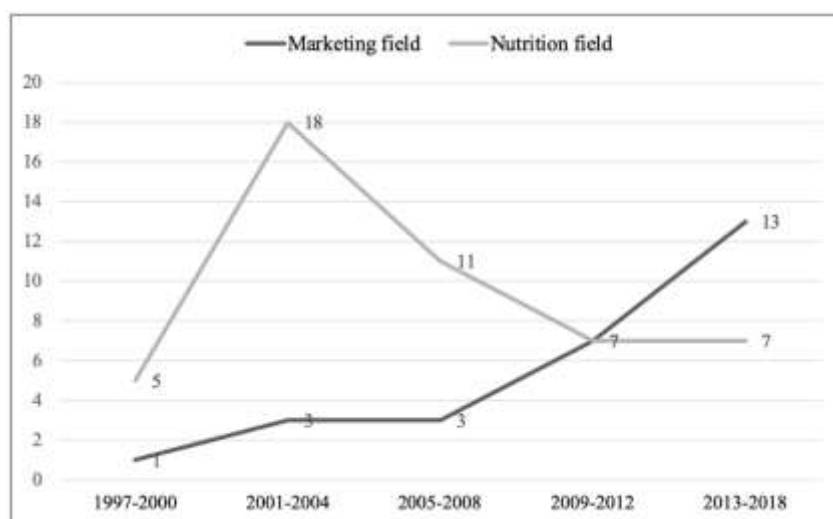**Figure 1. Distribution of papers across years**

Table 1. Papers included in our literature review

Citation	Journal	Design	Context	DS Type
Adkins & Corus (2009)	Journal of Consumer Affairs	In-depth interviews	US	DS
Ahn, Bae & Nayga (2016)	Asian Economic Journal	2 experiments	Korea	Herbal DS
Ashar et al. (2008)	Journal of Community Health	300 surveys	US	DS
Bailey et al. (2010)	The Journal of Nutrition	Secondary data analysis	US	DS
Barnes et al. (2016)	Nutrition	Cross-sectional online surveys	Australia	DS
Bhattacharjee, Bolton & Reid (2009)	ACR North American Advances	2 field experiments	US	Specialty DS vs. drug
Blanck et al. (2007)	Journal of the American Dietetic Association	Cross-sectional telephone surveys	US	Specialty DS
Blendon et al. (2001)	Archives of internal medicine	National opinion surveys	US	DS
Bolton, Bhattacharjee & Reed (2015)	Journal of Public Policy & Marketing	3 experiments	US	Specialty DS vs. drug
Bolton, Reed, Volpp & Armstrong (2008)	Journal of Consumer Research	4 experiments	US	Specialty DS vs. drug
Brownie (2005)	Australasian Journal on Ageing	Secondary data analysis	Australia	DS
Cardinal & Engels (2001)	Journal of the American Dietetic Association	83 Clinical experiments	US	Herbal DS
Chandra, Miler & Wills (2005)	Journal of Medical Marketing	181 surveys	US	VM
Chen et al. (2005)	Asia Pacific Journal of Clinical Nutrition	Secondary data analysis	Taiwan	DS
Conner et al. (2001)	Social Science & Medicine	303 surveys	US	DS
Conner et al. (2003)	The Journal of Nutrition	Survey	UK	DS
De Jong et al. (2003)	British Journal of Nutrition	Population-based surveys	Netherlands	DS vs. FF
Dickinson et al. (2011)	Nutrition Journal	900 online surveys	US	DS
Dodds, Bulmer & Murphy (2014)	Australasian Marketing Journal	12 in-depth interviews	New Zealand	CAM
Dodge, Litt & Kaufman (2011)	Journal of Health Communication	2 experiments	US	DS
Dwyer et al. (2001)	Journal of the American Dietetic Association	Cross-sectional observations	US	VM
Fogel & Rivkin (2013)	Journal of Medical Marketing	588 surveys	US	Specialty DS
France & Bone (2005)	Journal of Consumer Affairs	Field experiments	US	DS
French, Barr & Levy-Milne (2003)	Journal of the American Dietetic Association	148 Interviewer-administered survey	Canada	Specialty DS
Gunther et al. (2004)	Journal of the American Dietetic Association	DS intake surveys	US	Herbal DS & specialty DS
Homer & Mukherjee (2018)	Journal of Consumer Marketing	2 experiments	US	DS
Hughner & Kleine (2008)	Qualitative Health Research	35 in-depth interviews	US	CAM
Ishihara et al. (2003)	International Journal of Epidemiology	Secondary data analysis	Japan	DS
Jain et al. (2016)	Health Marketing Quarterly	216 in-depth interviews	India	Nutraceuticals

| Jeong, Stoel & Chung (2012)	International Journal of Retail & Distribution Management	444 surveys	China	Soy-based DS
Johnson et al. (2000)	British Journal of Nutrition	Interview, dietary diary and survey, follow-up interview	UK	DS
Jordan & Haywood (2007)	Journal of Alternative and Complementary Medicine	Secondary data analysis	US	Specialty herbal DS
Kava et al. (2002)	Journal of Health Communication	Secondary data analysis	US	DS
Kesselheim et al. (2015)	Health Affairs	Secondary data analysis	US	DS
Kimmons et al. (2006)	Medscape General Medicine	Secondary data analysis	US	MVMM
Kofoed et al. (2015)	British Journal of Nutrition	Cross-sectional surveys	Netherlands	DS
Kraak, Pelletier & Dollahite (2002)	Family Economics and Nutrition Review	In-depth interviews	US	Specialty DS
Lyle et al. (1998)	The Journal of Nutrition	In-depth interviews	US	DS
Marx et al. (2016)	Complementary Therapies in Clinical Practice	231 online surveys	Australia	DS
Mason & Scammon (1999)	ACR North American Advances	In-depth interviews	US	DS
Mason & Scammon (2011)	Journal of Consumer Affairs	Case study	US	DS
Mason, Scammon & Fang (2007)	Journal of Consumer Affairs	2 experiments	US	DS
McClymont et al. (2015)	Journal of Service Theory and Practice	In-depth interviews	US	CAM vs. drug
Miller et al. (2008)	Journal of the American Dietetic Association	Cross-sectional surveys	US	DS
Morris & Avorn (2003)	The Journal of the American Medical Association	Secondary data analysis	US	Herbal DS
Nagler et al. (2011)	Journal of Product & Brand Management	Economic modeling	US	Specialty DS
Nichter & Thompson (2006)	Culture, Medicine and Psychiatry	Ethnographic study	US	DS
Noor et al. (2014)	International Journal of Pharmaceutical and Healthcare Marketing	438 surveys	Malaysia	DS
O'Connor & White (2010)	Food Quality and Preference	388 surveys	Australia	DS vs. FF
Pajor et al. (2017)	Appetite	Longitudinal survey	Netherlands	DS
Pan (2014)	Journal of Food Products Marketing	Experiment	US	DS
Patterson et al. (2003)	Journal of the American Dietetic Association	356 telephone interviews	US	DS
Payette et al. (2002)	Journal of the American Dietetic Association	16-week clinical experiment	US	DS
Pelletier & Kendall (1997)	Family Economics and Nutrition Review	Secondary data analysis	US	DS

Perkin et al. (2002)	Journal of the Academy of Nutrition and Dietetics	1,000 surveys	US	NVNM
Peters, Shelton & Sharma (2004)	Health Marketing Quarterly	In-depth interviews & surveys	US	VM & Herbal DS
Pillitteri et al. (2008)	Obesity	Telephone surveys	US	Specialty DS
Quinones et al. (2013)	The Journal of Consumer Affairs	Historical analysis	US	DS
Radimer et al. (2004)	American Journal of Epidemiology	Secondary data analysis	US	DS
Radimer, Subar & Thompson (2000)	American Journal of Epidemiology	Secondary data analysis	US	DS
Rajamma & Pelton (2010)	Journal of Consumer Marketing	350 surveys	US	DS
Rayner & Easthope (2001)	Journal of Sociology	Secondary data analysis	Australia	CAM
Ren et al. (2014)	International Journal of Consumer Studies	Surveys	China	Soy-based DS
Royne et al. (2014)	Journal of Consumer Affairs	136 surveys	US	DS vs. drugs
Royne et al. (2016)	Journal of Current Issues & Research in Advertising	Experiment	US	DS vs. drugs
Shaw et al. (2009)	The Journal of Alternative and Complementary Medicine	Secondary data analysis	US	DS
Sheldon & Pelletier (2003)	Family Economics and Nutrition Review	Secondary data analysis	US	DS
Snyder et al. (2009)	Journal of Nutrition for the Elderly	112 surveys	US	Herbal DS
Spence & Ribeaux (2004)	Psychology & Marketing	Secondary data analysis	US	CAM
Stang et al. (2000)	Journal of the American Dietetic Association	Secondary data analysis	US	VM
Starr (2015)	American Journal of Public Health	Commentary	US	DS
Tarn et al. (2013)	Patient Education and Counselling	Secondary data analysis	US	DS
Thompson (2003)	The Sociological Quarterly	Narrative analysis	US	CAM
Thompson & Nichter (2007)	Alternative Therapies in Health and Medicine	60 in-depth interviews	US	DS
Thompson & Troester (2002)	Journal of Consumer Research	Narrative analysis	US	CAM
Troppmann et al. (2002)	Journal of the American Dietetic Association	Surveys (24-hour recalls)	Canada	DS
Vos & Brennan (2010)	Marketing Intelligence & Planning	Secondary data analysis	US & UK	CAM
Wang, Keh & Bolton (2010)	Journal of Consumer Research	5 experiments	US	CAM
Yap et al. (2014)	Australasian Marketing Journal	438 surveys	Malaysia	DS

Note. DS = dietary supplements; VM = vitamins & minerals; NVNM = non-vitamins & non-minerals; MVMM = multi-vitamins & multi-minerals; CAM = complementary and alternative medicines; FF = functional foods.

Data Analysis

A model of DS consumption is introduced in this section as a means of organizing the review and the discussion of the literature (see Figure 2). The model is based on the input-process-output (IPO) framework by identifying and categorizing the aspects in DS consumption as: 1) inputs (the investments made by individual consumers, marketers and social groups within the marketplace along with influences from the environment); 2) process (the process of how DS is consumed, including pre-purchase, purchase and post-purchase behaviours, and the socialization processes within groups); 3) outputs (the outputs of DS consumption for individual consumers and marketers, and group-level outputs such as societal and community level outputs). This model attempts to bridge levels of analysis from the individual level to the group level by including the influences of macro-social (societal) groups and micro-social (tribal) groups (Cova & Cova, 2002) on individuals' consumption behaviours, by discussing the socialization processes within a group and the group-level practices, and by identifying the group-level outputs. The input-process-output model works effectively as a guiding framework for the review as it implies "what we might need to know" about DS consumption. Due to space restrictions, we do not have enough space to fully discuss the findings from our literature review in this paper. Thus, we cannot systematically present "what we know" about DS consumption in detail. Instead, we will focus on the research opportunities that are identified from our literature review, which illustrate "what we do not know (or we do not sufficiently know), but "we should know". That being said, relevant examples from the literature will be discussed along with the illustration of research opportunities.

Figure 2. IPO model of dietary supplements consumption
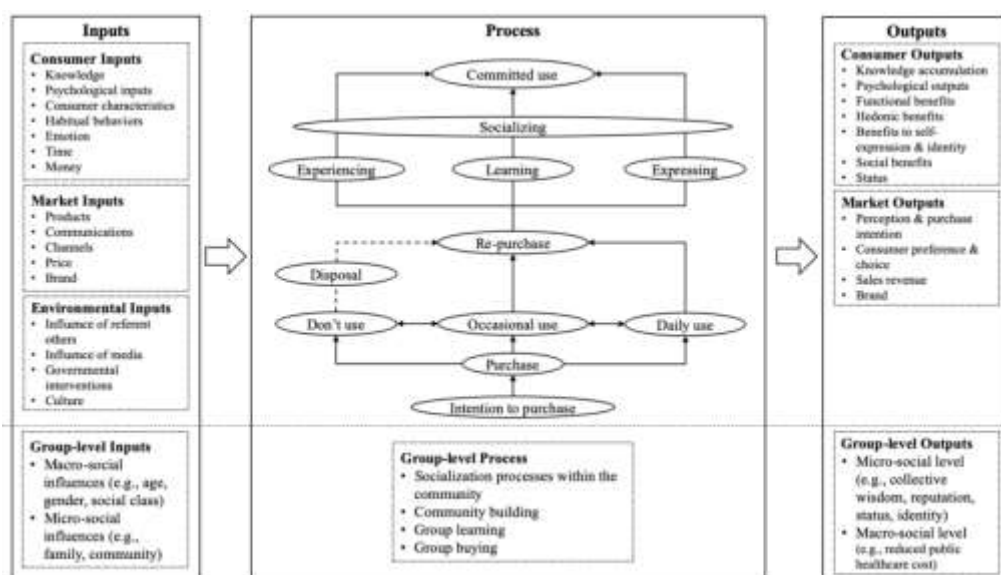
Findings: An Identification of Research Opportunities

The review of DS consumption research from both the marketing and nutrition fields reveals many research gaps which provide several opportunities for future research. We discuss each opportunity in this section. A summary of the opportunities is shown in Table 2 at the end of this section.

Research Opportunities Regarding Input

What is the role of habitual behaviour in DS consumption? Based on our review, the theory of planned behaviour (TPB) is the most widely used theoretical framework in DS consumption research. However, we have seen critiques of TPB, suggesting it fails to take sufficient account of the role played by habitual behaviours (Manstead, 2011). The DS literature has suggested that while consumers could be influenced consciously by DS marketing, they can also be influenced in unintended manners (Bhattacharjee, Bolton, & Reid, 2009). Some consumers chose health protection strategies that are built around a preference for the familiar and habitual behaviours (Adkins & Corus, 2009). Not only social behaviours but also consumers' beliefs and goals are sometimes unconscious. Unconscious goals would influence consumer decision-making by creating a bias in the information search process (Mason & Scammon, 2011). Also, research from the nutrition field has suggested that a healthy lifestyle may have pre-determined both use intention and use pattern for supplements (Troppmann, Gray-Donald, & Johns, 2002). Healthy lifestyles are part of a consumer's "habitus", which create practices unintentional to any specific output (Cockerham, 2005). Therefore, we call for future research moving beyond the TPB model to consider habitual behaviour.

What is the role of emotion in DS consumption? In addition to habitual behaviours, affective factors appear to be overlooked in the TPB. Little research attention has been paid to the impact of emotion on DS consumption. However, emotion has been explicitly suggested to be associated with people's health behaviour (Cox, Cox, & Mantel, 2010; Keller & Block, 1999); for example, the valence of emotion affects individuals' health information processing (Agrawal, Menon, & Aaker, 2007). We argue that future research should take emotion into account when examining DS consumption. Some pioneering studies have been conducted, such as McClymont and colleagues' (2015) examination of the role of emotion in DS users' switching behaviours, however more research is warranted. Our observations of the hedonic benefits gained from DS consumption further support this point – hedonic experiences reflect the emotional worth of consuming, which is non-instrumental and affective (Sánchez-Fernández & Iniesta-Bonillo, 2007). In addition, with increased use and experience, emotional connections and emotional support may be built among consumers within a group (Thompson and Troester, 2002). Hence, the impact of emotion on users' committed use of DS should be considered and investigated.

What is the impact of brand-related concepts and country-of-origin effects on DS consumption? We suggest that future research should examine the impact of brand as well as country-of-origin on DS consumption. No research in our dataset has investigated the impact of branding on DS perception. However, a brand with high brand equity has been empirically shown to have a substantial impact on market share, marketing efficiency, profitability, and firm value (Rao, Agarwal, & Dahlhoff, 2004). Hence, we call for future research examining the impact of brand-related concepts (e.g., brand equity, brand image, brand identity, co-branding) on DS consumption. Country-of-Origin (COO) refers to "where a product is made" (Zhang, 1996), which relates to country image and influences consumers' perception of products and brands from that country (Han, 1990). Only one research study in our dataset addressed country-of-origin effect (see Jeong, Stoel, & Chung, 2012). We call for more research investigating the impact of COO on DS consumption, which is implicated by other consumer research (see Siu and Wong, 2002; Schnettler, Ruiz, Sepulveda, & Sepulveda, 2008) and marketing practices from the DS industry. We have seen marketing efforts that might try to associate brands with certain country images, such as *Swissnatural* (a Canadian DS brand) which associates its name with Switzerland,

Blackmores (an Australian DS brand) claims on its website that they are "Australia's No.1 Brand", and, interestingly, *Swisse* (another Australian DS brand) also represents itself as "Australia's No.1 Brand" on their website. We have not seen any empirical evidence to confirm the effects of such marketing activities on consumer perception of DS products/brands. We think it is worth exploring and suggest further research to empirically test the assumption.

How should firms design product growth strategies & new product lines/items? Several questions related to "product" are raised by our literature review. First, are there any DS products that are generally taken by consumers at certain times? For example, what is the 'gateway supplement' that, similar to the gateway drug, significantly increases the probability of consumers' use of further supplements? Fogel & Rivkin (2013) found that individuals who have used eyedrops are more receptive to oral eye supplements that relieve symptoms related to their computer vision syndrome. Pillitteri et al. (2008) found that females who have tried different types of weight-loss methods are more receptive to particular weight-loss supplements. Both studies indicate the possibility to find a 'gateway supplement' and the potential benefits of developing related products. Further research is important since it may help practitioners design and implement appropriate growth strategies and develop new product lines or specific line items. An interesting phenomenon regarding the actual use of supplements is that consumers seem to try one type of DS product at the initial stage, and then experiment with and extend to other products (Mason & Scammon, 1999), but eventually those who become daily users are more likely to revert to using only one type of DS (Bailey et al., 2010). It is interesting to know which type of product consumers choose to stick with, and why. Thus, we suggest future research focusing on the product element of DS marketing.

What is the role of social media in DS marketing communications? Little research addressed the use of social media in marketing communications related to DS products (see Morris & Avorn, 2003; Jain et al., 2016). Most of the research focused on the traditional communication mix, including print, television, and radio. However, social media has increasingly been employed in Business-to-Consumer and Business-to-Business communications. Various forms of social media such as social networking sites (SNS) (e.g., Facebook and Twitter) and online review platforms (e.g., Yelp and TripAdvisor) are widely utilized to build and maintain relationships with end-users and business partners and facilitate business transformations (Aral, Dellarocas, & Godes, 2013). We want to emphasize that the investigation of a phenomenon should be put into the current technological environment in which it resides. In terms of the health marketplace, health consumers are becoming the new "connected consumers" or "m-consumers (mobile-consumers)" with the increasingly enhanced need for online information search and support (Ordonez, 2017). We advocate for research on the use of social media in health marketing as well as its integration with the traditional media mix.

What is the role of social commerce in DS selling and distribution? Changes in consumers' information search behaviour are fostering the development of e-marketplaces for DS (Jordan & Haywood, 2007) such as DS social commerce. Social commerce is defined as "the delivery of e-commerce activities and transactions via the social media environment, mostly in social networks and by using Web 2.0 software" (Liang & Turban, 2011, p. 6). The definition emphasizes some critical features of social commerce: exchange-related activities, computer-mediated social environment that involves meaningful personal connections and sustained social interactions, and cultural productions (Zhang & Benjoucef, 2016; Liang & Turban, 2011). No research has investigated the DS social commerce in spite of the fact that social commerce marketplaces have burgeoned during the last two decades (Lin, Li, & Wang, 2017). We have seen the rapid development of social commerce either by adding commercial

features to SNS or adding social media features like user-generated-content (UGC) into e-commerce websites (Zhang & Benyoucef, 2016). Since social commerce combines social and cultural practices with economic activities, we argue for more research into the unique consumption patterns of DS as well as unique factors that affect use patterns in DS social commerce.

What is the impact of e-WOM and UGC on DS consumption as well as the industry? Our review shows that existing research focuses on the influences of traditional media such as newspaper, magazine, and TV/radio advertising on DS consumption. However, as we stated in the past two sections, with the widespread use of social media and mobile devices, consumers are getting unprecedented access to free health information from the Internet and social media (McClymont et al., 2015). Supplement users could create, share, and edit texts, pictures, and videos regarding specific products and experiences on social media. Other users may make use of this UGC (e.g., online ratings and reviews) to help understand the benefits and risks of products and evaluate the alternatives (Nagler, Kronenberg, Kennelly, & Jiang, 2011). Hence, the UGC could become positive or negative e-WOM that affects consumers' purchase intention. Moreover, aided by big data analytics like text mining and network analysis, the UGC on social media could become a valuable data resource through which companies extract business intelligence for decision making (Chen, Chiang, & Storey, 2012). Therefore, we identify the opportunity to understand the impact of UGC and e-WOM on DS consumers' behaviours and exploit UGC for business intelligence extraction and accumulation.

How is DS consumed in cultures 'opening to the West'? The literature indicates the influence of local culture on DS consumption (see Ren, Chung, Stoel, & Xu, 2011), but more research is needed. Specifically, we advocate for research on the cultures 'opening to the West'. There is a large group of DS products that are originating from cultures such as China (e.g., Chinese traditional medicines) and India (e.g., Indian ayurvedic medicine). Individuals from these cultures hold-fast to their traditional diagnosis-treatment philosophies (e.g., 'holism of health') but are also open to the Westernized approach to treating illness (e.g., allopathic medication). Previous research has primarily investigated the DS experiences of individuals living in the Westernized medication culture, such as the US. It would be interesting to know how individuals who do not live in the Westernized medication culture, but instead reside in cultures opening to the West, perceive and interpret the use of alternative medicines. It is well worth researching, especially given the popularity of DS in those cultures. According to the country report of the DS industry published by Euromonitor (2019), although the United States is still the largest market for DS, China and Japan have become the second and third largest markets of DS in the world. It is forecasted that the growth of the retail value of DS in China will double that of the US in the next five years. In addition, using DS consumption as the research context to further understand the consumption behaviours in those cultures which hold onto their traditional value systems but are open to western consumption values as well could lead to valuable and actionable marketing insights.

Research Opportunities regarding Process

What is the process of "purchase – initial use – re-purchase"? The current literature mainly focuses on investigation of the intention to purchase stage of consumer behaviour. Very little attention has

been focused on actual purchase, use and repurchase behaviours. Although the literature agrees upon the significant prediction role of purchase/use intention on actual purchase/use, the intention construct cannot fully explain the variances which exist in actual purchase/use behaviours. Consistent with papers such as Homer & Mukherjee (2018), Bolton et al. (2015) and Mason & Scammon (2011), we argue for more research on the contextual factors, such as individual factors and situational factors, which impact actual purchase and, more importantly, actual use. At present, we only see in the literature a classification of users based on occasional use and daily use, short-term and long-term use, and light and heavy use. However, classifications based on use frequency and the duration of use is not sufficient to assess whether consumers are committed to DS use or not. We believe it is important to clearly enunciate the specific use patterns involved in DS consumption. Rather than using simple criteria like use frequency, we highlight that a thick description of consumer behaviours (DS-related, health-related, and health-unrelated behaviour) is required. We expect that further research may reveal various types of use/user, for example, consumers who purchase but never actually use the supplements they have purchased; those who purchase, never use, but then repeat purchase; those consumers who purchase, use DS as an initial trial, but don't re-purchase; consumers who purchase and use DS only during 'crisis' periods (e.g., to fend off a cold prior to an important event); and committed DS consumers for whom supplement use becomes a way of life. Such research may help to expand the implications of DS consumption research. For example, the "purchase – never use – repurchase" type of consumption may provide insights into the meanings of this type of possession for consumers.

What are the different paths from initial use to committed use? The literature confirms that at least some consumers do indeed progress from initial use to committed use (Mason & Scammon, 1999). More importantly, the literature has identified clues that indicate the different paths consumers may take from initial use to committed use, such as the learning-oriented, experiencing-oriented, and expressing-oriented paths. Learning-oriented consumers may focus on the accumulation of health knowledge and commit to the health-related meanings entailed by DS consumption (Mason & Scammon, 1999). Expressing-oriented consumers may commit to another layer of meanings involved by DS consumption that go beyond health protection and that enable them to express higher-level ideological consumption values such as postmodern consumption values (Thompson & Troester, 2002). Experiencing-oriented consumers may acknowledge another layer of meanings of DS consumption, focus on its hedonic values, and build an emotional attachment to it (McClymont et al., 2015). The three paths are our assumptions of the transformation processes. Do they hold? Are there any other paths? Are the paths exclusive or inclusive to each other? That is, are they distinct stages of consumption, and does one stage lead to another? Or, is DS consumption more of a gestalt or holistic experience with various parts which cannot be separated? We suggest future researchers seek the answers to these questions.

What are the products, practices, and interpersonal interactions involved in those paths? By comprehensively describing the variety of ways in which people consume a given product, we identify the opportunity to uncover the products that are commonly used by different groups of people, the routines and activities that are practiced by different groups of people, and the interactions and relationships among group members. This may have managerial implications for practitioners in terms of segmenting and targeting the profitable markets as well as developing new products or adjusting the features of existing products. Moreover, it may help researchers achieve the goal of revealing the context-dependent varying motivations for DS use that take both "why people use" and "how they use" into consideration (Nichter & Thompson, 2006). It also enables us to take an holistic perspective on DS use, by considering the practices of multiple stakeholders and their interactions. Previous research mainly took

a dual-actor approach and discussed the interactions in the patient-healthcare provider dyad (Adkins & Corus, 2009). Other research was focused on one particular stakeholder, mostly on the consumer, with a few studies focused on the health practitioner (Dickinson, Shao, Boyon, & Franco, 2011). We advocate further research that involves not only the users, brands, and the health practitioners, but also other users, families, and friends. This broader perspective fits with the "self-educated" approach undertaken by contemporary health consumers (Peters, Shelton, & Sharma, 2004).

Is the model of DS consumption a variance or process model? Another interesting question we suggest future research examine is whether DS consumption should be modelled using a variance or process approach (Markus & Robey, 1988). That is, do the patterns and paths depicted in our framework represent discrete models of DS consumption; are they, instead, stages in the consumption of DS, such that one may lead to another; or, are they aspects of DS consumption that one cannot be separated with another, forming a gestalt? We identify this as a research opportunity. By answering these questions, we may know the exact marketing strategies that a DS brand could employ at different times. If it is a variance model, DS marketers need to choose the specific target and then provide necessary and sufficient conditions to guarantee their expected output. If it is a process model, DS marketers may need to provide necessary conditions and causes in sequence, but also keep an eye on the chances and random events that play a role in enabling the expected outputs.

What are the socialization processes in groups (family and community)? Literature from the marketing and nutrition fields confirmed the influence of family on DS use (see Noor, Yap, Liew, & Rajah, 2014). However, the literature does not explain the socialization process within the family – how is the influence of family of DS consumption formed? In what ways does the family influence individuals' DS consumption behaviour? Data from population-based surveys (Radimer et al., 2004) demonstrate that females and older adults are using supplements more frequently than other family members. Are they, then, the main influencers in the family who guide other family members' use? Surveys targeting university students and adolescents suggest that university students are not learning health knowledge and are taking supplements occasionally (Barnes, Ball, Desbrow, Alsharairi, & Ahmed, 2016), while adolescents are learning to eat healthily and intaking more nutrition from their diets (Dwyer et al., 2001). Does this difference reflect the influence of and knowledge passed on by parents to the next generation? Also, we see evidence that shows the impact of household size – a smaller size is more effective than a bigger size in fostering the use of supplements (Barrena & Sánchez, 2010). To better understand and explain these symptoms, we suggest more research focusing on the socialization process within a family. In addition, the socialization processes at work within a community are worthy of research. We have stated that no matter which path consumers walk through to enter the committed use stage, they will interact and coordinate with other stakeholders along that particular path. No matter whether these activities and relationships are related to health or not, the activities and relationships together seem to be able to define a community with which the users identify and by which others identify them. It seems unavoidable that they would experience at least some socialization processes within these communities. We identify the exploration of the socialization processes as a research opportunity. What are the critical events during socialization? Do community members do group buying? Do they get together for a gathering, have regular meetings, or develop routines and rituals? Do they create and share artifacts and narratives for group learning? Answering these questions may have implications for health marketing researchers, health policy makers, and practitioners to help build health-related communities and effectively promote health-related messages.

Research Opportunities regarding Output

How can marketers help consumers develop their health knowledge? The crucial role of health knowledge in DS consumption is widely identified by the literature. Nutrition knowledge (Homer & Mukherjee, 2018), remedy knowledge (Jeong et al., 2012), and diagnosis-treatment knowledge (Wang, Keh, & Bolton, 2010) all affect consumers' perception and attitude towards DS. Also, knowledge has an impact on the actual use of supplements, such as the coordination with other health practices (Bolton et al., 2015) and switching behaviours between different remedies (Hughner & Kleine, 2008). However, ineffective knowledge accumulation as a consequence of DS consumption is also identified by the literature (Chandra, Miller, & Willis, 2005). We argue that findings about ineffective knowledge accumulation might be biased, due to the inappropriate conceptualization and measurement of health knowledge. The traditional conceptualization of health knowledge viewed it as a predefined set of cognitive skills and measured it by using scales and tests such as the *Test of Functional Health Literacy in Adults* (Baker, Parker, & Clark, 1998). But, some research suggested that health knowledge may be viewed as 'literacy-in-practice' and as socially constructed rather than predefined cognitive skills (Adkins & Corus, 2009). Further, consumers' tacit health knowledge was improved but not explicit knowledge (i.e., consumers got significantly increased scores on health practice but didn't get significantly increased scores on health knowledge test) (Dwyer et al., 2001). These findings lead us to re-think the conceptualization and measurement of health knowledge in this age. Considering the importance of health knowledge as an input within DS consumption, we suggest that future research could empirically investigate whether DS consumption would help consumers enhance health knowledge implicitly rather than explicitly, and how marketers can help consumers develop their health knowledge and transform implicit knowledge to explicit. It is worth researching given that knowledge might influence consumers' health practices in terms of ontology and meaning of health, provider-patient role, and satisfaction with healthcare (Hughner & Kleine, 2008).

What are the hedonic benefits and benefits to self-expression and identity construction of DS use? The literature has suggested the existence of hedonic benefits in DS consumption (Royne, Myers, Deitz, & Fox, 2016) and the benefits of expressing one's self and constructing one's identities (Thompson & Troester, 2002). However, we recognized that the identification of these benefits comes primarily from research focused on the consumption of complementary and alternative medicines (CAM), which refers to a broader scope of products and services than DS (i.e., CAM covers both dietary supplements and therapeutic practices). However, therapies may have a significantly higher 'holism' value than DS product consumption (Rayner & Easthope, 2001), which emphasizes the in-depth sources of wellness and illness, and the holistic balance of nature (Thompson & Troester, 2002); DS may have a higher appeal to particular functions, like taking Ginseng for increasing power and strength (Rayner & Easthope, 2001). Due to their differences in consumption meanings, we suggest future research investigating DS consumption more specifically. Furthermore, previous research was inclined to target patients who were struggling with chronic health conditions or were just recovered from illnesses (see Thompson & Troester, 2002), rather than the individuals in healthy conditions. We want to emphasize consumers might seek DS experiences for maintaining health and preventing illness rather than managing or alleviating an existing condition (Vos & Brennan, 2010). While recognizing a distinctive set of values and benefits attained by patients-as-consumers (Thompson, 2003), we recommend that future research conduct in-depth investigations of the benefits earned by non-patients-as-consumers, that is, by consumers seeking wellness and prevention over illness-recovery.

What are the social benefits for users with low enduring involvement and initial users? Corresponding to the socialization processes in family, groups, and communities, we could expect that consumers would experience social benefits attained from those socialization activities. Moreover, research has implied social benefits for committed users such as social support (Thompson & Troester, 2002). We suggest future research to aid in discovery and deepen our understanding of different types of social benefits. Further, we wonder about the social outputs for those who passively engage in DS use, those who choose certain health products out of habit, or those who delegate their health responsibility to social others. Under these circumstances, social network resources take the form of dependence rather than social capital for empowerment (Bourdieu & Wacquant, 1992). The literature does not provide an answer. Also, what about the social consequences that may emerge in the early stage of DS use? We only know from the literature that normative beliefs and social influences from referent others are identified as essential inputs within DS consumption. No research addressed the social consequences of early-stage users. Hence, we suggest future research discovering the social benefits earned by initial users.

Is "status" one of the outputs of DS consumption? It was suggested that population groups who have higher income (Chen, Lin, Kao, & Hang, 2005), higher education (Bailey et al., 2010), and higher social class (Johnson, Donkin, Morgan, Neale, & Lilley, 2000) are more likely to use DS. Moreover, Sheldon & Pelletier (2003) and Troppmann et al. (2002) reported significant population-based group differences regarding the association between DS use and health outputs. This evidence may suggest that dealing with health in our daily life reflects some of the fundamental stratification processes and the distinct social status positions in the larger society. The DS marketplace is saturated with promotion activities in which different agents strive to define what health rules are appropriate and acceptable and whose advice should be followed. Research suggests that the practices of those agents determine the social stratification and distinction among individuals, and structure the social distribution of health (Abel & Frohlich, 2012). Similarly, in addition to societal level status generation, we presume that status might be produced in micro-social groups like DS community. Research observes that motivations for personal investment in health (by means of lifestyle changes) is socially learned and often part of and an expression of a broader habitus. Through consumption, individual health lifestyles become part of cultural capital and acquire status in the field (Cockerham, Rütten, & Abel, 1997). Hence, health lifestyles are the social practices to promote social identity and create social distinction among members of certain communities. We suggest the examination of social status in the community as a research opportunity.

How can marketers enhance brand loyalty and sales revenue? From the perspective of DS companies and marketing managers, the ultimate objective is to increase sales revenue and brand equity. Given that DS consumption research is still at its early stage, research attention has mainly been paid to the business unit level of analysis such as across-segment comparisons between drugs and DS (Bolton et al., 2015). Little research addresses the marketing strategy level of analysis to tackle issues specifically related to marketing activities, such as branding and sales. Hence, we suggest the exploration of specific marketing strategy issues (e.g., product, place, price, and promotion) as a research opportunity. Considering that switching behaviours between different remedies has been indicated as usual by previous research (Hughner & Kleine, 2008), we further advocate for research on how to decrease consumers' propensity to switch and increase their brand loyalty. Moreover, we confirm the importance of studying the pricing issues in the DS marketplace since consumers' willingness to pay a price premium is significantly influenced by the cues provided on product packaging (Nagler et al., 2011). **What are the group-level outputs (community level and societal level outputs)?** Accompanied by the formation of a

DS consumption community, some group-level outputs may be produced. For example, collective knowledge accumulation may be activated due to group learning (Thompson & Troester, 2002). Another example would be the unique characteristics of the community, like community identity (Mason & Scammon, 1999). The identity of each community may be different and used to distinguish one community from another. As we stated earlier, there may be different types of DS community formed through different paths (i.e., learning-oriented, expressing-oriented, and experiencing-oriented paths). Due to the different values pursued by those community members and the different socialization processes within those communities, we may expect that different communities can earn different levels of reputation and status in the marketplace. Therefore, we suggest another type of community-level output – reputation and status in the marketplace. Following this direction, future research may consider comparing the reputations of the communities that are built upon different themes (e.g., learning, experiencing, and self-expression) and mapping out the positions of different communities in the market. As for the societal-level outputs that may be produced by DS consumption, no previous research was found to focus on this aspect. We found clues that indicated the role of societal-level groups as input within DS consumption (e.g., age, gender, education, and lifestyle), but no clues related to macro-social group level output. We suggest that further research could investigate the societal-level outputs, for example, if DS improves health generally, the healthcare costs on a societal level could be reduced, or, if people are healthier, they may also report fewer days lost to sickness in their jobs.

Table 2. Opportunities for DS consumption research

Topic	Research Opportunities
Input	*Consumer Input* • What is the role of habitual behaviour in DS consumption? • What is the role of emotion in DS consumption? *Marketer Input* • What is the impact of brand-related concepts and country-of-origin effects on DS consumption? • How can firms design effective product development strategies & new product lines/items? • What is the role of social media in DS marketing communications? • What is the role of social commerce in DS selling and distribution? *Environmental Input* • What is the impact of e-WOM and UGC on DS consumption as well as the industry? • How is DS consumed in cultures 'opening to the West'? Group level • What is the role of micro-social groups in individual DS consumption?
Process	*Individual Level* • What is the process of "purchase – initial use – re-purchase"? • What are the different paths from initial use to committed use? • What are the products, practices, and interpersonal interactions involved in those paths? • Is the model of DS consumption a variance or process model? *Group Level* • What are the socialization processes in groups (family and community)?
Output	*Consumer Output* • How can marketers help consumers develop their health knowledge? • What are the hedonic benefits and the benefits to self-expression and identity construction of DS use? • What are the social benefits for users with low enduring involvement and initial users? • Is "status" one of the outputs of DS consumption? *Marketer Output* • How can marketers enhance brand equity and sales revenue? *Group Level *What are the group-level outputs (community level and societal level)?*

Limitations and Conclusion

Based on a comprehensive literature review of DS consumption research from both the marketing and nutrition fields, this paper drew a road map for DS consumption research and identified many research opportunities associated with DS consumption. By addressing those research opportunities, future researchers might be able to illustrate how DS is consumed and why DS is consumed in those particular ways; by answering these questions, researchers might provide implications for public policy makers regarding healthcare system development and health resource allocation and for marketers regarding health product marketing plan and implementation. More importantly, our research might contribute to consumer research. Our study is grounded on an argument that a given consumption object is typically consumed in a variety of ways by different groups of consumers. This pervasive variation in consumer actions suggests an essential and relatively underdeveloped research stream for the discipline of consumer research: to comprehensively describe the variety of ways in which people consume, to understand how these differences vary across groups and situations, and to explain the unacknowledged conditions that structure how different groups consume and the unintended consequences of such patterning (Holt, 1995; Giddens, 1979). In this aspect, our review identifies and proposes various research directions that might enable a thick description of DS consumption and an in-depth understanding of individuals' health consumption behaviours. That being said, this research is not without limitations. This study is limited by the scope of the literature reviewed. As mentioned, the papers included in the literature review on which the study is based were limited to journal articles. Considering that DS consumption research is in its infancy, it would be interesting to include more data sources for review. Future research can broaden the review by including more publications such as conference proceedings and industry reports. In addition, this review is based on a single framework, the input-process-output model. Future research can apply other appropriate frameworks to further analyze the data. It is our hope to increase the depth of the discussion of DS consumption and to foster more research in this area.

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OPPORTUNITIES AND OPPORTUNITIES FOREGONE: ECONOMIC IMPACT OF INVESTMENT IN FEMALE FOUNDERS BY INVESTORS IN ATLANTIC CANADA

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Abstract

This study notes the lack of financings to women founders despite the increased efficiency and total revenue generation of gender-diverse founding teams. The gender balance of investments of incubators, accelerators, BAN portfolios and venture capitalists in Atlantic Canada is assessed. Using US and UK reports about investment efficiency and revenue generation, the study generates a rudimentary estimate of the opportunities and economic opportunities foregone by failing to invest in women. Atlantic Canada loses between $917,660 - $3.1 million in average five-year start-up revenues – a lost revenue opportunity of 1.8–
6.1 percent. Moreover, investment efficiency, revenues generated per-dollar-of-investment, another noteworthy metric for time sensitive venture investments, estimates the greater potential revenue efficiency of gender diverse investments might have produced $85.7 million (equal numbers of financings and equal dollars per investment), an average investment opportunity foregone of $25.9 million.

Keywords: female founder; venture capital; gender diversity; economic opportunities; entrepreneurship

1. INTRODUCTION

This research addresses the concerns about the lack of women in the venture industry and the lack of funding extended to women founders, particularly venture capital to technology founders. The report
follows on from the initiatives of the Canadian Government and the nation's top small business lending bank, the BDC, in advocating programs for women entrepreneurs. These are the $8.62 million Women Entrepreneurship Knowledge Hub and the $200 million Women in Technology Venture Fund respectively. Initiated by Industry Canada, the investigation found surprising anomaly in the emerging research in this discipline.

The study proceeds as follows. First, research is highlighted which examines the discrepancy in the number and sum of investments made in female founders despite the improved profitability metrics of women-founded businesses. Recent work on the latent gender bias that affects both men *and* women investors when evaluating women entrepreneurs follows. A rudimentary estimate of the economic
opportunity foregone in the Atlantic region, as a result of the oversight of women founders by the investment community, follows. A calculation of the improved investment efficiency of women is also considered and implications and discussion conclude.

2. CONDITIONS OF FEMALE FOUNDERS & FEMALE FUNDERS IN THE ENTREPRENEURIAL ECOSYSTEM

Current thinking has it that more women investors will improve the lot of women entrepreneurs. The notion is that as the number of women are introduced to the investment industry, they will provide mentorship, funding and investment nods from their funds. This is not how the research is playing out, however. This section investigates the emerging research focussed on the role of women investors in the investment industry and their leadership in curtailing the under-investment in women. This section starts with the financings to female entrepreneurs and then the reduced rates of funding they receive. That is followed by the improved revenue generating and investment efficiency of women founders. The real break through is research that shows why women are chronically underfunded in the start-up community -- a Q&A pattern that disadvantages women disproportionately to men during pitches and investment meetings.

Doubly Disadvantaged Female Founders Receive Fewer Financings and Smaller Investments

Despite the rapid growth in female start-ups, female entrepreneurs receive fewer financings for ventures of comparable quality when compared to their male counterparts. This conclusion is supported by a groundswell of data and research in this area across multiple countries, regions and industries. The situation is exacerbated because not only do female founders receive fewer financings (rounds of investments), but when they do receive financing, the amounts are significantly lower than their male equivalents. This double whammy is a blow that can be incapacitating. This issue has been thoroughly explored and found to be a global phenomenon. Consider the following examples from across the globe.

Researchers conducting a Statistics Canada report which examined the gender differences associated with small and medium sized businesses seeking external funding found that male and female capital needs are the same, and that differences in funding are not demand driven, but rather supply driven. Simply put, females who employ equity markets for business growth are financed at a rate of 58 cents on the dollar (compared to males) not because that is what they ask for or need, but because that is what they are provided.

Crunchbase, a venture capital and seed technology database, reports that men receive seven times the funding that women receive. MassChallenge, a NY super accelerator, reviewed hundreds of the previous start-ups and reported that men averaged $2.1 million in funding to the women's average of $0.9 million. In the UK, the Financial Times reported that women-founded start-ups receive less than 1 pence of every ₤1 of venture capital investment, less than one percent of VC funding. Moreover, founding teams that are all-female teams were the most financially disadvantaged. Results from the British Business Bank showed that the odds were better for female-male teams which were represented by 12 percent of the financings -- though only 10 percent of the value (Bounds & Ram, 2019).

T he UK Treasury report indicated that all-female teams represented four per cent of UK VC deals, but received only one percent of the value of the investment funds. The female funding divide is an empirically supported phenomenon in the start-up space.

Female Founders Generate Greater Investment Efficiency and Revenues

In a growing number of studies, women's participation in top team leadership outperform male- dominated teams. Boston Consulting Group provides evidence from their client cases, echoing academic

observations, that businesses with a greater percentage of women in leadership roles outperform male-dominated companies (Lorenzo, Voigt, Tsusaka, Krentz, & Abouzahr, 2018).   Recently BCG investigated female founders and their financings and women founders produced more revenues than the five -year

average produced by men and improved investment efficiency (Abouzahr, Tapllett, Taplett, Krentz, & Hawthorne, 2018).

In partnership with MassChallenge, a global, zero-equity business accelerator that has backed more than 1500 businesses and raised more than $3 billion in funding and created more than 80,000 jobs, BCG and MassChallenge analysed a sample size of 350 firms from their start-up database of 1500 entrepreneurial

firms funded. BCG and MassChallenge.found that five-year total revenues generated by women founded, or co-founded, start-ups averaged $730,000. Men-only co-founders averaged five-year total revenues of

$662,000. Moreover, for every dollar of funding, the women-owned start-ups had generated 78 cents in revenue, while those founded by men had generated less than half that amount— 31 cents.

"In (the MassChallenge) sample, if investors had put the same amount of capital into the startups that were founded or co-founded by women as they had into those founded by men, an additional $85 million would have been generated over the five-year period studied.   "Women-owned companies receive only a small slice of total venture capital funding. But what is surprising is how much more effective women-owned businesses are at turning a dollar of funding into a dollar of revenue: they generate better returns and are ultimately a better bet (Abouzahr et al., 2018).

Figure 1 - Start-ups Founded or Co-founded by Women Garner Less in Investments but Generate More Revenue

Sources: MassChallenge; BCG analysis.
Note: Of the 350 companies included in the analysis, 258 were founded by men, and 92 were founded or cofounded by women.

More Women Occupy the Venture Capital Investment Industry

The foregoing discussion illuminated the lack of funding to female founders, followed by a body of literature that is significant and growing which highlights that female founders produce better results for

investors. So now that we know that gender diverse co-founders are more efficient and generate better long

run revenues, why is this funding disparity still the case? Furthermore, why is it growing?

Until now, identifying reasons why men receive the most funding has been mainly approached anecdotally. Until recently, the disparity was considered to be the outcome of a venture capital industry that was mostly comprised of men who viewed men's businesses more favourably than women's businesses.
The explanation has been that men are predisposed to men and are therefore more likely to invest in men (which is partly true). Likewise, it was thought that female founders did not identify with male VCs. Or, that women just ask for too little. Or, that VCs feel women's businesses are too lifestyle-oriented. Or,
female-founded businesses are too oriented to women. Or, that investors' wives would not buy the female
founders value propositions.

The corollary to this is the argument that women investors invest in women-led businesses, and the advancing ranks of women in VC and BAN memberships would begin to rectify that problem. Female founders would have women mentors to look to in the VC industry. However, the problem for women acquiring VC or business angel investment funds is not going away, it is getting worse.

A report released by diversity venture group, Female Funders, less than a year ago outlined the number of women general partners (those who control the cheques written) in formal venture capital funds to be 14 percent (*Women in Venture: A Baseline Look at Gender in the Canadian Investment Ecosystem*,
2018). PitchBook data indicates that 15 percent of investors in European VC firms are women, and claims the US figure to be 18.4 percent (Lightbrown, 2019). In Canada roughly two percent of current business angels are females.

This small proportion of female investors hinders angel networks venture capital funds as female founders and angels bring a unique perspective to their respective groups, and improve the decision making of the organizations to which they belong. The Alison Rose Review of Female Entrepreneurship reviewed and listed recommendations to improve female start-ups, and suggestions for scaling, intended to contribute
£250 billion of additional value to the UK economy. The review highlighted eight initiatives identified to overcome the barriers, two of which targeted improvements in private equity investment by creating new
investment instruments deliberately designed to increase funding to female founders, and to encourage the
support of female founders by institutional and private investors (Rose, 2019). Another recommendation of the Rose Review was to promote greater transparency in funding allocation which commits financial
institutions to gender equality and transparent reporting. The UK Business Angels Association have endorsed the recommendation and adopted the use of the new Code.

Social Impact Initiative at Wharton enumerates capital organizations that apply a "gender lens" to their investments in North America (Biegel, Hunt, & Kuhlman, 2019). Gender lens investing takes on a variety of meanings as categorized in Figure 2. Predominantly first-time funds, these funds did not need to have women leadership, but rather have a stated or unstated criterion to *consider* women in their investing and private debt. The sum of the funds raised by bodies applying a gender lens was $2.2 billion. Notably, the gender lens does not require hiring women or investing in women.

Figure 2 - How do you define gender lens investing?
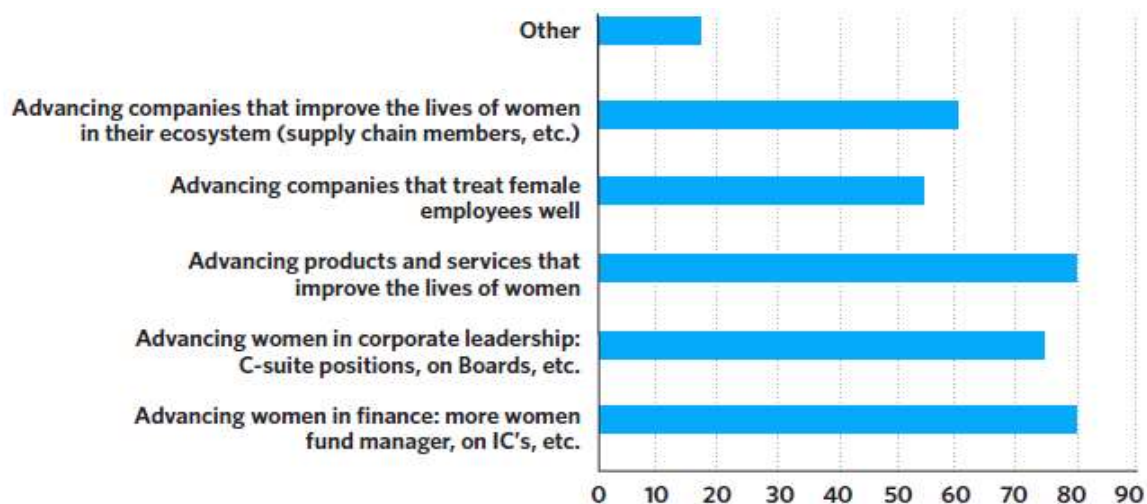
Source: Wharton Sage Report 2018, Wharton, University of Pennsylvania, January 2019, Page 9

Hope grows as evidence shows that thought the number of women investors is small, they are increasing in numbers in the ranks of VC funds in their cheque writing capacity. There are a number of Canadian initiatives designed to support this including BDC's Women in Technology Fund, CVCA's Diversity and Inclusion Program, the Venture Capital Catalyst Initiative to promote women in VC funds, and the ISED's Women Entrepreneurship Strategy and the Women's Entrepreneurship Fund. These are all created with significant funding contributions.

The belief is that when women angels and VCs are involved, they pull women founders through the pipeline of deal generation, short listing, due diligence and then investment. However, despite these advances, *the female founders financing dilemma is widening*! More women in the industry are not closing the gap for size and number of investments for women.

3. THEN WHY DO VCs AND ANGELS NOT INVEST IN WOMEN?

The most important new evidence about the rationale for lack of funding for women was outlined in a study reported in the Academy of Management Journal last year. Kanze et al. (2018) noticed the questions posed to men during Q&A following the pitches seemed "different" from the questions posed to the women. A study investigating the types of conversations that start-ups have with investors ensued. Scholars from Columbia University have determined that one of the most important factors relating to the funding of women is the manner in which questions are asked – and the consequent responses given.

Research was conducted at one of the premiere start-up launch events in North America and has been able to show that on average the female entrepreneurs were asked more "prevention-based questions" whereas males are asked more "promotion-based questions." Simply put, males are asked how they will succeed, and females are asked how they will avoid failure.

In this excellent study, the researchers collected videos of all of the questions posed by VCs to the founders at the accelerator, TechCrunch Disrupt Battlefield (New York City), over a period of seven years. They applied well-known theory in goal-directed behaviour. People driven by "goal-directed behaviour are motivated toward a) attaining gains and changing to a better state for

promotion, or b) maintaining non- losses and not changing to a worse state for prevention" (Kanze, Huang, Conley, & Higgins, 2018).

Data collected from the Q & A illustrated that significantly fewer financings and funding amounts were offered to women than would be expected by their start-up's age, entrepreneurial experience, quality scores and financial need. This was correlated with the kinds of questions they were asked (by investors) during Q & A, and answers they gave in return.

Essentially, male entrepreneurs ask promotion-style questions about how their businesses would thrive. Female founders, however, are asked prevention-style questions that focus on preventing losses. Not only did the gendered questions predict which sexes would gain financings, but they also predicted the *amount* of funding that would be extended to the founders, male or female.

The principal findings are outlined by Kanze et al. (2018):

- Male entrepreneurs are more likely to be asked promotion-type questions;
- Women are more likely to be asked prevention type questions;
- When asked predominantly promotion questions, start-ups raised an average of $16.8 million;
- When asked predominantly prevention questions, start-ups raised an average of $2.3 million;
- For every addition prevention question asked, entrepreneurs raised $3.8 million less in funding amounts;
- Moreover, being asked a promotion type question will elicit a promotion type response;
- And being asked a prevention type question will elicit a prevention type response;
- Being asked a prevention type question and switching the answer to a promotion type answer significantly increased the amount of funding (14X) (Kanze et al., 2018).

Subsequent to this analysis, an experimental design by the same authors confirmed the major findings.

The natural segue at this juncture screams at us. Of the 140 investors in the study, what kind of questions did the 56 women VCs ask? Promotion or prevention? Did the women VCs ask different questions of the founders than their male counterparts? The answer is a resounding no. Women VCs did not behave than their male VC counterparts. Women have the same systemic bias in the types of questions they ask women. There was no significant difference between the male investors and female investors. "The gender of the entrepreneur predicts the regulatory focus of the investor questions posed, and that both male and female VCs display gender bias against women" (Kanze et al., 2018).

4. ECONOMIC OPPORTUNITIES FOREGONE BY UNDER-INVESTING IN WOMEN IN ATLANTIC CANADA

A number of factors combine to determine the opportunity foregone in the region caused by female founders having fewer funding prospects. Firstly, and most obvious, are that there are fewer women

receiving funding than men, so the discrepancy acts as an obvious loss in terms of the number of financings if women had been funded to the same level as men (# financings). This is aggravated by the reduced amount of funding that those women who gain access to VC are able to raise ($ raised). The mounting evidence of the additional productivity of women compared to men is also a factor (revenues). These elements were combined to determine an annual loss to Atlantic Canada.

Furthermore, instead of replacing men's investments for women's investments, as was done, the increased number of women's investment might have been additional investments thereby augmenting the combined total number of financings in the region. Lastly the types of products and services that might only be dreamt of by women (i.e. World Health Outcomes, Squiggle Part, Rent the Runway) under serve markets in general. These two factors are not considered in the economic opportunity foregone because they represent variables for which the answers are unknown.

This estimate considers the three former factors and places considerable emphasis on topical emerging research outlined in the previous section and subsections.

Current Canadian and Atlantic Canada Data

The most recent National Angel Capital Organization (NACO 2017) and the Canadian Venture Capital and Private Equity Association (CVCA 2018) annual reports were used as the basis for the data in this subsection.

The Canadian Venture Capital and Private Equity Association reports that Canada's VCs invested $3.7 billion in 610 VC deals in 2018. Sixty-four (64) financings were made in Atlantic Canada for an investment total of $158 million. New Brunswick slightly outpaces the remainder of the region with 28 financings and $78 million invested. Nova Scotia placed $67 million in 19 investments, NL placed $8 in 11 investments, PEI placed $5 million in 6 investments and NACO reported $400,000 invested in 10 BAN investments.

The most recent report from NACO for the 2017 period had between 30 and 40 BANs contribute to the report variously for different sections and questions. The angel groups in Atlantic Canada include: (the recently closed) First Angel Network, East Valley Ventures, Island Capital Partners, a small group calling themselves Canadian International Investors, a group with an informal mailing list, and the CDL-Atlantic which is not a business angel network, but facilitates some investments. Not all of these organizations are NACO members nor do they all report to the annual survey. Three eastern BANs reported to NACO's membership survey, having a total of 30 members combined.

At the national level, the number of active members and applications are trending up from previous years. Compared to the rest of Canada, there is minimal BAN activity reported in Atlantic Canada. Only one percent of the nation's reported activity was accounted for by Atlantic Canada in the form of 10 new, follow-on, or unspecified investment financings. These financings represented less than one-quarter of one percent of the nation's total dollars invested.

The average number of investments per million persons of population in Canada is 13.3 financings. In Atlantic Canada, 2.2 financings per million persons of population has been reported. Data from 2013 – 2015 outlines that about $200,000 per annum on average was invested by reporting BANs in Atlantic Canada, but this number has dropped to $75,000 in 2017 (Mason, 2018) (Bracht, 2019; Mason, 2018).

Men and Women Financings and Investments per Province

The proportion of female founders that had received investments by accelerators, incubators, VCs and BANs was estimated from a variety of sources. VC funds portfolios were scanned for evidence of

women in a founding team, or women as co-founders. Since many of the future investments of formal and

informal venture capital will come from incubators and accelerators, these programs in the region were polled about the number of women they support compared to the number of men. The proportions were weighted to accommodate the size of the various organizations, and to accommodate organizations with different cohorts such as Genesis' Expansion and Evolution incubator and accelerator.

Results indicated rough proportions of women founders in Nova Scotia to be 25.7 percent, New Brunswick 34.6 percent, Prince Edward Island at 47.2 percent, Newfoundland and Labrador 29.0 percent, and a generous guess of 35.0% was established for our BANs though it is reported that most BANs operate at a rate of 15 percent women investees. The total number of Atlantic financings -- based on the proportion of men and women per province and the number of financings -- are 50 and 24 respectively. The specifics per province are outlined in Figure 3 - Provinces, Proportions of Women Financings, & Investment Averages.

Figure 3 - Provinces, Proportions of Women Financings, & Investment Averages

	NS		NB		PEI		NL		Atlantic NACO	
CVCA 2018 NACO 2017 Financings (#)	19		28		6		11		10	
CVCA/NACO Total Investment ($) Reported	67,000,000		78,000,000		5,000,000		8,000,000		400,000	
	NS Male	NS Female	NB Male	NB Female	PEI Male	PEI Female	NL Male	NL Female	Angel Mal	Angel Fem
Proportion Female/Male Financings	0.743	0.257	0.675	0.325	0.528	0.472	0.71	0.29	0.65	0.35
Financings per Gender (#)	14.117	4.883	18.9	9.1	3.168	2.832	7.81	3.19	6.5	3.5
Investment by Gender (000,000) ($)	$4.133	$1.771	$3.421	$1.466	$1.141	$0.489	$0.871	$0.373	$0.050	$0.021

Source: Author's calculations: $ invested by gender is based on MassChallenge proportion (.7 men to .3 women)

Figure 4

Province	Company Name	Classification	Proportion Women to Total Incumbents	Weighted Avg
NB	NBIF	VC	0.188	
NB	NBIF	VC	0.500	
NB	Propel ICT	Accelerator	0.267	
NB	Pond Desphande	Accelerator	0.725	
NB	Planet Hatch	Accelerator	0.217	
NB	The Hive	Incubator	0.150	
NB	Startup Fredericton	Incubator		0.325
NS	CEED	Accelerator		
NS	Innovacorp	VC	0.214	
NS	Volta Labs	Incubator	0.429	
NS	Cove	Incubator	0.227	
NS	Start-up Yard @ Cove	Incubator	0.077	0.257
PEI	BioAlliance	Incubator		
PEI	Innovation PEI/ Launchpad	Incubator		
PEI	Startup Zone	Incubator	0.472	0.472
NFLD	Genesis Enterprise	Incubator	0.310	
NFLD	Genesis Evolution	Accelerator	0.270	0.290

Source: Author's estimates in conjunction with accelerators and incubators. VC numbers were arrived at by website analysis.

Adding insult to injury, female founders not only endure fewer financings, but their investors provide them with significantly less investment dollars per financing. In an earlier sub-section of this report, the work of MassChallenge and the BCG was highlighted. The two groups undertook a 350-start-up
investigation to analyse female and male start-ups and the relative dollar amounts of funding they receive.
Women raised an average of $935,000 per financing, while comparable controlled for male start-ups raised
$2,120,000. This represents a proportionate gender disparity of .3 for women to .7 for men.

Using these (American) proportions noted and the total dollar amount invested per province, we solved for the equivalent amount of financing distributed to women and men. These numbers represent averages and statistics at this point and are not specific to any individual financing term sheet. CVCA reported that in a given year, Nova Scotia angels/venture capitalists invested $67 million. On average, 14.1 financings were conducted at an average of $4.1 million for men, the equivalent for women's 4.8 financings would be an average of $1.8 million. The 14.1 financings for men and the 4.8 financings for women equal the $67 million that was invested in the Province and reported to CVCA.

Figure 5 - Atlantic Canadian Investments in Females and Males ($)

$ invested in Men in Atlantic Canada	$ 133,756,271
$ Invested in Wmn in Atlantic Canada	$ 23,451,948
Equal Distribution of $Inv M and $Inv Female	$ 78,604,110
$ Diverted from Female to Male Investments	$ 55,152,162

Estimates created by author using CVCA, NACO, incubator, accelerator and VC data.

The same estimates were made separately for each Province (and for angels). Using the provincially based proportions of women invested in, the amount of financings those proportions represented for men and women, to equal the total amount of investment made in the individual provinces. In sum, a total of $158.4 million was invested in the region. The current estimates suggest that $133.8 million of that was invested
into male-led companies and $23.4 million was invested into women-led or co-founded companies.

If there were an equal distribution of funds between men and women founders, women would receive an additional $55.2 million for a total of 78.6 million in investments. There is $54 million more invested in men than in women in start-up, early stage and growth, dilutive and non-dilutive, VC and angel activity in Atlantic Canada.

Investment Opportunities Foregone
In a previous subsection, the argument for female-led and female co-founders was buttressed by evidence highlighting that women-funded companies show superior performance to male-funded companies.
Women demonstrated a higher ability to turn their companies' investments into revenues, and their efficiency at turning capital into revenues exceeded that of men by more than twice as much.

Start-ups that were women-led or a combination of female and male co-founded produced 78 cents of revenue per dollar raised, compared to male-led start-ups that generated 31 cents of revenue per dollar
invested. Though VCs and incubators select the highest capability companies, the investment efficiency is a significant factor in determining whether an investment will be placed in a portfolio since better investment efficiency represents a "better bet" (Abouzahr et al., 2018). This provides a clear path to consider the investment opportunities potentially lost to investors by not having significantly invested in ventures with women-diverse teams.

Source: Author's image; Mass Challenge/BCG data

Applying the MassChallenge/BCG lens to the Atlantic region, and using the current amount of male/female investment activity results in total revenues generated per investment dollar equal to $59.7 million ($41.5 million (Male) + $18.3 million (Female)). The incubators and accelerators and portfolios of the VCs and BANs were enumerated. When compared to the potential revenues created if male and female start-ups were treated equally (equal numbers of financings and equal dollars per investment), the potential revenue efficiency would have produced $85.7 million ($24.4 (M) + $61.3 million (F)).

The investment opportunity foregone is the $25.9 million -- the difference between the current and the potential revenues generated by the investment dollars if women had been equally invested. Making investments in entrepreneurs who can rattle together more revenue per-dollar-of-investment is noteworthy for time sensitive venture capital and business angel investments.

Figure 7 - Financial Investment Inefficiencies from Under-Investments in Women-Founded Startups

Financial Investment Opportunities Foregone by Underinvesting in Women			
Gender	Male	Female	Total
Revenues per $ 1 Invested	0.31	0.78	
Total Revenues / Current Investment Status	$ 41,464,444	$ 18,292,519	$ 59,756,963
Total Potential Revenues if Equal Distribution of Investment $	$ 24,367,274	$ 61,311,205	$ 85,678,479
Investment Opportunity Foregone			$ 25,921,516

Source: Figures generated by author combining local data and Boston Consulting Group and MassChallenge data.

Potential Revenues Foregone

The MassChallenge/BCG report highlighted the average five-year combined revenues for male and female oriented teams following the team's tenure in the accelerator (Abouzahr et al., 2018). Men had an average five-year combined revenue of $662,000 compared to women's $730,000. Using the current number of female investments in Atlantic Canada (23.5) along with men's investments (50.5), the average five-year combined revenues for this group is $5.06 million. If women investees represented half of the investments, the estimate of the total combined five-year revenues for men and women investees is $5.15 million. The difference of $917,660 is a lost opportunity of 1.8 percent. If

investors were to realign their criteria to invest in founding teams that included a woman, the average five-year combined revenue for these investments would improve by $3.12 million or 6.1 percent.

5. IMPLICATIONS AND DISCUSSION

Some of the findings here challenge current thinking and are likely considered controversial. Female entrepreneurs stand to benefit, as well as the Atlantic economy, by a move to more gender diverse entrepreneurial teams. By embracing new mandates, criteria and educational provisions regarding founding teams, the potential financial outcomes of early-adopting business angels, BANs, and venture capital

investors may improve. Teams will search for women and newly constructed training designed can help teach women how to revise their responses to Q&A. Not a quota system, the key here is to encourage

investors to ask men and women the same questions to they will benefit from a diverse portfolio.

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PHARMACISTS' PERCEPTIONS OF ERROR REPORTING SYSTEMS IN NOVA SCOTIA

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Abstract:

Focus groups were held with community pharmacists (not hospital based), pharmacy technicians and assistants, the text of those meetings was analyzed to surface themes related to the pharmacists use of the error reporting data base system employed by the NS College of Pharmacists to record Quality Related Events (errors) made in Pharmacies. The participants are committed to minimizing errors and make an effort to report but find the system time-consuming and onerous. The most significant issue for management is the disconnect between the value-driven intent of the system and the prosecution of a compliance culture.

Introduction:

Within Canada, community pharmacists dispense over 600 million prescriptions every year (Boucher et al., 2018). The community pharmacy plays an important role in the health and wellness care of all Canadians. But to 'err is human'. How are errors within pharmacology reporting, and how does this impact or influence the pharmacy staff involved?

In a report published by the Institute for Safe Medical Practices Canada in 2016, 7.5% of hospitalized patients in 2004 experienced at one or more 'adverse events' due to a medication error. These errors could be due to incorrect drug, dose or quantity (Boucher et al., 2018). Factors causing the sorts of medication errors can be categorized into human factors or environmental factors (Ho & Li, 2016). Human factors include poor handwriting on prescriptions or confirmation bias, while environmental factors are look alike or sound-alike drugs and dangerous abbreviations.

In Nova Scotia between 2010 and 2017 82% (or 80,488) of pharmacy errors did not reach the patient (Julian, 2018). These are considered to be *near misses* in the reporting system. Incorrect dose or frequency was the most common error, accounting for 25.6% of reported error (Boucher et al., 2018). Most of the quality-related events occurred at order entry, followed by preparation and dispensing, and prescribing. Within the seven-year period reported, 2 deaths occurred as a result of medication error, this accounted for 0.002% of all prescriptions completed in the 301 community pharmacies in the province. Harm is rare but it does occur and the rate of harm has not declined during the reporting period. The stubbornness of harm do to errors along this value chain constitutes a *wicked problem* in organizational culture and management requiring innovative examination.

This paper represents an attempt to examine this wicked problem via qualitative means versus prior more positivistic approaches. The goal of this research is to explore underlying issues in pharmacy error reporting in Nova Scotia. This is prosecuted by describing the opinions/experiences of pharmacists, technicians and assistants of error reporting and the associated proactive communications system. In Nova Scotia the regulatory organization (Nova Scotia College of Pharmacists – herein referred to as the College) employs ISMP Canada to manage a mandatory system of Quality Related Event (QRE) reporting. A QRE is any form of error which occurs along the value chain from prescriber to patient use. These errors may occur at any stage and may result in harm as significant as death or no harm at all such as a misspelled name. The vast majority of QREs do not result in harm because they are caught along the value chain. The College requires Community Pharmacies (drug stores) to report all QREs.

This research consists of focus group meetings with Pharmacists, Registered Pharmacy Technicians, and Pharmacy Assistants (trained in store). Sessions were recorded and transcribed. Saturation was reached quite quickly. The analysis details all major themes. The work sits in a context of ongoing research by a team which evolved from the original work surrounding the implementation of the Canadian Pharmacy Incident Reporting software (CPhIR) by the College (managed by ISMP in Toronto). The larger research group has worked on several related projects including interviews, surveys, data mining of the CPhIR system as well as transcribing and reviewing the discussions of a "Safety Summit".

While a significant review and revision of the processes surrounding QRE reporting is warranted, we see the primary issues surrounding error reporting as symptomatic of a larger cultural issue within the profession.

Literature Review:

After physicians and nurses, community pharmacists are the third largest healthcare professionals (Mossialos, Courtin, Naci, Benrimoj, Bouvy, Farris, Noyce, & Sketris, 2015). The role of the community pharmacist has been expanding not only within Canada, but across the globe (Halsall, Noyce, & Ashcroft, 2012). The expanded role has been implemented to facilitate coordinated care for patients (Mossialos et al., 2015). Responsibilities include dispensing of medications, providing clarification of the prescription, reinforcing appropriate use of medication, and, most notably the prevention and management of chronic disease, and prescribing (Mossialos et al., 2015; Hawksworth, Corlett, Wright & Chrystyn, 1999). Reviews have shown that community pharmacists are an underutilized health care professional, but their role has expanded and their value is being more readily recognized.

In Halsall's (2012) focus group study on healthcare quality within a community pharmacy, personnel would often claim to be overwhelmed with their workload, limiting the amount of patient care they were able to provide. This may mean that the pharmacist has limited time to provide patients with counsel or be required to have another member of staff relay information on their behalf (Halsall et al., 2012).

Medication Error

Medication or prescribing error is estimated to be responsible for over 44,000 deaths of hospitalized patients annually within the United States (Weant, Cook & Amritstead, 2007). Hartnell (2012) defined medication errors as "any preventable event that may cause or lead to the inappropriate medication use or patient harm. Among hospitalized patients, medications errors are often associated with extended stay and increased medical costs (Hartnell, MacKinnon, Sketris & Fleming, 2012).

In a review of medication error identification, pharmacy students correctly identified more errors than medical and nursing students (Warholak, Queiruga, Roush, & Phan, 2011). It was concluded that this was likely due to the increased amount of pharmacology training that the pharmacy students would have completed, compared to the medical and nursing students. Many medication errors are caused by prescribing errors (Warholak et al., 2011). It has been suggested that the use of information technologies and electronic prescribing and error reporting would be crucial in the prevention of medication errors (Weant et al., 2007).

The Computerized Prescriber Order Entry (CPOE) was one of these electronic systems that have been implementing in U.S. medical centres. Following a review conducted by Weant (2007), the number of order errors increased significantly when using the ordering system. However, the errors, for the most part, did not result in patient harm. It was presumed that the errors typically resulted from physicians (Weant et al., 2007). The report also stated that the online system and the presence of a pharmacist on service was likely the cause of the increase in errors, as they would have likely gone undocumented otherwise.

Incident or error reporting schemes are in place or in development for many countries, including Canada (Ashcroft, Morecroft, Parker & Noyce, 2006). These systems share common characteristics including being non-punitive, system-oriented and confidential. Community pharmacy chains may also have their own mandatory error reporting system (Ashcroft et al., 2006). There is a lack of standardization among the different reporting systems, which can impact the quality of the information being recorded.

The implementation of information technologies into the health care system can lower costs and improve patient care, but are not without their problems, as there can be a hesitance of staff to use the systems (Cresswell, Worth & Sheikh, 2011; Ashcroft et al., 2006). The systems can present a mismatch of needs and an overall poor fit for the users. It is important for the systems to be evaluated, not only on the functionality but also the impact on the social and inter-relationship of the parties involved (Cresswell et al., 2011).

Safety Culture

Following the International Atomic Energy Agency's report on the Chernobyl nuclear accident, 'safety culture' has been seen as a combination of normative behaviour and social cognition (Cox & Flin, 1998). A movement towards patient safety has placed the promotion of a culture of safety at the center, with many believing that a fundamental change in the organizational culture is essential (Nieva & Sorra, 2003). The safety culture of an organization extends out to the patterns of behaviour and commitment of the organization's health and safety management (Cox & Flin, 1998). By stating that patient safety if a strategic priority, the organization's culture and members' behaviours and beliefs may not truly be reflected (Pronovost, Weast, Holzmueller, Rosenstein, Kidwell, Haller, Feroli, Sexton, & Rubin, 2003).

Within the health care system, there is often a culture of "blame and shame" when it comes to acknowledging errors (Nieva & Sorra, 2003). This presents a barrier for error reporting and limits the opportunities to learn from the errors (Hartnell et al., 2012; Nieva & Sorra, 2003). Learning from errors and identifying potential issues pre-emptively will significantly improve the safety of the system (Pronovost et al., 2003).

Shifting the organizational culture and the fear of failing that comes with the "blame and shame" mentality is far more difficult than implementing a technical change, such as a new error reporting system

(Kim, Kwon, Kim & Cho, 2011). Punitive actions should not be the only action following an error. The events leading to and following the error should be analyzed to establish a patient safety culture (Kim et al., 2011).

In Hartnell's 2012 studies identifying the barriers to medication error reporting in Nova Scotian hospitals the three main themes identified in favour of reporting errors were patient protection, provider protection, and professional compliance. Health care professional showed a desire to improve and reduce medication errors, but there was a fear of legal action and a lack of trust in how the report would be used (Hartnell et al., 2011). This relates strongly back to the "blame and shame" culture present in the health care system. While patient safety should, and often is, professionals first priority, job security and mistrust of the organization can reduce the willingness to report errors (Kim et al., 2011; Hartnell et al., 2011).

METHODS: Qualitative Analysis

 While quantitative analysis can often be focused on discovering the 'truth' where qualitative analysis aims to bring meaning or understanding to the research question or situation (Rabiee, 2004). The goal of achieving quality qualitative research is data saturation, focusing on the perspectives of the participants rather than the number of participants (Hancock, Amankwaa, Revell, & Mueller, 2016). Data saturation can be confirmed through the use of thematic analysis.

Thematic analysis allows for patterns within the data to be identified and themes to be defined (Maguire & Delahunt, 2017). The report conducted by Hartnell and company (2012) used a thematic analysis to identify barriers medication error reporting in hospitals. The three primary themes they identified were incentives for reporting errors, barriers to reporting said errors, and encouraging reporting (Hartnell et al., 2012). All three of the key themes identified were identified throughout the four hospitals participants were recruited from.

Through focus groups, researchers are able to explore why participants behave, believe, or feel the way they do about the topics discussed (Rabiee, 2004). Focus groups allow for a large amount of data to generate in a cost-effective and timely manner. The literature recommends that while the group may reach group consensus, it may not be a genuine consensus (Hancock et al., 2016; Huston & Hobson, 2008). It is important to highlight the different beliefs and values held by the participants.

It is important in the focus group that the facilitator promotes the interaction of participants and is unobtrusive, while also reaching all the required prompts to meet the research objectives (Rosenthal, 2016). Huston's (2008) report on the use of focus groups in pharmacy research stated that they can help pharmacists to better understand the impacts of pharmaceutical care within their communities. The focus groups can give participants a safe place without pressure to respond or share within the group (Huston & Hobson, 2008).

In concert with ongoing quantitative research into the community pharmacists' experience with dispensing error reporting and prevention systems, a team has conducted four focus groups with community pharmacists, technicians and assistants in Nova Scotia to elicit their experiences with seven years of mandated error reporting. Saturation was achieved. MaxQDA software was employed to facilitate the analysis. Topics for the focus groups were informed by previous interviews with pharmacists. MaxQDA software has been employed to facilitate the analysis. Topics for the focus groups were informed by previous interviews with pharmacists.

Greenhalgh & Stones (2010) state that humans, technologies and social structures all exist within a reoccurring relationship. In this relationship, the social and organizational actors and technological infrastructures are created and recreated as the human actors within the relationship use them (Greenhalgh & Stones, 2010). This theory is the actor-network theory and can be applied to the use of technology within the health care system.

Actor-network theory (ANT) assumes that objects, in fact, have agency, and act as the 'actant' within a network (Cresswell et al., 2011). These actants can have an effect on the rest of the network and form relationships with the actors in said network. When using ANT within health care research, the complex and dynamic roles of the different actant and actors can be conceptualized (Cresswell, Worth, & Sheikh, 2010). Actor-networks are often unstable as they are dynamic arrangements of the no human actants and the humans within the relationship (Greenhalgh & Stones, 2010).

Analysis:

The understandings of safety culture; Continuous Quality Improvement (CQI); and Safety Reporting fall within a complex formative context (Unger, 2004). We approached the data by identifying the contextual pressures and identifying the operant themes. As shown in the figure below, forces external to the community pharmacy (although internalized by pharmacists, staff, and managers) impact the manner in which the safety culture forms. The Actor-Network extends beyond the physical features of the store and includes not only the medical, profession, the regulator (NS College of Pharmacists), the advocacy group (Pharmacists Association of Nova Scotia; PANS), Corporations which own the large chains, drug manufacturers, and government but also the media and vocal members of the public. Of course, the pills, bottles, computers, delivery trucks, work processes and physical structures of the pharmacies are also among the actors.

Ideas, values and beliefs held and change play a key role. When significant events are reported in the media – such as a death due to incorrect dosage or drug (Pharmacy error); the misbehaviour of a pharmacist; or, the shortage of a particular pharmaceutical - the public attention is heightened and the actor-network responds through changed processes. The advent of Quality-Related Event (QRE) reporting is one such response. In general, such systems are the result of reactive response (in Ontario the mother of a child who died due to a QRE successfully advocated for the reporting system) or pro-active (forward-thinking leaders of the NS College of Pharmacists initiated the reporting system).

Themes:

As shown in the figure below a series of themes surfaced from the focus groups data. Those themes could be likened to an onion and following the agricultural simile: the context could be the dirt in which this particular onion has grown. Each idea in the context was regularly repeated by the participants. Saturation was reached rather quickly in the work as the pharmacists, technicians and assistants have fairly homogenous views on their situation related to QRE reporting.

Context:

Six key words surfaced from the general discussions around the tables. Most frequent among them was the *workload* of pharmacists, technicians and assistants. Either due to the need to make a profit for themselves in order to support their business and family or pressure from the parent organizations to be cost-efficient, the participants cited a need to maintain as low a staffing level possible while maintaining service. This leads to extremely busy periods and often results in pharmacists doing administrative work after shift end.

The potential for workload and the resulting *time* pressures to be a factor in QREs was cited as was the *unnecessary* time taken to report clerical errors such as spelling or grammar mistakes. The use of email and constant emails from the college, PANS, ISMP (the error report management firm), head office or the buying group (independent pharmacies are often members of a cooperative buying group such as Pharma Choice).

Email plays a dual role in the onion-like layering of themes discussed more fully. Many of the notices, bulletins and other official communications (including our invitations to the focus groups) come via email. Along with spam, and routine emails; these communications add to workload and often go unnoticed. Email seems to be a low success method (Uther, Cleveland, Jones, 2018). There seems to be little time to read routine emails.

Email is one of the more intrusive aspects of modern *technology*. Often considered by the busy worker as a double-edged sword, technology both play an important role in an actor-network as a mediator and enabler while at the same time sucking up much of the available time and energy of the human actors. Technology enables efficiency but also prevents action when it fails (as many are unable to restart a frozen application or device) and controls action through its processes. Specific to QRE reporting the technology in the way in which the reporting system and online forms are structured increases the time required and in some ways may actually prevent full reporting of incidents (operators rush to enter the required fields and skip over or minimally fill in the text explanations).

One cause of the minimalist reporting via CPhIR (the official system of the College of Pharmacists) may well be the *corporate* context. When significant errors occur, pharmacists are required (if they are

employees or franchisees of the large chains) to report extensively via the risk management systems of the company. These systems are confidential within the corporation and enable the head office to assess and prepare for any legal repercussions as well as making management aware of potential systemic issues which should be communicated to all stores. The latter role also impacts communication from ISMP as the pharmacists who work in chains report that they take the corporate directives much more seriously "because the company can fire" them.

The corporation and the buying cooperatives mediate the impact of *society* although pharmacists also deal with societal discourse directly. The risk managers of the corporation become more active in response to news articles and to potential government action such as new regulation. Public discourse often triggers new procedures or ad hoc report requests. Directly, pharmacy customers may ask about news articles or the pharmacists may see the reports and become more concerned about QREs organically.

Main themes from the Focus Groups

Safe Dispensing:

"It's very important that medications go safely to the patient. And, anything that helps is important." (participant 2 – exemplar). This is key to the culture of pharmacy and pharmacists. They believe that they are the experts in medication and that they are the primary protector of patient safety. This belief is not without a solid foundation. Pharmacists are thoroughly trained in medications, interactions, allergic reactions and all other aspects of harm prevention. After graduation, they are required to participate in continuing education modules and most pharmacists read extensively to stay on the leading edge of prescription and patent medicine efficacy and harm prevention.

Some feel that they are the last line of defense in the value chain. Frequently, comments were made about the errors made by physicians which are caught by pharmacy staff and software. The data from the CPhIR system supports these claims as a significant number of reported incidents are prescribing physician errors including but not limited to: incorrect dose; duplication of effect (with another prescribe medication); other interactions; and, patient allergy. In this value chain, the true last line of defense is the patient (or family member) who notices an error. These QREs are only reported when the pharmacist is informed by the person who notices the error.

In the focus groups, the participants reported these incidents with frankness often accompanied by horror. The actual stories will not be included in the report for fear of identifying the participants but they include incorrect medication, dosage and patient. An important feature of the focus groups was that some potentially disastrous situations were discussed in every session and not once did another participant criticize the storyteller. It seemed obvious that every participant understood that errors happen (at every step in the system). As understood in most industries, pharmacists accept that mistakes happen.

The willingness to accept that mistakes happen and that the potential exists for a dispensing error to result in death reinforces a willingness to participate in a QRE prevention program. It seems natural for a fact-based (rather than blame-based) to be embraced by pharmacists. That system would then provide preventative feedback to the system. The CPhIR system was conceived as such.

Compliance:

However, it appears that in practice the CPhIR system is more about reporting quotas (not clearly defined, it seems that the inspector invariably tells the pharmacy manager that they should report more QREs). As mentioned the need to report even small errors as fully as those which may have (if not caught) caused significant harm. Often the participants would suggest that a "sig error" (label incorrectly typed – name misspelt was a common "sig error") should not require much reporting; if at all. For example: "Say the assistant puts the wrong doctor on the prescription. We're required to report that as a near miss...If I send that back (to the assistant) and say 'you need to fix this', it never reached the patient, it was never going to reach the patient because I caught that. I don't think that's useful to report it" (participant 14).

This problem of reporting simply because you have to; is exacerbated by the large presence of the corporate pharmacies in the market. They require extensive reporting when a QRE may have resulted in harm but none for sig errors. The result is duplication of reporting when something important happens as well as signposting of the time-waste that sig error reporting is perceived to be. Many pharmacists seem to desire a one-stop reporting system integrating the company system and the regulatory system. As it stands the company system gets its effort. (It should be noted that buying groups do not appear to have an internal reporting system – independent pharmacies report only through CPhIR).

"I work for [company] and we have an internal reporting system and that's critical. When staff pharmacists send it, it goes to the pharmacy manager and also my head office. So we report important things ... So that's what we do and what we learn from. We share and we spend a lot of time on it. We enter it in CPhIR because we have to. And I ask my assistant not to spend more time than 30 seconds...the priority is patients waiting, or pill packs to package...CPhIR is the least priority. If it's an incident, we document it internally, with details in case legal things happen, [but for] CPhIR we just do it quickly." (participant 4)

Compliance issues continue after the reporting process. "I have to do staff meetings [to discuss errors] because the college says. We used to do it with everyone outside of work hours on their own time and we said, 'why do we do that?' ...I can't waste an hour of everyone's time, and we don't have a budget for ours. now, what with the cuts and everything…" (participant 8). The "cuts and everything" referred to are the efficiency measures of the large chains - staffing is determined by throughput and the company is constantly looking for efficiency gains.

The NS College of Pharmacists (the regulator) requires monthly staff meetings to discuss error prevention, reporting and the bulletins sent out by ISMP. In practice, these meetings rarely occur according to our participants. Often the manager will talk to each staff member individually or in small groups and tell them about any major reports in the bulletins and remind them to enter as many QREs as they can into the system in order to satisfy the inspector.

Often QREs would be batch processed in slack periods or when the inspector was expected.

Communication:

At the base level there appeared to be a lack of continuity in communicating the QRE system protocols and systems. Often a pharmacist would say something like, "No, I made my own form. I didn't know there already was one. That would have saved me some time" (participant 1). One participant mentioned

a program binder they discovered at a pharmacy while others would report that they had created their own binder of processes for the staff. Investigation revealed that binders were sent out during the pilot project which detailed the operational guidelines. It was not clear if they were sent in physical form to all pharmacies in the full roll-out of CPhIR.

The lack of clarity in the operation of the system was a minor consideration when compared to the use of data piece. Earlier interview work had indicated that the volume of hospital-pharmacy related communication was a problem. However, the problem seems larger as many focus groups discussed similar comments to: "..I haven't noticed any useful information from CPhIR newsletters, information from any of the ISMP safety bulletins that highlight errors that have come to light. I haven't found any useful information from those being shared; any that I find applicable to my own situation" (participant 7). One of the authors of this paper receives the bulletins from ISMP and reports that many of them are promotional or non-critical *checking in* or routine communications. Reports of community pharmacy procedure change recommendations are infrequent and could be lost in the volume.

As one pharmacist said: "I usually look through the bulletins... but I get so many emails that I don't often check them. But...every quarter...I'll also look through the bulletins just to see if there's anything... helpful to my staff and I'll disseminate that to them along with all of our error information. Lately, I haven't found that there was much that was applicable. There's a lot of hospital incidents that just doesn't apply to us... But there definitely have been incidents that seem applicable that I've shared with staff, but I honestly can't think of any off the top of my head" (participant 9).

As discovered in the interview phase the mixture of hospital and community pharmacy content in the primary communication stream dilutes its usefulness. In addition to impacting the value of ISMP's communications it has a wider impact on the NS College of Pharmacist's communication efficacy; for example: several pharmacists reported that they had not seen any of the invitations to participate in the focus groups. It was only when a friend mentioned them or when there was a notice through PANS that they learned of the opportunity to have input.

QRE & Harm:

The deviations from the intended course do not unenroll the key values in the system. Pharmacists are trained to minimize harm and the vast majority of them do what they can to prevent medications with the potential for harm from reaching patients. It is unfortunate that the more punitive nature of the inspection system seems to interfere with effective use of the QRE reporting system and that over-communication and possibly a poor choice of channel has reduced the value of bulletin process. However, in the end, pharmacists have become more alert to potential mistakes and taken action.

"We've certainly made some changes …. based on incidents that occurred in our store and looking through what we've reported is a good way for us to review and see what areas we need to work on, and identify times when we've made the same kind of error…. But on the more local level just looking at our own store and our own errors we've identified lots of things we've been able to improve upon so for that I find it really useful" (participant 7).

The system was intended to follow the aeronautical example of reporting near-misses (they even use that terminology) which encourages personnel to report situations which may have led to issues even when negative outcomes were avoided. This system relies on the acceptance of mistakes as unavoidable realities and therefore focussing on the incident rather than blame and punishment. It seems that the

regulatory role of the College and the nature of their interactions via the inspection system has gotten in the way of full implementation. The focus on activity – both in reporting and communicating- seems to have interfered with accomplishing the program's goals. But, the existence of the program may have encouraged pharmacists to implement their own error prevention systems.

Conclusions: While remaining supportive of the intent for mandatory error reporting, most participants experienced considerable difficulty with the system especially regarding system ease-of-use, time required, and the uncertainty their system training prepared them for regulatory audits. Respondents also expressed concerns regarding the usefulness of the information drawn from the error database that is reported back to them, finding this information to be difficult and time-consuming to navigate and often repetitive. This led to a general lack of awareness of the potential resources available, especially among technicians and assistants. Corporate pharmacists also noted the requirement to report to both the mandated error database and to their in-house databases, which was seen as time-consuming and a requirement that pushed them to focus more on reporting errors reaching the patient as opposed to near misses. All participants felt that error reporting is important and useful but that the system requires improvement to enhance its usability.

The issues with the QRE reporting system seem representative of a broader cultural concern. The community pharmacy is situated in several value chains and often within an integrated corporate culture. The prescribing through dispensing through medication usage value chain is fraught with power relations among physicians, patients, family members, pharmacists, technicians and assistants. These power relations are contextualized by public discourse, government actions, the College as regulator and PANS as advocate. The QRE system is particularly conflicted via the regulator role of the College and the compliance culture engendered by such a role. The discourse found in this research via the focus groups confirms a commitment to harm elimination but also a resistance to the reporting quota / compliance approach of the College.

The themes bring together this conflict as well as a larger issue of management of a local entity within an integrated corporation while committed to the values of a profession. As in many *callings*, pharmacy professionals find their chosen role complicated by profit motives, realities of business, and the regulation of their behaviour in response to harm-causing errors of others and the misdeeds of a small unethical minority in their profession.

The Nova Scotia QRE system was founded on an ideal of no-fault reporting to enable analysis and error reduction/quality improvement. Like many such systems, blame culture, under-reporting and resultant numerist quotafication have crept in and derailed the values as espoused.

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VIOLA DESMOND: A FICTOCRITICAL ACCOUNT

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Abstract

Viola Desmond is considered a forerunner in the civil rights movement in Canada. Lesser known is her role as a successful entrepreneur. This paper contributes to the ongoing scholarly effort which calls into question the gendered, racialized and narrow scope of management and organizational studies and management history. It is an innovative contribution to the ever diversifying ways we can study management and organizations, and figures of significance. By enlisting a polemical feminist approach, fused with fictocritical strategies, the author sets out: (1) to ensure Viola Desmond's entrepreneurial achievements are made more visible; (2) to ensure that she is recognized as an important, but overlooked contributor to our understanding of female leadership and black entrepreneurship; (3) to advocate for a continued challenge to the customary approaches in the study of management and organizations; and, (4) to illustrate a connection to praxis and social change through activist academic writing.

Keywords
Viola Desmond, fictocriticism, feminism, critical historiography, activist writing, autoethnography

Part 1: Introduction

> "*When I met Viola for the first time, she had been dead for 48 years. I saw her portrait at a holiday reception in 2014 at Province House, the home of the Lieutenant Governor of Nova Scotia. She was beautiful, regal, dignified. The portrait was painted by local Pictou County artist, David MacIntosh. She was so very young when she died; only 50 years old. And now so many years later, she was famous. Well… famous again*" (personal vignette, September 2016.)

As remarkable as Viola Desmond was, most Canadians know very little about her, beyond recent efforts to recognize her as a civil rights leader who challenged racial segregation in Nova Scotia in 1946:

> "*Given these similarities in history [between Canada and the United States], especially in relation to the practice of Jim Crow-style segregation and the struggle for racial equality in both countries, it is perhaps fitting for us to designate a figure like Viola Desmond as Canada's Rosa Parks […] Both these courageous Black women were catalysts in the larger collective struggle for civil rights and social justice*" (Reynolds, Clarke and Robson, 2016, p. 175).

The story I want to tell you is a broader one. The Viola that I want you to meet was also a pioneering female black entrepreneur.

This paper contributes to the ongoing scholarly effort which calls into question the gendered, racialized and narrow scope of the field of management and organizational studies and management history. It is a contribution to the ever diversifying ways we can study management and organizations, and figures of significance. Novel lenses reveal new insights and challenge conventions of the knowledge-making process. Highlighting leaders like Viola, reveal the systematic ways this discipline continues to leave certain individuals and their lessons out of account.

The questions guiding this study are: How does Viola's valourization discourse as a civil rights leader, have the potential to blind us to her role as a successful entrepreneur? Who was Viola as an entrepreneur and business leader?

Part 2: Theory and Approach

Feminism

As a polemical feminist[2], I am interested in disrupting current and past patriarchal and racist narratives in the pursuit of social change and social justice. Specifically, my research interests have focused on overlooked historical female figures who have been neglected by management and organizational studies and management history (name deleted to maintain the integrity of the review process). I am not only interested in what has been lost, in terms of *her* contributions, but also how *she* became lost in the first place.

I also subscribe to poststructural perspectives (see Scott, 1988; 2004) which hold that *language* and *meaning* can be temporarily fixed and *culturally* and *historically contingent*, based on specific discourses organized by *social power*. Language is thus ideological (with political, economic and social implications). Feminist poststructuralism pays close attention to the social, historical, cultural and institutional context of all phenomena to address power relations (Weedon, 1997). Thus meaning-making is relational. There is no *truth*, but rather an opportunity to select between different accounts of subjective realities (Weedon, 1997). In this effort, I can reveal the discourses (Foucault, 1981) which constitute the *rational* and give meaning to the world and our place in it, and then act to disentangle them and transform them. My approach then becomes one, which is necessarily narrow in scope, targeted on destabilizing truths, surfacing alternative voices, and challenging subjectivities in localized contexts (Collinson, 2005).

Critical Historiography, Fictocriticism and Autoethnography

Drawing on insights from micro histories and using a critical historiographical approach which fuses fictocriticism with autoethnography, I am looking to discover contestations in narratives, and active discourses which preempt the voices of female leaders from being recognized. The end result is a richer story, a more tangible historical figure and an appreciation for what she achieved. Also revealed are the intentional and unintentional ways we hide such contributions from management and organizational studies and management history.

I believe that *making history* actually happens in the present and it is a practice which should not only chase *so-called facts*, but examine their context, examine what has been collected, who collected it, and why it was collected and held as important or significant. I recognize and analyze my own subjectivity and my role in the practice of making history. I recognize that I have my own agenda: to disrupt the current practices, to develop feminist knowledge, and to tell feminine histories which have overlooked. Sources that I draw from may be incomplete and involve players that at the time of fact collecting were not viewed as significant (because of gender, politics, race, class or the propensities of the chronicler). Therefore, my approach is much more intentional, context dependent and openly, if not radically, gendered and discursive.

Munslow (2010) and others have struggled with the idea of history being a mix of fiction with fact and concluded that such practices of advancing fiction as fact is a disservice. According to Munslow (2010) to pass off invention as fact breaks an implicit contract between reader and historian. This idea safely places the work of history and the work of fiction on opposite sides in an otherwise messy accounting of fact, data, meaning, expression and philosophy. However, I do not think we have adequately theorized the value of fiction to history and quite frankly the idea that fiction is not an important part of history is missing the point entirely. *History is fiction*. "Experience is unknowable outside of language and thus it is itself discursively produced" (Rose, 2010, p. 13). Some fiction is no less

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[2] I borrow the term polemical feminism from Joan Scott, see Scott, 2014. By adopting this frame, I am also signally that I intend to offer a contentious rhetoric in support of female agency (mine and my subject) above all else and thus undermining the existing position, its limitations and the resulting suppositions and claims. I therefore offer what might be described as a combination of activist writing and scholarship.

factual, no less relevant in its power to provoke social change, or describe a time, people or place. And when I look at historical and literary fiction, I see women[3]. I see them as I imagine they must have been. Is this a gendering or 'romancing' of discipline or something deeper? For me, the debate is not yet complete, particularly for feminist critical historiographers who are looking for more than feminine knowledge, namely social change and social justice.

I also feel that writing provides space for women to exercise agency for themselves. As such, writing must have a degree of advocacy – for subject and writer. It is not a measure of compounding ignorance through method. We have enough so-called history which has done that. It is the knowledgeable and reflexive writing of *a* history, which has the power and potential for something profound in the present. Is that not the role of history – to teach us something? Is that not the role of scholars – to be teachers?

History is symbolic and not an objective representation of the past. What I derive from Munslow (2010), Scott (1988) and Rose (2010) is that we must never lose our skepticism of what is considered history, particularly a gender(ed) history. From Munslow, I understand that the objective is to use the most effective of these traces of evidence and fill it in responsibly. That is fine and good, but as a feminist, I am still left wanting. This approach still gives power to the evidence itself as though there is such a thing as evidentiary truth! Such traces of the past and such evidence are not unprejudiced. Evidence is rather like an onion which has layers and layers of ideological rhetoric, agenda, privilege, masculinity… Even when you get down to the last layer, it can be argued that even that which remains is not *real*.

When histories of women are not available, what can data or traces teach us? When the holes are larger, and the so-called facts unclear or even contradictory, shall we not see fit, as Margaret Atwood (1996) suggests, to *invent*?

> *"I have of course fictionalized historical events (as did many commentators on this case who claimed to be writing history). I have not changed any known facts, although the written accounts are so contradictory that few facts emerge as unequivocally "known" […] When in doubt, I have tried to choose the most likely possibility, while accommodating all possibilities wherever feasible. Where mere hints and outright gaps exist in the records, I have felt free to invent" (as cited in Alias Grace, p. 564).*

If I can do no more, I should be very pleased.

If we know our purpose, which I argue does have a broader agenda (particularly for feminists) than fact-telling: to *raise awareness*, *rouse social change*, *challenge thought*, *inspire morality*, then a well-researched, well-conceived, (and *birthed*) persuasive work of historical fiction is a compelling approach. I think it is the next stage of the application of skepticism, because it locates the author in a trusted but highly visible position of accountability. No more attempts to be morally superior in our fact-telling. Let us be advocates and rebels and feminists for change. If we only rely on what is available in so called traces, there will never be enough information to cast a superiorly acceptable gendered (or gender) history, because the very methods, partial traces and attitudes are as exclusionary as the practices of keeping traces themselves.

Understanding Viola also becomes a platform for a deeper discussion about the rhetorical, political and ideological strategies which persist in the study of organizations and the narrow and linear way the past has been reported. Fictocriticism (sometimes referred to as postcriticism) fused with autoethnography provides a theoretical frame and rhizomatic[4] method to resist convention and a resulting writing practice which is distinctly feminine and feminist: "Fictocriticism is self-reflexive writing that

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[3] And I am not alone, see Ranft (2013) who investigated black female identities and histories of oppression through fictional literary productions.

[4] Informed by Gilles Deleuze and Félix Guattari, see Sørensen (2005).

breaks down the boundaries between fiction and criticism, reader and writer, by using aesthetic techniques" (Jiwa, 2013, p. 104).

Fictocriticism challenges the divisions which traditionally exist between the practice of creating a narrative (essay, history or fiction) and theory and criticism. These elements are combined (along with many inputs and voices) to produce a single account. But I must caution that "when we begin to define or declare what fictocriticism is or is not, fictocriticism loses its purpose, which is first and foremost a space of possibility" (Schlunke and Brewster, 2005).

Regrettably, fictocritical strategies have seen limited use in MOS[5] (see Rhodes, 2015, Weatherall, 2018). However, feminist practices have long promoted passionate intertextuality to develop an understanding of the writings of women (Gibbs, 2003). Such practices also have value in writing *for* women, affording agency and to make them feel alive and embodied, capable of being remembered, loved and admired (Gibbs, 2003). Fictocriticism intervenes in the "dispassionate, distancing, putatively objective forms of critical and theoretical writings which [tend] to define traditional academic writing" (Gibbs, 2003, p. 309). In practice, my approach to fictocriticism consists of the use of first person writing, punctuating narratives with autoethnographic reflections, combining a creative narrative with academic strategies and filling in gaps (traces) with my own ideas to produce a fuller and more persuasive story.

But, let me be clear. I am not just writing to undo a history and retell a new story. Nor do I wish to create a disturbing binary between the feminine as fiction and the masculine as history (or truth). Fictocriticism is a practice of writing which authentically appreciates the limitations which are imposed when we claim something is *real*, versus a *representation* or *cultural creation* (Linden, 2012; Munslow, 2010). It distinctly gets away from an additive approach to history and allows for writing to bring about change: in me, in scholarship and in our understanding of important contributions to history and the knowledge-making process itself. *Writing differently* displaces the roots of power (Rhodes, 2015, Pullen & Rhodes 2008):

> "*What then are the possibilities for writing in and from the academy in a manner that might somehow allow the heart's instincts to be followed and the vast possibilities of expression to be explored and enjoyed?" (Rhodes, 2015).*

I want to offer a more intimate account which genuinely attends to remarkable women and the way I feel about them. I do not want to write for her, but *with* her. I want to combine her voice, her way, and her lost knowledge with my voice, my way and my knowledge.

I am also giving myself permission to say what I feel and how I am changed by this writing. I am giving myself permission to share my expertise, my passion, my anger and my joy in this writing. Getting to know Viola changed me. Writing in a way which potentially offends the usual academic aesthetics (at least in management and organizational studies) is a way to acknowledge this change and to experiment with new ways of doing research in this field. It also allows me as a researcher and advocate to be "distinctively present in my writing" and to be an ally and even a posthumous collaborator in the telling of Viola's story (Weatherall, 2018, p. 10). Some have described this kind of writing as more *truthful* (Schlunke and Brewster, 2005), though I appreciate the paradoxality of that description. Fictocriticism is a way to "write and think [of] an embodied, textuated past or as individual intrusions into particular debates" (Schlunke and Brewster, 2005, p. 393). I see this lens as opportunity to visit the site of a complex history provocatively and bring together numerous voices to work in unison or in counterpoint (Gibbs, 2003).

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[5] Fictocritical approaches are well established in creative writing, literary studies and cultural studies. Fictocriticism was established in the 1990s as a feminist postmodern approach capable of challenging established conventions of academically acceptable writing (Hancox and Muller, 2011). It is a feminist call meant to inspire alignment between politics and personal practice – namely how we think with how we write (Linden, 2012). It is also meant to be an expression of the feminine and a confrontation to representations of the masculine in space which hold back women's achievements and progress (Linden, 2012).

Viola has already been socially constructed as a civil rights leader – and that construction is ongoing. The official apology advocated by her sister, Wanda, did much to inform the reporting which was to follow, and reads in part:

"[…] On April 15, 2010, the province of Nova Scotia granted an official apology and free pardon to the late Mrs. Viola Desmond who was wrongfully fined and jailed for sitting in the white people's section of a New Glasgow movie theatre in 1946 […] A free pardon is based on innocence and recognizes that a conviction was in error. A free pardon is an extraordinary remedy and is considered only in the rarest of circumstances […] A Royal Prerogative of Mercy Free Pardon is meant to right a wrong" (as cited in Reynolds et al, 2016).

Popular press of recent years has replicated this history and role of Viola, setting up and then continuing to empower her valourization discourse. These accounts routinely describe Viola and her experience and subsequent actions in the following way:

- *"The beauty salon owner lost the case but strengthened the fight to end racial segregation in Canada. She went on to become a civil rights icon" (Canada's History, 2015).*
- *"Desmond, who launched Nova Scotia's civil rights movement in the 1940s after refusing to leave a whites-only section in a movie theatre […] Desmond's act of defiance and courage helped change the course of Canadian history" (Boseveld, 2018).*
- *"Canadian businesswoman and civil libertarian who built a career as a beautician and was a mentor to young black women in Nova Scotia through her Desmond School of Beauty Culture. It is, however, the story of her courageous refusal to accept an act of racial discrimination that provided inspiration to a later generation of black persons in Nova Scotia and in the rest of Canada" (Bingham and Yarhi, 2013).*
- *"The honors for Desmond, who is sometimes referred to as Canada's Rosa Parks, go far beyond the [new] bank note. She's been honored with a Canadian postage stamp. She's had a ferry in Halifax named for her as well as a street. She's had her portrait hung in the ballroom of Government House, the official residence of the lieutenant governor of the province. But most importantly, she was granted a posthumous apology and pardon in 2010 for her arrest and conviction" (Criss, 2018).*

The emphasis in these tributes and many others that I could share, are the details which pertain to her experience in the New Glasgow theatre in 1946, which resulted in her arrest and drew attention to racism and segregation in Canada. Some even suggest that there is a direct link between Viola's act and the abolition of segregation, though abolition did not happen until 1954. This speaks to some temporal manipulation to aid a particularly powerful discourse. She is also contradictorily described as both *perseverant* and *reluctant*, as *paving the way for a broader movement* and *not galvanizing significant attention*. Which of these conflicting accounts is correct, and true? Does it matter? Is the outcome not more important? Does she not inspire?

Why is it important to have a figure like Viola Desmond in Canada? Reynolds et al (2016) offers this perspective:

"Viola Desmond's free pardon in 2010 was a significant action in righting a longstanding wrong and in raising public awareness about the practice of racial segregation that existing in Canada for most of the twentieth century. In a matter of a few short years, Viola Desmond has moved from historical obscurity to an inspiration for all Canadians as well as a symbol of her generation's fight to end racial segregation and discrimination in Canada" (p. 175).

I do believe that the discourse of valourization is not only fitting, but incredibly important to the moral development of Canada. Should we care if there has been some manipulation to aid in this effort? I do not think so. Where is serves to neglect Viola's broader value is where I take umbrage and that is what I want to change.

Thus, I will endeavour to socially construct her in a broader way, for a new purpose. I will share Viola's story in terms which reveal her potential contributions to management and organizational studies.

The sources that I have drawn on consist of two books, both of which incorporate Viola's sister's first-person accountings and copies of provincial records (e.g. the formal account of the Nova Scotia Apology and Royal Prerogative of Mercy Free Pardon, and notes from The Promised Land Project Symposium Roundtable Discussion of 2011). Additionally, some information is housed in the Wanda Robson and Viola Desmond Collection at the Beaton Institute. The collection housed in the Nova Scotia Archives is focused on historic newspaper coverage. As I have alluded to, even with these sources to draw on, the traces are inadequate.

Part 3: Finding and Revealing a Different Viola

"I want the world to know her as more than a one dimensional heroine. Her lessons are lost to history; lost by the way we privilege certain voices at the cost of others, historically and presently. Lost to certain well-intentioned efforts to socially construct her as a heroine of civil rights. It has taken a herculean effort by her sister Wanda to have her recognized at all. Will it take an equally significant effort to have her seen as more? Can her story help us understand some of what management and organizational studies is missing? What potential practices and contributions to theory might she have contributed? She is another missing figure of significance who should play a role in developing our understanding of organizations, organizing and the organized" (journal reflection, May 2017).

Viola Irene Davis Desmond

"Mum said that it was very hard, when a woman is burying her daughter, a child, and she has to leave midway through the service to check on her other daughter who she thinks is also dying. That other daughter was Viola. Who lived" (Robson and Caplan, 2010).

Viola was one of 15 children born to Gwendolyn Irene (née Johnson) and James Albert Davis in Halifax, Nova Scotia (Robson and Caplan, 2010). She was born on July 6, 1914 (Nyarko, 2016). She was one of 11 siblings to survive childhood and the youngest of the elder sisters (9 sisters in all) (Robson and Caplan, 2010). Wanda describes the day-to-day experience of racism from the perspective of a child:

"Racism is certainly not fair; it's ugly, it's demeaning, and it is very hurtful. And that is what I learned in grade 3 when I was 8 years old in Halifax" (Robson, as quoted at the Promised Land Project Symposium Roundtable Discussion in 2011, as cited in Reynolds et al, 2016).

Viola's grandfather on her maternal side, was a Baptist minister and the family was very religious (Robson and Caplan, 2010). Viola's mother was an active advocate, who often wrote letters to newspapers when she thought something was "politically, educationally or racially wrong" (Robson and Caplan, 2010, p. 22). Her father was self-taught and had intermittent work during the depression cutting hair and washing cars (Robson and Caplan, 2010). It was particularly tough during the depression and Wanda (Viola's sister) remarks openly about the family's talent for making "food stretch" and working closely as a family to support the full duties of a busy household (Robson and Caplan, 2010, p. 34).

While some of Viola's siblings helped with income, others went to school. Viola did both. Viola first trained as a teacher and then earned several professional certificates in cosmetology before opening her first salon in Halifax.

Viola was a "topnotch" student and studied at Sir Joseph Howe Elementary School and Bloomfield High School (Wanda Robson & Viola Desmond Collection 2008-2014; Robson and Caplan, 2010, p. 35). Her sister describes her as very particular and needing everything "to be correct" (Robson and cited in Robson and Caplan, 2010, p. 35). In her time, Halifax did not hire black teachers, but as an African Nova Scotian, you could obtain a special certificate which permitted you to teach in the *'black-only'* schools of Hammonds Plains, Preston and Africville (Robson and Caplan, 2010). Viola obtained her certificate and was teaching by age 16 in Preston (Robson and Caplan, 2010; Canada's Walk of Fame, 2017).

As a student, Viola was greatly inspired by Madam C.J. Walker[6] (Robson and Caplan, 2010, p. 36-38). Walker's success, by Wanda's account, is what encouraged Viola on her path to entrepreneurship (Robson and Caplan, 2010). In the 1930s, vocational training facilities were not open to black women and there were no black women working professionally in the field of cosmetology in Halifax. To pursue her dreams, Viola saved her money from teaching and went on to study the trade in Montreal, New York and New Jersey (Robson and Caplan, 2010; Bank of Canada, 2016). In 1936, Viola married Jack Desmond (Wanda Robson & Viola Desmond Collection 2008-2014).

Viola was clearly driven, and she saw an opportunity and need: "Viola started her business. And, believe me, it was long overdue. And the women came to her. Woman are human beings, whether they are black or white – they are women. They want to look good, they want to go out to a party" (Robson as cited in Robson and Caplan, 2010, p. 40).

After training she returned to Halifax where she started her business in 1937, called *Vi's Studio of Beauty Culture*[7] (Bank of Canada, 2016). The beauty parlour, specifically devoted to serving black women "became a gathering place for women in the community" (Bank of Canada, 2016). The store was first established in her family home but then grew to be a standalone store on Gottingen Street (Robson and Caplan, 2010). Her self-made and hand-crafted products expanded: face powder, perfumes, lipsticks, hair dye, hair pomade, hair pieces, falls, chignons and wigs (Bingham and Yarhi, 2013; Robson and Caplan, 2010). Within a few years, she established the *Desmond School of Beauty Culture* which drew students from Nova Scotia, New Brunswick and Quebec (Bank of Canada, 2016). She also created another enterprise to manufacture, market and sell her products (*Vi's Beauty Products*) and generated orders from across Nova Scotia (Bank of Canada, 2016). She was regarded as a role model and community leader and inspired those around her (Bank of Canada, 2016). Eventually, Viola left Nova Scotia to study business in Montreal and then moved to New York to start a business as an actor's business agent. Viola died suddenly and tragically in 1965 at the age of 50, in her New York apartment from a gastrointestinal hemorrhage (Canada's Walk of Fame, 2017).

As I have argued, her success as an entrepreneur (particularly as a young black business woman in segregated society) is overshadowed by her role as a reluctant defender[8] of social justice and human rights in Canada after the events at the Roseland Theatre in 1946 where she was assaulted by police and arrested for sitting in a 'whites-only' section. She is now regarded as a significant figure in the rise of the civil rights movement in Canada (Wanda Robson & Viola Desmond Collection 2008-2014). Due in large part to her sister's dedication to Viola's case, Viola received a posthumous Royal Prerogative of Free Mercy Pardon from the Nova Scotia government in April of 2010 (McGraw-Hill Education, 2017). Mayann Francis, the first African Nova Scotian Lieutenant Governor, pardoned Viola. She was then portrayed on a commemorative stamp by Canada Post in 2012, in a Heritage Day named in her honour in 2015, featured in a government television segment *Heritage Minute* in 2016; inducted into Canada's Walk of Fame in 2017; and in 2018, she became the first Canadian woman to appear on a Canadian banknote (Canada's Walk of Fame, 2017).

The moniker that Viola often gets as "Canadian Rosa Parks" has some unintentional consequences. It helps to place and emphasize the significance of her actions but misses a very important point. Viola's action happened nine years before Rosa refused to give up a seat on a bus in Alabama. It is rather a clever tactic to have Viola brave actions conflated with a similar episode and thus reified and abstracted. Such rhetorical strategies are powerful politically for igniting new thinking, but they come at a

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[6] An African American entrepreneur, philanthropist, political and social activist, and the first self-made millionaire; starting the *C.J. Walker School of Beauty Culture* (Walker died in 1919).

[7] Her sister Wanda recalls the name of the store as *Viola Desmond's Beauty Store* (Robson and Caplan, 2010, p. 41) though several other sources indicate it was *Vi's Studio of Beauty Culture*.

[8] Viola was asked to become a spokesperson with the Nova Scotia Association for the Advancement of Coloured People, but declined (Canada's Walk of Fame, 2017).

cost because they often ignore context and miss insights into the lived experience of the person(s) involved.

As evidenced by the news coverage of the day, in 1946, Viola was seen as a criminal. This status served to not only smear her reputation, but that of her family's as well (who were often named in the coverage (e.g. see Nova Scotia Archives: *The Clarion*, 1946). Despite the well-meaning attempts of today's media coverage which is trying to recast Viola in a different light, the news of her time was quite different (e.g. see Kassam, 2018). Viola's action did galvanize some community support in her time, but it is important to appreciate that segregation was not ended until 1954. It is through the efforts of her sister in recent years that Viola was finally pardoned and recognized for the brave action that she took: "Yet. Desmond could trigger no mass protest. She struggled – and suffered – alone. She was no symbol; she was a martyr" (Clarke as cited in Reynolds et al, 2016). After the trial, Viola closed her business and moved to Montreal, which suggests to me that the experience had significant personal and professional ramifications.

Viola's past is shared through the words of her sister, Wanda. Wanda clearly wishes her sister's tremendous accomplishments to be remembered and *written into the history books*. She deserves validation. Viola's story is interesting because it has become a potent flashpoint for both Canadian pride and shame. Wanda's efforts to honour Viola are inspiring and impressive. However, so frequently do we now hear the story of Viola's remarkable bravery, that she has been reduced to a symbol and known only in association with others, be it Rosa Parks or CJ Walker, or with certain social phenomena, like civil rights (not management or entrepreneurship).

"Canadians seem to be falling all over themselves to catch up. They want to undo the harm Viola experienced and transform her into an instrument of pride and a symbol of change. Even the Americans seem happy that we have found our own "Rosa Parks". She has become a puppet of opportunity with theatre shows, restaurants, scholarships all seeking to use her name. This is a fascinating thing to witness as her story evolves more and more to be useful to the needs of the present" (journal reflection, October 2017).

None of this diminishes the remarkable life of Viola. Nevertheless, the result has been an incredible emphasis on Viola's value to the civil rights movement in Canada at the cost of her potential lessons around female mentorship, feminine leadership and black entrepreneurship. I believe she can be remembered as both a civil rights advocate and pioneering entrepreneur. Her story is an important one.

To fully appreciate Viola's lost contributions to management and entrepreneurship, we must contextualize her story in the broader discourse of black entrepreneurship and the experience of black women. She was a forerunner of a new model of business and she lived in a time not only oppressive to women, but to all people of colour. For her, the advantages of accessible higher education and vocational training were withheld. She lived in segregated society.

Blacks in North America have complex cultural origins and historical experiences (informed by the legacies of colonialism, slavery and immigration) which shaped (and arguably continue to shape) economic life (Knight, 2004). "The labor market was segregated by gender and racially stratified" (Mills, J. 2015, p. 419). For black women, we can add to this complex framing: sexual aggression, battery and rape, to a broader understanding of the shared experience in a system of domination and oppression (see Crenshaw, 1991).

According to critical scholars, the current study of ethnic entrepreneurship is undertheorized, and our narrow understanding extends to the experiences of predominantly entrepreneurial males and immigrant groups' inclination towards self-employment (Knight, 2004; Mills, J., 2015). Black women are cast in history routinely as *domestic social capital* (i.e. caregivers) not enterprising individuals (Knight, 2004). Further, entrepreneurial business activity is framed as organizing around specific ethnic markets

and locations[9] in an informal or "underground economy" (Knight, 2004, p. 105), firmly placing it outside of theorized and accepted capitalist modes of production.

More recently, black entrepreneurship has been theorized as a *cultural practice* in the context of *black diasporic discourses* (Walcott, 2003). Black feminists have been exploring the intersection of race, class and gender to understand identity and subjectivities and inform praxis (Cho, Crenshaw and McCall, 2013; Mills, J. 2015). And many have found that black women's experience is not widely understood (see Carbado, 2013). Thus, individuals like Viola become hidden, but her story is a critical addition to scholarship. Viola's experiences offer rich insight into the entrepreneurial journey of a woman who challenges the prevailing narrative and disrupts the patterns of inquiry and current historicizing of labour activity as nothing more than the survival work of exceptional men of colour, to one to include feminine models and feminine lessons. If we give her the credit which is due, she makes what has been invisible, visible and tangible.

Viola's orientation toward business and entrepreneurial approaches is shared in a very restricted and haphazard way through her sister's recollections and story-telling. As I have said, it was not Wanda' focus. As a researcher, I am disappointed that I cannot share the many innovated strategies that Viola must have employed to enable her success. The reality is that there has not been a significant effort to truly understand Viola's contributions to entrepreneurial learning.

Viola was actually criticized by her family for not being domestic in inclination and avoiding the family duties: "Viola seldom baked" (Robson as cited in Robson and Caplan, 2010, p. 47); "she was given lighter duties because she was so tiny, and had a tiny voice, and she was always reading […] Viola, you know she's delicate" (p. 46-47). If I look very hard, I can see and perhaps imagine that Viola had a different focus not understood by her family. Something not understood is also something perhaps not appreciated entirely and as a result, receives very little focus and attention. I have a much more fragmented text to draw on than with my past research into historical figures (name deleted to maintain the integrity of the review process). As a result, it is difficult to draw out insights and potential lessons Viola might have offered to our study and understanding of management and organizations.

If I examine the very restricted text, I can extrapolate that Viola relied on an attitude and disposition towards business which today, we can appreciate as an ***entrepreneurial mindset***[10], though even stating that is problematic. Entrepreneurship is shaped and defined not only in masculinist terms, but capitalistic ones as well and these ideologies are colonialist. How then do we understand Viola and her story? Let me signal here that I feel more than ever, the need to tread carefully, sensitively and reflexively.

Wanda describes her sister as a young woman who was ***committed to learning*** as her parents stressed education and reading. She trained as a teacher, one of the few occupations open to her, and then used her wages to procure professional development out of the country. She did what was necessary to chase her dream and to learn and grow as a ***professional*** in her field – an entirely ***new industry*** in Canada.

As an entrepreneur and business owner, she was very ***focused***: "being there for her customers came first, and second or third was herself" (Robson and cited in Robson and Caplan, 2010, p. 44). She was ***dedicated*** and ***hardworking***: "she worked full days, six day a week" (p. 42). "Viola just about starved herself. I don't think it was to keep her figure […] it was more that she had created a pattern of living – get up in the morning, and get to work, and get going. She was so driven" (Robson as cited in Robson and Caplan, 2010, p. 43). Viola was rewarded by her hard work and dedication: "she was, you know, reliable and hardworking. And the business grew" (Robson as cited in Robson and Caplan, 2010, p. 41).

Viola developed a personal ***brand identity***. Her reputation was everything. Her image appeared on all of her products, which she made by hand. Her name was associated with all of her business

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[9] Knight (2004) cites the work of Portes (1981) and the lens of ethnic enclave theory.

[10] "the ability to sense, act, and mobilize under uncertain conditions" (Haynie, Shepherd, Mosakoweski and Earley, 2010, p. 217).

activities (salon, training school and product sales). She was an ***innovator*** and a ***craftswoman***, committed to ***quality***: "Viola made hairpieces, falls, chignons and wigs. That was a very painstaking process, it takes a long time" (Robson as cited in Robson and Caplan, 2010, p. 41).

Like many great leaders, she was exceedingly ***generous***. She took care of those around her, by supporting her family, creating a community space in her studio for women to gather and meet, and offering her services for free when needed: "Viola did hair for the girls going to the proms, dances, even funerals […] that work was always gratis" (Robson as cited in Robson and Caplan, 2010, p. 40).

Viola also continued to expand her business. She not only created a new industry, but she also expanded its reach west to New Brunswick and Quebec. She continued to create new products and services. She was also a skilled ***mentor and teacher***. She was keen for more young black women to have careers and be successful.

Even here, I am concerned with making associations with management and entrepreneurial literature which stems from a capitalist sensibility, though I realize the value and advantage it provides to allow for Viola's contributions to be seen in this light. However, it presumes that Viola's thinking was so informed and gives no credit to her work ethic and drive being the product of very different personal lived experience. This is a challenge to the field itself. What I do see is relatable and instructive; a woman with strong values, drive and personal power, which she exercised in innovative and material ways, resulting in undeniable success.

> *"What Viola did to support other women, is really remarkable and perhaps underappreciated. This might have been her biggest contribution to our understanding of female leadership models in black entrepreneurship. Her business was not a simple 'beauty parlour' – such descriptions (feminine descriptions) really belittle what she did. She built a social-purpose organization. She achieved a level of success and independence in a segregated society and she wanted to give that opportunity to other women. She did so through her products and services and training – uniquely design for black women. Black women's perceptions of their body, hair, skin colour is rooted in social, political and economic conditions which extend back to slavery (Okazawa-Rey, Robinson, Ward, 1986). Whiteness was used as a yardstick to measure beauty (Tate, 2007). Viola understood that women simultaneously sought refuge from objectification, but also wanted to develop an attractive self-concept, self-love, confidence and access (DeLoach, 2006)" (journal reflection, August 2018)*

Viola's products and services were about more than just beauty; she gave women the gift of dignity. Access to products designed specifically for the needs of black women's hair and skin meant that an entire community of women could be pampered. It was also about the politics of visibility and had performative effects (Tate, 2007). Her services and products reduced feelings of shame and stigma, and helped black women navigate a complex classist and racist environment. Right or wrong, she helped women fit into the dominate white beauty paradigm of the time. When an environment offers neither industry or society inclusion, Viola's services provided a bridge to confidence, empowerment and acceptance. Such acceptance often meant employment and success.

Beyond Scholarly Inquiry – Research and Praxis

In recent months, I have undertaken a nomination application for Viola to be recognized by the [name deleted to protect the integrity of the review process]. I not only want her business and leadership lessons recognized by scholarship and academia, but by fellow business leaders and entrepreneurs. The interest in Viola is at a high point and therefore, I too can use this to my own advantage.

During this effort, I have found other allies who also feel strongly about Viola's neglected recognition in business. There is a change mounting in support of Viola, the entrepreneur, as scholarly conversations bleed over into social justice and praxis, and vice versa. Here is an excerpt from a letter of recommendation in support of Viola. In it, you can see the pride and desire to see Viola in this new light:

> *"Ms. Desmond was a great entrepreneur, trailblazer and activist for the Black community; her story of business success continues to inspire many to this day.*

Ms. Desmond is known throughout Canada as a social justice icon, but she was also a great innovator and a successful entrepreneur at a time when very few women, let alone women of colour, owned and operated independent businesses. She was a pioneer in the field of Black beauty care, opening doors for dignity and self-worth for Black women through her products, and inspiring and helping others to pursue and attain business success as well.

[...]

While the events of November 8th, 1946 are recorded as a powerful moment in the history of social justice in this country, we argue that the events were not Ms. Desmond's most significant contribution to Nova Scotia. Her role as a Black female entrepreneur and leader was more groundbreaking and ought to be celebrated. Her success was based on an unwavering tenacity, hard work and an overcoming spirit that sought to face hurdles head-on. Her can do conquering attitude has inspired many over the years, she remains a valuable role model to young people today.

It is Ms. Desmond's day-to-day courage and determination to succeed, her ability to create and manage a vital enterprise that empowered and inspired multitudes, as well as her resolve to breakthrough racial and gender barriers of her time that we celebrate" (name deleted to maintain integrity of review process).

Part 4: Conclusion

"Viola and I are not only from two different times; we are of two different worlds. But I feel that I know her. And I know that I love her – at least the idea of her. I know that this is supposed to feel like a breach of the sacred researcher pledge to be distant and objective, but in challenging this research convention, I realize it is a false assumption that distance improves the knowing. Knowing passionately, intimately, is what drives me to be the advocate I am. And we must make room for more of this in academic writing" (journal reflection, June 2018).

Viola was a remarkable person. She was a forerunner in business and built a new profession; innovating and expanding with new products and services. She was also an outstanding mentor to other aspiring businesswomen, helping them to follow in her path, find independence, enterprise and commerce. In addition to these great accomplishments, she was an inspiring civil rights advocate, leader and community builder. Few come close to her remarkable accomplishments in ideal circumstances, and she faced incredible barriers.

Her story helps us to challenge our lack of understanding, appreciation and inclusion for models of female leadership and black entrepreneurship and their valuable contributions to our knowledge of management and organizations. My aim in this paper was to draw attention to Viola and help develop her story to include a broader role. I have allowed my passion to be present in this writing, because I sincerely believe she is worthy of our attention as scholars and writers of history and I wanted to inspire an emotive response in you, the reader. I selected a radical kind of theory and approach because I believe it is effective and because it is also symbolic of how necessary it is to think and write differently in order for new knowledge to emerge. All knowledge is discursive, and all lenses are limited in some way, but just as it is important to have many different figures contribute to our understanding of management and organizations, it is also important to draw on different ways of knowing and producing knowledge.

Guiding this study were two key questions: How did Viola's valourization discourse as a civil rights leader, blind us to her role as a successful entrepreneur? Who was Viola as an entrepreneur and business leader? In this study, I have revealed the ways in which a persuasive narrative can socially construct historical figures in the past and the present. I have revealed a more vivid Viola and I have illustrated how various discourses become enacted and how they might be changed through research and praxis.

In this age of post truth, there are times when fact is taken as fiction and fiction is taken as fact. And there are times when both prove to be exceptional in their ability to foster new thinking – both

helpful and harmful. If we are going to write history, I would rather do so as an author who admits that the work is a combination of fact and fiction, enacted for a noble purpose. Wanda and those who reproduced her ideas did this for Viola. She was transformed from a *victim of racism and abuse*, to a *reluctant civil rights leader*, to a *defiant, revolutionary who led a legal challenge against racial segregation in Canada*. Here, I have added to our understanding of how and why such narratives are designed and how individuals become social constructed (and by whom). I have also participated in the process by adding to Viola's story with a new emphasis on her role as an entrepreneur and business leader. And I have drawn you in as readers to be my collaborators and to share in a passionate new retelling of Viola.

> *There are times where I need not know where the facts end, and the supposition begins and other times when I just want to know the story" (journal reflection, October 2018).*

Wanting to know the story is what drew me to Viola in the first place. She is inspiring! But I could not understand why her role as an entrepreneur was not playing out as a significant part of her story. To me, it spoke of her strength and innate passion. It helped to explain her leadership potential in the sphere of civil rights as she had so clearly been a successful business leader, mentor and community builder. I felt an urgency to ensure that the efforts underway to recognize and celebrate Viola did not permanently blind us to her accomplishments as a successful entrepreneur. Some narratives are so powerful and persuasive that they subsume all others. This necessitates an equally powerful and destabilizing approach to enact social justice on a number of fronts: to ensure Viola's entrepreneurial achievements are also visible; to ensure that Viola is recognized as an important, but overlooked contributor to our understanding of female leadership and black entrepreneurship; to advocate for a continued challenge to the prevailing approaches in the study of management and organizations; and finally, to illustrate a connection to praxis and the opportunity for social change through activist academic writing. Viola represents a rare example of scholarship and praxis enacting change at the same time. I feel privileged to have had the opportunity to make a small contribution in making her more visible and thus more alive in the present as well as the past.

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EXPLORING THE ROLE OF VOCATIONAL INTERESTS IN BALANCING WORK AND FAMILY DEMANDS: DO THE RIASEC TYPES PREDICT WORK–FAMILY CONFLICT?

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ABSTRACT

Building on previous research testing the influence of vocational interests on both work and non-work outcomes, this study explores whether vocational interests are associated with employee perceptions of work-family conflict (WFC). Drawing on a sample of working professionals from various organizations in the United States, we investigated the relationship between Holland's vocational interests and different measures of WFC. Results revealed that the RIASEC model contributed unique variance in predicting WFC beyond various demographic characteristics and the Big Five personality constructs. The RIASEC interests were found to be associated with different dimensions of WFC. These results signal that vocational interests may not only influence various work-related attitudes and behaviors, but may also impact one's ability to balance work and family demands.

Keywords: Work-family conflict, Work-life balance, Vocational interests, RIASEC, Big Five personality constructs

Over the last few decades, perceptions of work-family conflict (WFC) have been rising. An increasing number of dual-earner households, longer work hours, and technology that has blurred work-family boundaries have been cited as key contributors to this phenomenon (Kossek, 2016). WFC occurs when the demands of work and family roles are incompatible (Greenhaus & Beutell, 1985). While a number of factors in both the work and family domains are associated with WFC, various dispositional characteristics have been identified as important antecedents of WFC, including four of the Big Five personality constructs (i.e., neuroticism, extraversion, conscientiousness, and agreeableness) (e.g., Allen et al., 2012; Michel, Clark, & Jaramillo, 2011). Despite this evidence that dispositional characteristics play an integral role in the development of WFC, there has been an absence of research examining whether one's vocational interests influence perceptions of WFC.

Holland's RIASEC model (Holland, 1959, 1997) is one of the most widely studied taxonomies of vocational interests (Furnham, 2001). Holland (1997) argues that individuals display distinct preferences for certain work activities and environments. These preferences are an expression of one's personality and

are reflected in six basic vocational personality types: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional. As with more general personality traits, vocational interests reflect cross-situational patterns of motivation that influence one's environmental choices, their interpretations of situations and events, and their tendencies to display certain behaviors (Stoll et al., 2017). Several studies have provided empirical support for the RIASEC model (e.g. Armstrong, Day, McVay & Rounds, 2008; Deng, Armstrong & Rounds, 2007; Helwig, 2003; Tracey & Rounds, 1993) and its validity in predicting various career outcomes, including income levels, job performance, and turnover (Nye, Su, Rounds & Drasgow, 2012; Su & Nye, 2017; Van Iddekinge, Roth, Putka, & Lanivich, 2011). In contrast, studies investigating the validity of vocational interests in relation to broader life outcomes have been sparse. One exception is a recent longitudinal study by Stoll et al. (2017). Drawing on a sample of 3023 individuals tracked over a 10-year time period, they found that vocational interests predict key work outcomes (e.g., income, employment status) but also nonwork outcomes, such as marital status, parenting status, and health status. Building on this work and the premise that vocational interests may influence not only one's choices and behaviors at work, but also in their family lives (Gaudron & Vautier, 2007; Stoll et al., 2017), we propose that vocational interests will play an integral role in shaping of one's perceptions of WFC.

Conceptual Background and Hypotheses

Work-family Conflict

Role stress and resource allocation theories (Becker, 1965; Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964) have provided the conceptual underpinnings for the bulk of research on WFC. According to these theories, individuals have a finite amount of resources to devote to different domains of their life. WFC is therefore deemed to arise when the demands of work and family roles interfere with each other. Initially, WFC was studied in a unidirectional manner predicated on the notion that one's work role may interfere with their family life; however, more recent conceptualizations of WFC acknowledge its dual-direction: work can interfere with family (WIF), and family can interfere with work (FIW; Frone, Russell & Cooper, 1992). Studies have shown that measures of these two directions of WFC correlate; however, they also contain unique variance, highlighting the importance of studying both WIF and FIW (Mesmer-Magnus & Viswesvaran, 2005). In the present study, we assess WFC using this bidirectional conceptualization of WFC. We also examine three specific forms of WFC, including time-based, strain-based, and behavior-based conflict (Greenhaus & Beutell, 1985). Time-based conflict is experienced when the time spent on one role limits participation in another role; strain-based conflict occurs when strain encountered in one role makes it difficult to engage in another role; finally, behavior-based conflict is perceived when specific behaviors expected in one role conflict with behaviors required in another role (Greenhaus & Beutell, 1985).

Previous research has demonstrated that perceptions of WFC can exert deleterious effects on one's quality of life across domains (Amstad, Meier, Fasel, Elfering &Semmer, 2011; Bellavia & Frone, 2005). For example, meta-analytic evidence has indicated that perceptions of WFC can negatively impact various work attitudes and behaviors, ranging from job satisfaction, career satisfaction and organizational commitment to job performance and career rewards and development (Allen, Herst, Bruck & Sutton, 2000; Liao, Lau, Hui & Kong, 2019). Perceptions of WFC have also shown to be associated with stronger turnover intentions, absenteeism, and elevated levels of work stress (Amstad et al., 2011; Nilsen,

Skipstein, Østby & Mykletun, 2017). Likewise, WFC has been linked to family-related outcomes, including lower marital and family satisfaction, strained relationships with family members, and higher family-related stress (Amstad et al., 2011; Fellows, Chiu. Hill & Hawkins, 2016; Shockley & Singla, 2011). More broadly, WFC is associated with lower overall life satisfaction and various indicators of physical and mental health (e.g., higher levels of burnout, depression, psychological strain, physical symptoms, alcohol abuse; Amstad et al., 2011; Mesmer-Magnus & Viswesvaran, 2005). While the harmful consequences of WFC have been studied extensively, further research on the antecedents of WFC is needed to advance our understanding of the factors that elicit WFC. In particular, the role of individual difference variables in contributing to perceptions of WFC has received limited consideration (Allen et al., 2012; Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005; Michel, Kotrba, Mitchelson, Clark & Baltes, 2011).

Personality in Relation to Work-Family Conflict

Personality traits are defined as stable individual difference constructs that reflect habits, consistencies or patterns in an individual's thoughts, feeling, and behaviors over time and across situations (Oswald, Hough & Ock, 2013). Personality traits influence how people interpret and react to their work and other life experiences (Wayne, Musisca & Fleeson, 2004). Over the last few decades, the "Five Factor model" has emerged as one of the most comprehensive taxonomies of personality (Hough, Oswald & Ock, 2015). This model, often referred to as the "Big Five", includes five broad personality constructs: extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience (Oswald et al., 2013). An extensive body of research has validated the Big Five factor structure across various cultures and demographic groups (gender, age, ethnicity; McCrae & Costa, 2008; Murphy, Deckert & Hunter, 2013; Ozer & Benet-Martinez, 2006) and has shown that certain Big Five traits are associated with various work and well-being outcomes. For example, certain Big Five traits, including conscientiousness and emotional stability, have been linked to higher levels of job performance and career success as well as various indicators of well-being (e.g., Barrick, Mount, & Judge, 2001; Bogg & Roberts, 2004; DeNeve & Cooper, 1998; Hogan & Holland, 2003; Roberts, Kuncel, Shiner, Caspi & Goldberg, 2007).

Although research exploring the role of personality in work-family relationships has increased over the past decade, there has been limited work investigating personality traits beyond the Big Five (Allen et al., 2012; Michel, Kotrba, Mitchelson, Clark & Baltes, 2011). Studies have indicated that individuals who are more agreeable, extraverted, or conscientious tend to report lower levels of WFC (Allen et al., 2012; Michel, Clark, & Jaramillo, 2011; Wayne et al., 2004). In contrast, neurotic individuals (i.e., those lower on emotional stability) are more likely to report higher WFC, perhaps due to their greater propensity to encounter negative work or family experiences and to react more strongly to these experiences (Allen et al., 2012; Michel, Clark, & Jaramillo, 2011; Michel, Kotrba, Mitchelson, Clark & Baltes, 2011). Although previous research has suggested that the Big Five and certain other broad traits (e.g., negative affectivity, locus of control) predict perceptions of WFC (Allen et al., 2012; Michel, Kotrba, Mitchelson, Clark & Baltes, 2011), an exclusive focus on these broad constructs may limit the theoretical scope of this research and our understanding of how personality shapes perceptions of

WFC. In this respect, exploring aspects of personality that extend beyond the Big Five may shed additional light on how individual differences influence the work-family interface.

In this paper, we consider vocational interests as potential antecedents of work-family conflict. Vocational interests have a strong dispositional component and are an important aspect of personality (Armstrong et al., 2008; Holland, 1997). Different vocational personality types predispose individuals to seek out and engage with specific objects, events, ideas and people (Hidi & Renninger, 2006; Stoll et al., 2017). They influence not only the career choices that individuals make, but also their development of specific knowledge, skills, and abilities, and their work attitudes and perceptions (Nye, Su, Rounds, & Drasgow, 2012; Sheu et al., 2010; Su, 2019). Building on previous work exploring the influence of personality on WFC, the current study examines whether the RIASEC personality types predict different dimensions of WFC beyond the Big Five constructs.

Vocational Interests in Relation to Work-Family Conflict

There are several theoretical reasons for proposing that there will be a relationship between specific RIASEC interests and different components of WFC. First, according to the differential exposure perspective (Bolger & Zuckerman, 1995), dispositional attributes can influence the roles and environments individual select for themselves. In line with this perspective, vocational interests reflect a person's desire to engage in certain work activities and may also reflect whether a person chooses a particular work environment (Holland, 1997). Some individuals, for instance, may be more inclined to choose to work in an environment that is fast paced with tight timelines for work to be completed; others may choose work that is physically demanding. Exposure to these work demands may make it more difficult for these individuals to balance their work and family responsibilities due to the drain on their physical resources (Allen et al., 2012; Friede & Ryan, 2005). Likewise, vocational interests are associated with specific life choices and experiences (e.g., marital, parental status, health; e.g., Stoll et al., 2017) which can impact the family demands that one faces and one's perceptions of WFC.

Second, individuals with certain vocational interests may be differentially reactive in terms of how they respond to increasing or conflicting work and family demands (Allen et al., 2012; Rounds & Su, 2014). In this respect, individuals with specific interests may attend to different aspects of both their work or family experiences, and certain events or demands may be more (or less) likely to elicit perceptions of stress for these individuals. Indeed, vocational interests may motivate individuals to deem some work or family demands as presenting an acceptable challenge while others may be viewed as an unmanageable conflict (Friede & Ryan, 2005; Su, 2019).

Finally, there is evidence indicating that vocational interests share some common variance with other individual difference variables, such as the Big Five personality constructs (Armstrong & Anthoney, 2009; Barrick, Mount & Gupta, 2003; Larson, Rottinghaus & Borgen, 2002). For example, Artistic interests are positively associated with openness; Enterprising interests with extraversion; Investigative interests with openness; and Social interests with both extraversion and agreeableness (Larson et al.,

2002; Hurtado Rúa, Stead & Poklar, 2018). Conscientiousness, agreeableness, extraversion, and neuroticism have each been linked to different types (FIW, WIF) and dimensions (strain, time, and behavior-based) of WFC (Allen et al., 2012). Given that some of the vocational interests capture elements of the Big Five, these vocational interests may predict WFC through similar mechanisms. For example, extraverted individuals may report lower WFC possibly due to their higher levels of positive affect and tendency to interpret events in a more favorable light (Allen et al., 2012; Michel, Kotrba, Mitchelson, Clark & Baltes, 2011). Because Social and Enterprising people tend to be more extraverted, individuals with these vocational interests may similarly report lower WFC.

Despite some overlap between them, vocational interests and the Big Five constructs are conceptually distinct psychological constructs (Hogan & Blake, 1999; Larson et al., 2002). Indeed, Holland's RIASEC interests reflect vocational personality types that may not only predict different life choices and behaviors but may also act as more proximal predictors of one's work activities and behavior than more generic personality traits (Nauta, 2010; Su, 2019). The first purpose of this exploratory study is to examine the incremental impact of vocational interests on overall WFC perceptions. On this basis and following description of how each of the vocational interests influences WFC, we propose that: the RIASEC interests will add incremental variance in predicting WFC beyond the Big Five personality constructs (**Hypothesis 1**). The second purpose of this study is to examine the relationship between vocational interests types and different types and dimensions of WFC. In the next section, we describe our hypotheses relating to each of the six RIASEC interests, indicating whether each vocational interest will be more likely to influence one, or both, types of WFC (i.e., WIF or FIW) and a specific dimension of WFC (time-based, strain-based, behavior-based). Table 1 provides a summary of our hypotheses.

Table 1. Summary of Proposed Hypotheses

Hypothesis 1	The RIASEC interests will add incremental variance in predicting WFC beyond the Big Five personality constructs.
Hypothesis 2a	Realistic interests will be positively related to FIW.
Hypothesis 2b	Realistic interests will be positively related to time-based FIW.
Hypothesis 3a	Investigative interests will be positively related to WIF.
Hypothesis 3b	Investigative interests will be positively related to strain-based WIF.
Hypothesis 4a	Artistic interests will be negatively related to FIW.
Hypothesis 4b	Artistic interests will be negatively related to time-based FIW.
Hypothesis 5a	Social interests will be positively related to FIW.
Hypothesis 5b	Social interests will be positively related to WIF.
Hypothesis 5c	Social interests will be positively related to strain-based FIW.
Hypothesis 5d	Social interests will be positively related to strain-based WIF.
Hypothesis 6a	Enterprising interests will be positively related to WIF.
Hypothesis 6b	Enterprising interests will be positively related to behavior-based WIF.
Hypothesis 7	Conventional interests will be positively related to behavior-based WIF.

Realistic individuals are practical, and they are interested in working with tangible objects and gadgets. They are attracted to occupations that involve more structured, physically-oriented job tasks and tend to report higher levels of job involvement, less flexible work schedules, and longer work hours (Holland, 1997; Stoll et al., 2017). Examples of Realistic occupations are operators, drivers and farmers. Realistic people also tend to be more materialistic and value extrinsic goals, such as power and money (Holland, 1997). Due to their less flexible schedules and greater commitment to their jobs, we predict that individuals with Realistic interests will perceive higher levels of FIW **(Hypothesis 2a)**. In particular, we propose that the extra time required to complete one's work may heighten perceptions of time-based FIW **(Hypothesis 2b**).

People with *Investigative* interests prefer to "think through" problems and participate in scholarly and scientific work activities (Holland, 1997). They tend to work in environments that involve higher levels of task ambiguity and autonomy and engage in intellectually demanding job tasks. Investigative individuals tend to be independent and career-oriented, and they start families later in their life (e.g., Stoll et al., 2017). Given the significant intellectual and attentional demands of their job, coupled with their higher career expectations, we might expect that Investigative individuals will perceive more WIF **(Hypothesis 3a)** and in particular, strain-based WIF **(Hypothesis 3b)**.

Artistic individuals prefer working in creative arts and related activities. Examples of Artistic

occupations include interior decorator, writer, and designer. People with Artistic interests are less likely to have traditional careers (Holland, 1997). They are nonconforming and tend to have liberal values and goals. Because they value creative self-expression and aesthetics rather than achieving financial rewards and higher levels of status (Holland, 1997), Artistic individuals may be less likely to view their jobs as stressful and demanding of their time. Indeed, Artistic individuals prefer to work in environments that are less centralized and formalized, and they often have more flexible work schedules (Harboe, 2002). Thus, due to the more flexible work nature of their work, and their greater focus on intrinsic rather than extrinsic aspects of their job (money, status), we expect that Artistic interests will be negatively related to FIW (**Hypothesis 4a**) and time-based FIW in particular (**Hypothesis 4b**).

Individuals with *Social* interests prefer interacting with other people to help and serve others (Holland, 1997). They are attracted to work in jobs such as teaching, counseling, and other community services. Social interests are strongly related to Extraversion and moderately related to Agreeableness (Hurtado Rúa et al., 2018). Individuals with Social interests are more likely to find a partner and have children (Stoll et al., 2017). Because they have a strong desire to help others and their jobs require higher levels of emotional labor, they may experience increased emotional demands from their work and family roles (Yanchus, Eby, Lance & Drollinger, 2010). We, therefore, hypothesize that individuals with Social interests will report both higher levels of FIW and WIF (**Hypothesis 5a and 5b**) and in particular strain-based FIW and WIF (**Hypothesis 5c and 5d**).

People with *Enterprising* interests strive for greater career achievement, status, and economic success (Holland, 1997). They enjoy persuading others and are drawn to leadership roles and managerial activities (Raes, Heijltjes, Glunk & Roe, 2011). Higher status work roles tend to increase job demands and working hours (Brett & Stroh, 2003; Krausert, 2014). As a result, Enterprising individuals may report more WIF (**Hypothesis 6a).** Behaviors encouraged and rewarded in Enterprising roles (e.g., demonstrating one's power/authority and status) may also be incompatible with role expectations in interactions with family members (e.g., requiring warm, cooperative behaviors) (Greenhaus & Beutell, 1985). In this respect, Enterprising interests will be associated with higher levels of behavior-based WIF **(Hypothesis 6b)**.

Finally, people with *Conventional* interests prefer order and structure in their work and performing well-defined, systematic tasks, such as manipulating data (Holland, 1997). Typical careers are bank tellers, file clerks, and accountants. Although we don't expect this interest type to exert a strong effect on perceptions of WFC, we posit that Conventional individuals may report higher levels of behavior-based WIF **(Hypothesis 7)**. As with Enterprising roles, the work behaviors required in Conventional occupations (e.g., structured tasks often involving less interpersonal interaction) may be less compatible with family role demands which often require behaviors displaying openness and sensitivity (Greenhaus & Beutell, 1985).

The current study contributes to the research literature by exploring whether Holland's RIASEC types are associated with WFC, an outcome that has not yet been studied. Recent studies have suggested

that context-specific measures of personality (i.e., measures that assess personality at work) may be more valid predictors of various work-related attitudes and behaviors than measures of generic traits (see Schaffer & Postlethwaite, 2012; Su, 2019). We extend work in this domain by examining the influence of the RIASEC interests on different measures of WFC beyond the Big Five personality constructs. In practical terms, results from this research may assist counsellors in identifying individuals experiencing WFC and developing strategies to improve their perceptions of work-life balance.

Method

Sample and Procedure

Data used in this study were obtained from the publicly available Professional Worker Career Experience Survey (PWCES) dataset (Rosenbloom & Ash, 2009). In total, 752 working professionals across the central United States participated in the study. The PWCES data set was developed to assess the career experiences of workers in different occupations and industries. In this respect, a number of different career-related variables (e.g., measures of job satisfaction, perceptions of discrimination, vocational interests, etc.) and personal characteristics (i.e., demographic information, the Big Five personality traits) of respondents were assessed in this survey. Contact information for potential respondents was obtained from a list of alumni at a large midwestern university and through contacting various regional professional associations. Respondents were invited to participate via email and were asked to complete an on-line survey containing each of the measures included in this study (see "Measures" below).

Among the 752 participants, 438 completed responses to all measures used in the study. The average age of respondents was 39.6, and 58% were male. The majority of participants were Caucasian (91.8% Caucasian, 3.0 % Asian, 2.5% Latino and Hispanic; 2.3% Black or African American; 0.4% other ethnicity) and reported having a university education (45.7% had completed a Bachelor's and 41.1% had a Master's degree or above). Participants were also in a diverse range of occupations: 37.7% were in business and financial occupations, 34.0% were in computer and mathematical occupations, 5.0% were in education, training, and library occupations, 4.6% were in sales, 3.0% were in office and administrative support occupations, 3.0% were in legal occupations, 2.5% were healthcare practitioners, and the rest were in various other occupations such as architecture, farming, fishing and forestry.

Measures

Big Five Personality Constructs. The NEO-PI-R (Costa & McCrae, 1992) was used to measure the Big 5, with 12 items assessing each construct. Participants were asked to indicate their level of agreement with each item on a 5-point Likert scale (1 = strongly disagree" to "5 = strongly agree"). Sample items include: "I rarely feel fearful or anxious (neuroticism); "I like to have a lot of people around me" (extraversion); "I often try new and foreign foods" (openness to Experience); "I would rather cooperate with others than compete with them"(agreeableness); and "I'm pretty good about pacing myself so as to get things done on time" (conscientiousness)". Cronbach's alpha coefficients were: neuroticism:

α=.88; extraversion: α=.81; openness: α=.75 agreeableness: α=.75; conscientiousness: α=.83.

Vocational Interests. The Strong Interest Inventory (SII) General Occupational Themes (GOTs) (Harmon, Hansen, Borgen & Hammer, 1994) scales were used to assess the six RIASEC interests. The GOT measure is based on Holland's theoretical framework and measures interests in each of the RIASEC categories. Cronbach's alpha coefficients were: Realistic: α=.93; Investigative: α=.92; Artistic: α=.95; Social: α=.93; Enterprising: α=.91; Conventional: α=.91.

Work-family Conflict. Carlson, Kacmar and Williams' (2000) 18-item Work-Family Conflict Scale was used to measure this construct. This scale measures overall perceptions of WFC, as well as the two directions (i.e. work interference with family, and family interference with work) and three types of WFC (i.e. time-, strain-, and behavior-based conflict). Participants reported their agreement with each item on a 6-point Likert scale (1=strongly disagree to 6=strongly agree). Sample items include: "My work keeps me from my family activities more than I would like" (time-based work interference with family); "Behavior that is effective and necessary for me at work would be counterproductive at home" (behavior-based work interference with family); and "Due to stress at home, I am often preoccupied with family matters at work" (strain-based family interference with work). Cronbach's alpha coefficients were: overall WFC: α=.80, WIF: α=.74, FIW: α=.75, time-based WIF: α=.84, strain-based: WIF α=.87, and behavior-based WIF: α=.81; time-based FIW α=.87, strain-based FIW: α=.92, and behavior-based FIW: α=.93.

Control Variables. We controlled for a number of demographic variables which have been shown to be associated with perceptions of WFC in previous studies (e.g. Horwitz, Luong, & Charles, 2008; Wayne et al., 2004; Wierda-Boer, Gerris, & Vermulst, 2009), including: age, gender (male=0, female=1), education level (some high school=1, high school graduate or GED=2, some college, no degree=3, associate degree-occupation/vocation=4, associate degree- academic program=5, Bachelor's degree=6, Master's degree/Professional degree=7, Doctorate =8), spouse status (not living with spouse=0, living with spouse=1), and parental status (no children=0, at least one child =1).

Data Analyses

A power analysis was conducted using GPower 3.1 software (Faul, Erdfelder, Buchner & Lang, 2009) to assess whether the PWCES data set would provide sufficient statistical power to test our focal hypotheses. Based on the parameters entered (power = .95; projected small to medium effect sizes r=.15), it was determined that the PWCES would provide sufficient statistical power -- a minimum sample size of 204 respondents would be needed in order to detect significant effects at $p < .05$.

To test our main hypotheses, OLS hierarchical multiple regression analyses were conducted using SPSS version 25. Separate regressions were carried out for overall WFC, WIF, FIW and also each specific form of WFC (e.g., time-based FIW, strain-based FIW, etc.). The control variables and the Big Five constructs were entered in the first and second blocks, respectively, followed by each of the RIASEC interests in the third block. This analytic approach was used as it enabled estimation of the unique effects of each predictor (and block of predictors) beyond other variables in the model (Hunsley & Meyer, 2003).

ΔR^2 values and F-test statistics were calculated to assess whether the RIASEC model accounts for significant unique variance in each measure of WFC beyond the controls and Big Five. T-statistics were computed to assess whether the individual predictors in each model are significantly associated with the dependent variable (Field, 2009).

Results

The means, standard deviations, and bivariate correlations among the study's main variables are presented in **Table 2**. As shown in Table 2, participants' mean score on WFC was 54.98, indicating that overall levels of WFC were in the moderate range, but also subject to significant variation (SD=10.82). Interestingly, participants reported higher levels of WIF (M=29.92, SD = 6.89) than FIW (M=24.96, SD = 6.16), signaling that one's work role is more likely to be viewed as interfering with one's family role than vice versa.

Table 2. Descriptive Statistics and Bivariate Correlations for Main Variables

	M	SD	Gender	Age	Edu.	Spouse	Parent	Neurot.	Extra.	Open.	Agree.	Cons.	Real.	Invest.	Artistic	Social	Enterp.	Conv.
Real.	51.27	9.70	-.39***	.03	.09	.05	.06	-.09*	-.03	.08	-.08	-.04	-					
Invest.	52.85	10.22	-.12**	.17***	.20***	.04	.08	-.09*	-.06	.34**	.06	.03	.55***	-				
Artistic	48.71	10.22	.17***	.14**	.08	-.12**	-.02	.04	.05	.57**	.10*	-.04	.32***	.46***	-			
Social	47.91	10.38	.32***	-.01	.04	-.15**	-.01	.03	.17***	.10*	.18**	.12**	.24***	.32***	.53***	-		
Enterp.	49.13	11.58	.12**	-.21***	.08	-.07	-.03	-.12**	.38***	-.02	.05	.24**	.32***	.16***	.36***	.58***	-	
Conv.	53.69	10.89	.12**	-.08*	.06	-.02	-.02	.01	.07	-.21**	.09*	.12**	.41***	.34***	.17***	.50***	.52***	-
WFC	54.98	10.82	.05	.12**	-.02	.06	.20***	.26***	-.08	.07	-.08	-.15***	.12*	.11*	.12**	.09	.04	.05
WIF	29.92	6.89	.05	.12**	-.06	.05	.10*	.27***	-.10*	.06	-.05	-.07	.03	.08	.08	.02	.05	.01
FIW	24.96	6.16	.04	.06	.03	.07	.23***	.15***	-.02	.03	-.07	-.17***	.16***	.12**	.09*	.12**	.00	.09
Time	16.34	6.15	-.09*	-.01	.08	.09*	.22***	.16***	-.04	-.02	-.13**	-.14***	.16***	.09*	-.01	.04	.01	.03
Strain	14.47	5.75	.09*	.06	-.09*	-.01	.08*	.49***	-.24***	.04	-.16***	-.28***	.02	.03	.06	-.02	-.10*	-.04
Behav.	23.82	5.58	.11**	.13**	.06	.06	.06	-.22***	.21***	.12**	.14**	.20***	.07	.15**	.16**	.17***	.18***	.12*

Note. Complete correlation matrix is omitted for clarity. N =458-748, * $p < .05$.   ** $p < .01$. *** $p<.001$; Edu.= Education; Parent= Parental status; Neuro.= Neuroticism; Extra.= Extraversion; Open.=Openness to experience; Agree.= Agreeableness; Cons.= Conscientiousness; Real.= Realistic; Invest.= Investigative; Enterp.= Enterprising; Conv.= Conventional; WFC=work family conflict; WIF=work interference with family; FIW=family interference with work; Time=time-based WFC; Strain= strain-based WFC; Behav.= behavior-based WFC.

Table 3 summarizes the main results from the hierarchical regression analyses, including the ΔR^2 values and the β coefficients for the significant predictors that emerged in each regression. As shown in Table 3, the RIASEC model accounted for unique variance in overall WFC ($\Delta R^2=.02$, $p<.05$) beyond the control variables and Big Five model, supporting **Hypothesis 1**. The RIASEC interests also explained significant unique variance in both FIW ($\Delta R^2=.05$, $p<.001$) and time-based WFC ($\Delta R^2=.04$, $p<.001$) beyond the control variables and Big Five traits, suggesting that vocational interests are more likely to influence these measures of WFC.

Table 3. Multiple Regression Results for Dimensions of Work-family Conflict (Significant βs)

Variables	β	R^2	ΔR^2	F
1. DV: WFC				
Control variables and Big-Five		.15	.15***	7.28***
Gender	.12*			
Age	.11*			
Parental status	.15***			
Neuroticism	.33***			
Openness	.13*			
Plus RIASEC		.17	.02*	5.42***
Realistic	.17*			
2. DV: WIF				
Control variables and Big-Five		.12	.12***	6.09***
Age	.12*			
Neuroticism	.36***			
Plus RIASEC		.14	.02	4.48***
Enterprising	.16*			
3. DV: FIW				
Control variables and Big-Five		.09	.09***	4.82***
Gender	.14*			
Parental status	.18***			
Neuroticism	.17**			
Plus RIASEC		.14	.05***	4.77***
Realistic	.24***			
Social	.13*			
4. DV: Time-based WIF				
Control variables and Big-Five		.08	.08***	3.97***
Neuroticism	.25***			
Extraversion	.12*			
Plus RIASEC		.09	.01	2.90***
5. DV: Time-based FIW				
Control variables and Big-Five		.11	.11***	6.25***
Education	.09*			
Parental status	.22***			
Neuroticism	.15**			
Conscientiousness	-.12*			

Table 3. (continued)

Variables	β	R^2	ΔR^2	F
Plus RIASEC		.16	.04***	5.62***
Realistic	.23***			
Artistic	-.15*			
Social	.15*			
6. DV: Strain-based WIF				
Control variables and Big-Five		.25	.25***	16.14***
Gender	.13*			
Education	-.09*			
Neuroticism	.48***			
Plus RIASEC		.26	.02	10.82***
Investigative	.11*			
7. DV: Strain-based FIW				
Control variables and Big-Five		.17	.17***	10.18***
Parental status	.16***			
Neuroticism	.28***			
Conscientiousness	-.14**			
Plus RIASEC		.190	.02	7.12***
Realistic	.13*			
Enterprising	-.16*			
8. DV: Behavior-based WIF				
Control variables and Big-Five		.10	.10***	5.24***
Gender	.20***			
Openness	.15*			
Plus RIASEC		.126	.02	4.02***
Enterprising	.15*			
9. DV: Behavior-based FIW				
Control variables and Big-Five		.096	.10***	5.13***
Age	.10			
Neuroticism	-.11			
Plus RIASEC		.11	.02	3.87***

* $p < .05$. ** $p < .01$. *** $p < .001$

With respect to results for the RIASEC types, Realistic interests were significantly positively related to FIW (β=.24, $p<.001$) and time-based FIW (β=.23, $p<.001$), supporting **Hypotheses 2a** and **2b,**

respectively. Interestingly, Investigative interests were not found to be associated with overall WIF (**Hypothesis 3a**) but were positively related to strain-based WIF (β=.11, *p*<.05; **Hypothesis 3b**). Likewise, Artistic interests were not significantly associated with overall FIW (**Hypothesis 4a**); however, Artistic interests were negatively related to time-based FIW (β=-.15, *p*<.05), supporting **Hypothesis 4b**. Consistent with **Hypothesis 5a**, Social interests were positively associated with FIW (β=.13, *p*<.05). Social interests, however, were not found to be associated with WIF (**Hypothesis 5b**) or strain-based measures of FIW or WIF (**Hypotheses 5c and 5d**). Instead, Social interests were linked to higher levels of time-based FIW (β=.15, *p*<.05). Finally, in line with **Hypothesis 6a** and **Hypothesis 6b,** results revealed that Enterprising interests were positively associated with both WIF (β=.16, *p*<.05) and behavior-based WIF (β=.15, *p*<.05). In contrast, Conventional interests were not found to be associated with behavior-based WFC (**Hypothesis 7**). Overall, this pattern of results suggests that the RIASEC interests explain unique variance in WFC beyond demographic variables and the Big Five. Moreover, these respective interests are associated with different dimensions and types of WFC.

Discussion

Building on previous work suggesting that vocational interests play an important role in influencing one's choices and behaviors both in their work and personal lives (see Gaudron & Vautier, 2007; Su, 2019), we found that vocational interests are associated with employee perceptions of WFC. Previous studies have indicated that global traits, including the Big Five, can influence different dimensions of WFC (Allen et al., 2012). Our results complement these findings by indicating that one's vocational interests may contribute to one's capacity to balance work and family demands above and beyond these global traits.

In addition to the RIASEC interests predicting WFC as a whole, we found that five out of the six RIASEC types were significantly associated with specific facets of WFC. For example, individuals with Realistic interests reported higher levels of FIW, and time-based FIW, in particular. Because Realistic individuals demonstrate greater extrinsic work motivation and are more likely to experience less flexible work schedules and longer working hours, these employees may view their family responsibilities as interfering with their ability to meet work objectives. In contrast, we found that Artistic individuals report lower levels of time-based FIW. Because Artistic individuals are less focused on extrinsic outcomes in their work (money, status) and are more likely to work in positions with flexible schedules, this may help them to balance competing demands for their time.

Interestingly, individuals with Social interests were more likely to report both higher overall FIW and time-based FIW. Given their active family lives (e.g., greater tendency to be married and have children), Social individuals may perceive that the amount of time they devote to their family, in some cases, distracts them from their work. Contrary to expectations, however, we did not find that Social individuals experience more strain-based conflict. Although Social individuals may be attracted to careers that involve interacting with and helping others (higher emotional labor), it is possible that the increased social contact and an intrinsic sense of fulfilment (e.g., belonging and meaning) derived from working in Social occupations may offset potential negative effects of these elevated emotional demands. Further

research is needed exploring why Social individuals perceive higher levels of time-based FIW, and whether these perceptions vary depending on the specific requirements of one's work and family roles.

Complementing these findings, Enterprising and Investigative interests were associated with higher levels of WIF. Enterprising individuals tend to be highly dedicated to their jobs and gravitate toward positions that involve leading others and taking on greater responsibility. These greater work demands may be perceived as interfering with one's family life. Furthermore, Enterprising participants reported higher levels of behavior-based WIF. Enterprising individuals tend to be very goal-oriented and directive in how they interact with others. These agentic values and behaviors may translate into success at work but may not be as effective when interacting with family members. Investigative individuals also reported higher levels of WIF, particularly strain-based WIF. Because Investigative individuals tend to work on intellectually challenging, abstract, and sometimes ambiguous work tasks, the cognitive demands of their work may place greater strain on them that carries over into their family lives (Greenhaus & Beutell, 1985). Indeed, previous studies have suggested that mental concentration required at work can bolster perceptions of work-family conflict (e.g., Burke, Weir & Duwors, 1980).

Contrary to expectations, we did not find that Conventional interests are associated with perceptions of behavior-based WIF. Although jobs in the Conventional fields generally do not require or nurture the development of socio-emotional behaviors that contribute to stronger relationships with family members, it is possible that stronger self-regulatory behaviors associated with these interests (problem-solving, planning/organizing) may compensate for this and enhance one's capacity to balance work and family demands.

Implications for Practice

Results from this study underline that employment counsellors should consider work-life balance issues when assessing and advising clients. Work-family conflict can have deleterious effects on workers in different domains of their life. In this respect, assessing a client's work-life balance in their current (or potential future) work role and exploring ways to better manage competing demands may significantly enhance their well-being both at work and in their family lives. For example, employment counsellors can help individuals explore the personal meaning of work and family roles and to enhance their self-efficacy to manage multiple roles (Cinamon, 2010). They also can assist in identifying impediments to one's work-life balance and developing skills that aid clients in better balancing competing demands, such as time management skills, and job-related training that can enhance their work efficiency (Morganson, Litano & O'Neil, 2014). Our results also reinforce the importance of conducting a comprehensive assessment of an individual's suitability for a given job (or career) taking into account factors such as their work qualifications and skills, but also their personality characteristics and RIASEC profile. With a more complete understanding of the client's work-related experience and skills and their vocational interests, employment counsellors may help clients develop more nuanced and effective strategies to reduce conflict and improve their work adaptability. For example, as suggested by our results, a junior scientist (and other workers in Investigative fields) may be more likely to experience strain-based WIF.

By assessing their vocational interests, a career advisor or counsellor might be able to develop strategies that will assist them in lowering their perceptions of WFC, such as clarifying work and family plans and gaining social support from family and colleagues (Cinamon, 2006). From the employers' perspective, offering flexible work schedules and wellness programs that reduce stress can also benefit workers experiencing strain-based WFC (Kossek, Lewis & Hammer, 2010; Morganson et al., 2014). While organizational factors play an important role in perceptions of WFC (Ford, Heinen, & Langkamer, 2007), efforts to pinpoint sources of WFC and to strengthen workers' capacity to minimize and cope with different forms of WFC (e.g., time-, strain-, behavior-based) can significantly enhance their perceptions of well-being both at work and at home.

Limitations and Future Research Directions

There are certain limitations to the study that should be noted. Although there is a strong theoretical basis for the proposed direction of causality, the cross-sectional design used in this research limits the degree to which causality can be inferred. While cross-sectional designs are suitable when exploring a novel research question and testing for variation (Spector, 2019), future research should examine the influence of vocational interests on WFC using longitudinal or experimental designs. Furthermore, a notable strength of this study is that we included workers employed in a wide range of different occupations; however, most of the workers in this sample were employed in more highly skilled, professional positions, and most were Caucasian. We encourage future research to test the generalizability of these findings using a more demographically diverse sample, including participants from different ethnic groups and geographical regions.

Results from this study provide a unique contribution to the research literature by examining the influence of vocational interests on different dimensions of WFC. Although previous studies have demonstrated that certain personality constructs (e.g., the Big Five) are associated with perceptions of WFC, our results indicate that vocational interests predict perceptions of WFC beyond these traits. Our results also support the premise that work-family conflict can emerge from various sources. Future research should further investigate the mechanisms linking vocational interests to various forms of work-family conflict. Vocational interests may impact perceptions of WFC by influencing one's vocational choices (and the work demands they are exposed to) as well as their life choices and outcomes. Vocational interests may also shape how individuals interpret and respond to work and family demands (Su, Stoll & Rounds, 2018). To sharpen our understanding of how and why vocational interests influence different forms of WFC, more intensive study of these mediating mechanisms is needed. Likewise, a relatively uncharted avenue of research involves exploring whether and how vocational interests impact one's non-work activities and behaviors. For example, individuals who have Social interests may have a wider network of social contacts (and sources of support) outside of work, or they may be more likely to participate in various recreational activities (e.g., sports/exercise, volunteering), which may enhance perceptions of work-life balance. To enhance theory-building and garner additional insight into the mechanisms linking vocational interests to work-life balance, we encourage future research to adopt a mixed methods approach using both quantitative and qualitative methods (e.g., open-ended surveys, narrative analysis) to further probe the work and family-related experiences and perceptions of workers

representing different vocational interest types. Research in these areas will assist in illuminating our understanding of Holland's RIASEC interests and how they may impact one's perceptions of WFC and one's well-being both within and outside the workplace.

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WHERE IN THE WHEN IS WALDO? A THEORETICAL PHYSICIST, A FUTURIST, AND A MANAGEMENT HISTORIAN WALK INTO A BAR…

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Abstract

Elsewhere within the academy, Quantum and Complexity/Chaos Theories are revealing the Past, the Present, and the Future as problematic temporal categories. In this paper, we bring these theories to bear on management and organizational history. The methodological deployment of the concepts of superposition, entanglement, emergence, and strange attractors ruptures Newtonian notions of deterministic linear time. We argue that this permits historiographic research that simultaneously opens the Past and the Future: we can engage in "Quantum Historiography" that re-Presents our historical canon and unbinds the Future of management and organization studies.

Past-Present-Future in a Newtonian Universe

The globalized and standardized time of the Anthropocene is a twentieth century invention (Ogle, 2015). Firmly grounded in Western European cultural sensibilities (Hall, 1983), this latest form of time and timing (there have been others) is a sensemaking tool used by societies, organizations, and individuals to superimpose synchronicity on, and coordinate their endeavors within, the world (Zerubavel, 2003). In fact, time and timing, and the relationships between the Past, the Present and the Future[11] are the necessary conditions for enacting and understanding the scientific, political, economic, and social worlds that we live in. However, there is growing awareness within the academy that time, timing, and the temporal cuts we make to establish the relations between the Past, Present and Future are not as linear nor determined as we have assumed.

While historians recognize and acknowledge that time is an essential element of historiography, most of them, like the rest of us, take time as being natural and hence unquestioned (Lorenz, 2017; Tanaka, 2016). Thus, we generally collectively fail to recognize that historical time is also a socially constructed and historicized *object* that we ourselves have

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[11] We use the terms Past, Present, and Future with capitalization to indicate the use of these as socially constructed temporal categories; i.e., as nouns rather than as adjectives or adverbs.

created. Paradoxically enough, the general blindness to the artifice of time and its temporal cuts remains - even though the historicization of time into a Past, a Present, and a Future was itself largely an outcome of the academization of the historical project over the last two centuries (Macintyre, Maiguashca, & Pok, 2011).

Elsewhere within the broader academy, we are now discovering that these temporal categories - the Past, the Present, and the Future – are becoming problematic. Thus, time, as an historicized notion, is beginning to suffer conceptual instability. The linear and deterministic nature of the relationship between our taken-for-granted categories is increasingly the focus of scientific query. This line of questioning is progressively disrupting and shifting our temporal understanding of both the ideational and material world. The frame of a Newtonian Universe – which itself developed in parallel with and contributed to the rise of Western European globalized temporal thought - is no longer sufficient to fully explain phenomena we observe (Prigogine & Stengers, 1984). Other, non-Newtonian perspectives, grounded in Quantum Theory (Becker & Slaton, 1991; Greene, 2004, 2011) and Chaos and Complexity Theories (Butz, 1997; MacKay & Chia, 2013), are now needed to more fully understand the physical universe; and to explain human behavior apparent in the social world.

Past-Present-Future in a Complex and Quantum Universe

Despite ongoing debates concerning their degree of utility (Arfi, 2018), it is progressively being recognized that Quantum and Complexity Theories hold much potential across the Social Sciences (Arfi & Kessler, 2018). The application of these theories and their related constructs can be found in sub-fields ranging from cognitive science and psychology (Bruza, Wang, & Busemeyer, 2015) to game theory in economics (Piotrowski & Sladowski, 2017) or the fundamentals of social relationships in sociology (Whimster, 2018).

In management and organizational studies, they have been utilized in numerous sub-areas including; use as a novel methodological approach for the study of the managerial context (Overman, 1996); for predictive quantitative business modelling (Khrennikov, 2010); and as the basis for a new paradigmatic approach in organizational theory to understand the evolution of modern organizations (Dyck & Greidanus, 2017). They have also been used in leadership research (Boje, 2018; Shelton & Darling, 2001) and for studies in organizational identity and organizational change (Henderson & Boje, 2015; Lord, Dinh, & Hoffman, 2015).

However, despite their entry into the arena of management and organization studies, the use of Quantum and Complexity Theory is still largely applied within a Newtonian historiographic frame of a linear Past-Present-Future sequence. This linear frame is still the dominant way of understanding (and of teaching) management. It arose hand-in-hand with a Rankean formulated and empiricist body of disciplinary knowledge (cf. George, 1968; Wren, 1972); a canon grounded in a Newtonian Universe of cause and effect. Thus, our disciplinary historiography describes a teleological path from the Past to the Present (Weatherbee & Durepos, 2010); one that is moving *forward* towards an ever-progressive Future. This Future is a *to become* world of management and organizational studies bounded by our conceptualization of time as a one-way linear unfolding of past events (Weatherbee, 2012).

We take the position that the Future is constrained by our thinking about our past. This is because the Future is situated within a Newtonian framework that takes as its limits the Present and that firmly grounds the Present in the assumption that the Past is closed. We argue that Quantum and Complexity Theories provide a framework for escaping the linear constraints of temporal categories. Our "Quantum Historiography" framework opens the Present to new understandings of past events and consequently widens the possibilities for management and organization studies in the future.

Future and Past Imaginaries in the Present

Our argument is constructed on the basis that because the Past and the Future are both absent from the Present, they stand in similar relations to the Present. What we call History is a representation of a past world and, therefore, is of a different ontological status than the Past itself (Ankersmit, 1998; Munslow, 2000). The Future is also absent; and representations of future worlds are similarly of a different ontological status than the Future itself. Therefore, just as we can represent a future in the present, so too can we represent a past (Staley, 2007).

This allows us to apply insights from Future Studies to Management and Organizational History. The rise and development of Quantum and Complexity/Chaos Theory within Future Studies has direct implications for our cultural understanding of history (i.e., our historical consciousness) and therefore for the construction of historiography. Two conceptual elements of Quantum Theory that have been found to be particularly useful in Futures Studies are superpositional states and quantum entanglement (see Greene, 2004, 2011). Similarly, the notions of emergence (Greene, 2011) and strange attractors (Ruelle & Takens, 1971) can further surface the complex and chaotic nature of historiography. Given the ontological symmetry and

epistemological equivalency of the Past and the Future, these conceptual tools are methodologically applicable to our study of the Past.

Quantum Historiographic Space

In this paper, we will elaborate on how these conceptual tools can open a Quantum approach to management historiography. We use two examples to interrogate management historiography and in doing so show how the opening of the Past can change how we understand management in the Present. Specifically, we look at the implications for the (re)positioning of management education by applying quantum concepts to The Training Within Industry (TWI) Program conducted during WWII and the issuance of the Ford Foundation Report (Gordon & Howell, 1959). Due to space limitations we highlight only the TWI Program here.

The canonical historiography of management firmly emplaces the Business School at the heart of the management education construct (Khurana, 2007; Wren & Bedeian, 2010). In quantum terms the position of the Business School in relation to management education represents a historically collapsed superposition. A condition that did not actually have to be (and still is not) and one which erases and makes invisible management education occurring elsewhere; for example the Training Within Industry (TWI) Program (Dooley, 1946).

During the Second World War, the TWI Program delivered training in "management techniques" to over 1.7 million supervisors in over 16,000 organizations (Commission, 1945). This was a significant endeavor which impacted management and organization studies (and education) in numerous ways, one of which was the synthesis of Scientific Management with Human Relations in management education (Weatherbee & MacNeil, 2019). The TWI Program was a research-based project used to directly affect practices of management. The Program effectively incorporated both rigour and relevance into management education – yet it remains absent from our understanding of the development of management and management education. Opening up this 'collapsed historiographical superposition' encourages us to think differently about what management education is – in the Present. The application of Strange Attractor concepts to the Ford Foundation report has similar implications for changing how we see management thought and education in the Present (cf. McLaren, 2019).

Conclusion

Quantum concepts (i.e., superposition and entanglement, emergence and strange attractors) tell us that our canonical history is a function of how we have observed and described the Past. The types of questions we ask, the points of observation we take, and how we measure phenomena, all serve to collapse the potentiality of the meaning given to past events. A quantum approach to management historiography removes the linear constraints of Newtonian Past-Present-Future temporal cuts and yields the intellectual space to question our canon. In its turn, the opening of historiography in the Present unbinds the Future. This widens the space for what management and organizational studies could become. One of the characteristics that is thought to separate humans from all other living creatures is the ability to imagine the future (Suddendorf & Corballis, 2007). As individuals differ in how they integrate their ideas of the past and the future into their present thinking (Shipp, Edwards, & Lambert, 2009) so can management scholarship be differential in its ideas of the Past, the Present, and the Future.

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Symposia

WISE PRACTICES THAT ENCOURAGE RECONCILIATION IN BUSINESS CLASSROOMS: PROFESSIONAL DEVELOPMENT WORKSHOP

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Abstract

This PDW is organized around the conference theme of *Msit no'kmaq,* honouring all my relations. In this session we discuss two topics that Indigenous leaders have identified as being of highest priority for reconciliation, UN Declaration on the Rights of Indigenous People and the Final Report of the Truth and Reconciliation Commission. We introduce a variety of strategies to bring reconciliation and nation-to-nations dialogues into the classroom drawing on lessons learned from Indigenous and non-Indigenous allied researchers and educators. Facilitators will discuss their experiences "Indigenizing" their lesson plans and student responses to the content. We also invite others to join us and share examples of how you honour relationships with Indigenous peoples in your classrooms (and institutions).

Introduction

The theme of the conference was chosen to respond to the growing calls for Indigenous and decolonizing pedagogies in education (ie. Battiste, 2013; Regan, 2010; Tuhiwai-Smith, 2012; 2008). In 2015, the Truth and Reconciliation Commission of Canada released a final report, *Honouring the Truth, Reconciling for the Future* (the TRC). It was not the first time Indigenous leaders worked with Federal government to investigate the relationship between Canadians and Indigenous Peoples, the Royal Commission on Aboriginal Peoples (1996) is another comparatively comprehensive example similar research. However, for many reasons the TRC was noticed more broadly and captured the attention of the Canadian public. The TRC punctuated the voices of Indigenous leaders that called for systemic change in Canada's political and legal systems, educational and religious institutions, corporate sector, and civil society (TRC Calls to Action, 2015). For this symposium we draw attention to TRC calls to action #62 and #92. Respectively, they call upon Canadian educators to integrate Indigenous knowledges and teaching methods in classrooms and the corporate sector to commit to delivering appropriate intercultural competency training.

Post-secondary institutions must change in a variety of ways if they want to respond to the TRC by building better relationships with Indigenous students and their communities. Change is required at all levels and in every department because the TRC demonstrated how every aspect of Canadian society is implicated in the ongoing injustice experienced by Indigenous peoples. However, academic institutions are slow to change and the rhetoric of Indigenization is increasingly contested and challenged (Gaudry & Lorenz, 2018). We recognize the complexity and likely incommensurability of what Indigenous educators

strive for within the academy (Battiste, 2013; Gaudry & Lorenz, 2018; Tuck & Yang, 2012), and position this discussion as a move toward what Gaudry and Lorenz (2018) referred to as "Reconciliation Indigenization." One critically important and influential space where business schools can respond to calls for reconciliation is in classrooms by changing curriculum, adding Indigenous-centric content, and raising awareness about the relationships between indigenous communities and business. In this symposium educators will describe how they have been responding to the calls to action by sharing wise practices (Wesley-Esquimaux & Calliou, 2010) from their experiences. The presentations will guide discussion around the ability and potential for business schools, and the corporate sector, to continue efforts to raise important historical and contemporary issues in classrooms where they can be discussed with students in meaningful ways.

Focusing on post-secondary student classroom experiences, various strategies will be presented, discussed, and opened for discussion. Strategies include:

- The development of courses that are centred on Indigenous topics, history, politics, and economics.
- The use of different primary resources such as texts that centre Indigenous ways of doing business practices, such as *Indigenous Business in Canada.*
- Integration of assignments and assigned readings and case studies that have been developed by or in partnership with Indigenous peoples.
- Inviting guest lecturers for specific topics.

The use of new curricular resources has been well received by instructors and community members. The advantages and disadvantages of each strategy will be discussed such as the work required to prepare new material, the challenge of identifying new resources, and student responses to the content and methods. Indigenous students especially have expressed feeling more comfortable in classrooms because of these efforts.

Reflecting on Reconciliation Strategies

Engaging the dialogue of Truth and Reconciliation is in effect a commitment to sharing, learning and correcting centuries old misconceptions. While these misconceptions are prevalent throughout society, there are particularly deep misunderstandings in Business, some of which pertain to the bedrock of Canadian Business. The business classes at CBU, including BBA, Post-Baccalaureate, and MBA CED classes, are multicultural, international and range from twenty somethings with a few years of experience after their undergraduate or other graduate programs to midcareer professionals with twenty-five years of experience. We have observed through experience a general lack of knowledge of Aboriginal issues in general and of Aboriginal Business in particular.

What follows is a summary of the authors first person responses to three questions:

- What courses did you teach?
- How did you "indigenized" your lesson plan?
- And What were the students' responses?

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Discussant 1: These comments are reflective of experiences teaching hundreds of BBA and Post-Baccalaureate students during the past few years in the topics of business law and hospitality law. The "indigenization" strategy was to develop student assignments that centred on Indigenous legal concerns. Students were assigned individual and group projects that required reading texts that centred Indigenous perspectives of a legal issue, independent research about the issue, group discussion, and a written paper or class presentation.

For example, a National Bestseller by Bob Joseph (2018) was a perfect fit for the class of 42 students. Each team has been assigned one of the 21 Things You May Not Know About the *Indian Act* identified in the book. The task required the students to research the topic assigned and present a report that explained the items fully and offered a viewpoint on the negative impact the item may have had on the personal, professional and business development opportunities of the Indigenous Peoples of Canada. In a hospitality law class, the assignments were intended to build on a case that involved "cultural appropriation" aspects associated with indigenous peoples (Tulk, 2015). The author of the case attended a class and provided direction with respect to the questions that should be addressed. The class was broken into several groups, the group size was quite large. Each group was assigned a brand or insignia for a business, club, or sports franchise that involved a "cultural appropriation" aspect. They were required to analyze how the business was involved in the cultural appropriation by considering aspects like naming, logo, organizational governance, and consultation.

Generally, the feedback from the students was that they had learned a great deal from completing the assignment. The students found the assignments challenging but rewarding. They gathered information about indigenous businesses in Canada generally from the texts and specifically from the case examples. The students had shared the knowledge they obtained by doing the research with others thereby ensuring the knowledge was not restricted to the one item that the team was researching. All in all, the students and The faculty member found this to be a useful exercise to impart knowledge about the Indigenous Peoples of Canada and the restrictions placed upon them by the *Indian Act*.

Discussant 2: These comments are reflective of approximately two hundred and fifty students during the past two years in numerous MBA classes and topics. It is important to note that the courses discussed are compulsory courses and draw upon lessons learned throughout the MBA. The indigenization strategy is multifaceted. All course outlines make note of the traditional and unceded territory providing links to the Treaty of Peace and Friendship and the Royal Proclamation of 1763. Each course also began with a two hour class (minimum) on Indigenous Business discussing the legal differences between Aboriginal and Indigenous, Pre-contact Trade, Trade and Treaty, the Royal Proclamation of 1763 and its relevance to modern Supreme Court Decisions on Aboriginal Title, "The Crown", *Terra Nullius,* Business and the *Indian Act,* Aboriginal Demographics and the impact on Canadian Business and a final discussion on the decision to litigate or negotiate within the context of ongoing business development plans on traditional lands.

A notable example from experience is a Strategic Management class. Due to the nature of the course and the knowledge base of the students, it lends itself to a more intensive and robust integration of Indigenous issues. In conjunction with the noted introduction, students are required to read the *Membertou Business Model case* before the first class to prepare for an in-class case discussion, debate and presentation. The combined lecture and case provide a foundation of the approach to Strategic Management within

Membertou and provides insight to understanding the relationship with the "Crown", the *Indian Act,* and land, land title and its importance to First Nations. The ***Membertou Pedway Case*** draws upon these issues and then introduces the Canadian Banking System and its requirements for First Nations financing.

Without exception of age, nationality, experience and previous knowledge, the Pedway Case is popular, generates huge discussion, debate and competition to provide the correct guidance to Chief and Council which is their task. The case illustrates the complexities of doing business on Reserve lands, the role of the "Crown", the sophistication of Strategic Management within Membertou and the challenges of joint ventures.

Each semester has had Aboriginal students in these classes, with three in the last Strategic Management course. Whether the students are Mi'kmaw from Unama'ki, Anishinaabe from Manitoba, Cree from Alberta or Tlinqit from British Columbia they remark this is the first time Aboriginal Business has been respectfully discussed in their entire university experience and how proud they were to share additional information within their groups and in the case presentations. The nonAborignal students are eager to learn more, to understand the current issues and to try to reconcile their knowledge of what they thought was Canada's history. This learning and sharing are, in my opinion, at the heart of Truth and Reconciliation.

Discussant 3: These comments focus on the experience in one course that relates to the Dynamics of CED in Urban and Rural First Nations Environments. Originally these courses were designed with First Nations students in mind, recognizing that there were unique challenges to working for First Nations organizations while doing Community Economic Development. Discussion topics include topics like Indigenous Legal Traditions, Indian Act, Financing and Taxation on Reserve, Structuring Indigenous Economic Development, Nation Building, Harvard Project on Aboriginal Economic Develeopment and Governance, Policy, and Regulatory Gaps.

It is a comparative course that highlights different social and economic conditions that exist between urban and rural First Nation[12] communities. The content and assignments draw on videos, literature, case studies, and reports produced by and for First Nations economic developers. Students discuss the different strategic approaches to community economic development that could be used in each case. Assignments involved researching First Nations organizations like AFOA, NACCA, and CANDO, investigating specific initiatives that address a specific issue of interest to the student, and writing research essays that consider measures of success. One of the final class assignments was a personal reflective essay discussing their experiences in the class.

Interestingly, the student demographic registering for this course has changed significantly since it was originally conceived. The greatest challenge in delivering this course was the process of adapting it for diverse student perspectives and lived experiences. One third of the students identified as First Nations, but were located throughout Canada, while two thirds were non-Indigenous Canadian and English second-language students who live and work in urban Canadian centres like Toronto. Therefore, the responses from students about the course content divided along those identity boundaries. On the one hand Indigenous students were pleased to have their experiences in economic development validated and

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[12] First Nations is a constitutionally recognized term that refers to Status Indians. In this course we will also consider dynamics in diverse Aboriginal and Indigenous Communities working in the contextual climate of Canada.

to be able to discuss the nuanced complexities of their situations. On the other, students found diverse ways of relating to and understanding the diverse political and economic environments that existed within the field. Generally, the responses from all students were positive.

Reconciliation Indigenization Summary

Going forward, we recognize the different needs of student audiences. It is important to consider the motivations of student learners and the options available to them. The examples offered here are presented as potential strategies that help students learn and enable them to practice having inclusive and respectful dialogues. Creating resources that increase the accessibility and visibility of Indigenous community experiences in classrooms supports a shift towards more inclusive classrooms. We recognize that despite the moderate teaching successes, educators continue experience institutional resistance and barriers when attempting to respond to the TRC.

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SIBLINGS, STORY, AND SPIRIT: A CRITICAL CRITIQUE OF MODERN MANAGEMENT, MANAGEMENT EDUCATION, AND MANAGEMENT THEORY /

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Abstract

An individualistic and organization-centric worldview is entrenched within conventional management theory and practice. Instead of honouring all relations and reconciling with harmed stakeholders, the privileged few are prioritized under current Western models of management and management education; Indigenous, ancient, and spiritual wisdom and knowledge are marginalized. In this session, we explore how Actor-Network Theory and Non-Corporeal Actant Theory, Indigenous (with a focus on Labrador) spirituality and storytelling, and other faith/spiritual perspectives emphasize the honouring of all relations; how relations interact as siblings, story, and spirit; and how these perspectives lead to seeing nature as primordial and primary. Implications for management, management theory, and management education will be discussed. There will be ample time for all participants to engage in the discussion.

Introduction

An individualistic and organization-centric worldview is entrenched within conventional management theory and practice (Giacalone & Thompson, 2006). Instead of honouring all relations, the conventional business enterprise model privileges a royal few. Efficiency, commercialization, individualism, and economic-based impact and entrepreneurship have increasingly become the primary drivers of management education and scholarship (Alajoutsijarvi, Juusola, & Siltaoja, 2015). Management education is closely scrutinized and increasingly impact-tracked, as a result of corporate scandals and increased public funding accountability. However, most business schools fail to authentically honour relations with community and nature, and to reconcile with stakeholders they have directly and indirectly harmed.

Management scholars and educators should be in the business of helping business and other organizations to radically transform to become aligned with common good of all people and all of nature. The current Western model of business schools marginalizes Indigenous, ancient, and spiritual wisdom and knowledge (Turnbull, 2011). Modern society in general has de-emphasized its ancient faith and wisdom traditions and replaced them with managerialist ethics and norms.

In this session, we explore how Actor-Network Theory (ANT) and Non-Corporeal Actant Theory, Indigenous (with a focus on Labrador) spirituality and storytelling, and other faith/spiritual perspectives emphasize the honouring of all relations; how relations interact as siblings, story, and spirit; and how these perspectives lead to seeing nature as primordial and primary. Implications for management, management theory, and management education will be discussed.

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Introduction to Actor Network Theory and Non-Corporeal Actant Theory and Their Relevance to How We Think about Relationships within and among Organizations, Stakeholders, and Society

Symmetry is the most controversial concept of ANT (Law & Hassard, 1999; Venturini, 2010). ANT theorists believe that all things have a role in shaping actions (Latour, 2005). "Things" includes people as well as buildings, technology, shellfish and just about anything else. The symmetry means that things have agency as do humans. A simple example of the agency of technology is twitter in its original form: the software only permitted tweets of 144 characters limiting what was said – this contributed to the creation of many emojis as well as abbreviations (a new language) and forced short messages which also led to misunderstandings. The technology changed the way people acted.

In Non-Corporeal Actant (NCA)Theory we extend this agency to ideas, values, beliefs, and concepts.

In practice, ANT research seeks to describe an actor-network (Hartt, 2019). Often that description begins with an action (intended or unintended) and then freezes time to enable an oligoptic study (Latour, 2005; Fox 2000). The oligopticon refers to the opposite of Bentham's panopticon. It could be compared to the tools of an insect collector who pins the subject in place and studies it with a large magnifying glass.

ANT researchers try to hold the actor-network in place and study it very closely. In that way they assemble (reassemble) the social connections of people and things which seem to produce the action. Key to understanding the actor-network are understanding such concepts as problematization: establishing a reason to form an actor-network; action-net: an ad hoc network which responds to a situation; enrollment: joining or being recruited to an actor-network; de (or un) enrollment: leaving or being excluded; interessement: the negotiation of joining, concretizing participation and establishing a role; and mobilization: doing something, also establishing a way of acting (Alcadipani & Hassard, 2010, Callon, 1986).

People, things and NCAs all are enrolled and play a role in the enrolling and the manner of mobilization. Some simple examples from the literature: impressive buildings enroll students, staff and faculty in the actor-network of a university; migrating fish stocks cause the actor-network of fishers to move to new or traditional locations; ideas attract participants to sessions at a conference (possibly uncomfortable seats or a lack of charging stations cause them to leave).

Reasonably stable actor-networks may influence or participate in other actor-networks. When we believe them to act as an entity they are described as punctualized. For example, Boeing is an actor-network made up of thousands of people, thousands of machines, and many NCAs as well as buildings and non-human actors; but when we refer to the actor-network of this conference we might consider the 737-max problem as an NCA and the actor-network of Boeing as a single actor (punctualized).

The Relational Nature of Indigenous (Focus on Labrador) Storytelling: Implications for Management Theory, Practice, and Education

Stories bring us together and they have been doing so since the beginning of time. This creative or co-creative approach to sharing meaning from our lived experiences has been a great mobilizer (leader) of connectedness. Stories help us see ourselves in a relational world; where stories, storyteller and audience fit in time and environment (Price, Hartt, Cole & Barnes, in press). We gain an understanding of our responsibilities to balance and harmony and to encourage resilience and solidarity amongst our many relations: human, land, ancestors, cosmos.

Indigenous storytelling and Indigenous storytelling leadership have recently become more accepted in the academy as a strength-based paradigm (Voyageur, Brierley & Calliou, 2014). Since this is the case, I suggest we not only appreciate stories for wise practices that can be included in management theory, practice and education, but that we also accept story in the academy as a way of knowing, connecting and sharing. So, I intend to share with you some stories, one on the relationship between dignity and trust, another on survival and ceremony and lastly one on sustainability and tradition. The stories of Labrador are a part of my lived experience. I have struggled for a long time with the question of how to honour the stories in a way that does not exploit them for my personal gain. I will also share with you that learning journey.

I have taken a circular approach (Wilson, 2008) to reading and re-reading the Them Days[13] magazines to better understand leadership theory, practice and education in the Them Days network. Through this process, I have come to appreciate that this collective space has been co-created by Labradorians for Labradorians and about Labradorians. Them Days is a steward of the stories of Labrador; they have been collecting, preserving and sharing the stories in a careful and responsible way to benefit the peoples and the land. This network has worked tirelessly so that the old ways and old days are remembered.

> "A steward is an individual who has been entrusted with responsibility for managing
> or administering the property or financial affairs of someone else. It is expected that a
> steward will act in a careful and responsible manner for long-term benefit. In an
> Indigenous context, these resources (whether land, finances, or other property) are
> often communally owned" (Calliou, 2014).

Other Faith/spiritual Perspectives on Seeing Nature as Family Member and Soul Mate:

Additional Implications to Management Theory, Practice, and Education

A primordial and familial understanding of our relationship with nature is common to many of the world's religions and wisdom traditions. However, this understanding has become mostly lost in our modern world, in some cases within religious institutions themselves. In this presentation, I will discuss how living traditions are passed down (through history, in memory) in storytelling and can be applied to management theory, practice, and education. Although I will draw largely on an Anabaptist-Mennonite theology (AMT) and Catholic social teaching (CST), other world religions such as Buddhism, Judaism, and Islam, and Indigenous spiritual traditions (as described by Shelley Price), also emphasise our deep spiritual relationship with nature. I will draw on the teaching of 12th century Saints Francis of Assisi and Hildegard of Bingen. I will also draw on Pope Francis and his team of theologians, scholars, and Saints, living and passed, and their work in Laudato Si': On Care for Our Common Home (Francis, 2015).

I will specifically look at stories of relationship with nature and respect for nature, but I will also touch on the dark side of a restorationist theology of "short time" and "end times". Unfortunately, an extreme anthropocentrism and organization-centric worldview has come to prevail in many religious institutions, as well as in management theory, practice, and education. Like the economy and business imperative, religion can be used to justify moral and spiritual disengagement, for example as seen in the tight links

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[13] Them Days Incorporated is a registered charity dedicated to collecting, protecting and promoting the stories of Labrador. They publish a quarterly oral history magazine and maintain an archive containing Labrador-related materials.

between big oil, climate science denial, and fundamentalist, protestant evangelicalism in the USA (Dochuk, 2019).

I will then turn to some specific examples of how the primordial and familial understanding of our relationship with nature is missing in management education, theory, and practice. In particular, I build on the work of those who have contributed to stakeholder theory and seeing nature as a primary and primordial stakeholder (e.g., Driscoll & Starik, 2004).

The work of humility and reconciliation requires strenuous work to be in harmonious relationship with the 'other', whether that 'other' is Indigenous peoples, the land, a right whale, or the "smallest speck of dust". I will discuss how one way to move beyond the disconnect is to dialogue with and learn from those who have an intimate relationship with nature, and hence closer knowledge of nature and of ways to better integrate story, spirit, and nature into management theory, practice, and education.

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ENACTING THE HALIFAX SCHOOL: EXPLORING TENSIONS AND STRATEGIES

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Abstract

The purpose of this symposium is to mobilize a community of critical management studies scholars. Our plan is to explore strategies to develop a network that we hope to call 'The Halifax School.' As part of our symposium, we plan to discuss the common identities and philosophical contours of the network, in order to build on the work of several scholars who have surfaced the features of a shared identity of CMS scholars in Canada (Bettin, Mills & Helms Mills, 2018; Durepos, forthcoming). The symposium is intended to strike a forward-looking tone while recognizing that Canadian CMS scholars may be bound by a shared past and philosophical orientation.