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BY
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AALBORG UNIVERSITY
DENMARK

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Dissertation submitted

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ACADEMIC ACTIVITIES

Hansen, T. T., & Pedersen, D. B. (2018). The impact of academic events: A literature review. *Research Evaluation*, 27(4), 358 – 366.
Hansen, T. T., Foley, C. & Pedersen, D. B. (2020). An empirically-grounded typology of academic events. *Event Management*, 24(4)
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Conference proceedings at CAUTHE 2018: (s. 858-863). University of Newcastle & ATLAS Annual Conference 2018: Destination Dynamics: Book of Abstracts (s. 138-140) & Summer School (2018): Science and Politics at FIW, University of Bonn

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DISSEMINATION ACTIVITIES

Presentations at meetings industry events: IMEX 2018 – Legacy, Frankfurt, ECM 2018 – Make Tourism Matter, Malmö, Tomorrows Urban Travel 2018, Copenhagen

Stakeholder presentations: Aalborg University, Board of Deans, Aarhus University Research and Innovation Committee, University of Copenhagen KU Research and Innovation Committee, Inspiring Denmark Ambassador Network

Commentary: Forskningspolitik 2018 (2) & Videnskab.dk, Forskerzonen 2017, (8)

ENGLISH SUMMARY

This PhD dissertation explores the impact of academic events such as congresses, conferences, symposia, and meetings. More specifically, the focus is on the academic impact for individual attendees and chairs. The project is funded as part of the Danish Industrial PhD Program in collaboration with Wonderful Copenhagen and VisitAarhus, taking aim at the global debate on the evaluation of the meetings industry. Traditionally, the meetings industry has been evaluated based on the direct tourism value, that is, the direct financial investments in an event and the expected daily expenditure by delegates. However, several actors from the meetings industry, public authorities, and the university sector have pointed out that the meetings industry probably generates greater impact as a platform for knowledge exchange, scientific networking, and research dissemination activities. This extended impact is discussed under several headings, such as “beyond tourism benefits,” “legacy,” and “intangible impact.” The PhD dissertation contributes with analyses and new perspectives in relation to the meetings industry's impact on scientific knowledge production.

The research project is focused on academic events, which is a choice motivated by both commercial considerations as well as a historical and science policy analysis, which concludes that academic events are one of the pillars on which modern science is based but, nevertheless, is not included in the research policy toolkit.

The literature review of the dissertation reveals that a wide range of studies have investigated how academic events have an impact on society and the academic sector. The review identifies 13 sub-categories of impact. Moreover, it is concluded that the literature is fragmented and does not investigate academic events as an independent topic. Furthermore, the impact is not investigated within conceptual frameworks, as the literature comes from a very wide range of disciplines, each examining a specific event of importance for their discipline.

The dissertation draws on science studies and event studies for the development of a framework to investigate the individual academic impact of participation and chairmanships of academic events. With this framework, academic impact is conceptualized as a continuous exchange of various forms of credibility. The framework not only takes into account the output for the individual researcher but focuses on the types of credibility that are invested in the academic event. Furthermore, an analytical framework is developed to distinguish between types of academic events. Enriched by qualitative interviews, four dimensions are identified through which academic events differ: size, academic focus, participants, and tradition. Based on the dimensions and interviews, four types of academic events are identified; congress, specialty conference, symposium, and practitioners’ meeting. How attendees exchange credibility is investigated based on the four types of

academic events. The most important exchanges involve recognition and networking. Significant differences are identified in relation to the researchers' career stage. In the subsequent analysis of the dissertation, chairs of academic events are studied based on qualitative interviews. The chairmanship is described as a multifaceted investment that also includes investment in non-academic forms of credibility. The investment in the chairmanship gives the chair access to networks, buzz, and recognition as well as a range of other exchanges of credibility.

Taken together, the dissertation contributes to establishing academic events as a research topic as well as setting a direction for future research on the topic. The dissertation contributes to research in science studies and event studies by establishing academic events as a special category with four specific types of events as well as by developing an analytical framework to investigate academic impact. In relation to science studies, the contribution is more specifically an analysis of how non-academic exchanges are included in the exchange of credibility. Specific contributions are also made to event studies by exemplifying how interdisciplinary research projects are a fruitful path when investigating the non-direct tourism value of the meetings industry. Finally, the dissertation contributes to a discussion of the implications for the meetings industry and the academic sector. For the former, the implication should be the development of partnerships with the academic sector. For the latter, academic events ought to be considered for the research policy toolkit.

DANSK RESUME

I denne ph.d.-afhandling undersøger jeg værdiskabelsen ved akademiske events, som for eksempel kongresser, konferencer, symposier og møder, herunder særligt værdien for individuelle deltagere og værter. ErhvervsPhD-projektet skriver sig ind i en global diskussion om evaluering af mødeindustriens værdiskabelse. Traditionelt er den globale mødeindustris værdiskabelse dokumenteret gennem den såkaldte turistøkonomiske effekt, hvilket udregnes med udgangspunkt i investeringer i begivenheden samt forventet døgnforbrug ganget med antallet af overnattende delegerede. Imidlertid har en række aktører fra mødeindustrien, offentlige myndigheder og forskere påpeget, at mødeindustrien formentlig i endnu højere grad skaber værdi som en platform for videns- og erfaringsudveksling, netværksdannelse og formidlingsaktiviteter. Denne værdiskabelse diskuteres under en række overskrifter, deriblandt *beyond tourism benefits, legacy* og *intangibles.* Ph.d.-afhandling bidrager med analyser og nye perspektiver i forhold til mødeindustriens ikke-turistøkonomiske værdiskabelse.

Projektets fokus på *akademiske* events er motiveret af kommercielle hensyn og en historisk og forskningspolitisk analyse, der konkluderer at akademiske events er en af søjlerne, som moderne videnskab bygger på, men på trods af dette, ikke er en del af den forskningspolitiske værktøjskasse.

I afhandlingens litteraturstudie afdækkes, at en bred vifte af studier har undersøgt hvordan akademiske events, har indvirkning (impact) på både samfundet og den akademiske sektor. Der identificeres 13 forskellige sub-kategorier af indvirkning. Litteraturen er dog i altovervejende grad fragmenteret og kendetegnet ved ikke at behandle akademiske events som et selvstændigt tema. Desuden undersøges indvirkningen ikke inden for konceptuelle rammer. Det skyldes bl.a. at litteraturen stammer fra en meget bred palet af discipliner, der hver uafhængigt af hinanden undersøger ét særligt møde inden for sin egen disciplin.

Med udgangspunkt i den manglende konceptuelle ramme, trækkes der i ph.d.-afhandlingen på eksisterende forskning inden for henholdsvis videnskabsstudier og event studier, hvilket bidrager til udviklingen af en analytisk ramme til at undersøge den individuelle, akademiske indvirkning ved deltagelse og værtskaber for akademiske events. Med denne ramme begrebsliggøres akademisk indvirkning som en kontinuerlig udveksling af forskellige former for troværdighedskredit (credibility). Rammen tager dermed ikke kun højde for, hvad den individuelle forsker får ud af sit engagement, men fokuserer også på, hvilke typer af troværdighedskredit, der investeres i den akademiske event. Desuden udvikles et begrebsapparat til at skelne mellem typer af akademiske events. Beriget af kvalitative interviews identificeres fire dimensioner, hvorigennem akademiske events adskiller sig fra hinanden; størrelse, akademisk spændvidde deltagerkreds og tradition. På baggrund af dimensionerne og

interviews identificeres fire typer af akademiske events; *congress*, *specialty conference*, *symposium* og *practitioners' meeting.* Med udgangspunkt i de fire forskellige typer af akademiske events, undersøges det hvordan deltagere foretager udvekslinger af troværdighedskredit. De væsentligste udvekslinger involverer anerkendelse og netværk. Der identificeres væsentlige forskelle mellem udvekslingerne i forhold til forskernes karrieretrin. I afhandlingens næste analyse undersøges værtskaber for akademiske events gennem kvalitative interviews med tidligere værter. Værtskabet beskrives som en mangesidig investering, der også omfatter ikke-akademiske troværdighedskredit. Investeringen i værtskabet giver værten adgang til netværk, buzz og anerkendelse samt andre udvekslinger af troværdighedskredit.

Sammenlagt bidrager afhandlingen til at etablere akademiske events i en forskningsbaseret ramme samt udstikker en række pejlemærker for fremtidige studier af temaet. Afhandlingen bidrager til forskningen inden for videnskabsstudier og event studier ved at etablere akademiske events som en særlig kategori med fire specifikke typer af events samt ved at udvikle en analytisk ramme til at undersøge akademisk indvirkning. I forhold til videnskabsstudier, er bidraget mere specifikt en analyse af hvordan ikke-akademiske udvekslinger indgår i den generelle udveksling af troværdighedskredit. Der bidrages også specifikt til event studier ved at eksemplificere hvordan interdisciplinære forskningsprojekter er en frugtbar vej i forhold til at undersøge mødeindustriens ikke-økonomiske værdiskabelse. Endeligt bidrager afhandlingen med en diskussion af implikationerne for mødeindustrien og den akademiske sektor. For førstnævnte bør implikationen være at der udvikles forpligtende partnerskaber med den akademiske sektor. For sidstnævnte at akademiske events overvejes som en del af den forskningspolitiske værktøjskasse.

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I want to thank all those scholars who have taken on tasks related to chairing academic events, those who spent their evenings sorting out last-minute changes, visa applications, and social activities. You have fostered cohesion in research communities, and some of you have not received the appreciation you deserve.

My sincere thankfulness goes to Wonderful Copenhagen, where Kit Lykketoft has provided me with ample freedom to deliver this project as I saw best fit. However, thank you most of all for kind, clever and warm working environments; thanks to Bettina, Søren, Cathrine, Julie, Katrine, Peter, Catharina, Amalie, Katrine, Anna, Lene, Elise, Emma, Anne, Laura, Marie, Morten, Simone, Zaki, Martin, Kim, Stinne and Lars. Your working environments are truly special. Also, thanks to Signe Jungersted and Jonas Wilstrup for initiating the project and all the partners from the meetings industry, not least the other destinations in MeetDenmark.

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I would also like to thank my supervisor, Professor David Budtz Pedersen, for his support throughout the process and particularly for the entrepreneurial spirit in getting the project off the ground. My co-supervisor, Associate Professor Carina Ren, has been crucial for finalizing the project; thank you for stepping into the middle of the process with generosity, expertise, and patience. I am also thankful to all the members of the Humanomics Research Center and colleagues at Aalborg University. You have induced an academic culture with rich discussion and underlined the value of allowing questions to remain open. Also, thanks for your reviews and valuable comments on earlier versions of this dissertation.

During my research stay at the University of Technology Sydney in 2018, I was kindly welcomed by Associate Professors Carmel Foley and Deborah Edwards. Also, a special thanks to Dr. Anja Hergesell. Sincere thanks for welcoming me and my family. I appreciate your commentaries and questions that helped advance my work. I am also thankful for the dinners and the fact that Carmel and Ian found the box with LEGO and cared to babysit Ivan.

Thank you, my dear parents, Bente and Flemming, for boundless trust and for taking care of our children whenever needed.

Three years is a slice of life, and during these years, we have had to say goodbye to loved ones. Luckily, we have also said hello; Vita was born, and Ivan developed his personality. My most sincere gratitude goes to Ana; rain or shine, I could not do it alone.

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The newcomers were never at peace; and they allowed no one else to live in peace. It seemed that they were resolved with their impalpable yet ever more noticeable web of laws, regulations and orders to embrace all forms of life, men, beasts and things, and to change and alter everything, both the outward appearance of the town and the customs and habits of men from the cradle to the grave. All this they did quietly without many words, without force or provocation, so that a man had nothing to protest about. If they encountered resistance or lack of understanding, they at once stopped, discussed the matter somewhere out of sight and then changed only the manner and direction of their work, still carrying out whatever was in their minds. Every task that they began seemed useless and even silly. They measured out the wasteland, numbered the trees in the forest, inspected lavatories and drains, looked at the teeth of horses and cows, asked about the illnesses of the people, noted the number and types of fruit-trees and of different kinds of sheep and poultry.

The Bridge over the Drina, Ivo Andrić

FOREWORD

"I feel like kicking back tonight. Where should I go to find a jazz concert?" This was a question posed to me by the editor in chief of a highly influential science policy publication outlet. It became the beginning of a professional relationship that changed my career.

That story and this PhD project started in 2011 when I was a newly employed civil servant in the Danish Ministry of Higher Education and Science. Quickly, I became involved in organizing the EuroScience Open Forum 2014. This biennial forum is Europe's leading science policy event. In the Copenhagen edition, the event attracted about 4,000 participants, mainly researchers and science administrators, but also the president of the European Commission, Nobel laureates, and even Her Majesty Queen Margrethe II. A public science festival, *Science in the City*, was held in parallel with the forum, and it was a bustling celebration of science, which attracted 40,000 visitors.

I got involved three years before the execution of the event as the second member of the delivery team, and we had great working conditions: an ample budget, soaring ambitions, and few instructions to follow. In the period leading up to the event, the team expanded to about 20 people working with everything from the scientific program to logistics. We engaged with a multitude of stakeholders, including the Copenhagen tourist organization, Wonderful Copenhagen, the global pharma company Johnson & Johnson, and CERN. The content of the event was developed in collaboration with the stakeholders and promoted internationally to secure delegates. Throughout the period, we received many visits to Copenhagen. We had set up three committees with international members, all of whom were senior figures on the European or global science policy scene. They would come regularly to advise us on our progress and challenges. The international members were supportive in their function as trend-spotters who highlighted issues that needed to be addressed; they brought in experiences from previous editions of the forum, activated their network when we needed speakers, and they promoted the event in their respective networks.

As the delivery team, we were the spider in the middle of the web. We would always have a reason to talk to everyone. When in Copenhagen, the internationals would ask for updates on keynote speakers, gossip, dining recommendations, travel reimbursements, or where to spend a sunny afternoon. The conversations would flow between academic, professional, and personal issues, and the latter topics would bolster the connections and add character and personality to the relationships. The access to this international network was immensely valuable in itself, but it also changed how we were perceived by colleagues and national stakeholders. We were acknowledged for having access to an international community of opinion leaders, and that made a difference in our ability to develop relationships with national stakeholders.

The abovementioned editor-in-chief was directed to a jazz club to see an ensemble that I had seen a few days before. The editor is a jazz connoisseur, and the suggested concert was a bold and demanding interpretation. Luckily, he had a great time, and the shared experience became the beginning of a mentorship. I connected with got a senior figure who I could call for informal advice on professional and career issues. He would happily share his ideas and observations without needing to be credited for his contribution. He would offer his view on tricky relations with bosses or colleagues, and he would open his network when needed. All of it has made my life and career a lot more enjoyable and rewarding.

Organizing the EuroScience Open Forum gave me a network that would have taken a decade to build. Besides the network, the event created for me an imminent sense of emerging topics and an overview of the European stakeholders. These benefits were the fruits of many demanding hours of work, but it was neither a strategic nor a calculated effort. It felt like the benefits flowed naturally from delivering the tasks.

In the delivery team in the Ministry of Science, we speculated whether our positive experience was special or also familiar among other organizers, including researchers involved in chairmanships of academic events. If the latter were the case, the chairmanship of events would have potential as a science policy instrument. Accordingly, we did plan an evaluation of EuroScience Open Forum that should document our value-creation and compare it to chairmanships of academic events. We wanted to capture how the event made a difference for the Danish science community, but we also wanted to explore whether it had made a difference for ourselves and the ministry as such. Alas, the ministry management decided that it was not worthwhile to engage in a full evaluation, as such an event would never be held in Denmark again.

In this research project, I will argue that we have a knowledge deficit regarding events. The one-off character of many chairmanships is an important reason for the lack of sustained interest and ensuing evaluation of events. Luckily, some of the ideas and particularly the network involved around the proposed evaluation of EuroScience Open Forum are realized in the research project at hand.

1. INTRODUCTION

This research project is about *academic events*. These are held under many names: seminar, conference, workshop, congress, and annual meeting are just a few. More specifically, this project focuses on how these events have an *academic impact* for attendees and chairs. This is a topic that can be approached from at least two research fields: event studies and science studies. Below, I will briefly outline how the research project is situated within and draws on these two research fields as well as outlining the research question. In the remaining part of this introductory chapter, I will unfold why the meetings industry is engaged and outline the industrial nature of the project. This serves as a declaration of the commercial relevance of the project. Moreover, I will manage the industrial expectations by discussing and outlining the knowledge proposition offered by the research project. Furthermore, I will state my personal motivation for engaging with the project and finally provide an overview of the chapters to follow.

1.1. ACADEMIC POINT OF DEPARTURE AND RESEARCH QUESTION

Event studies is the field devoted to the study of *planned events* (Getz 2011; Getz & Page 2016a; Goldblatt 1990; Hall 1992). It is an interdisciplinary field drawing on insights from fields such as sociology, anthropology, and psychology, and it is closely related to tourism and hospitality studies. Within event studies, there is a long tradition for differentiating between types of events such as festivals, sports competitions, and business events. Yet, academic events have not been developed as an independent category of business events. In Chapter 2, I develop a definition of academic events, drawing on key insights from event studies and, in particular, the literature on business events. Within studies on business events, an emerging topic is the evaluation of business events' value creation beyond their tourism impact (Chen 2019; Edelheim et al. 2018; Foley et al. 2013; Jago & Deery 2012). It is described as "*an extremely important avenue"* (Mair 2014 p. 127). The research is a response to calls from the meetings industry and governmental bodies that want to explore whether and to what extent business events can be policy instruments for underpinning the knowledge economy (Du Cros, Edwards, Foley & Hergesell, 2017; IRIS Group, 2017; König, 2017). The research project at hand aspires to contribute to the further development of this research agenda by contemplating and answering the following research question:

- *How do academic events have academic impact on attendees and chairs?*

Answering the question presupposes a conceptualization of academic impact, which will be unfolded in Chapter 2. The focus on academic impact situates the research project within science studies, understood as the field devoted to studying the production, representation, and integration of scientific knowledge, with a specific focus on the importance for evaluation and science policy. Science studies have, so far, generally been inattentive to academic events, which is surprising for at least two reasons. Firstly, there is a strong tradition for studying sites of academic practice such as the laboratory (González-Santos & Dimond 2015; Knorr-Cetina 1999; Latour & Woolgar 1986), and these studies have been done with an emphasis on the social dimensions of knowledge production and verification. Despite the very social character of academic events, they have hardly been studied as specific sites or objects of analysis from a science study perspective (Soderqvist & Silverstein 1994). Secondly, as will be outlined in Chapter 4, academic events have been a pillar of academia for centuries and significant for the development of modern science. There is within science studies scope for a more comprehensive approach to academic events, which the research project at hand will contribute to. The project focus on the notion of *impact* as developed in the subfield on *research impact* (Benneworth et al. 2016; Bornmann 2013; Greenhalgh et al. 2016; Martin 2011; Penfield et al. 2014; Reale et al. 2017). The notion is widely used to describe how research influences and changes academia itself, but also other areas, such as the economy, policy, environment or civil society. Research on research impact can be traced back to the 1970s when academic discussion was raised on whether science was fully unfolding its potential for serving humanity (Martin 2011). Since then, the field has grown alongside policy developments that, by and large, have been on a course of greater scrutiny of activities in the academic sector. Research performed at public research institutions has increasingly become subject to accountability demands alongside access to more data and information about activities in the academic sector, in particular, provided by advances in bibliometrics (Martin 2011; Williams & Grant 2018). Recent research has voiced substantial critique of several aspects of these developments, including the reliance on metrics such as citations, journal impact factors, and H-index scores. The attention to metrics leads to incentive structures that motivate researchers to

> *overemphasise quantity at the expense of quality, create pressures to 'cut corners' throughout the system, and select for scientists attracted to perverse incentives.* (Edwards & Roy 2017 p. 53).

Thus, current research on research impact explores how impact assessments can move away from the reliance on metrics, and rather become tools for documenting more processual, multifaceted, and nonlinear forms of value-creation (Budtz Pedersen et al. 2020; de Jong et al. 2014; Spaapen & van Drooge 2011). This research project sees itself as a further development of this agenda, as academic events are sites where value is created, which so far has only been poorly documented. This research project will

draw on both event studies and science studies and aspire to contribute to the further development of these fields.

1.2. THE INDUSTRIAL RELEVANCE AND INTEREST

This industrial PhD project is developed, funded, and delivered in a collaboration between the convention bureaus (CVBs) of Copenhagen (Wonderful Copenhagen) and Aarhus (VisitAarhus), the Humanomics Research Centre and the Tourism Research Unit at Aalborg University Copenhagen and is supported by the Innovation Fund Denmark. In the Danish industrial PhD program, the private-sector partners—in this case, the CVBs — are involved in designing the research project, including defining research questions, methodologies, and the theoretical framework. The project must have short- or long-term commercial potential, and the importance of the private-sector partners is underlined by them receiving the grant from the Innovation Fund Denmark. The academic partners are responsible for safeguarding the research integrity and ensuring that the research process measures up to academic standards. The Tourism Research Unit at Aalborg University is interested in event evaluation and has worked qualitatively in this field for an extended period. The Humanomics Research Centre is focused on mapping how research primarily from the humanities and social sciences impacts society; and is doing so from the perspective of science studies. Thus, the interest of the academic partners is straightforward. However, why are CVBs interested in a research project on the impact of academic events? The interests of the CVBs have been a formative force of the project, and accordingly, it will be illuminative to declare it straightaway. It is reasonable to distinguish between two kinds of interest, commercial interest and reputational interest.

1.2.1. COMMERCIAL INTEREST

The understanding of the commercial interest presupposes some background understanding of the operation of CVBs. Around the world, CVBs offer advice to anyone planning an event in the city or destination they represent. Moreover, they not only respond to inquiries; they also proactively engage in attracting events (Rogers 2013). This is particularly the case for academic events, where CVBs are keen on attracting events owned by international, scientific associations or societies. A normal procedure is illustrated in Figure 1. The CVB starts by researching events that could potentially be attracted to their destination. This is often done using the ICCA (International Congress and Convention Association) database, which keeps track of

nearly all rotating events.[1] The CVBs scan the database regularly and identify events that are suitable for their destination. The vast majority of rotating events have competitive bids for the chairmanship; hence the next step for the CVB is to develop a bid that brings together the local stakeholders, including the local research community. Alongside the bidding process, the CVB will regularly initiate lobby activities to promote the destination and gather insights on how to frame the bid. The final bid material—often a document of approx. 100 pages—is sent to the decision-making body, which will then decide on the winning destination. It is not uncommon that an initially rejected bid becomes part of a learning process, where the insights from the failure are used to attract the event at a later stage. CVBs work with long time horizons, 5–8 years. After the bid has been won, the event is prepared and executed, and if the international association was pleased with the destination, the CVB would stand ready to try to attract the event once more. The convention bureaus need substantial investments to fulfill these tasks and typically do so based on funding from public authorities and commercial partners in the meetings industry, for example, hotels, venues, and other service providers.

Figure 1: The bidding process

Besides the affordability and suitability of the infrastructure at the destination such as the size of the convention center and the reliability of the public transport system, the success of the bidding processes depends on the destination's ability to involve and engage the local research community (Getz 2004; Mair 2014). That is to ensure that the local research community benefits from the chairmanship and that the association will be strengthened by a visit to the destination. Accordingly, CVBs work closely with the local research community, and herein lies the direct commercial value of this research project. The research project provides better insights into the choices of local academics, which will allow the CVBs to gain a better understanding of a key business partner and the potential to improve the value proposition offered to the local researchers. Thereby, the CVBs hope to become more successful in attracting and engaging local academics and the wider research community in the bidding process,

[1]To be included in the ICCA database, events must fulfill the following criteria: 1) be organized on a regular basis (one-time events are not included); 2) rotate between at least three different countries; 3) be attended by at least 50 participants.

all with the intention of winning more bids and creating commercial value at the destinations.

1.2.2. REPUTATIONAL INTEREST

The meetings industry also has a reputational interest that should be spelled out to provide transparency. This interest relates to the meetings industry at a sectorial level. As a sector, the meetings industry is astonishingly big; in the US alone, the industry is estimated to have a yearly turnover of $280 billion (PwC 2014), which equals that of the entire US media industry, including its film industry (Rowe 2019). In Denmark, the turnover was 26 billion DKK in 2017, about 1% of the GDP (VisitDenmark 2018). There are no solid numbers indicating what proportion of the total meetings industry academic events comprise; however, it is beyond discussion a very substantial share (Rowe, 2019). This massive industry depends on people traveling by plane for short visits. When taking the size of the industry into consideration, its carbon footprint is significant (Spinellis & Louridas 2013). While this is an ongoing debate on blogs, journals, and in research communities on the carbon footprint of academic traveling (Gerhards 2019; Green 2008; MoChridhe 2019), it does not seem to have deterred academics from participating in events, as the market has grown continuously for the past decades (PwC 2014). Regardless of the growing market, the meetings industry has started to develop a justification for its carbon footprint. Additionally, the meetings industry is increasingly seeking public investments, for example, for convention centers, subventions for specific events, and for the running of CVBs. To attract such funding, the meetings industry considers it necessary to deliver documentation of its societal contribution.

The awareness of carbon footprints and the pursuit of public funding are the driving forces behind a series of campaigns and investigations of the industry's contribution to society. This has generally been done under the heading of "legacy," which denotes the long-term positive impacts of events. The use of the concept is widespread. For instance, the IMEX meeting in Frankfurt, one of the globally leading industry events, held its 2018 event under the title *Legacy: What's yours going to be?* In an interview, the CEO of the IMEX Group, Carina Bauer, explained:

> *"Legacy" was a theme that almost chose itself! As the meetings and events industry has evolved over the past five years, we've seen a shift away from planning an event around a 'single moment in time' towards planning an event with longer-lasting, more meaningful impacts—impacts that can be seen long after the event has ended.* (IMEX 2018)

Several other leading industry organizations have launched initiatives dealing with legacy, such as the Joint Meeting Industry Council (JMIC), which has initiated the

promotional platform *The Iceberg: Legacies of business* events. These and other industry organizations work intensively with the concept of legacy and do so with the ambition of documenting how the meetings industry contributes to society. The industrial partners of this research project have an interest in using the study to promote the reputational work done under the legacy heading.

1.3. PERSONAL MOTIVATION

I have been motivated by exploring the potentials of chairmanships as a novel science policy instrument that could optimize national and regional science systems. As I will argue in Chapter 4, academic events are pillars of modern academia; however, they are largely ignored from a science policy perspective. Additionally, this study is done in a time of unpreceded climate awareness, and as the project explores a topic that entails and underpins substantial airborne traveling, I am personally motivated by situating the research in relation to the global climate crisis.

Currently, calls are being made for radical limitations in researchers' access to physical participation in events by, for example, having definite upper limits on the number of flights each scholar can make (Hagedorn et al. 2019). However, the introduction of such regulation could have grave consequences for the functioning of academia. In this dissertation, I explore how academic events impact exchanges that are essential for the functioning of the current science system. Before regulating the area, we need to understand what events do and evaluate them in relation to alternatives such as virtual events, regional events, or abolition of academic events.

I am motivated by contributing to the development of a culture of evaluation of academic events because, obviously, not all events contribute to the same extent or in the same dimensions. Rather, there are academic events organized and attended, which mainly sustain an extensive academic travel culture. This calls for evaluations that will make it possible to assess better which events are valuable and which are not. This is a monumental task, and this research project should be seen only as a step toward delivering on this ambition.

1.4. BALANCING THE INDUSTRIAL EXPECTATIONS

The industrial interests and my personal motivations indicate an evaluative logic residing at the heart of this research project. It is the ambition of the project to explore "what works" (Brinkmann 2017; Kvale 2008). However, as pointed out by Brinkmann (2017) and Kvale (2008), our Western societies are characterized by a "what works" movement, which is connected to a bureaucratically driven obsession with

quantitative evidence. The movement has been promoted under the term evidence-based knowledge production and is characterized by an underlying philosophy of science, which has been termed *bureaucratic positivism* (Brinkmann 2017). The concept implies that bureaucracies are accustomed to and acknowledge certain forms of scientific output. Quantitative studies based on nomothetic reasoning are prioritized as the resulting generalizations provide guidance and clarity. This is the sort of knowledge that can easily be adapted and inform a bureaucracy. I find the concept of bureaucratic positivism valuable for describing the knowledge expectations of the meetings industry.

The abovementioned concept of legacy provides an illustrative example of the knowledge expectations. The concept of legacy is rarely explicitly defined; it is rather characterized in opposition to direct tourism spending, which has been the traditional way of documenting value. Often, legacy is termed the *"beyond tourism benefits,"* including in the academic literature (Foley et al. 2013; Petersen & Ren 2015). Direct tourism spending is characterized by being quantifiable and immediately understandable. As an example, foreign delegates in Denmark have an average daily expenditure of 4,190 DKK (VisitDenmark 2018). By multiplying this number with the number of delegates and days spent at the destination, the net contribution to the destination can quite easily be derived. Thus, one has a number that is usable and translatable between various sectors and groups, including policy-makers.

Even though legacy is understood as something different from direct tourism spending, there are similar expectations of quantifiability and translatability related to the industry initiatives on defining legacy. Two examples will serve to illustrate this point. Firstly, a quote from the president of the Joint Meetings Industry Council (JMIC), Joachim König, where he sets out the ambitions of their flagship project on legacy, *The Iceberg Project*:

> *The outputs and legacies to be identified and quantified in the study will potentially cover a wide spectrum, from the value of networks and business transactions arising from an event to medical advancements like improved disease awareness, research, and treatment practices.* (König 2017)

It is the ambition to *quantify* the legacies identified. Thus, while legacies can be many types of outputs, they should be quantifiable. Another example comes from a much-publicized legacy evaluation of the European Congress of Radiology (ECR) held in Vienna in 2018 (Stoff-Hochreiner 2018). ECR is one of the world's largest medical meetings with more than 20,000 participants. In the evaluation conducted by the Vienna Convention Bureau, the legacy of the event is argued to be the value of the papers presented at the congress:

> *For the European Society of Radiology`s congress you can expect an economic impact of 40-65 million euros when 20,000 visitors stay in Vienna*

> *for 4 days. But the value of the knowledge presented at the congress might range from between 500-850 million euros – 10 times that of the economic impact.* (Christian Mutschlechner, former director of the Vienna Convention Bureau in (Boardroom 2018)

The calculation of the value is based on a survey in which speakers are asked whether the paper is the result of external funding. The resulting average figure is then multiplied by the number of presentations, and an estimate of the value of the preparation time is added to reach the flabbergasting amount of 500 – 850 million euros. This amount does not say much beyond the very well-known fact that medical research is an area that attracts massive funding. Nevertheless, the number is widely published and clearly underlines the quest for quantifiable documentation of the legacy of academic events.

1.4.1. KNOWLEDGE PROPOSITION

Despite the numerical expectations from the meetings industry outlined above, the research project at hand will not quantify legacy. Below, I outline why this is the case. However, before doing so, I will highlight the knowledge proposition offered by this industrial PhD project to the meetings industry.

The key contribution of this project is a conceptual map, including a definition, a historical contextualization, and a typology of how to talk about academic events and their differences. I also situate academic events in relation to the meetings industry and explore the links between legacy and academic impact. Finally, I develop an analytical framework for analyzing academic impact, which should assist the meetings industry in developing an evaluative framework for academic events. In the future, such an evaluative framework could include quantitative elements. Nevertheless, the research project does not deliver on the industrial expectations on a quantifiable dimension of legacy. This has to do with the nature of events. They are essentially situations that are designed to provide *non-linear interactions* (Garud 2008), in the sense that, if the interactions followed a straightforward path and therefore could have been planned in advance, there would often be no point in doing an academic event. The dissertation contains several examples of such serendipitous interactions, for example, a researcher stumbling onto a presentation that changes the way he or she looks at data, or a professor going swimming in the cold sea with a colleague and discovering shared interests that lead not only to friendship but a series of significant collaborations. There are also plenty of examples in the literature of how coincidences at events have played a major role for the development of research *How do academic events have academic impact on individual attendees and chairs?*

projects (Doudna & Sternberg 2017; Edwards et al. 2017; Gross & Fleming 2011). These non-linear interactions cannot straightforwardly be categorized and, therefore, counted and included in quantitatively-based analytical frameworks. That is not to say that it is impossible to develop an analytical framework that is attuned to make sense of numbers. However, at the onset of this research project, there were hardly any frameworks to build on and thus it was overly ambitious to set out to develop an analytical framework, collect large data sets, and apply the framework to them.

1.5. THE STRUCTURE OF THE DISSERTATION

Above, I outline the research question: *How do academic events have academic impact on attendees and chairs?* To respond meaningfully to this research question, I will go through the following analytical steps.

1. Develop a definition of academic events and academic impact
2. Situate academic events in a historical and science policy context
3. Outline how impacts of academic events previously have been studied
4. Develop a typology of academic events
5. Analyze the academic impact of attendees
6. Analyze the academic impact of chairs

The above-mentioned research question contains two key concepts, *academic events* and *academic impact*, which need to be unfolded. I will do this in the following Chapter 2, where the two concepts will be situated within existing literature, and a definition of them will be presented. In Chapter 3, the research design of the dissertation will be presented, which contains three building blocks: 1) a paradigm, 2) logic of inquiry, and 3) the specific research tools and the empirical material. In Chapter 4, I will situate academic events in a historical and science policy context. The chapter elucidates why the research topic is relevant for scholars of science studies by arguing that academic events are one of the pillars on which modern science has been built. Despite the importance of academic events, they are not part of the science policy toolbox. The following Chapter 5 is constituted by the published article:

- Hansen, T. T., & Pedersen, D. B. (2018). The impact of academic events: A literature review. *Research Evaluation*, 27(4), 358-366

This chapter presents a literature review on how the impact of academic events has been explored. The review identifies four main areas of studied impact and 13 sub-categories of impact. The review concludes that the literature is fragmented and identifies two specific shortcomings in the literature. On the one hand, we observe that there is no framework for differentiating between types of academic events. On

the other hand, we note that there is no common theoretical framework for analyzing academic impact. The subsequent Chapter 6 is an article accepted for publication:

- Hansen, T. T., Foley, C. & Pedersen, D. B. (2020). An empirically-grounded typology of academic events. *Event Management*, 24(4)

The article addresses the two shortcomings identified in the literature review by providing a typology of academic events based on interviews with 22 researchers at six Danish universities, encompassing four different events: congresses, specialty conferences, practitioners meeting, and symposia. The paper also provides a theoretical framework for analyzing academic impact based on Latour & Woolgar's concept of credibility cycles (Latour & Woolgar 1986) and applies this framework to an analysis of the various conversions that attending researchers engage in at the four different kinds of events of the typology. The succeeding Chapter 7 comprises the published article:

- Hansen, T. T., & Ren, C. (2020). Chairs of academic events: The investments and academic impact. *Science and Public Policy*, scaa007

In this chapter, we turn our focus to the chairs of academic events and provide an analysis of academic chairmanships based on the analytical framework outlined in Chapter 6. In Chapter 8, I discuss the general findings of the research project, including a comparison between the analysis on attending events in Chapter 6 and the analysis on chairing events in Chapter 7. Moreover, I discuss the ramifications for event and science studies, as well as the practical implications for academia and the meetings industry. Finally, in Chapter 9, I conclude on the research question and the research project in its totality.

2. DEFINING ACADEMIC EVENTS AND ACADEMIC IMPACT

In this chapter, I will introduce the key concepts of the dissertation and outline the literature underpinning these concepts. The focus of the chapter will be on *academic events* and *academic impact.* These are the key concepts, as the research project studies how participating in and chairing academic events have academic impact. Based on the existing literature and my discussion of it, I will develop definitions of these concepts that will be applied throughout the dissertation. As presented in the previous chapter, the dissertation draws on event studies and science studies, and both concepts can be approached from each of these fields. The fields highlight distinctive aspects, and I will draw on discussions from both in the development of my definitions.

2.1. ACADEMIC EVENTS

First, I will approach the concept of academic events from an event-studies perspective. Obviously, event studies are centered on the concept of *events*, which is a word with several connotations. There is the meaning of *"anything that happens, especially something important or unusual,"* or it can carry the connotation of *"an activity that is planned for a special purpose"* (Cambridge Dictionary 2019). It is the latter connotation that has informed event studies: *"Event studies is the academic field devoted to creating knowledge and theory about planned events"* (Getz & Page 2016a, p. 1). According to Getz and Page (2016a), events are primarily planned in three dimensions; time, space, and content. They are temporally delimited phenomena with "*a beginning and an end"* (Getz & Page 2016a, p. 46). Moreover, they are confined *"to particular places, although the space involved might be a specific facility, a very large open space, or many locations"* (Getz & Page 2016a, p. 46). Finally, the events will have a program, schedule, or at least some consideration of which activities should take place (Getz & Page 2016a, p. 46). Across event studies, there is a consensus on this core definition of events as planned phenomena (Getz 1997; Goldblatt 1990; Hall 1992; Page & Connell 2011). Regardless of the consensus on this core definition, there are numerous discussions of whether other distinctive aspects should be included in the definition of events. Page and Cornell (2011) highlight that events are characterized by co-creation between participants, spectators, and organizers. Thus, they are social phenomena that involve people taking on specific roles. Along with these considerations, Richards (2015) has unfolded how events are formative of social hierarchies. The social character also points to the unpredictability of events. Their social and co-creating character, together with the

spatial-temporal delimitation of events, entail that events are characterized by a certain uniqueness. In the words of Getz (2008, p. 2), "*Much of the appeal of events is that they are never the same, and you have to 'be there' to enjoy the unique experience fully; if you miss it, it's a lost opportunity*." Obviously, some events are held on a regular basis, for example, the annual meeting of a scientific society; however, following the claim from Getz, each edition of the event will be unique.

These general characteristics of events are helpful for the development of a definition suitable for the current research project. However, the focus of this project is *academic* events as a specific category of events. Within event studies, there is a long tradition for developing typologies and exploring differences between events (Lunt 2011). There is a wide range of typologies and other forms of classifications in the literature, and I will address some of them. However, as pointed out by Lunt (2011), the development of a typology is a categorization of information, which is carried out for some purpose. Thus, when categorizing events, it is paramount to ask for the underlying reasons for classification.

There is literature that works on dichotomic distinctions, which carve out one category of events as particularly interesting. This is the case, for example, with the concept of special events, which is understood as different from routine events (Allen & McDonnell 2002; Jago & Shaw 1998). Special events stand out either as something out of the normal program or as an opportunity outside the normal range of choices. Another example is the much-used categorization of mega-events, which encompass events such as the Olympics, World Cups, and World Expos. They have been studied intensively as a separate category of events (Horne 2017; Lamberti et al. 2011; Müller 2015). The work on special events and mega-events has focused on the tourism aspects and how these events change a destination by, for example, attracting visitors or shaping expectations. To my knowledge, nobody has worked on academic events as a specific category different from other events. Nevertheless, Getz (2008) proposes a typology of *"the main categories of planned events based primarily on their form—that is, obvious differences in their purpose and program."* The typology distinguishes between the following categories of events:

- Cultural celebrations
- Political and state
- Arts and entertainment
- Business and trade
- Educational and scientific
- Sport competition
- Recreational
- Private events

The typology is in slightly various forms reproduced in several texts (Getz 2008, 2011; Getz & Page 2016a). Yet, the typology is hardly put to work, and even though

Educational and scientific events is highlighted as a special category of events, it is unclear what the implications of the category are. Nor is it defined. It seems reasonable to claim that the typology mainly is useful from an organizational point of view as Getz underlines how several of the categories *"require special-purpose facilities and managers of those facilities"* (Getz 2008, p. 404). Many of the categories of the typology have been developed more thoroughly, including cultural celebrations and festivals in particular (Getz 2010; Richards 2007) and sports competitions (Alexandris & Kaplanidou 2014; Presenza & Sheehan 2013). This is also the case for the category of business events, which has attracted substantial interest. I propose to understand academic events as a sub-category of business events.

In her review of the literature on business events, Mair (2012) defines business events by referring to the term MICE (Meetings, Incentives, Conventions, and Exhibitions) and argues that business events are any kind of meeting, incentive, convention, or exhibition. Thus, the term is exceptionally broad.

> *Business events can be viewed in a continuum […] starting with very small and informal meetings […] all the way up to major political/economic forums that bring together world leaders, huge numbers of media, and inevitably, the protesters. Assemblies held by societies, associations, and numerous social worlds (constructed around any community of interest)* (Getz 2011, p. 29).

With such a broad definition it has become common practice to differentiate between business events within three sectors: corporate, government, and association (Getz & Page 2016b; Mair 2014; McCabe 2000). The corporate events are defined by the importance of profit:

> *This return on investment need not be direct financial gain, but rather may refer to increased motivation amongst those staff members attending, resulting in higher productivity and yield.* (Mair 2014, p. 10)

Government events are defined by being organized by governments (Mair 2014). Finally, Mair (2014) relies on McCabe et al. (2000) in her definition of an association event as planned by *"an organized and structured group of people who have similar interests or businesses"* (McCabe 2000, p. 43). An association event can be a gathering for the global gardening community or for the European Astrobiology Network Association. The distinction between the three sectors serves a tourism and convention bureau perspective, as the highlighted differences relate to attracting and managing events within each sector rather than the specific content and impact. It is in this light that Mair argues:

> *There is a plethora of designations for what is essentially the same thing. Conference, convention, congress, symposium, forum, seminar, consortium,*

> *summit and workshop – all can be said to be in essence a gathering of like-minded individuals for some common purpose. The difference is generally one of size and scale*. (Mair 2014 p. 8)

Thus, this is how far event studies can take us in the development of a definition of academic events. The literature does not make it possible for us to carve out academic events as a distinctive category of events. I will now turn to science studies for further inspiration for a usable definition of academic events.

Within science studies, the spaces and locations of academic practice have been studied intensively, and in the *Handbook of Science and Technology Studies* (2008), a chapter is dedicated to the topic. Here it is argued that it is fruitful to focus on

> *how place has consequence for scientific knowledge and practices, and why focus on location and situated materialities can enlarge our understanding of science in society*. (Henke & Gieryn 2008, p. 355)

Nevertheless, it has been claimed that academic events, such as conferences, annual meetings, and symposia only have been cursorily studied from a science study perspective (González-Santos & Dimond 2015; Mody 2013; Soderqvist & Silverstein 1994). I agree with this claim insofar as one thinks of studies on the conceptual aspects of academic events, that is, studies that approach events from a theoretical perspective and assign them a role in the production of academic knowledge. Because, as will be unfolded in Chapter 5: The impact of academic events – A literature review, there is a rich literature that applies bibliometric data to the analysis of specific events (Hansen & Pedersen 2018). This is, for example, the case in numerous studies on the conversion rate, that is, how likely it is for a presentation at a given conference to be published as a journal article (Collier et al. 2010; Trifan et al. 2016). However, these studies do not offer insights that can help us establish a definition of academic events, as these studies focus only on the specific event that is their object of analysis, which there is no need to further define.

Rather, I will highlight two research traditions within science studies. Both underline the importance of specific spaces, indirectly underpin why academic events are important, and thus foster bewilderment over the fact that academic events are understudied conceptually from a science study perspective. The two traditions are 1) laboratory ethnography and 2) research infrastructure. The early laboratory ethnography was done against the backdrop of positivist claims that science is universal and, therefore, the spaces of scientific activity do not matter (Henke & Gieryn 2008). As a response, the laboratory ethnographers offer close descriptions of the importance of the specific context for the construction of scientific knowledge (Knorr-Cetina 1999; Latour & Woolgar 1986). Moreover, the studies highlight the social dimensions of the production and verification of science. Despite the obvious social character of academic events and the significance of spaces of academic

practice within science studies, the tradition of laboratory ethnography has not been applied to academic events. At a much smaller and emerging scale, studies have explored research infrastructures (D'Ippolito & Rüling 2019; Florio & Sirtori 2016; Lozano et al. 2014). The research infrastructures are massive investments in highly-specialized equipment. Often, the equipment is physically confined to a specific location, and in order to work with the equipment, researchers need to co-locate temporarily at the infrastructure. This creates physical spaces, where there is an extensive flow of researchers sharing an interest. In studies of research infrastructures, it has been concluded that social cohesion develops around them, which foster networks and research collaborations that have a discernible impact (Silva et al. 2019). Similarly, academic events provide temporary physical co-location of researchers.

Thus, there are research traditions within science studies that warrant a focus on academic events. There are also a few studies that conceptually engage with academic events and draw out aspects important for the definition to be used in this research project (González-Santos & Dimond 2015; Mody 2013; Rowe 2019; Soderqvist & Silverstein 1994). Soderqvist & Silverstein (1994) define the object of study as *scientific meetings* without any closer definition. Mody (2013) uses the term *conference*, but she also refers to *workshop* and *meeting* without describing the differences. González-Santos & Dimond (2015) also use the term *conference* and unfold a closer description, which is very useful for the current study, where it is highlighted

> *[that] attending conferences ruptures the quotidian routine of the laboratory, the lecture hall and the office, yet at the same time conferences are a sort of extension of the workplace.* (González-Santos & Dimond 2015, p. 236)

Rowe (2019) has elaborated on how events are extensions of the workplace in that they facilitate and underpin knowledge dissemination, exchange, and transfer. Moreover, it has been argued that a conference includes *"social activities like eating, smoking, and drinking. There is a carnivalesque tone to conferences"* (González-Santos & Dimond 2015, p. 236). The conceptual literature does not use the term academic events; however, I have chosen to apply the term instead of terms like conferences or scientific meetings. With this choice, I draw on the insights from event studies, where "events" is seen as a general term that encompasses a range of planned activities. Moreover, I want to underline that there are differences between academic events, such as congresses, symposia, and conferences and develop a typology that differentiates between them, which is an aim that will unfold in Chapter 6. Furthermore, applying the term event should also be seen as a consequence of the ambition of bringing together event studies and science studies.

I will, in this dissertation, define *academic events* as spaces for academic practice that co-locate researchers from more than two institutions for the purpose of exchanging

research-based insights. The event is planned and happens in a confined physical space and for a limited amount of time. The core of the planned activities relates to exchanges of research-based insights; however, there are also social activities that intensify the interaction among participants that might not normally occur in day-to-day life.

2.2. ACADEMIC IMPACT

At a general level, the concept of *impact* carries the meaning of an *"effect that something has on a situation or person"* (Cambridge Dictionary 2019). Thus, using the concept implies that I want to discern and study an effect – that I want to conduct an *impact assessment*. Within event studies, such efforts are referred to as a specific form of evaluation.

> *Impact assessment, which is a major theme in the events literature, is* […] *a method, or group of techniques, intended to reveal important information about the outcomes of events such as the economic contribution of event tourism or the social impacts of holding a festival. Impact assessments can be used to assess, compare, or discuss different aspects of value.* (Getz et al. 2017 p. 1)

Traditionally, the impact assessments of events—business events, in particular—have been approached from an economic perspective (Dwyer 2002; Dwyer et al. 2007; Jones & Li 2015; VisitDenmark 2012, 2018). Such studies have concluded that delegates at business events spend more money than other types of tourists (VisitDenmark 2018). However, several scholars have called for the development of evaluations of other types of impact (Getz & Page 2016b; Rogers 2013), including legacies and beyond tourism benefits (Foley et al. 2013; Mair 2014), social impact (Deery & Jago 2010; Mair 2012; Richards et al. 2013), and intangibles (Dwyer et al. 2000; Edelheim et al. 2018; Petersen & Ren 2015). These concepts carry specific connotations, even more so, as some of the concepts are widely used in the meetings industry (Du Cros et al. 2017; IRIS Group 2017; König 2017). The concept of legacy comes from the literature on mega-events and sports events in particular (Preuss 2007, 2015). From its use in sports events, the concept has transferred to a much wider use across the meetings industry and carries the general connotation of any long-term positive effect. The beyond-tourism benefit concept has a similar broad meaning of any positive impact apart from the direct spending of the visiting delegates. The concept of social impacts carries a similar broad meaning, for example, *"any positive or negative change"* (Wallstam et al. 2018 p. 4). However, the social impact has the connotation of focusing on the effects for the people living at the destination rather than the delegates of the event. The final concept of intangible impacts is understood through its opposition to tangible impacts, which refers to accepted, quantitative

indicators of impact. Taken together, the various concepts are very broad and focused on positive change.

In the book *The Value of Events*, Getz et al. (2017) argue that evaluations of events require conceptual clarity on what *value* is under scrutiny and regarding *"value for whom or from whose perspective?"*(Getz et al. 2017 p. 2). In the study at hand, I want to explore value for academics, that is researchers employed at universities or other public research institutions. Moreover, I explore how attending and chairing events has academic impact. As highlighted by Getz (2018), assessing impact is inherently contested as there are philosophical, technical, and political issues in any assessment. Therefore, it is important to develop a strong theoretical base (Getz 2018). A similar insight is reached when the issue is approached from the research field that studies impact assessments of scholarly work (Benneworth et al. 2016; Donovan 2011; Greenhalgh et al. 2016; Penfield et al. 2014; Reale et al. 2017; Spaapen & van Drooge 2011). The need for a theoretical framework when assessing impact is mainly due to the so-called attribution problem. In relation to academic assessment, the attribution problem highlights the difficulties in attributing specific academic products to identified changes in the real world (Donovan 2011; Penfield et al. 2014). That is, unfolding how and to which degree discrete scholarly interventions, such as research projects, publications, or industry collaborations, are the sources of change. State-of-the-art literature on impact assessment underlines the complexity of such correlations and has distanced itself from describing these correlations through linear models. Rather, it is claimed that impacts occur through complex, non-linear interactions (Budtz Pedersen et al. 2020; de Jong et al. 2014; Spaapen & van Drooge 2011). Scholarly work can rarely be attributed linearly to specific effects. The remedy discussed in the literature is to establish theoretically informed frameworks or models, which can guide the interpretation of data and thus secure some evenness in the interpretations (Budtz Pedersen et al. 2020; Donovan 2011; Penfield et al. 2014). In this research project, I will follow these recommendations and develop a theoretical framework for analyzing academic impact.

2.2.1. CYCLE OF CREDIBILITY

In the development of a theoretical framework for assessing academic impact, I will firstly draw on the distinction between societal and academic impact (Penfield et al. 2014; Reale et al. 2017; UK Research and Innovation 2019). Societal impact specifies how research has an impact on society, including policy, business, culture, public discourse, and civil life. Academic impact is understood as the effects on academia itself. On their website, UK Research and Innovation (UKRI) defines academic impact as:

> *The demonstrable contribution that excellent research makes to academic advances, across and within disciplines, including significant advances in understanding, methods, theory and application*. (UK Research and Innovation 2019)

The definition points to a variety of academic advances, but several scholars have criticized how academic impact is captured through bibliometric indicators, such as journal impact factors, citation rates, and H-indexes (Martin 2011; Smith et al. 2013). These indicators have become the key lens for gauging quality, in particular, in the UK and Australia, but also elsewhere (Henderson et al. 2009; Williams & Grant 2018). The indicators are helpful in revealing aggregated trends, but the use of bibliometric indicators to assess the quality of individual researchers leads to perverse incentives (Edwards & Roy 2017). Thus, I do not find it fruitful to define academic impact through bibliometric indicators; rather, I focus on how UKRI highlights advances of a broad range of products and processes, that is, "*advances in understanding, methods, theory, and application."* However, to unfold how these advances happen, we need a framework for understanding *advances*. For this purpose, I draw on the concept of Cycle of Credibility as a framework for analyzing academic impact. The Cycle of Credibility was developed by Latour & Woolgar (1986) based on ethnographic observations of a neuroscience laboratory in California. The model draws on a research tradition, which conceptualizes the incentives of academics to be reputational rather than financial (Bourdieu 1975; Hagstrom 1965). This has remained one of the shared conventions within science studies and confirmed in various empirical studies (Frey & Neckermann 2009; Hessels et al. 2009; Lam 2011; Whitley 2000). Latour & Woolgar (1986) describe academic value creation not merely as a quest for recognition but rather for "credibility," which is an overarching concept that denotes various forms of value (Smith 1998). Latour & Woolgar (1986) mention data, equipment, grants, recognition as forms of credibility. However, they further underline that these are not the only forms of credibility and that the manifestations of credibility are historically contingent. The scholar creates value through continuous cycles of conversions of various forms of credibility. As an investor, the researcher engages in intended favorable conversions of credibility, where one form of credibility is converted to another form of credibility:

> *"The essential feature of the CC [cycle of credibility] is that the acquisition of credibility enables a researcher to reinvest it and gain more credibility. In this sense, credibility can be regarded as capital, coming in different forms"* (Hessels et al. 2019 p. 130).

The concept of credibility cycles will be further unfolded and applied in Chapters 6 and 7. Thus, I define academic impact as a productive conversion of credibility understood as a conversion of one form of credibility to another, which the converting scholar is able to make and finds worthwhile. I base the assessment of productive conversions on interviews of academics and their assessment of their conversions. In

Chapter 3, I will unfold the research design and methodology underpinning these assessments.

3. RESEARCH DESIGN

In this chapter, I present the research design of the dissertation. Following Denzin & Lincoln (2018 p. 309-310), the research design brings together various building blocks, provides an argument for assembling these, and does so as a response to the context of the research project. The following blocks should be included and accounted for in the development of a research design:

- The paradigm
- The logic of inquiry
- The specific research tools and the empirical material

The paradigm outlines the ontological and epistemological foundations of the research project. Understanding how and why knowledge is produced and accepted is crucial for framing and clarity. Moreover, it influences what can be studied and how, and, therefore, what can be considered empirical material. The logic of inquiry is understood as the logic that connects the empirical material with the analysis of it, generally considered a choice between inductive and deductive logic. Closing the circle are methods and tools as specific techniques for collecting and analyzing the empirical material.

The building blocks and their interplay will form the structure of the chapter at hand, as each of the building blocks will be dealt with in separate sections below. While the building blocks are dealt with separately, it should be underlined that they are understood as closely interlinked.

3.1. A PRAGMATIC PARADIGM

Any form of research is underpinned by a philosophy of science, which guides the researcher's conception of ontology and epistemology, that is, the nature of the phenomenon examined and methods for understanding it (Van de Ven 2007). Rather than using the concept of *philosophy of science*, Denzin and Lincoln (2018) apply the term *paradigm*. Besides describing the ontological and epistemological foundations, they argue that a paradigm is "*a basic set of beliefs*… [which] *define the worldview of the researcher*" (Denzin & Lincoln 2018 p. 97). In textbooks on research methods, the selection of a paradigm is often seen as another decision in a series of methodological choices. The scholar must choose between some paradigms, for example, positivism, realism, or interpretivism (Bryman 2016, p. 24-28), just like the scholar chooses a quantitative or a qualitative research strategy, a case study design or a comparative design and a data collection strategy. However, by defining a paradigm as a *basic set of beliefs*, it becomes less meaningful to talk about the paradigm as a methodological *choice* (Brinkmann 2017). This is so because any basic set of beliefs is not only chosen but is also a product of the context in which the study is conducted (Brinkmann 2017). This study is shaped by the industrial and

bureaucratic context as presented in Chapter 1 of the dissertation. This context highlights the need for developing tools that solve problems for the meetings industry. With this context, I have chosen to have the research project guided by a *pragmatic* paradigm. This claim requires some elucidation as pragmatism is a school of thought that is multifaceted (Van de Ven 2007). It is not my mission here to engage in a theoretical debate that aims to solve tensions within pragmatism. Rather, the aim is to flesh out a position from where this research project can depart. I work from a characterization of pragmatism as an idea about ideas:

> *Ideas are not* "*out there*" *waiting to be discovered, but are tools—like forks and knives and microchips—that people devise to cope with the world in which they find themselves.* (Menand 2002 in Brinkmann 2017 p. 92)

Thus, the important question in a pragmatic research project is whether and to what extent the study, its methods, and results have consequences that help us cope with our world. Martela (2015) develops an epistemological position based on these insights, which he terms *fallibilistic instrumentalism.* Fallibilism refers to the claim that knowledge per definition is incomplete. No matter how certain we are today about what we term facts, including the methods used to derive them, we need to prepare to be surprised, as the facts can turn out to be flawed tomorrow. This is also the case for our scientific ways of reasoning. The methods in research are never final, but rather *"instruments that have been developed in the course of inquiry"* (Hickman, 1998 p. 169 in Martela 2015). The instruments we use have proven successful in past inquiries, and that is the reason why we apply them again. Ideas are also instruments, including ideas we would normally term concepts, models, theoretical frameworks, and hypotheses. They are instruments whose value is defined by their capability of achieving practical results.

As pragmatism is considered a tool or instrument for this research project, it should be possible to state what use we will have from it. How does pragmatism work for this research project? I will answer this question by outlining two ways in which the project makes use of pragmatism: 1) providing direction for the pragmatic bricoleur and 2) unfolding the critical potential. However, these are just two examples, and the pragmatic influence runs through the dissertation, in particular in the use of abductive reasoning, which will be introduced below in section 3.2. Logic of inquiry.

3.1.1. THE PRAGMATIC BRICOLEUR

Denzin and Lincoln (2018, p. 310) outline a continuum of research designs describing degrees of flexibility. At one end of the continuum, you have rigorous designs focused on early decisions on the research question, related hypotheses, and a data collection strategy that allows you to investigate the hypotheses; such a research design comes with limited flexibility. At the other end of the continuum, a priori design commitments are avoided to allow for the continuous development of as many aspects

as possible throughout the entire research process. The idea is to allow for new insights to emerge along the course of the project and to use these insights to steer the project in the most fruitful direction. The current study leans toward the open-ended side of the continuum as the research question and data collection strategies have evolved throughout the process.

In section 3.4. below, I lay out the various phases of the research project. However, to describe the research process, I adopt the metaphor of the researcher as *bricoleur*—that is, a craftsman—who performs tasks with the tools and materials at hand (Denzin & Lincoln 2018 p. 18). Similarly, the researcher must make the most of what is available and bring these pieces together to create a product. Moreover, the *bricoleur* carries the connotation of a handyman that solves problems. This has provided direction to my dealings with the tools and materials in each of the research phases.

This understanding of the bricoleur has also informed the qualitative nature of this study. Parts of the literature consider the choice between qualitative and quantitative research to be a fundamental choice. Alan Bryman (2016) organizes the best-seller textbook *Social Research Methods* through that distinction and argues:

> *The differences are deeper than the superficial issue of the presence or absence of quantification. For many writers, quantitative and qualitative research differ with respect to their epistemological foundations and in other respects too*. (Bryman 2016 p. 31)

The current research project is qualitative, but this is not considered a fundamental choice. Rather, the qualitative work is seen as the most productive way forward, considering the materials and tools available at the moment. As laid out above, the current situation involves non-linear interactions at academic events and no established analytical framework with which to investigate them. In future studies, the bricoleur could develop the analytical framework presented in this study to accommodate quantitative data and thereby providing the industrial stakeholders with numbers.

3.1.2. THE CRITICAL POTENTIAL

I also draw on pragmatism in formulating the critical potential of the research project. To claim critical potential might seem unwarranted for two reasons. Firstly, the research project is embedded in a commercial context: The funding comes from partners in the meetings industry, and these partners have been part of formulating the project, including the research question. Secondly, pragmatism is often criticized for lacking critical potential:

> *Pragmatism cannot take us very far in anchoring our moral and political commitments. The view that pragmatism has "no political valence," the claim that Dewey was blinded by an "empiricist strain," and the notion that*

> *pragmatists are "far too uninterested in issues of power" each represent a version or aspect of this more generally pervasive view of pragmatism* (Kadlec 2007 p. 11).

These two reasons for rejecting the critical potential rest on a conventional understanding of critical research, where the intention is to *"expose enduring structures of power and domination, to deconstruct the discourses and narratives that support them, and to work as advocates for social justice"* (Muncie 2006 p. 52). Working from such a conception of critical research, the research project at hand has no critical potential—rather the opposite, as it aims to develop evaluation tools for bureaucracies and the industry, whereby it will support and underpin existing structures of power and domination.

However, as pointed out by several scholars, the critical potential of pragmatism rests on a different understanding of critique (Brinckmann 2017, Kadlec 2007, Christensen 2000). According to Christensen (2000), the concept of critique should be understood as a specific form of thinking or reflection within pragmatism:

> *The essence of critical thinking is suspended judgment, and the essence of this suspense is inquiry to determine the nature of the problem before proceeding to attempts at its solution* (Dewey 1910 in Christensen 2000 p. 123).

Thereby, one particular but common example of what Dewey terms uncritical thinking is to solve immediately a new problem by applying a solution from a previous similar problem (Christensen 2000). Such ways of thinking disregard that the conditions of the new problem might be different and that the outcome, therefore, might also be another than the expected. The nature of the problem has not been addressed before a solution is applied.

Such a definition of uncritical thinking parallels how the meetings industry so far has been approaching the issue of evaluation of legacy. The industry has a method for analyzing how events have direct tourism impact (Jones & Li 2015), and it has sought to re-apply this method to the evaluation of legacy. Instead of thinking carefully about the nature of the new problem and whether it differs from documenting the direct tourism impact, solutions that worked in relation to the former problem are once again applied with little success (cf. section 1.3.). It is a case example of uncritical thinking.

This research project has the ambition of offering critical thinking—in the pragmatic tradition—on the nature of the problem, and as hinted at above, the project has adjusted its course along the way, as the nature of the problem unfolded. The outcome is a series of typologies and categorizations that challenge the way the meetings industry sees its value proposition, typologies, and categorizations that were not previously available but have emerged as a product of investigating the nature of the problem.

On a final note, the position of embeddedness in the industry, which is often considered a hindrance to critical research, has given access to data sets, informal chats, and a general understanding of the meetings industry. This has made it possible to produce a research project that is well-suited to equip the industry with some of the needed tools. Moreover, the position of working from within has given me the possibility to speak at events that are normally very industry-centric such as the IMEX 2018 or European Cities Marketing (ECM) annual meeting 2018. On these platforms, I have had very meaningful conversations that hopefully will help parts of the meetings industry to move in the direction of better evaluations.

3.2. LOGIC OF INQUIRY

The logic of inquiry describes the link between theory and the empirical material of a research project. Generally, the term "theory" means an idea or system of ideas that is used to explain some observed regularities (Bryman 2016 p. 18).[2] When working from this general understanding, the purpose of linking theory and empirical material is either to "test or build" theories (Bryman 2016 p. 18). There are two different logics at play, depending on whether one wants to build or test theories; they are inductive and deductive logic. With the inductive approach, the researcher starts out by investigating specific phenomena, which, through some processing, become the data of the research project. From the data, the researcher categorizes the data in clusters and develops connections between the categorized clusters of data. Simply said, the researcher uses data to build theory. The direction of reasoning is often thought of as "bottom-up," from the data (the specific) to theory (the general).

In the deductive approach, you begin by specifying a theory. From theory, you generate hypotheses about what should happen under specific circumstances. You collect data that you can test your hypothesis against. The direction of reasoning is often thought of as "top-down," from theory (the general) to data (the specific). However, the distinction between induction and deduction loses significance when approached from a pragmatic point of view due to the status of theory in pragmatic epistemology (Christensen 2000). The reason for this is rooted in the conception of ideas as "tools" discussed above (Martela 2015). Theory is just another idea and, therefore, a tool that should assist us in our problem-solving endeavor. Thus, in pragmatism, the dichotomy between theoretical beliefs and practical deliberations is blurred (Legg & Hookway 2019), and theory becomes a lens we can apply to describe better a problem or situation. Sometimes we investigate concepts that are unsettled and intangible, such as academic impact, and thus, we need theory, conceptualizations, and frameworks to describe the very object of analysis.

An example from the research project might be illustrative. At the end of each qualitative interview, we introduce the concept of "credibility cycles" (Latour &

[2] However, the word has many other uses e.g. when it describes *grand theories* that are not addressing specific regularities and in common language to describe abstract situations.

Woolgar 1986) to enable a conversation about a topic, which we do not have a daily vocabulary to address. Accordingly, we need to introduce the terminology and the key ideas for the conversation to run smoothly. Thus, the data collection was partly framed by theoretical ideas, and the consequence is that, from a pure inductive standpoint, the data collection gets "polluted" by theoretical underpinnings.

As a response to the differing view on theory and the consequences for inductive and deductive logic, Charles S. Pierce developed abductive reasoning (Charmaz, Thornberg & Keane 2018). There is a vivid, academic discussion about how to define abductive reasoning, which is partly rooted in Pierce's own ambiguous accounts of the concept (Charmaz, Thornberg, and Keane, 2018). In the research project at hand, the understanding of abduction relies on the work of Jarvensivu and Tornroos (2010, p. 102), who stress abduction as an approach to knowledge production that draws on both induction and deduction in relation to the use of theory:

> *Unlike induction, abduction accepts existing theory, which might improve the theoretical strength of case analysis. Abduction also allows for a less theory-driven research process than deduction, thereby enabling data-driven theory generation* (Jarvensivu and Tornroos 2010 p. 104).

Thus, the key point in abductive reasoning becomes the continuous movement between theory and empirical evidence. In this research project, it is particularly evident in the way theoretical frameworks are used for the collection and analysis of data. In line with the guiding pragmatic paradigm and the bricoleur approach outlined above, this research project draws on various research logics depending on the specific phase. These will be accounted for below in section 3.4.

3.3. RESEARCH TOOLS AND EMPIRICAL MATERIAL

In this section, I outline the applied research tools and the empirical material as the last element of the research design. The concept of research tools covers specific techniques for collecting and analyzing empirical material. Across the dissertation, I apply a range of specific tools for collecting and analyzing data, which can meaningfully be presented under five headlines:

- Desk research
- Scoping review
- Qualitative interviews
- Empirically-grounded typology
- Analytical practices

I will dedicate a section below to each of the tools, where I describe how I understand the tool and how I apply it to empirical material or data.

3.3.1. DESK RESEARCH

Desk research or secondary research is a tool that does not involve the collection of empirical material. Rather my role as a researcher is to explore and synthesize findings produced by other scholars. This is the tool that was applied in Chapter 2, where the definitions of academic impact and academic events were developed. It is also the tool applied in the subsequent Chapter 4, where I provide a historical and science policy contextualization of academic events.

3.3.2. SCOPING REVIEW

In Chapter 5, a literature review on the impact of academic events is presented. The search strategy and analysis of the included literature are informed by a specific technique of reviews termed *scoping review* (Egan et al. 2017; Kjellberg et al. 2016; Neves et al. 2012; Paré et al. 2015). The scoping review can be understood as a middle ground between narrative and systematic reviews. Together with the systematic review, the scoping reviews apply a comprehensive search strategy to ensure the inclusion of literature from a wide range of fields. This was particularly important to me, as early on, it became evident that numerous fields had addressed the topic of impact of academic events. We wanted to include this literature and explore to what extent it was combinable with our points of departure within event studies and science studies. However, the scoping review differs from the systematic review in relation to the overarching goal of the review. The systematic review engages in appraisals of the quality of individual studies and, based on these appraisals, aims to aggregate data and offer general conclusions. While this approach is highly influential in the medical sciences, it is not applicable in relation to such an immature research topic as the impact of academic events. Our scoping review shares the same aim as the typical narrative review, which is to develop an overview and summarization of approaches and topics that have been addressed in relation to the research topic. Moreover, we also had the intention of identifying research questions to be explored further in the dissertation. We did this by doing a content analysis of the various contributions.

3.3.3. INTERVIEWS

Chapters 6 and 7 of the dissertation consist of two articles on the participation and chairing of academic events. In both articles, we apply interviews with researchers at Danish universities as the data collection strategy. I will dwell on the use of interviews

as a data collection strategy before unfolding how the data was analyzed in the sections below.

I follow Harvey (2019) in defining the interview as *"a method of collecting data from a subject by asking questions in a face-to-face situation"* (Harvey 2019 p. 1). The interview is extensively used across the human and social sciences (Brinkmann 2018), and the widespread use has made *the interview* a significant research topic in itself (Atkinson & Silverman 1997; Kvale & Brinkmann 2015; Wengraf 2001). From this extensive literature, I will draw on two considerations for positioning my use of interviews.

Firstly, Brinkmann and Kvale (2015) argue that a central distinction relates to the status of the information acquired through interviews. On the one hand, the interview can be seen as *a research instrument* that facilitates the transmission of information about the interview topic. This means that the accounts given by the interviewees are seen primarily as reports that can form the ground for analysis of a specific subject (Kvale & Brinkmann 2015). On the other hand, the interview can be seen as *a social practice*, which is defining how and which information is presented. Some even argue that the interviewer and interviewee construct their own reality (Rapley 2001). Essentially the distinction relates to whether data secured through interviews reflect the interviewees' reality outside the interview context. For scholars who see the interview as a research instrument, the interview data is a useful source for describing and analyzing a given subject. For scholars who see the interview as a social practice, the purpose of the interview is rather to facilitate social change or analyze the discourses articulated in the conversation. This research project positions itself within the tradition of using the interview as a research instrument. The interviews inform analyses about academic events and how scholars engage with them, and little emphasis is put on the constructive nature of the interview context. However, this choice is not synonymous with a postulation that the interview situation does not influence data. Surely, it does and particularly in this research project, where the interviews focus on the interviewees' self-assessment of their engagement in events. Nevertheless, I have made the choice of considering the interview data as representative of the interviewees' reality. The choice is motivated by the research interest and questions driving the project, where the focus is on describing the reality outside of the interview as opposed to inquiries into the ontology of interviews.

Secondly, the ethical dimensions are a part of the literature on interviews and, in particular, the power relation between the interviewer and interviewee (Kvale & Brinkmann 2015; Tanggaard 2007). It is the interviewer who initiates and frames the conversation. It is also the interviewer who interprets and brings forth the opinions raised in the interview. This has led to ethical concerns being voiced in relation to interviews with marginalized groups who might be intimidated by the interview situation and have their voice manipulated by the interviewer. However, in this research project, the interviewees are researchers themselves with positions either as

postdocs or senior researchers. When being approached by a PhD student—as has been the case—they are unlikely to be intimidated. More often, the power relationship has been reversed, with the interviewees being in an established position (Nadar 1974). Several of the interviewees had clear agendas, which they wanted to be included and promoted in the research project.

I dealt with this issue in two ways. On the one hand, I tried to steer the interviews and have a conversation, which resembles an *"instrumental dialogue"* (Brinkmann 2018). This is to see the conversation as a means to serve the ends of the research project. The interviews were conducted as semi-structured, but in some of the interviews, the structure became more evident as the conversation otherwise would have been overtaken by the informant. On the other hand, and alongside steering the conversations, I allowed conflict and contradictions to form part of the conversation (Tanggaard 2007). I did not insist on consensus or politeness but tried to flesh out incongruence between the interviewees' opinions and the direction of my investigations. Several interviewees resisted the focus on impact and personal interest and engagement. Rather they saw their engagement in academic events as a communal effort.

The interviews are conducted in two batches. In the first batch, I interviewed 22 researchers at Danish universities about their participation in academic events. In the second batch, I interviewed 23 researchers about their chairmanships of academic events. In both cases, we wanted to secure a wide range of backgrounds to be represented among the interviewees. Thus, I applied several selection criteria when identifying interviewees: gender, main scientific area, and career stage. Moreover, in the second batch of interviewees, we also wanted to secure diversity in terms of when the interviewee had chaired an event. Thus, about half of the interviewees had chaired an event in 2014 or 2015, the other half in 2017 or 2018. We also made sure that the interviewees had chaired different events in relation to the event typology to be presented in Chapter 6. The theoretical background for choosing these selection criteria will be unfolded in the subsequent chapters. However, it is timely to discuss the strategy of applying selection criteria here and to outline its implications for the analytical strategy.

I applied several selection criteria for two reasons. On the one hand, I included interviewees with various backgrounds to secure a broad range of statements to be included in the data material. This is in line with the research aim of describing the impact of *researchers*' attendance and chairing of academic events. The focus on researchers, as such, requires broad representation. On the other hand, the selection criteria have been informed by theory, and there is accordingly reason to expect that each of the criteria describes important differences. For this reason, the selection criteria are also used as analytical lenses. This means that when analyzing the material, we applied each analytical lens to the data material to see whether we could identify patterns that aligned with the lens. For example, we applied the gender lens by

analyzing the male interviewees as a group and compared this to the female interviewees. Occasionally, the analytical lenses illuminated interesting patterns.

3.3.4. EMPIRICALLY-GROUNDED TYPOLOGY

In Chapter 6, I draw on Kluge (2000) and her work on the development of empirically grounded construction of typologies. Based on her work and the above-mentioned interviews, we develop a typology of academic events. The approach is thoroughly unfolded in Chapter 6 and will be outlined here. Rather, it is relevant to dwell on the general usefulness of typologies and the specific use of typologies in this research project.

Typologies are conceptual tools that simplify and order phenomena. A useful typology points to the important differences or similarities in the studied phenomena (Bailey 1994). Thus, it is a tool for providing a meaningful classification, which is crucial to any research-based investigation. Classification is necessary for the development of a precise language, which describes the phenomena included in a study at a sensible level of detail. In Chapter 2, we provided a definition of academic events. This is a first step toward a more accurate description of the object of study. Nevertheless, in the following literature review (chapter 5), we conclude that the level of detail is insufficient: *"There are likely substantial differences between academic events; however, we lack a language for talking about the differences."* (Hansen & Pedersen 2018, p. 7) This lack of precise language is unsurprising as the topic of academic events hardly has been a subject for research-based investigations.

3.3.5. ANALYTICAL PRACTICES

In Chapters 6 and 7, I present analyses of the credibility exchanges of the participation and chairing of events, respectively. These analyses are informed by the interviews described above. In this section, I will outline how I went from interviews to the presented analyses. The analyses are not done under a specific "brand" of research, such as grounded theory or discourse analysis. Rather, the analyses are guided by what Miles and Huberman (1994) have termed *analytical practices*. These are a series of pragmatic steps that bring together insights from a range of qualitative traditions. I have applied the following steps in the analyses.

- Transcription of interviews
- Thorough reading, coding, and noting of reflections
- Sorting the codes to identify patterns, themes, and regularities

- Reporting on these regularities by confronting them with a formalized body of knowledge

In the first step of preparing the data for analysis, the interviews were transcribed. Miles and Huber (1994) do not include this step as part of their analytical practices; however, in this research project, the transcription process was manifestly a part of the analytical work. When carefully listening to the interviews, I got enmeshed in the material, which made it possible to recall specific statements throughout the analytical process. Moreover, during the actual transcription, several analytical ideas came out, which were noted in a separate document, which became an important resource in the later stages of the analyses. Having the transcriptions at hand, the second step was to apply codes to the material. This step essentially delineates the material into distinctive units that share features, which I, as the researcher, believe to be of importance. For example, I applied codes that were informed and structured by the cycle of credibility framework. I included the code *investments*. Thus, the analytical framework of credibility cycles was already used to analyze and make sense of the data at this early analytical stage. The framework provided an *"overall organizing structure for the data"*(Elliot & Timulak 2005 p. 153). In the third step, I began to search for and identify patterns and regularities. In this phase, the analytical lenses, as described above, became important research tools. The analytical lenses were applied to help identify patterns in the material. Finally, the regularities and patterns were reported on by writing the analyses and presenting them within the analytical framework of the credibility cycle.

3.4. READING GUIDE

With the three building blocks in place for a comprehensive research design, an elaborated reading guide for the remaining part of the research project will be presented below. The research project ought to be read as the six analytical steps outlined in Chapter 1, with each step applying, unlike empirical material, research logics, and methods. The research project, as a whole, is presented in Table 3.1. below.

Step 1: A definition of academic events and academic impact
The two key concepts of the research project are defined based on readings of secondary literature.

Step 2: Historical and science policy contextualization
Academic events are situated in a historical and science policy context based on readings of secondary literature. The chapter argues that academic events are a pillar of modern academia, but overlooked as a science policy instrument.

Step 3: Literature review

The literature reviews cover 263 peer-reviewed journal articles, books, and conference proceedings. The contributions are analyzed according to four deductively derived categories of impact; however, within each of the four categories, a few inductively based sub-categories are also identified. The literature review identifies two key gaps, which are addressed in the other research phases of the thesis: firstly, the review identifies a gap in terms of talking about differences between academic events and, secondly, the impact related to processual and qualitative aspects of academic impact.

Step 4: Typology of academic events
The third phase of the project addresses the need for better terminology of academic events by developing a typology of academic events based on interviews with 23 researchers at Danish universities who have participated in academic events. Based on the interviews, an inductively-based typology of events is offered in the article "*An empirically-grounded typology of academic events,"* which constitutes Chapter 6 of the thesis.

Step 5: Exchanges of participants at academic events
Also, in the article "*An empirically-grounded typology of academic events,"* the academic impact of participation in academic events is explored. This analysis is based on the same interviews used in the development of the typology outlined in phase 3, but the analysis applies a theoretical framework and does so with a mainly abductive logic.

Step 6: Exchanges of chairs
In the fifth phase of the research project, the academic impact of chairs is investigated through interviews with 22 former chairs of academic events in Denmark. The analysis is based on the same theoretical framework used in phase 4 and presented in the article: *"The academic potentials of chairing events,"* which also constitutes Chapter 7 of this thesis.

#	Analytical step	Empirical material	Research tool	Chapter	Logic of inquiry	Paradigm
1	To develop a definition of academic events and academic impact	Secondary literature	Desk research	Chapter 2	Mainly deductive	Pragmatism
2	To situate academic events in a historical and science policy context	Secondary literature & policy strategy documents	Desk research	Chapter 4	Mainly deductive	
3	To outline how impacts of academic events previously have been studied	263 peer-reviewed contributions on impact of academic events.	Scoping review	Chapter 5	Mainly deductive, partly inductive	
4	To develop a typology of academic events	Interviews with 23 researchers about their participation in academic events.	Empirically-grounded typology	Chapter 6	Mostly inductive	
5	To analyze the academic impact of attendees		Analytical practices		Mainly abductive	
6	To analyze the academic impact of chairs.	Interviews with 22 researchers about their chairmanship of academic events.	Analytical practices	Chapter 7	Mainly abductive	

Table 3.1.: Overview of the research project

4. HISTORICAL ANALYSIS AND POLICY CONTEXT OF ACADEMIC EVENTS

Academic events are currently extremely successful in the sense of proliferation and attendance; it is estimated that international associations organized approx. 12,000 meetings in 2016 (International Congress and Convention Association 2016). Furthermore, university departments, research groups, academic journals, funding bodies, and other stakeholders regularly organize events. It is estimated that this number could amount to a total of 300,000 yearly events (Rowe 2019). Despite their success, their historical role and contemporary potential are understudied.

In this chapter, I will underline the relevance of studying academic events by offering a two-step argument. Firstly, I will offer a historical contextualization of the success and role of academic events in the science communication system. The historical analysis will trace the emergence of academic events compared to other channels of communication and argue that academic events have held an essential position in the scientific communication system for centuries. Secondly, I will argue that academic events—regardless of their historical success—are overlooked as a science policy instrument. This argument will be substantiated by case analysis of Danish science policy instruments for the advancement of internationalization, which is one of the overarching science policy trends of the current and past decade.

4.1. HISTORICAL CONTEXT - THE ROLE OF ACADEMIC EVENTS

I will offer a historical contextualization of academic events by investigating academic events as one of the communication channels that constitute the science communication system. This approach is inspired by the work of Wagner (2018), who claims that the scientific system has moved into what she terms the *Collaborative Era*, which is characterized by scholars collaborating in global networks functioning above and beyond national systems. She argues that any comprehensive analysis of the scientific system should start from an understanding of scientific *communication* as foundational: *"In a model of the scientific world, we would consider the words as the base layer (the chemistry of its social life) upon which all else is built"* (Wagner 2018 p. 37). This idea is fueled by an understanding of science as an inherently social activity, which is constituted by exchanges of information. Thus, if one wants to study science, one must focus on the exchanges of information. Wagner delineates various channels of the communication system such as conferences, journal publications,

international research, and technology projects and *"online networking opportunities and resources (including web-enabled collaboration platforms like ResearchGate)"* (Wagner 2017 p. 147). I will offer a historical contextualization by exploring how the communication channels have changed in four historical periods. In doing so, I will point to the most important channels of communication of each period and contextualize these channels. Moreover, I will situate academic events in relation to the other channels of communication.

4.1.1. FIRST PERIOD: WANDERING SCHOLARS (1088-1665)

The historical contextualization at hand starts in the late eleventh century with the establishment of the first European university in Bologna. In the following centuries, universities are established across the continent, including some of our current leading centers of scholarship, such as Paris, Oxford, and Cambridge. The year 1665 marks the end of the first period, as this is the year when there are 175 active universities in Europe (Frijhoff 2003). Throughout the period (1088-1665), the communication between the universities is driven by individuals traveling from one center of learning to another (Huang 2014). The communication is eased by the shared language Latin, but also a commonly shared academic focus, purpose, and curricula, for example, the "seven liberal arts" and the commitment to spreading and strengthening Christianity (Huang 2014). De Ridder-Symoens describes the travelers as wandering scholars:

> *The geographical mobility of students and teachers reached its peak (in absolute terms as well as proportionately) in the latter half of the sixteenth century and the first half of the seventeenth century […] We can truly say that the first decades of the sixteenth century were the golden age of wandering scholars. Intellectuals and humanists traveled all over Europe from east to west and north to south from one center of learning to another, attracted by famous professors or other men of renown* (Ridder-Symoens 2003 in Huang 2014 p. 13-14).

Thus, the communication between scholars is upheld within closed circles and mainly through face-to-face interactions. Besides the verbal exchange of knowledge, there is a very limited production and circulation of books that serve as a key channel of communication. In the latter part of the period, the book becomes a more important channel of communication with the introduction and spread of the printing press (Staikos 2004). Despite the extensive traveling practice of the wandering scholars between the various centers of scholarship, there is no indication that these centers would organize academic events in our definition, that is, as planned temporary events, congregating and focused on specific topics. Rather, these centers of scholarship were places where the exchange of information would happen continuously and across various topics. Conclusively, academic events are not part of the science communication system in this period of wandering scholars.

4.1.2. SECOND PERIOD: NATIONAL GATHERINGS (1665-1850)

In 1665, the scientific journal was introduced as a channel of communication, which arguably also represents the birth of modern science (Merton 1963). In 1620, Francis Bacon had laid out a universal method for the production and assessment of science in his book *Novum Organum* (Spier 2002). The book became hugely influential and formed the philosophical foundation for the establishment of the Royal Society in London and the procedures required to publish in their journal *Philosophical Transactions*. However, the emerging scientific culture was not only propagated through the establishment of scientific journals but also through the world's first scientific events (González-Santos & Dimond 2015; T. Soderqvist & Silverstein 1994). Various learned societies and national academies such as the Royal Society in London, Accademia Nazionale dei Lincei in Rome, and the Accademia degli Investiganti in Naples commenced the tradition of having society meetings with a particular theme and corresponding scientific presentations at the same time as they started publishing journals. Together with books, the peer-reviewed journal and the academic event became the main channels of science communication and have been so ever since. However, there was another important channel of communication in this period, which deserves mentioning, that is, correspondences and letters (Kronick 2001). Some science historians even use the term the Republic of Letters to describe a historical period and a normative ideal of how the scientific community should be organized based on cosmopolitan principles (Alder 2012). It is indisputable that letters and correspondences are a vital part of the science communication system in this period, partly, because they are closely integrated with some of the other communication channels:

> *If letters were addressed to an editor of a journal […] they were considered for publication […] They were shared in many ways: by being read at the meetings of societies, by being read at social gatherings such as coffee houses, and by being forwarded in their entirety or in extracts to other scholars.* (Kronick, 2001, p. 29).

Thus, we see a gradual opening of the science system from the first to the second period with scientifically-based knowledge being disseminated more widely.

The academic events organized by the national academies are continuously held throughout the period, and the model of the Royal Society of London and some of the Italian academies are copied across Europe (Gibson 1982). It is these national academic events that are the typical events of the period. However, the world's first international academic events are also held in this period. At the Gotha Observatory in August 1798, the first international scientific congress was held on the topic of astronomy. A few months later, *The Congress on Definitive Metric Standards* is held in Paris (Alder 2012). These first international academic events are very rare until the 1850s, and they are modeled after diplomatic events and organized for the purpose of

establishing consensus and advancing the application of science (Alder 2012; Crosland 1969). In the words of Alder (2012, p. 34): *"It is the money to be made from large-scale commerce that spurred the need for international conventions."* In this sense, the first international academic events are very different from the ideals practiced at the national academic events of the period.

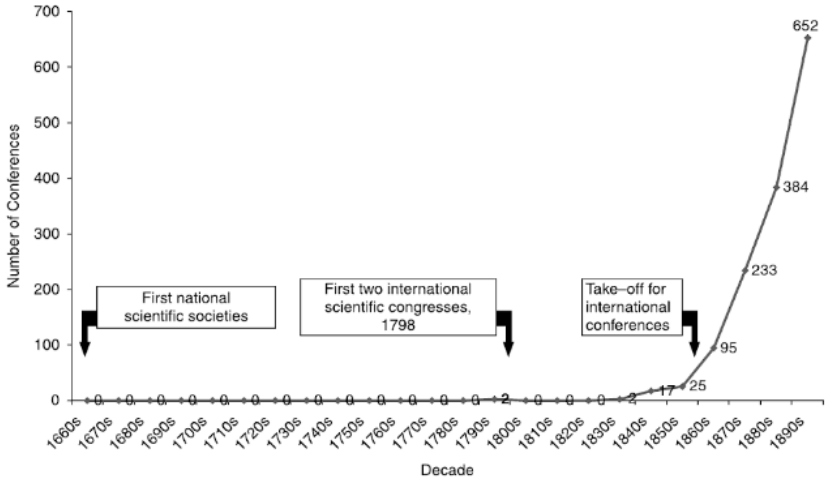


Figure: 4.1. International scientific conferences by decade (adapted from Adler 2012).

4.1.3. THIRD PERIOD: INTERNATIONALIZATION (1850-1991)

The beginning of the third period is characterized by the introduction of international academic events as a common communication channel among academics (see figure 4.1). As pointed out by Alder: *"The "tradition" of international scientific gatherings only took off in the latter half of the nineteenth century"* (Alder 2012, p. 19). From then on, the proliferation of scientific events has continuously and rapidly increased. The dramatic increase of scientific events in the 1850s is made possible by the introduction of the European railway system, which makes traveling much faster and more affordable (Alder 2012). The purpose of the academic events in the latter period of the nineteenth century is still driven by ambitions of establishing standards that are of importance to commerce and the application of science (Rasmussen 1990), including the area of postal service, where there is a need for standardized weight measure for transnational parcels or the need for alignment between social and administrative data for statisticians to be able to make comparisons across nations (Alder 2012). These application-driven events continue to play a role throughout the period, but in many areas, they are taken over by international scientific associations, which expand the purposes for their events. The period is also characterized by a

proliferation of events organized by national academies and learned societies: *"The number of publicly announced meetings held by the biomedical societies at all levels in the USA grew from 467 in 1927 to 1,503 in 1961"* (Soderqvist & Silverstein, 1994, p. 514). We do not have numbers for international participation at these national events, but with the increasing affordability of traveling, international participation is likely to have increased throughout the period. After World War II and with the establishment of UNESCO in 1945, international scientific associations received substantial support from the UN system, which was instrumental in the further internationalization of scientific events (Heilbron et al. 2008). Soderqvist & Silverstein (1994) argue that academic events of the late twentieth century were characterized by *"growing specialization"* and two overarching purposes for the participating scholars. On the one hand, the events provide *"arenas where researchers can exchange information about new theories, data, and techniques."* (Soderqvist & Silverstein 1994 p. 515). On the other hand, they are also *"arenas for negotiation of what constitutes interesting research topics, for delimitation of cognitive territories, and for the distribution of scientific status and roles within the disciplinary hierarchy."* (Soderqvist & Silverstein 1994 p. 515).

Thus, this is the period in which academic events are established as a key channel for the internationalization of science. Throughout the period, the significance of letters and correspondences seem to diminish slowly (Gingras 2012). One could speculate that the more frequent academic events take over the role of letters in this period. Throughout the period, the formal academic publishing practices of books and journals continue to be important channels, and the massive technological and economic advances underpin the proliferation and access to these channels of communication. Nevertheless, the possibility to engage in scholarly activities still depends on physical access to information through libraries.

4.1.4. FOURTH PERIOD: SYSTEM OF ABUNDANCE (1991-)

The year 1991 marks the end of the third and beginning of the fourth period because this is the year that introduces private entries to the World Wide Web (Tronco 2010). The Internet attracts unpreceded influence on the science communication system in at least three areas. First of all, the digitization of scientific products such as journal articles, books, and conference proceedings allow information to flow more freely, as the products can be retrieved independently of physical transportation. This does not mean that the flow of information is without barriers, which the Open Access movement has clearly documented (Ali-Khan et al. 2018; Correia & Teixeira 2005). Secondly, the development of email, Internet telephony, and other means of online communication allows for faster and seamless communication between researchers. Finally, the digitalization also represents a radical change in the management of information, as services such as Google Scholar, ResearchGate, and arXiv make it easier to find the work of other scholars. Wagner categorizes it as a system of abundance:

> *As information has become abundant, researchers who once maintained a tight hold over information are shifting to open sharing and broader access, even to pre-publication data. Like the shift in the seventeenth century from the mysterious and secret world of magic and alchemy to the reproducible codified article, the shift now is from scarce, rivalrous information to broadly shared information across a globally accessible knowledge base […] As this has happened, the researchers accessing, creating, and sharing knowledge have adapted to the changing environment, moving from individual research projects to teams and collaborations. The teams and collaborations become parts of networks, resulting in the emergence of the global network"* (Wagner 2018 p. 39).

In the system of abundance, the channels of communication remain, to some extent, the same with journal articles, books, and academic events playing key roles. However, we have also seen the introduction of a wide range of other outlets, including data repositories, preprints, open-sourced algorithms, and citizen science initiatives. These outlets are often referred to as open science initiatives, which Wagner argues contribute to a seamless flow of information. Whether information actually flows freely in the current system of communication is debatable (Ali-Khan et al. 2018); however, Wagner convincingly describes the direction in which the current system is moving. In her account, the limitation is no longer access to information, but rather access to networks (Wagner 2018). Accordingly, the role of academic events has changed from mainly being an arena for the exchange of scientific information and discussion of disciplinary boundaries to also being an arena for developing and maintaining networks (Wagner 2018). Scientific events create opportunities for researchers to interact and thus, they become the seeding ground for collaborations.

Period	Title	Characteristics of the communication system	Key characteristics of academic events
-1665	Wandering scholars	Enclosed circles of individuals traveling between centers of scholarship.	Non-existing
1665-1850	National gatherings	National academies establish scientific events and journals. Extensive exchanges of letters among scholars.	Events organized by national academies to propagate scientific culture.
1850-1991	Internationalization	Internationalization of communication channels, including scientific events.	Application-driven international events. Exchange of scientific information & discussion of disciplinary boundaries.
1991-	A system of abundance	The digitalization of science communication offers abundant access to scientific information.	Academic events as seeding ground for networks.

Table: 4.1.: Summary of historical periods

4.2. SCIENCE POLICY INSTRUMENT FOR INTERNATIONALIZATION OF RESEARCH

Academic events have been a longstanding pillar of the science communication system. Their history and current volume in numbers indicate that they are rewarding activities for researchers. Their prevalence and tradition ought to dictate interest from the science policy community. Yet, as will be documented in Chapter 5, the topic is largely neglected by science studies scholars, and in the following section, I will explore whether academic events have attracted attention from science policy practitioners. I will explore to what extent academic events (participating, speaking, and chairing) are part of the formal structure of reputation and merit in science and to what extent is it used to as a science policy instrument? As noted by Martin (2016) and based on the work of Howlett and Rayner (2007):

> *Policy instruments can be defined as techniques of governance which, one way or another, involve the utilization of state resources, or their conscious limitation, in order to achieve policy goals* (Howlett & Rayner 2007, p. 2).

I will investigate whether academic events are part of the science policy toolbox by focusing on the policy goal of the internationalization of research and conduct a case analysis of Danish science policy in the period 2000-2016. I will analyze the major policy reforms, which intended to strengthen the internationalization of research and analyze whether scientific events were included as a policy instrument for achieving the goal. This is an important question for the research project because, if events are absent from the toolbox, it would further underline the relevance of studying them and exploring their potentials as a science policy tool.

In science policy, the term *internationalization* often refers to the internationalization of a higher education institution and all of its missions, including teaching, research, and outreach (Woldegiyorgis et al., 2018; Kalpazidou Schmidt 2012). However, as pointed out by Woldegiyorgis et al. (2018), the literature is predominantly occupied with mobility of students rather than the internationalization of research. In the section at hand, we will focus exclusively on the internationalization of research. Woldegiyorgis et al. (2018) define internationalization based on the work of van den Besselaar et al. (2012) through five dimensions of activities: 1) *Flow of resources from abroad* is meant to capture the amount of money coming from foreign sources, 2) *Knowledge production* is an indicator for the internationally co-authored publications, 3) *Knowledge circulation* denotes the international mobility and recruitments, 4) *Collaboration and networking* indicates the access to international infrastructure and budget available for joint research, and 5) *Governance and processes* express the share of international researchers involved in processes such as recruitment and review panels.

The internationalization of research is an interesting policy goal to investigate in relation to academic events for at least two reasons. Firstly, for several decades, internationalization has been a guiding principle for the development of science policy. It is one of the policy goals that most consistently have been pursued both by governments and international organizations, including the European Commission and OECD. The topic is so highly prioritized because studies have documented that internationally co-authoring researchers are more productive, and their publications receive more citations than publications with a single author or several authors from the same country (Lee & Bozeman 2005). Similarly, internationally mobile researchers, that is, researchers who migrate from one country to another, have higher citation rates than researchers who stay in one country (Sugimoto et al. 2017). These studies have been interpreted to mean that researchers who have internationally co-authored articles are part of value-creating, international networks (Bloch et al. 2017). Similarly, an institution that can attract foreign researchers will have a larger pool of talent to recruit from and, therefore, is probably able to perform at a higher level.

Hence, internationalization is a very important topic in science policy, and if academic events are used as a policy instrument for achieving this goal, their position in the science policy toolbox is indisputable

Secondly, there is an intimate link between internationalization and personal network, which has been substantiated by a series of studies, including Aksnes et al. (2008), who conducted an analysis of the science policy initiatives that have been driving internationalization of research in Norway. The study outlines policies aimed at advancing the internationalization and highlight the Norwegian integration into the European science system as facilitated through the European Commission. Even though the importance of European integration is underlined, they end up concluding that:

> *independent cross-border contact initiated and pursued by individual researchers still appears to be the most important driving force behind the internationalization of science […] International researcher networks have become more widespread as a result of the general globalization process, new forms of communication, increased travel, and cheaper airfares* (Aksnes 2008, p 456).

The conclusion is in line with a range of studies, which explores how personal interaction promotes research collaborations (Freeman 2014; Storper & Venables 2004). It is well-recognized that co-authorship collaborations increase among academics that are co-located (Agrawal & Goldfarb; 2008, Pan et al. 2012; Berge 2017). Similarly, transport infrastructure facilitates research collaboration; this has been explored in relation to roads and railroads (Agrawal et al. 2017), but also in relation to air travel. A study by Catalini et al. (2016) found that the introduction of budget airlines between US cities can explain an increase in research collaborations between the cities in the range of 30 to 50 percent. A final example comes from studies of large-scale research infrastructures, where it has been documented that the mere co-location of the researchers at the facility entails a disproportionately higher rate of collaboration (Lozano 2014, Florio & Sirtori 2016; D'Ippolito & Rüling 2019; Silva et al. 2018). Participating and chairing scientific events is one of the most typical ways in which individual researchers gain face-to-face interaction with potential collaborators (Wagner 2018, Edwards 2017). Thus, internationalization is a *most likely case* in relation to scientific events as a policy instrument. If scientific events are not used to achieve the policy goal of internationalization of research, it is unlikely that they are used to achieve other policy goals.

4.2.1. THE DANISH CASE: SCIENTIFIC EVENTS AS A SCIENCE POLICY INSTRUMENT

Denmark is currently home to a remarkably high-performing science system both in terms of productivity and impact. Among OECD countries, researchers at public research institutions published the most per million inhabitants in the period 2013-2017. At the same time, almost every fifth of Danish publications is among the 10 percent most quoted publications in the OECD. Only Iceland and Switzerland have a larger share of publications among the 10 percent most cited among the OECD countries (UFM 2018, p. 25). However, the success is somewhat recent and has been explained as a consequence of a series of policy interventions. Öquist and Branner (2012) have termed the transformation the *Danish Miracle:*

> *Over the past two decades, Denmark has made a commitment to boosting resources, adopting new modes of operation, and providing dedicated support for renewal, international recruitments, structural change in the university system, resource concentration, and career opportunities for younger scholars. […] Clearly, the policy has paid off and contributed to propelling Danish research from a modest performance into a globally leading position* (Öquist & Benner 2012 p. 39).

Denmark is also an interesting case because the internationalization of research has been a lodestar in the policy reforms of the Danish science system. In the following, I will investigate whether events have been included as an instrument in policy initiatives that intend to promote the internationalization of Danish research in the period 2000-2016.

4.2.2. INTERNATIONALIZATION POLICIES

Based on the work of Kalpazidou Schmidt (2012) and the update of her study conducted by DEA (2016), I will include four policy initiatives that can be seen as the cornerstones of the internationalization of research. These are 1) Mobility reforms, including university mergers, 2) Innovation centers & the International Network Program, 3) The basis funding reform, and 4) Research council reform. This entails a focus on national policy initiatives and omits the policy initiatives implemented through the European Union.

Kalpazidou Schmidt (2012) argues that, in Denmark, the policy goal of internationalization gained prominence around the turn of the millennium. Initially, the goal was sought to be implemented through the development contracts between the universities and the Danish Ministry for Science, which in the early 00s, included targets on increasing the share of international employees at Danish universities. It was largely up to the research institution to define which instruments to use for

reaching the targets. However, the government did provide a general influx of funds through the Globalization Strategy from 2006, which made it easier to recruit internationally. The Globalization Strategy also granted the research councils the possibility of allocating up to 20% of their funding to international fora (Kalpazidou Schmidt 2012). The possibility allowed researchers at Danish institutions to participate in international calls for funding, which has allowed the successful grantees access to international collaborators. Moreover, in 2007, the government also initiated a merger process, where 25 universities and research institutions merged into eight universities and three research institutions. The main rationale for this was to strengthen the international profile of each of the Danish institutions and thereby increase the ability to attract foreign researchers. In the period 2006-2016, seven government representations were established in global innovation and research hubs, including Silicon Valley (2006), Shanghai (2007), Seoul (2013), and Tel Aviv (2016). The representations support Danish research institutions in accessing and interacting with partners at the destination. In 2009, the International Network Program was established as a further support mechanism for collaborations outside of the European Union. It is a small program, which granted approx. 10 M Euros in the period 2009-2014. The policy instrument supports development of networks, as it funds scientific workshops or conferences, travels and research stays (UFM 2019).
In 2009, the funding structure of the universities was reformed to incentivize researchers to have more internationally co-authored papers. This was implemented by having part of the basic stream distributed in accordance with the university's publications in the previous year. Internationally co-authored publications and publications in international journals receive more points and, therefore, more basic funding (Schneider & Aagaard 2012).

The focus of the policy initiatives has been on two forms of internationalization, that is, international recruitment and internationally co-authored publications. These two goals have been sought and realized by applying a range of instruments. The core instrument has been setting targets in the development contracts and leaving it to the institutions to decide how to fulfill the targets. On this instrument, Kalpazidou Schmidt (2012) concludes:

> *While these initiatives [quantitative targets] have had a positive influence on the resources for Danish science, they have in other ways shown inadequate, and should have been aimed at how one strengthens the collaboration with foreign research environments* (Kalpazidou Schmidt 2012, p. 301).

Other instruments have been the incentivization of international co-publications through the basic funding reform and the institutional restructuring in the form of the university mergers. Neither of these instruments relates in any way to academic events. However, the establishment of the innovation centers and the International Network Program do include academic events as part of their activities.

4.3. RECAP - ACADEMIC EVENTS IN CONTEXT

Academic events have been part of science communication since the establishment of the modern science system in the seventeenth century and are currently a pillar of modern academia. However, in a science policy context, they are hardly recognized as such. In the case analysis of science policy instruments, it became evident that academic events and the general support for face-to-face interactions is only to very a limited extent part of the science policy toolbox. This underlines the relevance for further scientific scrutiny of this topic.

5. THE IMPACT OF ACADEMIC EVENTS - A LITERATURE REVIEW

Hansen, T. T., & Pedersen, D. B. (2018). The impact of academic events: A literature review. *Research Evaluation*, 27(4), 358-366

5.1. ABSTRACT

Demands on publicly funded scientific research to yield academic and societal impact have been commonplace for some time. Research communities, university administrators and policy-makers are looking to impact assessments and impact toolkits to better communicate the value of scholarly work, to increase collaboration with non-academic partners, and to achieve a broad range of socio-economic benefits. Impact assessment frameworks are occupied with documenting the effects of science on a large number of variables. However, the participation and hosting of academic events have not been included in most frameworks. In this scoping review, we demonstrate that academic events are an important vehicle for academic and societal value-creation. The review presents the main trends in the literature by categorizing the impact of academic events into four analytical categories and 12 sub-categories. By hosting and participating in academic events, scholars maximize the uptake and circulation of research findings as well as promote knowledge-sharing and agenda-setting with potential impact on the academic community and society at large. Most of the reviewed studies focus on clinical research and computer science. However, the review, also demonstrates that the impact of academic events is currently underexplored. This review provides a first step toward a more comprehensive understanding of the impact of academic events.

Key words: impact, scoping review, academic event, conference, scientific meeting, event evaluation

5.2. INTRODUCTION

The purpose of this paper is to review contributions in the literature that studies the impact of academic events with the ambition of identifying main strands of discourse as well as mapping major gaps for establishing a coherent field of analysis of the impact of academic events. Academic events are described under many labels, including conventions, meetings, symposia, colloquia, seminars, workshops, conferences and congresses. No matter the name, these are occasions, where researchers meet to discuss recent research findings and developments within their field and beyond. In the planning of academic events, researchers face productive

deadlines as they respond to calls for papers, invitations to speak and preparing speaking and moderating roles. During the events, collaborations are started, old friendships are revitalized and interviews are given to journalists. Later, keynote and plenary presentations may be fast-tracked into leading journals and new contacts are consolidated by invitations to collaborate. In short, academic events are a central mechanism for the development of the academic community. It is estimated that scientific associations organized approximately 12,000 international meetings in 2016 (International Congress and Convention Association 2016). Furthermore, an unknown number of meetings organized by university departments, individual research groups, private enterprises, academic journals, funding bodies and others contribute to the maintenance of the extensive meeting practice in academia.

Compared to the intensity of resources allocated and time spent on academic events, there is a poor research base for understanding, examining and assessing the impact of academic events. This is noteworthy in the light of the pervasive impact agenda. Across the research and innovation system there is a growing interest in how to assess and communicate the diverse impacts of scholarly work. The notion of "research impact" has gained significant importance and has, to a varying extent, been embedded in research funding and research evaluation mechanisms across Europe and US (Benneworth et al. 2016; Frodeman 2014; Pedersen 2016; Reale et al. 2017). Stakeholders across the public sector, industry, academia and civil society increasingly expect demonstrable impacts from science, and to be engaged in the co-creation and co-production of societally relevant knowledge (Gibbons 1994; Hessels et al. 2009; Nowotny et al. 2001; Rip 2004).

Despite the significance of the impact agenda and the growing interest in the assessment of academic practices, the extensive participation and hosting of academic events has not yet been scrutinized. Within studies of science, several scholars have argued that academic events are overlooked as an object of analysis. This claim was initially put forward by Söderqvist & Silverstein (1994), but has been repeated and elaborated several times since (González-Santos & Dimond 2015; Henderson 2015; Mody 2013; Nicolson 2017). As noted by González-Santos & Dimond (2015), the lack of interest in events is noticeable, since science studies has been heavily occupied with other spaces of academic practice, in particular the laboratory (Knorr-Cetina 1999; Latour & Woolgar 1986). The interest in the specific spaces of scientific practice has partly been driven by a desire to understand the social dimensions of the production of scientific knowledge. Despite the demonstrative social characteristics of events, they have not been given attention as a central site of academic practice (González-Santos & Dimond 2015). Furthermore, as pointed out by Henke & Gieryn (2008), there is within science studies a body of literature interested in how specific sites for knowledge production is transgressed (Henke et al. 2008). This is often termed studies of knowledge flows, knowledge mobilization and internationalization. In practice, academic events are important sites for such flows of knowledge.

In the present review, we situate the study of academic events as a vehicle to produce impact and demonstrate how events produce discrete and diverse forms of change both within academia and in society. The article is organized as follows: Section 5.3 explains the method of the scoping review, including our search strategy; Section 5.4 presents the analytical framework and coding strategy; Section 5.5 presents the findings; In section 5.6, we discuss key findings and limitations to our approach; Finally, in section 5.7, we present the conclusions of the paper.

5.3. METHOD: A SCOPING REVIEW

This review shows that the lack of interest in academic events within science and impact studies is partly amended if the scope is moved beyond traditional contributions to science studies. Several other research fields have studied academic events, including tourism studies and economic geography. We apply a broad search strategy and do so based on the methodology of a scoping review (Paré et al. 2015). The scoping review shares characteristics with the narrative review in the focus on broad descriptions of themes in the literature rather than engaging in appraisals of the quality of the reviewed studies However, a scoping review is based on a comprehensive search strategy as opposed to narrative reviews with more selective search strategies (Egan et al. 2017; (Paré et al. 2015); Levac et al. 2010). A part of the comprehensive search strategy is to establish criteria for inclusion in the review. In the present review, the following criteria are applied; the literature must be in English, peer-reviewed and in the form of journal articles, conference proceedings or books (including book chapters). This leaves out opinion pieces and grey literature. Since the review does not assess the quality of the literature, this criterion establishes a quality threshold. Furthermore, we apply three criteria related to the content of the contributions; studies must contribute to the understanding of how *formal*, *academic* events have *impact*. We understand *formal* events as those that have some degree of bureaucratization, e.g. an organizational set-up with name-tags, a program, procedures for signing-up, invitations or call for papers. For it to be an *academic* event, it needs to attract participation from active researchers, who come for the purpose of discussing their research. For studies to be on *impact* they need to analyze how the events bring about academic or societal change. Our concept of impact stems from *research impact studies*, where one of the key findings is that impact is an inherently contested concept with multiple definitions (Greenhalgh et al. 2016). However, the literature shares an understanding of impact as an evaluation tool that documents significant – and mainly positive – changes stemming from research (Greenhalgh et al. 2016). In this review, we apply a similar understanding of impact as the documentation of significant changes that are related to and enabled by academic events. Despite the broad definition, the criterion excludes the rather large prescriptive literature that provide recommendation on how events can be made better. It also excludes the literature on what could be termed *private impact*, e.g. leisure or

self-realization (Cynarski & Ďuriček 2014). The review is focused on larger events, as these have attracted the bulk interest in the literature.

5.4. SEARCH STRATEGY

The first step in our search strategy was systematic searches in the databases EBSCO Academic Search Premier and Scopus. The former was chosen for its coverage in social science and humanities and the latter for its general broad coverage. Our search string is based on synonyms for events, e.g. conference, meeting and symposia. Within tourism studies the term used is "business event", which is a broader term encompassing more than academic events and within economic geography, there is a strand of literature using the term "temporary cluster". When dealing with these broader terms it was particularly important to carefully assess, which studies that fulfill our criteria for inclusion

Furthermore, it was necessary to conduct searches on keywords only, as many documents have phrases such as 'academic conference' or 'scientific meeting' included in the titles or abstracts without the content of the paper being relevant for our review. The following search string was applied:

"Academic* Convention*" OR "Academic* Sympos*" OR "Academic* Colloqu*" OR "Academic* Seminar*" OR "Academic* Workshop*" OR "Academic* Conference*" OR "Academic* Congress*" OR "Academic* Meeting*" OR "Academic* forum*" OR "Academic* gathering*" OR "Scien* Convention*" OR "Scien* Sympos" OR "Scien* Colloqu*" OR "Scien* Seminar*" OR "Scien* Workshop*" OR "Scien* Conference*" OR "Scien* Congress*" OR "Scien* Meeting*" OR "scien* forum*" OR "Scien* Forum*" OR "business event*" OR "temporary Cluster*"

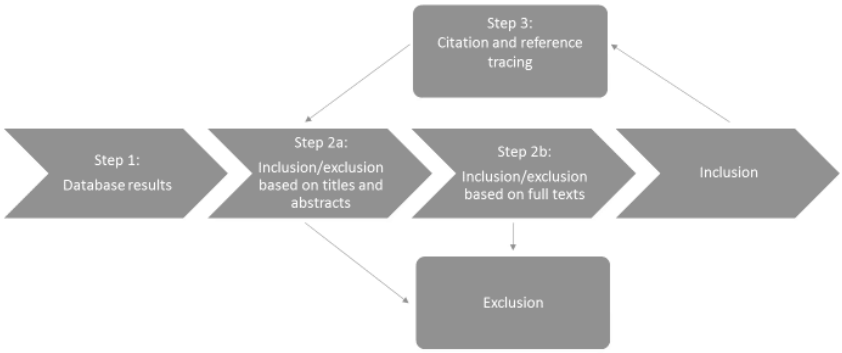
The searches in the databases provided a total of 443 hits (step 1 in figure 5.1). The second step was to assess whether the identified documents fulfilled the inclusion criteria. The assessment was initially done based on the documents' titles and abstracts, which limited the number of documents to a total of 143 (step 2a in figure 5.1). Subsequently, these documents were analyzed based on the full text to finally assess whether they lived up to the inclusion criteria (step 2b in figure 5.1). In total 50 documents were included in the review in this phase. There were 14 identical documents that were identified in both Scopus and EBSCO Academic Search Premier.

All the citations and references of the 50 documents were examined in order to find other potentially relevant studies. The citation tracing was done using Google Scholar and the documents themselves were consulted on their references. The identified citations and references were then referred to step 2a (figure 5.1) for further assessment on whether they should be included in the review. If they were included,

their citations and references where analyzed. The first round of citation and reference tracing provided additionally 157 documents. Close to three-fourths of these (in total 113) were studies on the conversion rate from abstracts to full journal publications with most of these studies being within clinical research and it was decided not to include more studies on this topic. In total 57 documents were included in the review based on the second round of citation and reference tracing and another 34 documents were included in the final, third round.[3] The searches were done in May 2017 and a total of 283 documents are included in this review.

An important limitation should be acknowledged with regards to the applied method. As our searches are based on keywords, we get a bias towards journal publications with 263 of the 283 included documents stemming from journal publications. Only five of the documents are books. This is partly remedied by the citation and reference tracing process; however, it is beyond doubt that we are missing books that contribute to the topic.

Figure 5.1. The search strategy process



5.5. ANALYTICAL FRAMEWORK

The analytical coding of the corpus happened in three steps. Firstly, the literature was coded to account for the following criteria: publication outlet (journal, conference proceeding, book or book chapter), terms used for the studied event(s), the discipline studied and whether the document was based on empirical data or purely conceptual. Secondly, the literature was coded in relation to two analytical distinctions. Finally, thematic sub-categories were identified – these two latter steps are unfolded below.

[3] In one case, Forsetlund et. al. (2009), a Cochrane review with 1418 citations applied the search string above within the citations.

5.5.1. ANALYTICAL CODING: TWO DIMENSIONS OF IMPACT

This review covers a very diverse literature. We systematize this diversity by applying two distinctions to the corpus inspired by the literature on impact research (Greenhalgh et al. 2016; Penfield et al. 2014; Spaapen & Van Drooge 2011). Firstly, the distinction between "academic impact" and "societal impact". This distinction is relevant as the most commonly used indicators in evaluations of research today are bibliometric (e.g. citations, co-authorships, journal impact factor etc.). While these indicators may highlight important aspects of the academic influence of research, they do not indicate the impact of research upon society. Societal impact, on the other hand, is often subdivided into e.g. cultural, social, environmental economic and policy impact (Penfield et al. 2014; Reale et al. 2017). However, in this review we understand societal impact as impact in all non-academic sectors and areas, e.g. the impact of research upon policy, business, culture, public discourse, civil life, etc. The other central distinction is between fixed and processual forms of impact. The fixed impact relates to stable products or results that can be documented using recognized methods. For example, tourism spending or the number of patents (societal impact indicators), or the number of publications, co-authors, or citations (academic impact indicators). The fixed types of impact often enjoy a level of general acknowledgment and comparability between areas. Processual forms of impact describe processes in which interactive and connective impact are realized. Typical forms of processual impact are community building and network developments. This distinction between fixed and processual impacts is inspired by the SIAMPI approach, which argues that 'productive interactions' among research and society create impact where 'quantitative data are hardly available, monitoring of data is practically non-existent and there is a lack of consensus about what data to gather' (Spaapen & Van Drooge 2011). In sum, these two distinctions provide four general categories of impact, which we have given the following headlines

1) The Quantified Scholar
2) The Visible College
3) Externalities
4) Marketplace of Ideas (see table 5.1).

The corpus of literature was coded in relation to these four categories and as the categories are not mutually exclusive, some documents were tagged with more than one type of impact.

Table 5.1: Analytical coding categories

	Fixed	Processual
Academic	The Quantified Scholar	The Visible College
Societal	Externalities	Marketplace of Ideas

5.5.2. THEMATIC SYNTHESIS

In the final step of coding, a thematic synthesis was conducted within each of the four categories outlined above. This was an iterative process looking for sub-categories as a way of identifying, analyzing and reporting important patterns within each of the four primary categories. We identified 12 sub-categories and each of these will be presented below. The presentations give a sense of the literature within the specific sub-category; however, it does not aim to offer a complete overview of all the studies identified in the review.

5.6. FINDINGS

In total 263 of the contributions were from journal articles, 15 from conference proceedings and five were books. The journal articles came from 136 different journals and 47 of these journals contributed with more than one article to our review. This points to a fragmented literature that address the research question from a very large number of perspectives. The most studied scientific field is clinical medicine with 128 documents, the second most frequently studied field is computer and information science with 31 contributions. In total, 26 different scientific fields have been studied. Only 19 of the included documents are exclusively conceptual. The most commonly referred type of data is bibliometric data with 170 documents using it. The other most commonly used data are surveys, interviews and social media data. The most commonly used terms for the studied event are “conference” and “annual meeting”. However, a total of 21 different terms are used in the corpus.

5.6.1. THE QUANTIFIED SCHOLAR

The literature within this category explores studies on the fixed impacts of academic events on academic practices. The core of this literature is focused on bibliometric studies, including a large body of literature that assess the conversion rate from conference presentations to journal publications.

The academic process: conference proceedings and subsequent journal publications

Conference proceedings are often part of a longer research process, where the presentation of a paper is a step towards journal publication. The preparation and actual presentation of the paper and the subsequent feedback from the audience are believed to enhance the quality of the research. In economics and computer science, studies conclude that presenting at a conference increase the chance of being published in a top-tier journal (Eckmann et al. 2012; Fender et al. 2005). In computer science, studies indicate that the reworked editions of conference presentations get more citations than papers that have not previously been presented at conferences (Eckmann et al. 2012). It is currently unknown if these findings apply to other disciplines. However, in the case study by Gross and Fleming (2011) on the development of a research project in political philosophy, it is pointed out how a conference presentation is critical for assessing the overall viability and quality of a project.

A high number of contributions study the share of conference presentations that subsequently are published in journals. The conversion rate range from 11% to 78% depending on the discipline and the specific academic event (Chung et al. 2012). In a large review across the biomedical sciences, it is estimated that 45 % of all abstracts accepted for presentation subsequently will be published in full (von Elm et al. 2003). Many studies have investigated the specificities for individual conferences and scientific fields. Most of these are in various clinical fields e.g. radiology (Dangouloff-Ros et al. 2015) and neurological surgery (Patel et al. 2011), but there are others, including software engineering (Montesi & Owen 2008).

Citations

There is a body of literature studying citations of conference proceedings as an indicator for the impact of academic events. This is done at various levels. At the most aggregate level, studies have shown that the total share of all academic citations stemming from proceedings is quite limited. In 2005, citations from accounted for about 2 % of the total amount of citations (Lisée et al. 2008). The vast majority of citations originate from journal publications. However, there are disciplinary exceptions; within engineering the share of citations from proceedings accounted for 10 % and within computer science the share was approx. 20% (Lisée et al. 2008). At the level of sub-fields, some scholars have studied citation patterns within specific fields e.g. Ingwersen et al. (2014), who have studied seven sub-fields of sustainable energy and conclude that conference proceedings have significant impact on the citation patterns within the fields.

Intellectual structures of disciplines

Finally, there is a body of bibliometric studies of keywords from conference proceedings that illuminate the trends and evolution of disciplines. These studies analyze keywords in various texts, including call for papers, session titles and author

provided keywords (Jeong & Kim 2010), and based on analyzes of these keywords, the studies describe the intellectual structures of specific disciplines and sub-fields. These studies are stimulating because the conference proceedings are prior to journal publications and, accordingly, they can be interpreted as early indicators of scientific development (Hofer et al. 2010). Bibliometric keyword studies have been done in various fields, e.g. international business studies (Hofer et al. 2010), bioinformatics (Jeong & Kim 2010) and software engineering (Mathew et al. 2016).

5.6.2. THE VISIBLE COLLEGE

In this section, we explore how academic events have processual impact on academia. The identified sub-categories focus on interactive processes such as network developments and disciplinary boundary negotiations. Taken together we have termed this main category *The Visible College*, paraphrasing the concept of the *invisible college*, which has a long tradition, but generally aims to capture the ways in which scholars form dense networks and collaborations with researchers, whom they do not share formal institutional affiliations (Wagner 2008). At academic events, it can be argued that the invisible college becomes visible.

Network

Network is considered a key outcome of academic events; this is apparent in studies of motivation for participating in events (Fjelstul et al. 2009; Oppermann & Chon 1997;). However, it is often unclear what is meant with the concept. A few studies have provided conceptual distinctions that are useful for getting a deeper understanding of the various forms of network developments and their contexts. Storme et al. (2016) argue that there is a distinction to be made between dense and sparse networking, where the latter refer to larger meetings with diverse cultural and scientific participation. It is argued that the motivation for participating in sparse network meetings is to increase one's strategic visibility, in particular vis-à-vis important individuals, such as editors or funders. Dense network meetings are characterized by smaller events and by the fact that most of the participants know each other in advance. The motivation for participating in dense networking is primarily to develop scientific collaborations (Storme et al. 2016). Another central distinction relates to the context of the network, i.e. formal versus informal settings. It is observed that formal settings (such as presentations and other programmed activities) lead to higher degrees of knowledge sharing compared to the informal settings. However, extra-academic issues like job opportunities are more likely to be exchanged in informal rather than formal settings (Reychav & Te'eni 2009).

Network developments are not only happening in the physical space, as social media are important for interaction and network-building. Several studies are examining academics' presence on social media as an indicator for their network and impact. Not surprisingly, speakers get more attention on social media than non-speaking delegates (Sopan et al. 2012). Furthermore, studies indicate that strong social media interaction

is correlated with strong real-life networks (Ebner & Reinhardt 2009; Ekins & Perlstein 2014).

Disciplinary boundaries
Moving from the level of impact on individuals or groups of researchers to the level of disciplines, several contributions study how academic events have impact on disciplinary boundaries. One example is the field of educational science that developed as a distinctive discipline through the New Education Fellowship (NEF) conferences between the two World Wars (Brehony 2004). Another case study has been made on molecular biology. Abir-Am (1987) argues that the justification of the field happened as a social validation process at academic events at a time when the science was unable to present remarkable outcomes that could justify the continued funding of the research area. There are several other case studies on how academic events have played a key role in the negotiation of disciplinary borders e.g. nanotechnology (Mody 2013).

Discrimination
Some scholars have pointed out how academic events may have negative impact in terms of discrimination. One aspect of this is the event as an inter-corporeal space, wherein the body and the researcher's ability to perform becomes a factor in defining the academic status (Supper 2015). It has been argued that this is a disadvantage to women, as the meeting spaces and in particular the informal spaces favor masculine appearance (Bell & King 2010; Ford & Harding 2010; Henderson 2015). The gendered aspects of academic events, have also been studied in terms of how women have fewer speaking opportunities compared to men (Johnson et al. 2017; Schroeder et al. 2013) and less access to the events (Blumen & Bar-Gal 2006; Eden 2016; Parker & Weik 2014). In a related vein of studies, it is argued that academics from low-income countries have limited access to academic events (Dubrow et al. 2015).

5.6.3. EXTERNALITIES

This main category of literature explores how academic events impact society in fixed, formalized ways. These types of impact are assessed on the grounds of fairly consensual methodologies, stemming in particular from economics. We identify two types of fixed societal impact, i.e. tourism spending and climate impact. The main category is termed *Externalities* to indicate that we are dealing with indirect types of impacts, which are not part of the formal objective of the organizers.

Tourism spending
Within tourism studies there is a solid tradition of studying the economic impact of professional events (Grado et al. 1997; Hanly 2012; Jones & Li 2015). The economic value of the events has been studied at various levels, e.g. city and country level. Even though there is an ongoing academic discussion on the appropriate methodology when

studying the economic impact, it is clear that there is significant economic impact from events (Jones & Li 2015). The consensus is that international attendees at professional events spend more than visitors with other travel motives (Getz & Page 2016).

Climate impact

There is a well-developed body of literature that outlines the negative impact on the climate stemming travelling to academic events (Green 2008; Spinellis & Louridas 2013). These studies often have prescriptive element on the need for more online-based communication but do also deliver assessments on CO_2-emissions stemming from scientific travels. It is assessed that scientific travelling accounts for 0,003 % of the yearly total CO_2-emissions and that the CO_2-emissions for a single conference trip accounts for 7% of the individual researcher's yearly CO_2-emissions (Spinellis & Louridas 2013).

5.6.4. MARKETPLACE OF IDEAS

In this final category of impact, 'Marketplace of Ideas', we explore the processual types of impact on society. However, as we show in the section below, the exchange of ideas is not confined to the scientific community, as academic events can reach into our sectors. In the studies presented below, there is a focus on industry, policy and the health sector. However, the range of non-academic sectors mentioned is much wider and includes media and NGOs. The studies explore various forms of impact, including advice, teaching, debate and formation of new business fields.

Platforms for engagement with non-academic stakeholders

The main line of argument in this strand of literature is that academic events are arenas that allow researchers to connect and interact with non-academic stakeholders, including policy-makers. An interesting case study focus on the Conference on Bank Structure and Competition organized by the Federal Reserve Bank of Chicago. The event has been held every year since 1963 and the case study argues that debates at the conferences have had significant impact on policy. This argument is underpinned by demonstrating how major financial reforms were discussed years earlier at the conference (Evanoff et al. 2008). Similar case studies have been studied in relation to urban policies (Cook & Ward 2012), climate change (Craggs & Mahony 2014) and CRISPR and mitochondrial donation (Stephens & Dimond 2016).

However, academic events are not only interesting as arenas for policy engagement. They can also be platforms for engaging with other non-academic stakeholder groups. This occurs when e.g. journalists participate and use the events to develop news – this is particular relevant in the social sciences, where much research is concerned with items of topical interest (Fenton et al. 1997). Other examples of stakeholder engagement include non-academic being invited to speak or influence the scientific debate with outside perspectives, user-needs, deliberation or ethical dilemmas. This

has been studied by various case studies e.g. a studies of parent-led medical conferences that allow patient groups to interact with researchers (Dimond 2014).

Finally, there is a flourishing literature on how social media is used to disseminate scientific knowledge to non-academics. Most of the research has been focused on Twitter and focus on the potentials for dissemination of scientific findings to a wider audience (Ebner & Reinhardt 2009; Weller et al. 2011). However, a study by Desai et al. (2016) focus on the potential negative consequences of increased use of Twitter at academic events and conclude that pharmaceutical companies can use Twitter to spread biased information.

Field configuration

Within economic geography, it has been demonstrated how events are instrumental in the establishment of new fields. These processes has been termed "field configuring" effects (Henn & Bathelt 2014; Lampel & Meyer 2008). This has been studied in various case studies, including studies of events that are not academic, such as trade shows or film and book festivals. Yet, the concept of field configuring events has also been used in relation to academic events, including a landmark study on cochlear implants (Garud 2008). Other studies of solar technologies (Nissilä 2015) and in vitro meat (Stephens & Lewis 2016) have demonstrated comparable field configuring effects. These studies do not claim a casual or direct link between the events and the establishment of a new research field. Rather, they emphasize how events are the platforms where people central to the development of a field meet and plan for the future of the research field (Garud 2008).

Learning and professional development

One important strand of literature studies how employees in private companies acquire information at academic events (H. Bathelt & Henn 2014; Harald Bathelt et al. 2004; Henn & Bathelt 2014). One important distinction made in this regard is between *"the buzz"*, which is the learning that takes place by just being embedded in a scientific community and *"pipelines"*, which is the learning retrieved by establishing and maintaining communication with key actors outside one's own environment (Harald Bathelt & Schuldt 2008; Maskell et al. 2004). The idea is that buzz happens at various events and requires minimal formal structures and investments, whereas the establishment and maintenance of pipelines require substantial investments. In a study based on data from 418 Norwegian firms, Fitjar & Huber (2015) conclude that highly innovative firms benefit from their employees exchanging global buzz with partners and form international, personal networks. The study recommends that innovation policies of smaller countries include instruments that facilitate SME participation in international events (Fitjar & Huber 2015). Another similar study investigates how small and medium-sized enterprises (SME) benefit from conference participation in terms of enhancing their innovative performance. The results are based on 344 high-technology SMEs from the electronics industry over a period of 23 years (Vlasov et al. 2017). The conclusion is

that SMEs, which participate in conferences that vary on the topics discussed experience enhanced innovation performance (Vlasov et al. 2017).

Academic events also hold a learning potential for employees working in the public sector, in particular within health services (Forsetlund et al. 2009).. A case study of the International AIDS Conference concludes that 91 % of the delegates indicated that they intended to change their HIV/AIDS work as a function of attending the event. Furthermore 80% of the indicated they had changed their behavior as a result of attending past events (Lalonde et al. 2007).

Destination development
In their landmark study, Foley et al. (2013) studied five congresses held in Sydney 2007-2010. Based on these case studies, they identify a number of impacts related to the development of the city, e.g. "Growing local knowledge", "Knowledge improving education", "Profiling local organizations, associations, and/or centers" and "Enhancing Sydney's reputation as a global leader". In total six core themes and 19 sub-themes are identified (Foley et al. 2013). Conclusively, it is argued that the studied congresses contributed to the enhanced reputation of the city as a global hot scientific hot spot, including enhanced reputation of local institutions and organizations.

5.7. DISCUSSION

The ambition of this paper was twofold: To present the main strands of the literature on the impact of academic events and to assess major gaps for establishing a coherent framework for analyzing the impact of academic events. Above, we have presented the main strands of the literature and we will now turn to the second ambition of the paper.

Taken together, the analytical categories, the Quantified Scholar and the Visible College, demonstrate that academic events are key platforms for observing and negotiating the intellectual and social structure of scientific disciplines. This claim is substantiated by several case studies that trace the development of a discipline through the study of its events and by bibliometric analyses of keywords used at events. In most scientific areas, academic events play an insignificant role as publication outlets of academic work; the exceptions are computer science and engineering. Rather, our review suggests that academic events should be considered part of the academic workflow, where presentations given at meetings are a stepping-stone for later high-quality journal publications and subsequent citations. We argue that it would be fruitful with studies investigating the translation of conference proceeding into journal publications. This has been addressed empirically, however, it would be fruitful if such approaches moved beyond the study of a singular event (typically an annual meeting within a specialty of clinical medicine) and explored whether there are differences in the translations related to other factors, such as seniority, gender, nationality and scientific area. Furthermore, such differences should be analyzed

through theoretical frameworks that seek to understand how the translation occur. In general, the study of academic impact needs theoretical development in order to move beyond discrete types of impact. The literature displays a limited understanding of how the various forms of impact speak to each other and not many contributions are aware of crucial differences in the reported types of impacts between different kinds of events.

With the analytical categories, 'Externalities' and 'Marketplace of Ideas' we demonstrate how academic events impact society. Two sub-categories related to the direct economic impact and the carbon footprint of academic events share solid methodological frameworks that allow them to answer complex questions. Similarly, the literature within the sub-category on fields-configuring events has an analytical framework for understanding how new academic and industrial fields develop, which has been successfully used on numerous case-studies. Similarly, the studies related to the industry-academia interactions, are done within the theoretical framework developed under the term *temporary clusters*. This provides a strong foundation for understanding how industry sources knowledge from academic events. The framework has also been applied in both case studies and register-based analyses. Such frameworks are absent in relation to the interactions with policy and other sectors, where they would be a welcomed contribution.

5.7.1. METHODOLOGICAL CHALLENGES AND THE IMPACT FRAMEWORK

When studying the impact of academic events, it is important to note some of the methodological challenges. These are to some extend shared with the challenges faced by more general approaches to the study of impact generated in the academic sector. This is not the place for a general discussion of these challenges. However, the attribution problem should be noticed. It addresses how to isolate the impact of the object of analysis compared to other potential sources of impact (Donovan 2011). This is pertinent when analyzing academic events, as these are complex social activities that can lead to a plentitude of impacts. One way of addressing the attribution problem is to develop theoretical frameworks and models to map how different impacts occur (Penfield et al. 2014). This is a key learning that we would like to see reflected in the future studies.

The research impact framework provides valuable insights for those interested in studying the impact of academic events. However, the framework is not without challenges. The notion of research impact is highly policy-driven and part of a framework for evaluating science which has been often criticized. A major criticism in the entire impact assessment literature is that government and research funding agencies only count what can be counted for while not acknowledging the broader context in which the academic activities take place. An example of this is academic events. While the literature suggests that academic events are important prerequisites

for publication, collaboration and networking, impact assessment most often do not count for these events and the work and efforts necessary to organize them. Focusing only on the end product of the scientific process (e.g. publications, citations, patents) may deprivilege and demotivate other important activities such as event participation and organization. The backlash of any extensive impact assessment model is that activities falling outside the scope of the model eo ipso are perceived as less important and less worthwhile.

5.8. CONCLUSION

In the review, we use four analytical categories of impact and 12 sub-categories derived from reading the documents to organize the corpus of literature. It should be underlined, that the identified types of impact do not offer an exhaustive list of the ways in which academic events have impact, but an overview of the way in which impact has been studied.

Our study concludes that academic events are important vehicles for creating both academic and societal impact and that there is room for new studies building on the emerging literature on bibliometric research, economic geography, sociology of knowledge and related fields. While there is no central research field dedicated to the study of impact of academic events, we have found numerous important contributions across fields. Some of the contributions form coherent approaches to certain aspects of the impact, e.g. the industrial uptake of knowledge or the bibliometric impact of presentations. However, generally speaking, the literature is fragmented and there is no shared understanding of how to study the impact. This is particularly apparent for the literature within our analytical category the Visible College.

Most pertinent for an improved dialogue between the four analytical categories is the development of a theory-driven approach to differentiating between various types of academic events. In most of the studies, there are only poor definitions of the object of analysis. There are likely substantial differences between academic events, however, we lack a language for talking about the differences. Moreover, we know from science studies that there are major differences scientific fields. How do these differences apply in relation to the academic events? We also know little about the different participants; are there substantial differences between the genders, between being a junior and a senior researcher, between being a speaker, a delegate and host. These differences remain largely unexplored.

Finally, the review at hand offers a comprehensive overview of how the impact of academic events has been studied. The picture painted is one of multiplicity and great variety of impact stemming from academic events. We believe that the variety offers an opportunity for universities, scientific associations and research groups that want to document the impact stemming from academic events. It provides them with the

possibility to consider, which types of impact that they want to achieve from their events and to establish evaluation mechanisms that can capture these types of impacts.

6. AN EMPIRICALLY-GROUNDED TYPOLOGY OF ACADEMIC EVENTS

Hansen, T. T., Foley, C. & Pedersen, D. B. (2020). An empirically-grounded typology of academic events. *Event Management*, 24(4).

6.1. ABSTRACT

The meetings industry, government bodies, and scholars within tourism studies have identified the need to understand the broader impact of business events. To succeed in this endeavour, we consider it necessary to develop analytical frameworks that are sensitive to the particularities of the analysed event, sector and stakeholder group. In this paper, we focus on the academic sector and offer two connected analyses. Firstly, an empirically-grounded typology of academic events. We identify four differentiating dimensions of academic events: size, academic focus, participants and tradition and based on these dimensions we develop a typology of academic events that includes: congress, specialty conference, symposium and practitioners' meeting. Secondly, we outline the academic impact of attending these four types of events. For this purpose, the concept of credibility cycles is used as an analytical framework for examining academic impact. We suggest that academic events should be conceptualized and evaluated as open marketplaces that facilitate conversion of credibility. Data was obtained from interviews with 22 researchers at three Danish universities. The study concludes that there are significant differences between the events in terms of their academic impact. Moreover, the outcome for the individual scholar depends on the investment being made. Finally, the study calls for a future research agenda on beyond tourism benefits based on interdisciplinary collaborations.

Keywords: Typology, Legacy, Impact, Academic event, Business event

6.2. INTRODUCTION

Until recently, business events have been valued by governments and the meetings industry almost exclusively in terms of the tourism contribution to the event destination (Foley, Schlenker, Edwards, & Lewis-Smith, 2013; Getz & Page, 2016). However, academic progress has been made in understanding the social legacies or

"beyond tourism benefits" of business events (Edwards, Foley, & Malone, 2017; Foley et al., 2013; Hansen & Pedersen, 2018), and there is a growing interest from within the meetings industry and some government bodies to understand and acknowledge these legacies (Du Cros, Edwards, Foley, & Hergesell, 2017; IRIS Group, 2017; König, 2017). Hence, we see the outline of an ambitious research agenda where the industrial partners have high expectations. The president of the Joint Meeting Industry Council, Joachim König denotes the research agenda a "revolution" for the industry and calls for "outputs and legacies" to be "identified and quantified" within a wide spectrum of legacies "from the value of networks and business transactions arising from an event to medical advancements like improved disease awareness, research and treatment practices." (König, 2017). It is indeed ambitious not least because the terms "business events" and "social legacies" represent very elusive and expansive concepts.

In this paper, we argue that a feasible way forward for the research agenda is to develop analytical frameworks that address specific sectors or legacies; and we focus on the academic sector and how participation in events influence the knowledge production process of individual scholars. Our analytical framework draws on insights from science studies and the subfield of research impact assessment. Yet, the paper should also be relevant for event study scholars for at least two reasons. On the one hand, the paper contributes theoretically to the study of events. We develop an analytical framework for understanding differences between academic events and a framework for analysing academic impact. On the other hand, the paper benefits from being developed in collaboration between scholars from science studies and event studies. Such interdisciplinary collaborations can serve as a model for inspiration when studying other forms of legacies. In the quote above, Joachim König calls for studies on how events increase disease awareness. In this case, event studies scholars would benefit from tapping into research on public health campaigning. Interdisciplinary collaborations allow deeper insights into the studied legacies and sector, which will probably provide more solid results. Moreover, the results are more likely to be relevant for the organizers and participants of the studied event, because they are presented in a language and within networks that are familiar to the studied sector. We have done the study in hand with the ambition of engaging with partners in the academic sector, including universities, funding bodies and scientific associations. The involvement of such actors in the assessments of their own events is key to promoting the broader outcomes of the meetings industry. We find it warranted to focus on the academic sector, as it is a significant client group for the meeting industry. Rowe (2019, p. 87) estimates that up to 300,000 academic events are held on yearly basis. Such number presupposes millions of individual scholars attending academic events however, we know very little about the professional outcomes for these individuals. How does participation at events have impact on the individual scholar's knowledge production process? This is the question we aim to explore.

6.2.1. STRUCTURE OF THE PAPER

The paper proceeds as follows. Below, we briefly outline our understanding of academic events and academic impact. We then outline the main lines of the literature and identify the need for development of analytical frameworks. Subsequently, we present our methodology and the data sources. Thereafter, we present the analyses – first the dimensions on which the types of events are differentiated, then the four types of events and the associated conversions of credibility. The analyses are discussed and finally we present our conclusions, implications for practitioners and discuss the need for further research.

6.3. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

We define academic events based on the following three criteria. Firstly, it must attract the participation of active researchers, who participate with the purpose of exchanging research-based insights. Secondly, it must be planned and limited in a physical and temporal space. Finally, it must attract participation from a minimum of three different institutions and be held over at least two days. In this study, we investigate how participation in such events have academic impact on individual scholars. We draw on the literature on research impact assessment for our concept of academic impact, as the influence on activities related to academic knowledge production (Penfield, Baker, Scoble, & Wykes, 2014; Reale et al., 2017). This concept will be further unfolded below.

With these preliminary definitions set out, we will now position the paper in relation to the existing literature on the impact of academic events. In their literature review of 263 studies Hansen & Pedersen (2018) conclude that there are "numerous important contributions" across fields to the study of impact of academic events, however, the literature is "fragmented". This is not the place to unfold this complex literature. Rather, we want to position the paper in relation to the key concept of academic impact and outline two gaps. By choosing to study the academic impact, the paper distances itself from the broad literature on how academic events have societal impact for example in relation to destination development (Foley et al. (2013) or enhanced innovation capacity among SMEs attending events (Fitjar & Huber, 2015; Vlasov, Bahlmann, & Knoben, 2017). The literature on academic impact can be mapped through a distinction between studies based on either qualitative or quantitative data. The quantitative data-based studies employ bibliometric data to study a few issues related to the academic impact of events. The bulk of the studies investigate the conversion rate, which is the proportion of presented abstracts at a given conference that are published as journal articles. There are hundreds of publications that investigate this question in relation to specific events (Chung, Lee, Kim, Kim, & Ha, 2012; von Elm, Costanza, Walder, & Tramèr, 2003). Other types of

quantitative studies, include a study that explores how citations of conference proceedings compare to citations of journal publications (Lisée, Larivière, & Archambault, 2008). Taken together, the quantitative literature is characterized by outlining the publication patterns related to a specific event or field, however, the identified patterns are not analyzed within an analytical framework and the studies hardly move beyond mere description. The focus is not on developing general insights on the participation in academic events, rather the ambition is to develop insights related to a specific event or field. Moreover, the literature is obviously only concerned with one element of attending conferences, which is the bibliometric footprint of conference proceedings. As the qualitative literature has documented, attending academic events have impact on a much wider range of topics, including network development (Storme, Faulconbridge, Beaverstock, Derudder, & Witlox, 2016), inspiration and learning (Rowe, 2019) and recruitments (Reychav & Teéni, 2009). The qualitative studies generally offer close descriptions of specific outcomes or elements when attending academic events. Nevertheless, there are studies that more broadly explore the outcomes of attending events. Edelheim, Thomas, Åberg, & Phi (2018) ask what conferences do and explore the return on investment of attending them. The data is based on three personal accounts by participants in a tourism conference that each reflect on four motivations for attending academic events. The result is in-depth descriptions of event experiences; however, the experiences are not informed by any framework within which we understand academic practice. Thus, the valuable event descriptions do not relate to one another and we do not understand how they contribute to a wider academic practice.

In short, the literature displays a solid understanding of a range of impacts. However, the studies and the identified forms of impacts are not studied within analytical frameworks. Hence, the studies do not build on each other and there is no conceptualization of how the various forms of impact relate, nor to what extent the impacts depend on specific features of the academic event. In our view, the problem is caused by a lack of theoretical development on two dimensions. Firstly, there is no satisfactory understanding of the differences between academic events. The concept of academic events is used to cover a very wide range of events from workshops to congresses. We find it warranted to explore whether there are differences in impacts related to the type of event. The paper addresses the former shortcoming through the development of an empirically-grounded typology.

6.3.1. DEVELOPMENT OF A TYPOLOGY FOR ACADEMIC EVENTS

Within event studies, the concept of academic events has not been studied as an individual category. Rather, it has been included in studies related to the terms business events or the more industry-used term MICE (Meetings, Incentives, Conventions and Exhibitions). In these studies, there is some tradition for

differentiating between three sectors; associations, corporate and government, and within this categorization academic events would be considered part of the association sector (Mair, 2014). However, no further categorization of the events studied is normally applied. As argued by Mair (2014, p. 8) "there is a plethora of designations for what is essentially the same thing. Conference, convention, congress, symposium, forum, seminar, consortium, summit and workshop – all can be said to be in essence a gathering of like-minded individuals for some common purpose. The difference is generally one of size and scale." In this paper, we argue that there are important differences if one focus on the academic impact of events.

6.3.2. THE RESEARCH IMPACT AGENDA

In this section we set out to establish a framework for analysing academic impact. There is a burgeoning literature on research impact assessment (Donovan, 2011; Greenhalgh, Raftery, Hanney, & Glover, 2016; Penfield et al., 2014; Reale et al., 2017), which studies academic practices and outcomes. One of the key challenges identified by this literature is termed the attribution problem (Donovan, 2011; Penfield et al., 2014). Research practices and outcomes, such as publications or industry-university collaborations are often based on complex network interactions, knowledge translations and serendipity. And within such complex and multi-directional contexts, the attribution of specific publications and other scientific output to discrete real-world interventions is very complex. The problem has been described and discussed thoroughly in relation to attributing publications and other scientific outputs to specific grants, as it has been a long-standing ambition of funding agencies to evaluate and demonstrate how their grants lead to changes in practice, behaviour or business models. One remedy for the attribution problem is to develop analytical frameworks that explain the various steps of causal links between interventions and outcomes (Donovan, 2011; Penfield et al., 2014). Thereby, the frameworks provide avenues for analyses of the specific steps rather than simply referring to macro-based claims of correlations. Following the advice of Penfield et al. (2014), we apply key findings from the sociology of science to develop an analytical model.

It is generally well-recognized that the central currency in academia is recognition rather than financial rewards (Hessels, van Lente, & Smits, 2009; Whitley, 2000). This understanding has informed various models of how academics operate, including Bourdieu (1975) and Hagstrom (1965). Working from a similar understanding, Latour & Woolgar (1986) have developed the concept of the credibility cycles. Here the behaviour of academic researchers is described as continuous cycles of conversions of various forms of credibility. The concept of credibility denotes forms of value held by the researcher, such as data, equipment or grants (Hessel et al. 2009). As a kind of investor, the researcher engages in conversions of credibility, where the currently held form of credibility is converted to another form, which allows the researcher to engage in further conversions. Latour and Woolgar (1986) describe the access to credibility and engagement in conversions as a prerequisite for working as an academic. The

classical example of such a conversion cycle is an academic, who converts recognition into grants, the grants are converted into equipment, which is converted into data, the data is converted into arguments that are converted into articles, which again is converted into recognition (Latour & Woolgar 1986). The model was developed to understand the behaviour of researchers in laboratories. However, in the past 40 years, the model has been applied in numerous studies within sociology of science, science and technology studies and related fields (Hessels, Franssen, Scholten, & De Rijcke, 2019; Hessels et al., 2009; Hessels & van Lente, 2011). Moreover, we think it provides a helpful framework for analysing how attending events has academic impact on the individual scholar. However, to apply this understanding of the model we need to clarify certain aspects. Firstly, it should be noted that researchers cannot make the conversions independently but require facilitation through various formal and informal structures that influence the conversions (Hessels et al., 2009). Obviously, the conversion of a grant application to money happens through the structural realities of funding agencies and, similarly, the conversion of arguments into articles happens through several structures, including peer review. We argue that an academic event is another structure that influences certain conversions of credibility and should be studied as such. We use the metaphor of the academic event as a marketplace, where exchanges of credibility happen. Secondly, the model specifies directionality towards recognition, that is, each conversion is made with the intention of, at some point, receiving recognition. However, the order of conversions is multi-directional and the classical cycle described above is just one example of how conversions can follow each other. Thirdly, we include several types of credibility that are not included in the original model, but which we believe to be in line with the original intention. "The notion of credibility makes possible the conversion between money, data, prestige, credentials, problem areas, argument, papers, and so on." (Latour & Woolgar, p. 200). We have added buzz, network, scholarly output and presentations to our version of the model. These choices are informed by our data, as the additional forms of credibility were highlighted by our informants. Buzz is a form of credibility that allows the researcher to be at the forefront of developments within her field. Some of our informants name it trendspotting, gossip or getting a feeling of the field. It is described as getting updated on recent developments, trends and potential hypes and as will be documented in the analyses below, the buzz is used in several conversions. Network is a complex category of credibility, as the network can have many forms; it can be a researcher's peer network, it can be network among key people within the field, for example, editors, or it can be a network among practitioners. In the original model, the production of articles is seen as the only output, however, we believe this is too narrow and we include broadly what can be defined as scholarly output. We also include presentations as a specific type of output, as we are using the model to analyse academic events. Below we have inserted a model that illustrates the above-mentioned aspects. When presenting our findings below, we use the model as a map onto which we plot the various types of conversions happening at academic events.

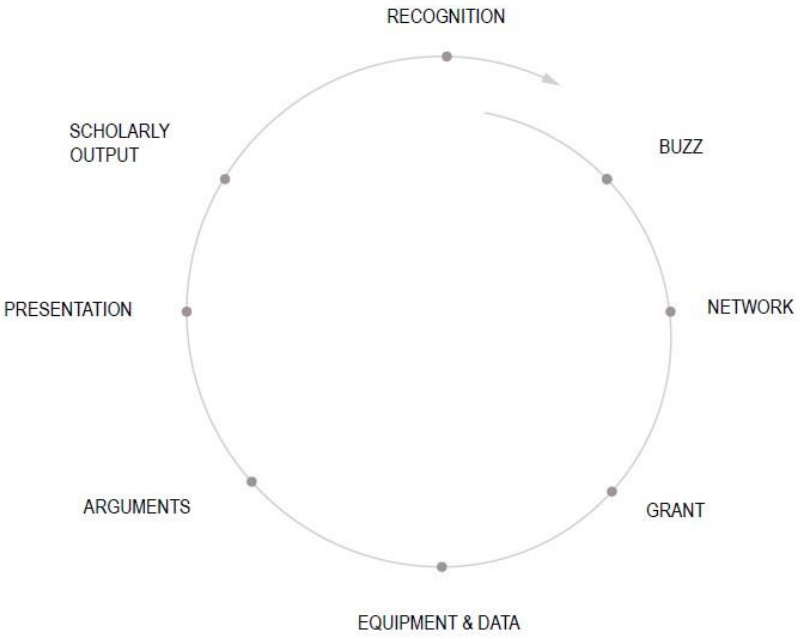


Figure 6.1: Conversions at academic events

6.4. METHOD AND DATA

Classification is at the heart of any scientific exercise as it is the basis for solid descriptions. It allows the researcher to underline similarity and dissimilarity between the studied phenomena (Bailey, 1994). In this paper, we offer a typology of academic events, as a specific form of classification. As argued by Collier, LaPorte, & Seawright (2012) typologies can contribute to the formation of rigorous conceptual frameworks, as they draw up the defining dimensions of the studied phenomena. We believe that a conceptual map is crucial to the study of academic events, as it will allow us to better understand and communicate the differences in the outcomes of attending academic events. Our typology is grounded in empirical data and in developing it, we follow Kluge (2000) and her four stages for empirically-grounded typologies.

6.4.1. DEVELOPMENT OF RELEVANT ANALYZING DIMENSIONS

The first step in developing an empirically-grounded typology is to form the dimensions onto which the various types will be placed (Kluge 2000). These are the dimension that are used to describe similarities and differences between the various types. In a qualitative study, the process of developing and elaborating the dimensions is part of the analysis of the collected data. We developed the dimensions based on individual semi-structured interviews with researchers at Danish universities. The researchers were asked to provide detailed descriptions of events they had participated in, including their motives, expectations and outcomes of participating. Furthermore, the informants were asked to compare the various events that they had participated in. Subsequently, the interviews were coded on the basis of the terms used to describe the events, this produced a long list of descriptions and adjectives such as large, fresh, narrow, industry-driven etc. Based on these adjectives and descriptions we identified several dimensions upon which the events were differentiated. Subsequently, we analysed the dimensions with the aim of including only those dimensions that contributed to significant aspects of the event. This produced a total of four differentiating dimensions: size, academic focus, participants and tradition.

6.4.2. ANALYSIS OF EMPIRICAL REGULARITIES

The second stage was to map the descriptions of actual events onto the identified dimensions and look for empirical regularities (Kluge, 2000). Several patterns of regularity were identified, e.g. we found numerous descriptions of large events with a broad scientific scope often termed the World Congress or the American Annual Meeting. Having identified a pattern, we started to search for contrasts within the pattern or, in the words of Kluge (2000), to check for internal homogeneity, i.e. whether the descriptions were similar on all of the identified dimensions. In relation to the before-mentioned large, broadly-scoped events, there was significant homogeneity and we termed this type of event congress. We also identified a group of events with a specialized academic focus. However, when starting to explore for contrasts within this group several differences appeared. One of these being the tradition of the meeting. The events with an emerging tradition were typically smaller and we termed these the symposium. The other specialized meetings had more of a tradition, were slightly bigger and we termed these the specialty conference. Finally, there was a group of descriptions sharing the characteristic that it had a significant participation of non-academic participants – these events were termed practitioner's meeting.

6.4.3. ANALYSIS OF MEANINGFUL RELATIONSHIPS

At the third stage of analysis the aim is to develop meaningful relationships of each of the identified types (Kluge, 2000). In our research, it was key to develop an understanding of the conversions of credibility related to the various identified types

of meetings. To do this, but also to validate the four types of events themselves, we organized four focus group interviews. The interviews were structured around the four identified meeting types and focused on whether the participants knew the type of event from their own field of research and subsequent discussions on the role that type of event had played in their career.

6.4.4. CHARACTERIZATION OF THE CONSTRUCTED TYPES

In the final stage of analysis, we developed full descriptions of the event types and their most prominent conversions of credibility. Further, we included considerations on how the conversions differ based on the gender, seniority and scientific area of informants.

6.5. DATA

The typology is informed by two sets of data. Firstly, we conducted nine individual, semi-structured interviews with academics from the three largest, Danish universities in order to establish the differentiating dimensions. Secondly, we conducted four focus group interviews. Focus groups 1 and 2 were conducted with early career academics at University of Copenhagen and Aarhus University, respectively, and focus groups 3 and 4 were with senior academics at University of Copenhagen and Aarhus University, respectively. The interviews with the early career academics were conducted exactly as planned, however, this was not the case with the focus group interviews with the senior academics. Both in Copenhagen and in Aarhus, we received three cancellations for each interview with such short notice that it was not possible to find substitutes. Instead both interviews were conducted with only two informants. According to Morgan (1997) it is important to have variation and homogeneity among the focus participants to secure meaningful interactions. Variance is important to avoid too many implicit references and agreement. However, it is also necessary to have homogeneity in order for the conversation to flow meaningfully. We achieved this by having homogeneity in terms of institutional affiliation and seniority, but variation in terms of research field and gender. All of the interviewees were identified through grants given by the Independent Research Fund Denmark. Except for one informant, who was identified through his postdoc grant from the Carlsberg Foundation. The Independent Research Fund Denmark is a public funding body focused on curiosity-driven research within all scientific areas. The grantees had either received a postdoc grant or a Research Project 2 grant, the latter being a funding programme for senior academics. The focus group participants were recruited to secure variety in terms of their main scientific areas, host university and seniority. The individual, semi-structured interviews and focus group interviews were conducted

between August 2017 and December 2017 and lasted between 40 minutes and 1h 25 minutes. See table 6.1 for a full overview of the interviewees.

#	Type of interview	Interviewee
1	Focus Group Interview (Postdoc grantees)	Postdoc, Literature, Female, Danish Postdoc, Medicine, Female, Italian Postdoc, Engineering, Male, Turkish Postdoc, Biology, Female, Italian Postdoc, Literature, Male, Danish
2	Focus Group Interview (Postdoc grantees)	Postdoc, Mathematics, Female, Danish Postdoc, Law, Male, Danish Postdoc, History, Male, Danish Postdoc, Medicine, Male, Danish
3	Focus Group Interview (Research Project 2 grantees)	Professor, Anthropology, Male, English Associate Professor, Literature, Female, Danish
4	Focus Group Interview (Research Project 2 grantees)	Professor, Food science, Male, Danish Associate Professor, Biology, Male, Danish
5	Individual semi-structured interview	Postdoc, Archaeology, Female, German
6	Individual semi-structured interview	Postdoc, Medicine, Female, Polish
7	Individual semi-structured interview	Postdoc, Economics, Male, Ethiopian
8	Individual semi-structured interview	Assistant professor, Transport, Male, Danish
9	Individual semi-structured interview	Professor, Zoology, Male, Danish
10	Individual semi-structured interview	Professor, Philosophy, Male, Danish
11	Individual semi-structured interview	Associate Professor, Geography, Female, Danish
12	Individual semi-structured interview	Professor, Biotechnology, Male, Danish
13	Individual semi-structured interview	Professor, Medicine, Male, Danish

Table 6.1: Interviewees

6.6. ANALYSES: TYPOLOGY OF ACADEMIC EVENTS AND THEIR ACADEMIC IMPACT

In the section at hand, we will present the analyses of this paper. Immediately below, we report on the differentiating dimensions that supported the development of a typology of academic events. Based on these dimensions, we outline the four identified types of academic events and the conversions of credibility, which we were able to associate with the specific type of event.

6.6.1. DIFFERENTIATING DIMENSIONS

Initially, we identified eight dimensions through which the events were differentiated. However, some of the dimensions were only relevant to the individual informant and were more a description of the informants' relation to the event than about the event itself for example "I was invited as a keynote". These were omitted from the further analysis. Moreover, some of the dimensions correlated strongly with each other, this was the case with the internationalization dimension. Some of the informants used terms like "national", "Scandinavian" or "European" to describe an event. However, when analysing these statements, we found that the internationalization dimension correlated with the size dimension, which meant that a national meeting was another way of saying a small meeting. The same applies for the dimension mode of participation, which describes a continuum from passive observing to more active forms of participation, where the smaller meetings were more participatory. Accordingly, the dimensions that did not bring any new insights forth were deselected. Conclusively, our analysis of the data produced four differentiating dimensions: size, academic focus, participants and tradition.

Size

The dimension related to size spans from small to large; it was the most used dimension and referred to in all the interviews. The dimension was used seamlessly in the individual interviews; it was clear for the interviewee what was implied by using terms such as large or small. However, in the focus group interviews, there were many discussions when somebody referred to size, as there are significant differences between scientific areas in terms of what should be considered large or small.

Academic focus

The differentiation between narrow focus and broad focus meetings was important and referred to across all the scientific areas. However, it was also a dimension that was highlighted as complicated, as an event can be narrow in one sense and broad in

another e.g. “I was at a meeting recently about protein production and that is quite narrow. The good thing about this conference was that, on the other hand, virtually all organisms where you make proteins were represented.” (Professor, Biotechnology, Male, Danish).

Participants

The dimension on participants spans from events with purely academic participation to events with extensive non-academic participation. The informants used various terms when referring to this dimension for instance the event was “industry-driven” or “a good place to meet clinicians” or “where you meet the ministry people”. Equal to the size dimension, there are significant differences between scientific areas in what defines an event with a high degree of non-academic participants.

Tradition

The tradition dimension refers to the variance between events that have a long tradition and events that are emerging or newly established. Informants referred to events being “new”, “one-off” or “fresh” to describe one end of the continuum. For references to the other end of the tradition dimension, the informants referred to events of historical importance, events that the researchers continue to participate in for several years or identify as a reference point in the academic field.

Together, the dimensions provide a framework for establishing a typology of academic events which we have designated: congress, specialty conference, symposium, and practitioners’ meeting. In reporting on the dimensions, we have conceptualized them as continuous variables with four degrees of variation. This is not done to indicate that there are four objective stages for each dimension, but rather to underline that the dimensions are not binary but represent ranges with several possibilities of variation. In the following section, we go through each type of meeting and present analyses of the most significant exchanges happening at that type of meeting.

6.6.2. THE CONGRESS

The congress is characterized by being very large and having a rather broad academic focus. It primarily attracts an academic audience, but not exclusively and it has an established role as a reoccurring reference point in the academic community. Table 6.2 presents the congress on our four differentiating dimensions. This type of meeting was found across nearly all scientific areas and is often referred to as an annual

meeting, convention or large conference. Below we analyse the key conversions happening at congresses.

Size	Small ->					Large <-
Academic focus	Specialized ->					Broad <-
Participants	Purely academics ->					Extensive practitioners <-
Tradition	Established ->					Emerging <-

Table: 6.2: The congress

Chain of conversions: Presentation to recognition to network to scholarly output or grants

At congresses, presentations of research are converted into recognition. For early career academics the conversion is about overcoming a threshold and being recognized for it: *"*

It was actually the first time, I talked at such a very big conference […] I was in heaven, one would say, because they thought that my research was cool." (Postdoc, Archaeology, Female, German).

Other early career academics have not reached the required level: *"I'm not there yet. I'm not opposed to it, but I haven't had the chance"* (Postdoc, Literature, Female, Danish). For senior academics the congress is also a platform for converting presentations into recognition, however, the congress comes with a caveat:

"Large conferences can mean two things. It can either mean keynote lecture for a very large audience and it can be attractive for many different reasons, but it can also mean concurrent sessions where you will talk at the same time as fourteen others and that is not particularly attractive" (Professor, Philosophy, Male, Danish).

The recognition obtained at congresses can be converted to network. Our informants highlight that congresses give particularly good access to key influencers in the field. These could be editors, potential reviewers, funding agencies or department heads with open positions. It was argued that early career academics' access to key stakeholders is very difficult:

"There is the layer of super important professors, who only meet with other super important professors and look very busy, because of a high concentration of very important people around, so they schedule their meetings all the time, so there is no chance to talk to them" (Postdoc, Medicine, Female, Polish).

Access for early career academics to key stakeholders depend upon having some form of credibility to invest, such as a successful presentation or an introduction by a senior academic:

"I am trying to introduce my students [and their talks] to relevant persons… There is nothing better than giving a talk and then have people in the room that you look up to. It has an enormous effect" (Professor, Zoology, Male, Danish).

Generally, the informants describe how conversions to network happen a lot easier at congresses. This also applies for senior academics: *"It's infinitely much easier to write an email when you have just met people. It's something that matters. You have only talked for five minutes, but you can still write the professor in the United States"* (Associate Professor, Biology, Male, Danish).

For senior academics, the network at congresses is converted into scholarly output, as they use congresses to maintain existing working relations that secure a continuous production of scholarly output. Side meetings are organized beforehand and are often closely related to the management of existing projects*:*

"My main advantage is actually to meet face to face with the researchers I collaborate with and follow up on ongoing projects. I have tried more than once to be at congresses where I attend more meetings than lectures. Generally, it is more a networking and coordination event for me" (Professor, Biotechnology, Male, Danish).

Conversions related to buzz

The congresses provide access to conversions related to buzz. Several informants talk about buzz as access to insights into future developments within the field: *"it gives a good feeling for what is coming"* (Assistant professor, Transport, Male, Danish). Buzz is important in relation to teaching or peer reviewing, as it broadens the perspective, however, it is of particular importance in relation to applying for grants:

"At the same time, I hear a presentation by someone working on machine learning. For me, it was a bit of a black hole, but then there was this one presentation, which made it pretty simple […] I went home and thought about it, […] and I decided to write a quick application to the Independent Research Council. And it went through, probably because of the right buzzwords, like "big data"." (Assistant professor, Transport, Male, Danish).

Similarly, access to buzz terminology and framing can be important for maximising publications:

"There is a lemming effect. It's almost the unprofessional impression you get at such congresses about where is the lemming effect moving. And since we all want to publish in the good journals, one must look at what the good journals are interested in. It is also expressed in these meetings" (Professor, Medicine, Male, Danish).

Several of the informants compare acquiring the buzz at congresses with acquiring it through other means, such as social media or following journal publications. It is generally argued that the congresses are advantageous for a number of reasons, including the fact that it is less strenuous to hear presentations compared to reading papers and that the material presented has not yet been published, which allows you to be ahead:

"What you see published is, even with the fast turn-over today, at least half a year old, so if you depend only on the publications, you're constantly halting a little bit behind" (Professor, Medicine, Male, Danish).

Finally, it was underlined that congresses provide platforms for converting presentations into buzz around a research question, an approach or methodology: *"One also comes to raise methodological debates. Move focus, now we should not talk about, for example, language, but about the material"* (Postdoc, History, Male, Danish). This was not only raised by researchers in the social sciences and humanities, but also by researchers from the natural and medical sciences. Congresses were reported to be important platforms for the disciplinary negotiations that shape future research agendas.

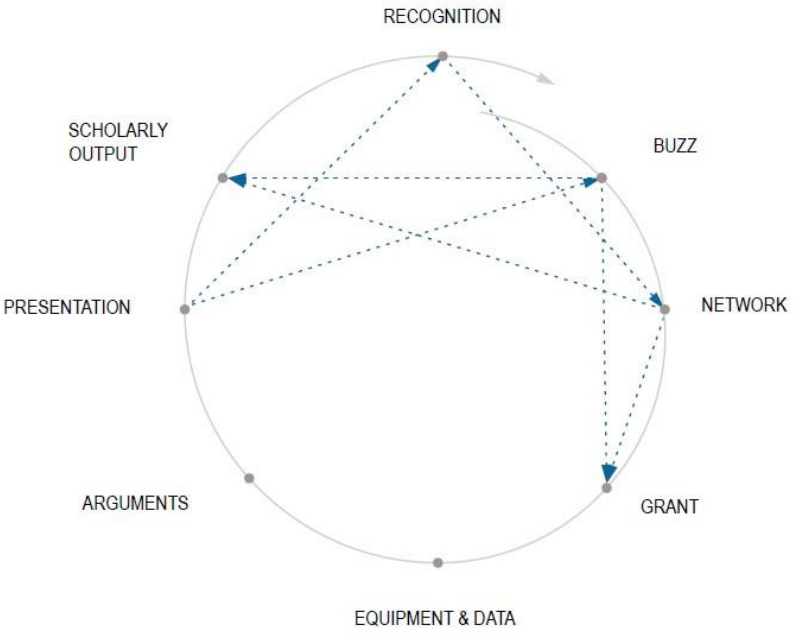


Figure: 6.2: Conversions at congresses

6.6.3. SPECIALTY CONFERENCE

The specialty conference is probably the most common type of academic event. It was most often referred to as simply a conference. It is a mid-sized event with a specialized academic focus. These types of meetings attract, almost exclusively, academic participants and they have a fairly established character. Table 6.3 presents the specialty conference on our four differentiating dimensions. The conversions resolve around arguments, network and recognition.

Size	Small ->					Large <-
Academic focus	Specialized ->					Broad <-
Participants	Purely academics ->					Extensive practitioners <-
Tradition	Established ->					Emerging <-

Table: 6.3: The specialty conference

Conversions related to presentations

The specialty conferences are highlighted as venues, where presentations are particularly important. In exchange for the presentations, the informants receive feedback that contributes to the refinement of arguments and theories: *"For me, it's all about the concrete feedback you get on your own research – it is very applicable. That's what I get the most out of"* (Postdoc, Law, Male, Danish). This is particularly highlighted as important for the early career academics:

"It is important for my PhD students. They typically have 20 minutes to present their latest sub-project, so you can get into the detail […] It's very valuable and one of the reasons you bring students to these meetings" (Professor, Biotechnology, Male, Danish).

It was also pointed out that inspiration and refinement of ideas come as a result of attending other people's presentations:

"You get new ideas, but you also get ideas that could boost your own ideas. The ideas you were thinking already in your current research, but also you want to explore in the future" (Postdoc, Economics, Male, Ethiopian).

Moreover, for early career academics the presentations are also converted to recognition, however, the conversion is of a different nature at specialty conferences when compared to congresses. At specialty conferences it is described as a need for carving out your own space and building a personal narrative that is recognized among immediate peers:

"In these conferences, I try to increase my visibility in my more specialised field. […] You have to cut out a little bit of a corner, you have to do something slightly different from what other people are doing, but, it is never a blue ocean" (Postdoc, Medicine, Female, Italian).

For the senior academics this was not considered a key conversion, probably due to the fact that the senior academics already are recognised within their specialized field.

Conversions related to network

The recognition received through presentations is converted into network: *"Usually, [presenting] makes networking easier, because many people come to you with more questions and they ask you to think about doing this or that"* (Postdoc, Medicine, Female, Italian). The conversion is related to the above-mentioned aim of carving out a space for oneself in the academic field and building the network around that space. For senior academics, the networking dimension of specialty conferences, is closely related to revisiting and maintaining networks or in the words of several of the informants "friendships":

"When I'm at a specialty conference, I'm old enough to know them all. Some of them are my good friends, godfather to my children or somebody I've been a postdoc at. And then we go out and drink a beer and then we talk as much about who has been divorced as we talk about some experiments" (Professor, Zoology, Male, Danish).

Moreover, the network is further converted in several ways. Our material offers examples of conversions to grants:

"You talk about what you do and what you might like. Then, after the conference, you may get an inquiry. Should we try to apply for this EU project? Do you want a work package there or something? It is also about going out and drinking some beers to create those relationships." (Assistant professor, Transport, Male, Danish).

Others mention exchanges around equipment or data. *"Other times you go and ask: I saw you presented on these mice, do you want to send me a breeding couple or two? Can I be allowed to work with them?"* (Professor, Medicine, Male, Danish).

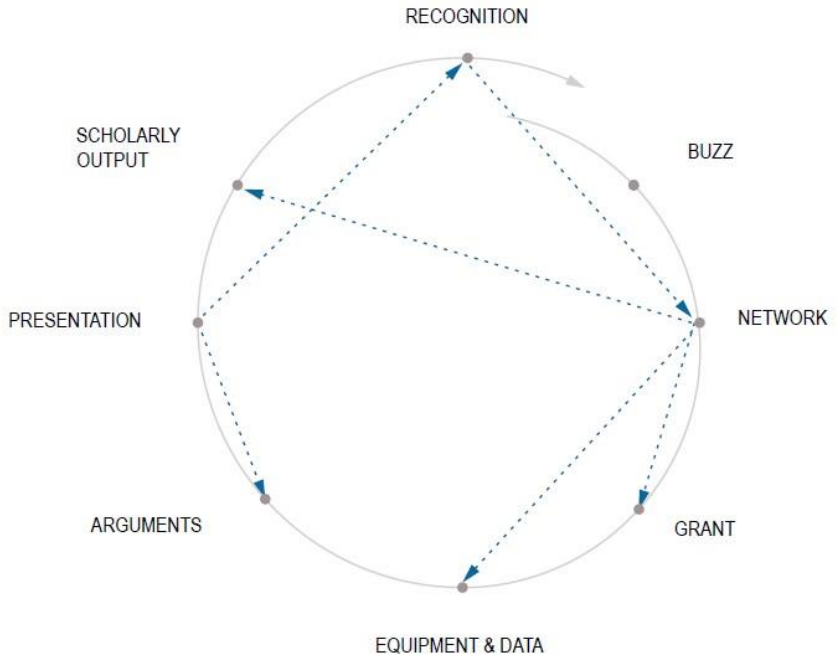


Figure 6.3: Conversions at specialty conferences

6.6.4. SYMPOSIUM

Table 6.4 presents the dimensions of the symposium. The symposium is an event similar to the specialty conference, but it differs by the fact that it is smaller and that it does not have a tradition. The informants used a number of terms for this type of event, including seminar, network meeting and workshop. It was also pointed out that symposia are occasionally organised in connection with other events such as congresses or specialty conferences. The conversions happening at symposia revolve around recognition, network, scholarly output and buzz.

Size	Small ->					Large <-
Academic focus	Specialized ->					Broad <-
Participants	Purely academics ->					Extensive practitioners <-
Tradition	Established ->					Emerging <-

Table: 6.4: The symposium

Conversions related to recognition

Due to the lack of tradition, the symposium does not have a stable participant base. Rather, the participants are known by the organizers and invited directly, or the invitation is distributed through existing networks. Thus, receiving an invitation is a recognition of one's previous work and an expectation that one can contribute to the topic of the symposium. We see this as a conversion of one's recognition to network. This makes a significant impact, particularly for the early career academics:

"It happened to me when I was still doing my PhD. The head of the organizing committee saw my abstract elsewhere and he thought that I should apply – they very often handpick people. There is no parallel sessions, so it is only one thing happening at the time, so all the people are in the same place all the time […] professors, postdocs, PhDs, they sit one next to the other, because it is maybe 100 people, so it is not that many and you have to discuss with them and they remember you, because for four days you sit with them." (Postdoc, Medicine, Female, Polish).

Another key conversion happening at symposia is from recognition to buzz. This was mainly an issue for the senior academics and relates to ways in which the topic of the symposium can be made of relevance to the wider community:

"I'm going to organize this symposium with my group – […] That will be one way of presenting the work that we have done, but also to connect and […] try to push it in a certain direction" (Associate Professor, Literature, Female, Danish).

One strategy for creating the buzz, is to present the discussion at the symposium at another platform, such as a congress:

"It was a great meeting […] Suddenly there were some studies that showed some correlations that we had not thought of before and so it was very important to bring some people together that could update each other. However, next time, it will certainly be something we hold in the context of a major congress, because it really fits in very well." (Professor, Food Science, Male, Danish).

Conversions related to arguments, scholarly output and grants

Like the specialty conferences the refinement of arguments is a key aspect at symposia. However, where it is mainly the early career academics that benefit at the specialty conferences, senior academics appear to benefit at symposia. *"There is a development of ideas and we also do publications or special issues. They are more intellectual satisfying"* (Professor, Anthropology, Male, English). Informants also highlighted ways in which symposia are platforms for the coordination of one's research activities:

"These more specialized meetings can be helpful; one might not share everything one is doing and neither do the others, but you will get an idea of where the others are and whether they are further ahead than we are. And if we want to move in the same direction, but it sounds like they are way ahead, then we might twist ours, so that we don't chase somebody that is a year ahead. Other times, you find out, that, Jesus, now we need to write up this article!" (Professor, Food science, Male, Danish).

Finally, in engineering, the natural and medical sciences there is a focus on using symposia to coordinate grant applications:

"For example, we were at a meeting in evolutionary medicine, it is one of these emerging topics that hasn't caught on in Denmark yet and now we are trying to identify the European collaborators from both the evolutionary and medical perspective and to look forward" (Associate Professor, Biology, Male, Danish).

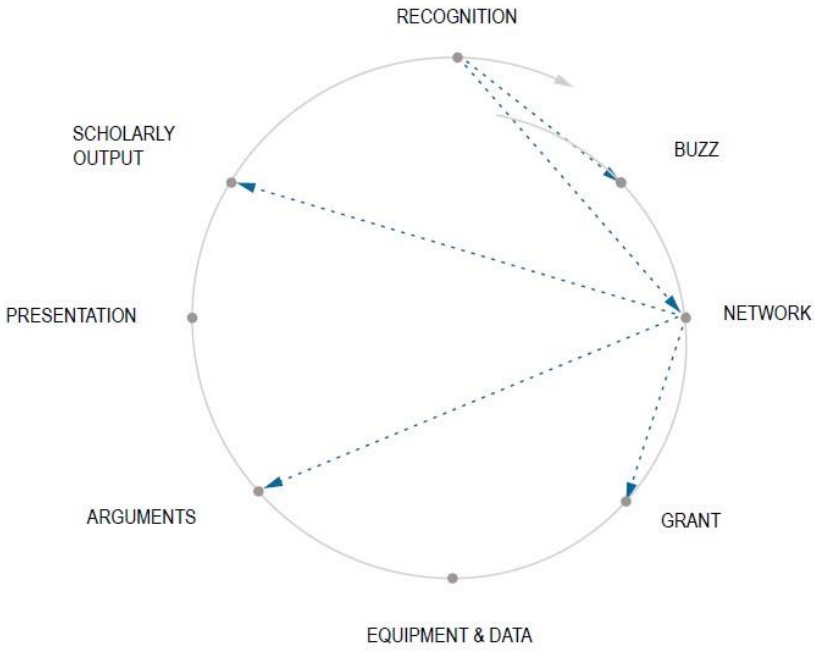


Figure 6.4.: Conversions at symposia

6.6.5. PRACTITIONERS' MEETING

Table 6.5 presents the dimensions of the practitioners' meeting. The practitioners' meeting is a type of event characterized by a large share of participating practitioners. It is the only type of event that was not recognised by everyone. For example, the associate professor of medieval literature and a postdoc in medicine were not familiar with this type of event. The other informants reported on substantial diversity in relation to the practitioners'' meetings within their field. They vary substantially in size, but are generally mid-sized or smaller. They generally address broad academic issues, but there are also some examples of more specific topics. Finally, they tend to be fairly established events with examples of newly established or ad hoc events. The conversions at the event relate to network and grants.

Size	Small ->					Large <-
Academic focus	Specialized ->					Broad <-
Participants	Purely academics ->					Extensive practitioners <-
Tradition	Established ->					Emerging <-

Table: 6.5: The practitioners' meeting

Conversions related to network

The researchers generally participate in practitioners' meetings when invited to present some research. Informants made the point that they do not believe that they benefit from the presentations and the subsequent discussions at practitioner meetings in strictly professional terms: *"Professionally, I do not really get anything out of it"* (Professor, Food Science, Male, Danish) and "*We do not get much research feedback"* (Assistant Professor, Transport, Male, Danish). Rather it is seen as a conversion of presentations that are accessible for practitioners to network: *"It was such a pecha kucha format. You know not too heavy. There was just one who came over and commented on the presentation. It's about networking"* (Assistant Professor, Transport, Male, Danish). Others argue that it can be important platform for absorbing the buzz among practitioners: *"you get an update on the issues, which are really, really important."* (Postdoc, Economics, Male, Ethiopian) and *"we get some inputs from the outside, in particular from those who pay"* (Assistant Professor, Transport, Male, Danish). The informants pay much attention to the possibilities of converting the network into grant applications:

"Some of these people, we might be able to use in our next grant application for the Innovation Foundation. In a sense, I get a chance to come out and show that I am the guy within this area" (Professor, Food Science, Male, Danish).

Other informants outlined the benefits they had gained from identifying and locating particular practitioners at such events:

"Two things happened after that. One, he offered me a job. […] and they became part of the application to the Danish Research Council. And they were needed. Because what we are doing is a randomized control, which requires close collaboration with policy makers" (Postdoc, Economics, Male, Ethiopian).

Several informants point out how necessary the practitioners are for their research. *"It is super important. It is also very closely related to what I do. I have a very specific interest in keeping contacts in clinics, because I can get samples"* (Postdoc, Medicine, Female, Polish). Other informants are not only engaged in research activities, but do also contribute with science advice to public institutions. For them the practitioners' meeting is also a chance to follow-up on existing projects:

"There are primarily people from the Danish Road Directorate and I know one from the ministry […] And then there are often some unresolved issues with some projects. Then there's time to talk about it" (Assistant Professor, Transport, Male, Danish).

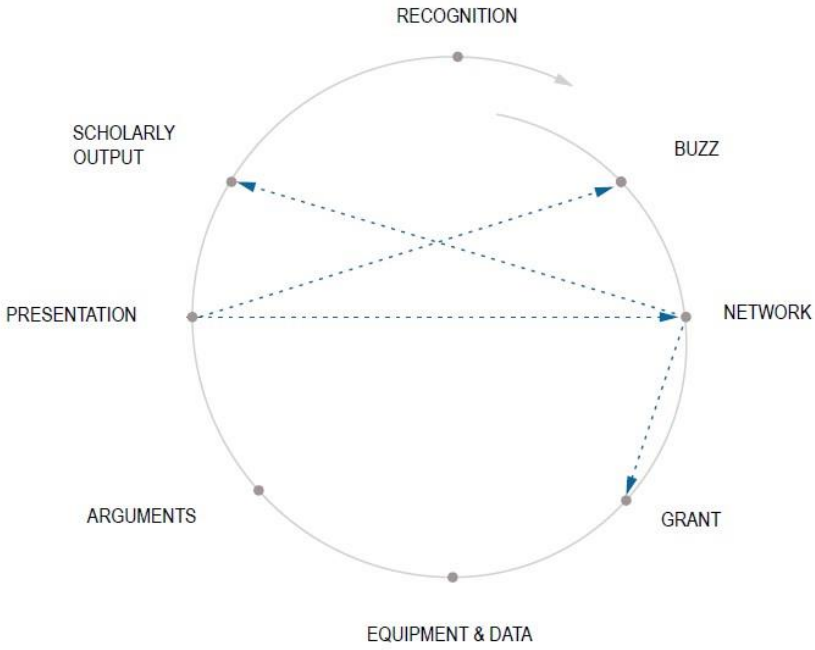


Figure 6.5: Conversions at practitioners' meetings

6.7. DISCUSSION

Below we discuss our findings by addressing three themes; i) commonalities between the types of events; ii) differences related to seniority and discipline; and iii) the cycle of credibility framework.

6.7.1. COMMONALITIES BETWEEN THE TYPES OF EVENTS

Our study demonstrates that across the different event types, the most important conversions revolve around the following forms of credibility: recognition, academic networks, grant and scholarly output. Also, across the event types, the conversions follow a pattern: recognition is converted into networking, which is converted into grants and/or scholarly output. Furthermore, our analysis shows some of the complexity of these concepts and how they interlink. The concept of network is used differently across event types. At congresses, it is about key stakeholders. At specialty conferences and symposia it is about the immediate peers. And at practitioners' meetings it is about practitioners. Across event types, conversions that lead to network depend upon the investment of recognition. The recognition can take different forms, from the case of the symposium where mere invitations to participate in the event carry recognition through to the specialty conference where the recognition come through presentations of research. Nonetheless, recognition is crucial for conversions to network. Our study suggests that network should be considered a key form of credibility, which is invested to secure conversions into several other forms of credibility, including scholarly output and grants. The informants did not differentiate sharply between scholarly output and grants, as they were often bulked together with exchanges of data, students or equipment as *collaborations*.

6.7.2. DIFFERENCES RELATED TO SENIORITY AND DISCIPLINE

Despite the commonalities outlined above, our study confirms the potential for differentiating between events from an evaluation perspective. The informants clearly recognized the differences in participating in various types events and spoke purposefully about the differences. While acknowledging that the study is based on relatively few informants, there do not seem to be significant differences related to gender, nationality or institutional affiliation. However, the study identifies important differences related to the seniority of the informants and some differences based on discipline. The most significant differences relate to the seniority of the informants.

For the early career academics, the different kinds of events, can be thought of as a series of stepping-stones towards a more advanced academic position. The first step

is to participate and be recognised within your field, which happens at specialty conferences. At these events, early career academic can participate without investment or access to other forms of credibility besides a presentation. To engage in most of the conversions happening at congresses, the early career academic needs some form of credibility, such as the credibility acquired through mentorship from senior academics. Similarly, the participation in symposia depends upon previously received recognition.

For senior academics, participation in each of the four types of events opens different possibilities and the choice between them is based on strategic considerations of what sort of credibility the researcher has and how she would like to see this converted. The congress provides the senior academic access to strategic network and buzz. The specialty conference provides access to collaborations and so does the symposium. The practitioners' meeting provides access to network that can be mobilised for grant applications.

On the differences between disciplines, we find there is a high level of homogeneity across the disciplines. In the focus group interviews the different types of events were generally recognised across all disciplines. This suggests that these types of academic events are among the foundational pillars of modern universities. Across faculties, academics participate in events for similar reasons. However, there are some differences, and the most significant one relates to practitioners' meetings. A few informants did not recognise this type of event within their field. This was not correlated with scientific main areas, but rather a question of the informant working with such fundamental questions that there did not exist a community of practitioners interested in their results. Furthermore, there are differences related to the forms of collaborations. Within some disciplines, exchanges of equipment did not appear to be relevant, for example, philosophy, and accordingly we did not find any conversions including such forms of credibility. Finally, there were variations in how the grant application process is facilitated as described in the section on the symposium which was seen as a forum for grant collaborations particularly for engineering, natural and medical sciences.

6.7.3. THE CYCLE OF CREDIBILITY FRAMEWORK

A key finding in our study is that outcomes are not finite products, but rather dynamic processes that depend on an investment on behalf of the participant. This finding emerged through the use of our analytical framework that makes us attentive to the processes leading to more formal outcomes. We believe that the proposed analytical framework can support future evaluations of academic events and make them sensitive to the processes and investments made by individual academics. The framework can also help overcome the attribution problem by explaining, for example, how participation in an academic event underpinned future grant application success. Related research topics, such as studies of Field-Configuring Events (Garud,

2008; Lampel & Meyer, 2008) and studies of temporary clusters (Henn & Bathelt, 2014; Maskell, Bathelt, & Malmberg, 2004) have benefitted from developing specific, analytical frameworks. In these two cases, the analytical frameworks have provided solid explanations of how events can be instrumental in the configuration of new fields and how private companies benefit from participating in events, respectively. We believe there is potential for event studies in developing and deploying analytical frameworks specific to the analysed sector.

Having laid out some of the advantages of this framework, we will share some reflections on its limitations. Firstly, there are certain types of outcomes that the framework is not sensitive towards. Obviously, the framework is only concerned with academic outcomes and as such does not provide insights into outcomes for participants from other sectors. Furthermore, the framework is not well-adapted for non-transactional outcomes. An example relates to an informant describing how attending events are important, because of the change of location and getting out of daily routines. It is an outcome that does not necessarily involve transactions with other actors and accordingly they are not captured by the framework. Secondly, the framework is not well-adapted to capture the various way in which outcomes develop over time. It is well-documented that there are long-term outcomes (Edwards et al., 2017). However, the framework, as we have applied it, focuses on the immediate conversions. We believe it may have potential to be used for academics to reflect on conversions over a longer timeframe, but this has not been tested. Thirdly, the framework is based on the importance of recognition from academic peers as the sole criterion, however, academics do collaborate and depend on recognition from other sectors, including industry, governments and NGOs. The framework is not well-adapted for analysing multi-arena recognition flows. Finally, the study is based upon data drawn from a small group of early career and senior academics from Denmark and it may not be generalizable on a global scale. Further testing of the tool is required to determine its cross-cultural efficacy.

6.8. CONCLUSION, IMPLICATIONS FOR PRACTITIONERS AND FUTURE RESEARCH

In the paper, we offer a set of dimensions for analysing differences between academic events and based on these dimensions we identify four types of academic events. Furthermore, we apply a framework based on the cycle of credibility to understand the role of each of the event types for academic advancement. Instead of evaluating the events only in terms of their outcomes or benefits, we include the investments made by the researchers in our analytical framework and position the outcomes as forms of credibility that should not be evaluated on their own terms, but rather as part of a process. This makes our framework sensitive to the fact that researchers engage in events with various resources. We demonstrate significant differences between the

types of academic events and thus from an evaluation point of view it makes sense to differentiate between the types of events.

The study has a range of implications for practitioners working in the meetings industry. Most importantly, participants at academic events are a key client group for the meetings industry and this study offers practitioners an acute understanding of why and how academic events matter to the participants. Thus, the study equips meeting industry practitioners to engage in a dialogue with this very important client group on how to develop the services of the meetings industry. Moreover, the study allows practitioners to differentiate between types of academic events. Finally, the study provides an evaluation terminology, which is more familiar to the academic sector than referring to the outcomes of events as "beyond tourism benefits" or "social legacy". We believe that applying a terminology that is more relevant for the sector will prove it more engaging to do evaluations. The meetings industry would benefit immensely if other sectors and the academic sector in particular had a greater awareness of how their events contribute to their core purposes.

Further research could explore how academic events play a role for other specific stakeholders. For the academic sector and the meetings industry it is of particular importance to explore whether there are specific benefits related to chairing events. Do the academics, who are responsible for chairing events have easier access to conversions of credibility? This is important information for the meeting industry to use when recruiting chairs for academic events. However, it is also of importance to science policy practitioners, as the chairing of academic events could be a science policy instrument for improving scientific quality. Our analysis suggests that academics have quite a variety of strategies relating to leveraging outcomes from event participation. It would be valuable to map these strategies and explore whether they produce different results. Finally, it would be interesting to explore the ways in which specific aspects of the meetings, such as the formal versus the informal aspects, produce different impacts.

7. CHAIRS OF ACADEMIC EVENTS: THE INVESTMENTS AND ACADEMIC IMPACT

Hansen, T. T., & Ren, C. (2020). Chairs of academic events: The investments and academic impact. *Science and Public Policy*, scaa007

7.1. ABSTRACT

Every year, tens of thousands of academics engage in unfamiliar tasks related to catering, hotel booking and transportation. They do so as chairs of academic event. We do not know much about these chairmanships; neither how the researchers engage nor whether it is worthwhile from an academic point of view. Based on interviews with 23 researchers at six Danish universities and an analytical framework informed by the concept of credibility cycles, we analyze the academic chairmanship and how it impacts the knowledge production process of the chair. The paper argues that the chairmanship is a multifaceted investment, which includes a range of non-academic tasks. The investment is a source for the following forms of credibility network, buzz and recognition and the chairs gain access to a range of other potential exchanges. The study concludes that chairmanships of academic events are surprisingly similar across disciplines and that they are potential science policy instruments.

Key words: Event evaluation, chairmanship, scientific meetings, science policy, academic events, credibility cycles

7.2. INTRODUCTION

Most researchers travel regularly to attend academic events, such as conferences, network meetings, symposia or congresses and an emerging literature explores the value of doing so (Edelheim et al. 2018; Mair et al. 2018; Sá et al. 2019; Trøst Hansen et al. forthcoming). It is estimated that a swirling 2-300,000 academic events are organized on a yearly basis (Rowe 2019). Most of these academic events require that a local academic step up as the chair or convener of the event. The chair will often spend time and resources on logistics, programming, promoting and worrying. The time and resources spent on these commitments might delay or halt other important activities.

Most academic associations and societies have open bids, where researchers and destinations compete to become the next chair. The prevalence and popularity of academic events is unquestionable, and the meetings industry has been experiencing "exponential growth" in the period from the 1960s into the beginning of the new millennium. Since then the growth pattern has become "more mature, but still solid" (ICCA 2013). Various public agencies at state, regional or city level support the meetings industry through financial contributions to convention bureaus, which support researchers that chair events. The reason for these financial contributions is straightforward; being a destination for academic events is big business (Convention Industry Council 2011; C. Jones & Li 2015; VisitDenmark 2012, 2018). Nevertheless, very little is known about the academic aspects of the chairmanship.[4] Some academic institutions have included the chairing of academic events as a promotion criterium, but what tasks do the chairs perform and how does the chairmanship have academic impact? These are the questions which we will seek to answer in the paper at hand.

The questions are important for science policy scholars for at least two reasons. Firstly, the sheer magnitude of events and the entailing amount of time and resources spent by scholars organizing it, calls for scientific scrutiny. Secondly, academic events are one of the most typical ways in which individual researchers gain access to face-to-face interactions with potential collaborators (Edwards et al. 2017; Wagner 2018); and a range of studies suggest that being physically co-present and having access to face-to-face interactions is a driver of research collaborations (Bergé 2016; Pan et al. 2012). It is well-established that the mere co-presence of researchers at large-scale research infrastructures entail higher rates of collaboration (D'Ippolito & Rüling 2019; Florio & Sirtori 2016; Lozano et al. 2014). Finally, improved transport infrastructure either by road, railroad or air travel and thereby better access to face-to-face interactions facilitates research collaboration (Agrawal et al. 2017; Catalini et al. 2016). Chairs of academic events gain access to abundant face-to-face interaction, which is likely to affect their collaboration patterns. Thus, one could think of

[4] We have applied the gendered term *chairmanship* in the article. In the research stages and in our interviews, we have used the Danish gender-neutral term of 'værtskab'. We have discussed extensively how to translate this. While we do use the term 'chairing' in the manuscript, we also apply the term 'chairmanship' for the sake of clarity and language fluidity.

chairmanships as a potential – but overlooked – science policy instrument. This study sheds light on whether this is the case.

7.2.1. STRUCTURE OF THE PAPER

In the following section, we position the paper in the existing literature and present our analytical framework. In the subsequent section, we put forward our data collection strategy and an account of how we have analyzed the data. In section 7.4, we present three analyses, which we discuss in the section 7.5., including reflections on the analytical framework and the ramifications for future research.

7.3. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Hansen et al. (forthcoming) conclude that academic events are surprisingly similar across disciplines and together with teaching and publications, one of the practices shared across faculties. Despite their proliferation and significance, academic events remain understudied from a science studies perspective (González-Santos & Dimond 2015; Hansen & Pedersen 2018; Soderqvist & Silverstein 1994). In a literature review, Hansen & Pedersen (2018) conclude that numerous disciplines, but particularly tourism studies and economic geography, have studied aspects of academic events. The collected body of literature documents that academic events have significant impact on a range of sectors, including R&D-intensive industries, policy, civil society and academia itself. Moreover, the literature addresses impact on various levels; from impact for individuals over groups to communities or entire sectors. In the current paper, we are interested in the academic impact for the chair and accordingly, we will position the paper in relation to studies on1) *chairing of events* and 2) *academic impact*. After having positioned the paper in the literature, we will outline the theoretical framework of the paper.

7.3.1. THE CHARING OF EVENTS

We understand the chairing of academic events as the activities related to convening, scheduling, organizing and promoting events. We do appreciate the fact that the chairing of an academic event typically involves work conducted by a group of people and that these people are often organized in potentially complex committee structures. In this paper, we focus exclusively on what we term the chair, who we understand to be the local academic with the most responsibility in relation to the event in question. We do so, as we expect the chair to be able to deliver the most undiluted account of the chairmanship experience.

There is to our knowledge hardly any studies on the chairing of academic events. Walters (2018) touch on aspects of chairing academic events in her examination of promoting diversity at conferences. There are also lines of literature within tourism studies and economic geography that touch upon the topic. Within tourism studies, there is an emerging literature on what has been termed *beyond tourism benefits*,

which explores how a range of local stakeholders benefit from events at the destination. The identified benefits include 'Growing local knowledge' and 'Profiling local organizations, associations, and/or centers' (Edwards et al. 2017; Foley et al. 2013). However, it is unclear who the specific beneficiaries are, but they are likely to include our understanding of chairs. In a similar vein, literature in economic geography explores events as temporary clusters that allow the local business community to tap into the knowledge and talent of the event (Fitjar & Huber 2015; Panitz & Glückler 2017; Vlasov et al. 2017). Thus, the paper in hand offers a truly novel perspective by focusing on the academic impact of the chair.

7.3.2. THE ACADEMIC IMPACT OF EVENTS

The literature on research impact often distinguishes between academic and societal impact, where academic impact is the effects on academic knowledge production itself and societal impact is the effects research has beyond academia (Penfield et al. 2014; Reale et al. 2017). In this paper, we will focus exclusively on the academic impact. Hansen & Pedersen (2018) argue that the academic impact of events has been studied by a fragmented literature with little reference to one another and no shared analytical framework. Thus, we find it conducive to map the field through two dimensions and use these to position our paper.

The first dimension relates to the character of data being used – it can either be quantitative or qualitative. There are numerous quantitative studies that explore the publication rate of presentations given at conferences, i.e. how many abstracts that end up being published as full papers (Chung et al. 2012; von Elm et al. 2003) or the citation patterns of the conference proceedings (Jeong & Kim 2010; Lisée et al. 2008). There are fewer qualitative studies and they typically aim to depict specific aspects of academic events, e.g. how participation in events influence the production of a paper in philosophy (Gross & Fleming 2011), network developments at various types of events (Storme et al. 2016) or how academic events are platforms for the exercise of power relations and discrimination (Henderson 2015; Da Silveira et al. 2015). We believe there is further scope for qualitative work and specifically for work that not only describes activities happening at academic events, but also contributes to the development of analytical models to frame the field and thereby remedy the fragmentation. This is our ambition with the paper at hand.

The second dimension relates to where or for whom the academic impact is investigated. There are studies that focus on individuals over groups to communities and disciplines. In the individual end of the continuum, there is an emerging literature that explores whether attending events is worthwhile for the individual scholar (Edelheim et al. 2018; Mair et al. 2018; Sá et al. 2019; Hansen et al. forthcoming). At the other end of the continuum, we have studies of entire disciplines and the intellectual structures of these (Hofer et al. 2010). We position our paper at the individual end of the continuum by focusing on the individual chair.

7.3.3. AN ANALYTICAL FRAMEWORK FOR UNDERSTANDING ACADEMIC IMPACT

A key challenge for any investigation of academic impact is to establish an analytical framework within which to assess impact (Penfield et al. 2014). In our study, a framework is needed to analyze how chairmanships of academic events effect the chairs' academic knowledge production process. For this need, we draw on the concept of credibility cycles (Latour & Woolgar 1986); and do so with inspiration from Hansen, Pedersen and Foley (forthcoming), where the framework has already been applied to analyze participation at academic events.

The credibility cycle is a quasi-economic model that focus on the internal logic of the scientific incentive and reward system. The research process is understood as a cyclical process, where knowledge production depends on series of conversions; routinely between money, staff, data, arguments, articles and recognition (see figure 7.1). It is a cycle of credibility, because Latour and Woolgar describe the various forms of resources (money, staff, etc.), as specific manifestations of credibility (Hessels et al. 2019). As an investor, the researcher engages in intended favorable conversions of credibility, where one form of credibility is converted to another form of credibility: *"The essential feature of the CC [cycle of credibility] is that the acquisition of credibility enables a researcher to reinvest it and gain more credibility. In this sense, credibility can be regarded as capital, coming in different forms."* (Hessels et al. 2019).

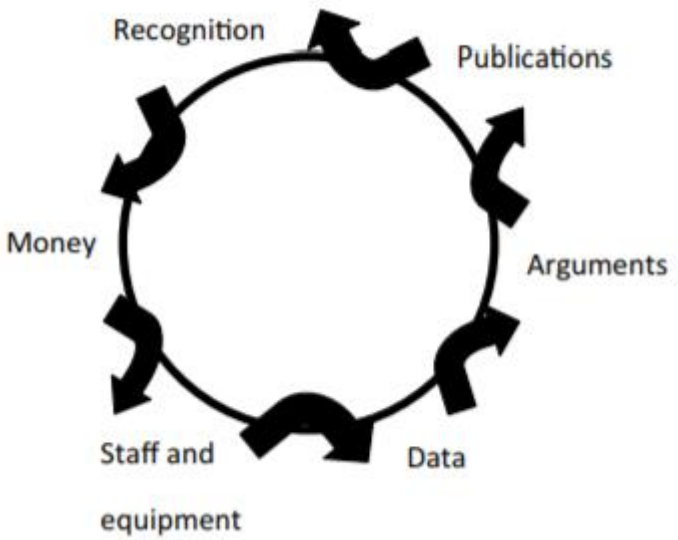


Figure 7.1: The credibility cycle, adapted from Latour and Woolgar (1986) in Hessels et al. (2009)

The typical example is the researcher, who converts recognition into a research grant. The grant is converted into PhD-students and the PhD-students are converted into data, which is converted into arguments, which are then converted into publications. As publications are exchanged into recognition, the cycle can start over.

In this paper, we will apply the cycle of credibility as an analytical framework for studying how chairmanships of academic events influence the knowledge production process of the chair. However, to do so, we need to elaborate on the credibility cycle framework. In the reading of Hessels et al. (2019), it is indicated that there are merely six forms of credibility as depicted in figure 7.1. However, this is not in line with the original model by Latour & Woolgar (1986), according to which: *"The notion of credibility makes possible the conversion between money, data, prestige, credentials, problem areas, argument, papers, and so on."* (Latour & Woolgar 1986, p. 200). The concept of credibility is not limited to the six forms of credibility. Rather, the manifestations of credibility are historically contingent. In the sections below, we will include other types of credibility informed by our data and discuss a refined version of the credibility cycle.

7.4. METHOD AND DATA

The analysis is situated within a Danish context, as we base our analysis on 23 qualitative interviews with researchers from six Danish universities. Before we outline how the informants have been identified, it is relevant with a brief introduction to Danish academia and its meetings industry. According to the European innovation scoreboard, Denmark has one of Europe's most attractive research systems with very high levels of international co-publications, share of highly cited publications and a large degree of foreign doctorate students (European Commission 2019). Moreover, the country has a thriving meetings industry, where particularly Copenhagen punches above its weight by regularly being among the world's ten most popular cities for associations meetings (ICCA 2013).

The 23 informants have all recently been involved in chairing an academic event (see appendix 1 for list of informants). In our exploration and attempt to build constructive knowledge, we were concerned with gathering close accounts of chairmanship practices and rationales. Below, we describe how we identified informants, how they were interviewed and how we analyzed the collected data.

7.4.1. SELECTION OF INFORMANTS

The study was designed to cover the breadth of chairmanships and accordingly, our ambition was to interview a very wide range of informants. For this aim, we developed five selection criteria through which we identified the 23 informants. The criteria are:

- Gender

- Career stage
- Temporal difference
- Main scientific area
- Type of event

Each of the criteria are informed by studies indicating that the specific criterion is important for understanding academic chairmanships. There is a substantial literature on how gender is important for understanding participation at academic events. Overall, the literature suggests that academic events are platforms that discriminate against women (Blumen & Bar-Gal 2006; Henderson 2015; T. M. Jones et al. 2014; Schroeder et al. 2013). Thus, we wanted to interview both male and female informants. Secondly, Hansen, Pedersen and Foley (forthcoming) identify career stage as a relevant distinction in their analysis of participation at academic events. We therefore differentiate between full professors and everyone else. The latter group is labelled mid-career researchers.

Thirdly, the temporal difference rest on a key insight from event evaluation studies, namely that events spark connections and inspiration, which might only be made useful several years after the event. Edwards et al. (2017) have worked with this topic in relation to attending events, where they have termed it *the long tail effects*. In our material, we differentiate between events held in 2014/15 and 2017/18. Fourthly, the criterion on scientific main area is informed by key insights from science studies arguing that there are significant differences between various fields and disciplines (Becher & Trowler 2001; Whitley 2000). We distinguish between five main areas, i.e. Humanities, Social Science, Natural Science, Technical Science and Health Science. Finally, Hansen, Pedersen and Foley (forthcoming) develop a typology of four types of academic events; congress, specialty conference, symposium and practitioners' meeting and document that the outcome of participation varies along these four types of events. The typology is informed by interviews with researchers that describe events they have attended and the highlighted characteristics, such as the size of the events are proportional to the research area in question. Interestingly, the four types of events were identifiable across the five scientific main areas (see table 7.1).

Type of event	Definition
The specialty conference	A mid-sized event with a specialized academic focus. The specialty conference attracts, almost exclusively, academic participants and they have an established character.
The symposium	A small event without or with limited tradition. It has a very specialized academic focus and attracts only academic participants.
The congress	A large event with a broad academic focus. It primarily attracts academic participants, but not exclusively and it has an established role in the community.
The practitioners' meeting	A mid-sized or smaller event with a large share of participating practitioners. It addresses broad academic issues and varies substantially in terms of their tradition.

Table 7.1: Definition of event types based on Hansen, Pedersen and Foley (2020).

With these five criteria at hand, we secured lists of all the events held in Denmark in 2014/15 and 2017/18 with a chair from one of the eight Danish universities through

the Danish convention bureaus[5]. The lists were coded according to our five criteria and we then selected informants that gave as wide a cover as possible. For each event, we looked into their committee structure and approached the local academic with the most responsibility, typically a person with the title as local chair or chair of the scientific committee (see appendix 1 for a list of informants). In table 7.2 below, the criteria and number of informants within each criterion is listed in brackets. As the five criteria are informed by theory, we have reason to believe that they are important for understanding differences in academic chairmanships. Accordingly, we apply the criteria as analytical lenses in our analyses when looking for patterns in our material. We apply the term analytical lenses instead of variables to underline that our limited number of interviewees do not justify statistical inference. Rather we consider the analytical lenses a useful tool for explore indicative differences that can qualify further research. Other selection criteria could have been included, e.g. the size, international reputation and location of the home institution or how the chairs were selected to their role as chairs. There are likely differences between those who nominated themselves and those who were nominated by others. However, these topics have been explored in this study.

Gender	Career stage	Temporal difference	Type of event	Scientific main area
Female (10)	Professor (11)	2014/15 (9)	Congress (6)	Humanities (4)
Male (13)	Mid-career researcher (12)	2017/18 (14)	Specialty conference (7)	Social Science (4)
			Symposium (5)	Technical Science (4)
			Practitioners' meeting (5)	Natural Science (6)
				Health Science (5)

Number of informants within each criterion in brackets.

Table 7.2.: Selection criteria and analytical lenses

7.4.2. INTERVIEW TOPICS

The interviews are semi-structured and conducted with two main topics. Firstly, in an attempt to bring out the richness and details in chairing academic events, we explored how the informants had invested in the event, e.g. by asking "*Can you please describe the organization around the event – what was your role and who else was involved?* We asked about the tasks performed and we explored the informants' assessments of the tasks by asking what other activities were delayed or neglected because of the event. Secondly, we asked to the personal academic outcomes of the event through questions like: "*has the chairmanship supported your research activities?"* and whether the fulfillment of the tasks had been noticed and appreciated.

In this line of questioning, we tried to ask questions that would lead back to the tasks that had made the outcomes possible. We were particularly interested in comparisons between chairing the event and attending similar events. These questions were instrumental in getting accounts of the negative impacts or non-impacts of chairing

[5] The convention bureaus invest significantly in securing full lists of events held in their destination, as these lists are reported to the global databases, which is a key ranking tool.

and understanding how the chairmanship is different from mere participation. The interviews being semi-structured, other interview topics were occasionally explored, e.g. reasons for taking on the role, untapped potentials in the chairmanship and other types of regrets. In each interview, we also spent some time understanding the specificities of the event in question, including whether the event was coded correctly. At the end of each interview, we showed and explained the cycle of credibility (Figure 7.1) and asked the informant to comment on her exchanges in the light of the model. Generally, this gave the informant a new terminology to describe and recap their previous points on investments and outcomes.

7.4.3. ANALYTICAL STRATEGY

The analysis of the interviews was carried out in several steps. We started by transcribing all the interviews and while doing so noting down observations that seemed particularly interesting or important. Next, interviews were coded following the two interviews topics – investments and outcomes – by categorizing interview extracts that related to these. Then, we analyzed all the identified extracts of investments and based on these extracts, we developed seven categories of tasks performed by our informants. The analysis is presented below and outlines which tasks, the chairs were involved in.

We then applied our analytical lenses to the identified tasks and looked for patterns that aligned with the lenses. Subsequently, we investigated the interview extracts and identified outcomes on two different levels. On the one hand, the chairmanship was a source of three forms of credibility; network, buzz and recognition. On the other hand, the academic events are also marketplaces for other conversions of credibility. These two analyses are presented below.

7.5. ANALYSIS: THE CHAIRMANSHIP AS A MULTIFACETED INVESTMENT

The informants describe a chairmanship as very intense, as *"24 hours", "not like participating at all"* and as a multifaceted investment. The chair needs to be a *"jack-of-all-trades"* spanning activities related to logistics, scientific curation, community building and administration. In our data material we have numerous text extracts related to the tasks performed by the chairs. In this section, we will bring these observations together and provide an analysis of how the chairs invest in the chairmanship. We have identified seven clusters of tasks and in table 7.3, we provide an overview and definition of the task.

Task	Definition
Scientific curation	The scientific curation is the shaping, selection, and programming of the scientific content that is included in the event.
Logistics	The logistics of the event is the practical planning, implementation, and coordination of the event typically tasks related to catering, venue, and transportation.
Community building	Community building is the activities that aim to strengthen the social cohesion of the community.
Organizational work	The organizational work is the administrative and coordinating activities that relate to the association or society associated with the event.
Editing scholarly output	Editing scholarly output is the post-event activities related to securing a scholarly output of the event, for example, publication of conference proceedings, a special issue or a book.
Administration	Administration is activities related to the management of the event such as budget, visa applications, and applying for funding.
Promotion	Promotion is activities related to the advertising and hyping of the event.

Table 7.3.: Definition of chairmanship tasks

Scientific curation

Our informants are directly involved in the scientific curation in several ways, including academically positioning the event through the writing up of a theme, for instance in the call for abstracts and on the website. Another element of the scientific curation is to review the submitted abstracts and decide which papers to include and which papers to give priority, e.g. through attractive time slots. Chairs are also often involved in deciding on keynotes, inviting them and discussing their presentations beforehand. Finally, some of our informants are indirectly involved in the scientific curation by appointing colleagues to important positions, such as scientific committee chairs or session chairs. Generally, the scientific curation is very highly prioritized:

"There is something at play there [the scientific curation] – I mean, I could be a little indifferent whether some dinner was good or very good, but the other thing is science. It must be in order." (Informant II).

Logistics

The tasks related to logistics come at two different levels. On the one hand, for the chairs of congresses and for informants with ample administrative support, the logistical tasks are mainly an issue of taking responsibility for decisions that other people implement. However, the rest of the informants are involved in logistical tasks at more practical level:

"So, I'm involved in everything and nothing. I think this is very typical for exactly where I am in my career. I'm so big that I have people working for me, but so small that I don't have people to do the job altogether." (Informant XV).

The tasks related to logistics often entail some on-site commitments and worries:

"So, I was not thinking much about the talks, but mainly about whether the canteen will make the food in time and whether the busses will arrive for the conference trip and where are the people chairing the session and so on. So that was a week full of - you know - worrying about other stuff than science for me as the organizer." (Informant VIII).

Several informants describe these worries and the entailing lack of attention towards the scientific talks as a major downside of the chairmanship.

Community building

Some informants describe how they are involved in activities that support and develop the community around the event. These activities are closely related to the logistics of the event but are focused on giving the delegates an experience that is not directly connected with the scientific aspects of the event. It often involves dinners and excursions – here a quote from an informant, who was devoted to this task:

"They cried because they were touched by the stories from the patient. They laughed because there was music and dancing and then they got a lot of culture from Odense […] *they will not forget this conference."* (Informant XIX).

However, some informants describe how they invest themselves personally and socially in the community building efforts by *"staying up late"* (Informant V), *"going into the cold water in Tisvildeleje"* (Informant XVI) and *"driving people home from the after party"* (Informant VIII).

Organizational work

Not all events are owned by associations, but many are and for several informants, the chairing of the event involved substantial collaboration with an international association or society. We term these coordinating activities organizational work. The task is closely linked to understanding the community, setting an agenda for it and delivering an event that is line with the community needs. This often entails significant travelling and membership of various committees and boards:

"It is not a goal in itself, or it is for some, but yes, I have had a diamond card [highest tier of the Star Alliance frequent flyer programme] in all that time and that is an indication of how many travel days I have had." (Informant IV).

Editing scholarly output

After the event, the chairs engage in editing the content presented at the event with the ambition of getting it published. Examples include conference proceedings, journal articles, special issues of journals and books. The chairs consider this a familiar academic task:

"I'm thinking about editing a book with the essays [from the event]. *But it is a lot of work and it is more editorial work. […] and editorial work is always very much to do the work for others."* (Informant XVII).

However, some informants describe the editorial tasks as a contribution to the development of the community, which the event brought together.

"But for this conference, I made the point that whatever is done should have some sort of memory. It should not get lost. So, from the very beginning, I was in touch with [journal] and I was in touch with the chief-editor and he agreed to have a special issue." (Informant XIIX).

Obviously, this helps the chair, but it also allows more junior members of the community to *"punch above their weight"* (Informant XV) by publishing as part of a group and contributing to the development of the community.

Administration
Administration is managerial activities related to the event, such as budgeting and post-event accounting, evaluation, staff management, correspondence with delegates on issues such as visa applications and application for funding. These administrative tasks are considered tiresome and something the chair would rather be without:

"*You spend a lot of time on administration and that is what all university employees are trying to get away from and so here you actually choose administration"* (Informant VII).

Promotion
Our informants engage in the promotion of the event in various ways. Posters are produced and distributed via emails to the community. Social media, Twitter in particular, is very important for the dissemination of the call for abstract and other news related to the event. And, the chairs promote their events when speaking at other occasions:

"If we gave a presentation at any conference, there would be a slide saying - look this conference is coming. You are listening to me and you seem really engaged - you can hear more at this conference." (Informant X).

7.5.1. TASKS AND THE ANALYTICAL LENSES

The clusters of tasks outlined above are based on analysis of all the informants and accordingly go across our five analytical lenses. If we apply the lenses, surprisingly little stands out. There are no discernable patterns related to gender, temporal difference or scientific main area. However, applying the career stage and analyzing the professors as one group and the mid-career researchers as another, the professors' dealings with the tasks are more related to overseeing and management than actual implementation. This is obviously because the professors have better access to supportive staff than the mid-career researchers that need to be involved in a different manner. However, there are no qualitative difference – both groups are engaged in the seven clusters of tasks. Similarly, when the data material was investigated by applying the four types of events, all tasks were identifiable across the four event types.

Nevertheless, there are indications of patterns that could inform further studies. For the specialty conference chair, the logistics seem particularly important, as these communities meet on a regular basis and accordingly develop some standards for the acceptable event in terms of catering, venue and transport. The informants comment on previous events where the chair had failed to deliver in relation to the logistics:

"We were in Amsterdam and the local chair had not taken on his responsibility. It was simply not okay [the logistics]. Then it becomes discrediting, then people will start thinking - oh shut up, you are not person to be counted on. You come in bad standing." (Informant VII).

For the symposium chair, the community building tasks are highly prioritized. The purpose of this type of event is to bring together a community around an overlooked or novel research question, theme or approach. However, the chairs of symposia recognize the need for the community to interact socially:

"*We are in the process of establishing a new, global community […] we try to make them stay together for a good while and you know to give lectures to each other, have discussions, go out and swim together and do things together. And you know to establish a community. It is actually the most important thing – to establish a community."* (Informant XVI).

The tasks outlined above provides an overview of what the chairmanship actually is by describing the tasks it involves. We see the chairmanship as a multifaceted investment, which spans tasks that are of a classical academic nature, such as editing scholarly output, but also tasks that are non-academical in a traditional sense, such as logistics. Taken together, we conceptualize the chairmanship as an investment, which the chairs use as a source of credibility. Something we will analyze in the subsequent section.

7.6. CHAIRMANSHIPS AS A SOURCE OF CREDIBILITY

It is a key finding of the study that no matter which of the analytical lenses we apply, the informants describe the chairmanships as sources of three forms of credibility; network, buzz and recognition. We do not argue that these forms of credibility are guaranteed in the sense that any chair will be able to secure them. Rather, we argue that any academic event holds the potential for these conversions and as our informants repeatedly stressed these listed conversions, we believe them to be common. *Network* and *buzz* are not included in the original model of credibility cycles and thus we add these two to our refined version of the model and elaborate on them below. We also include the concept of sub-categories of credibility to our version of the credibility cycles, which we understand as a specific manifestation of a form of credibility. We use these to provide more detailed analyses of recognition. The implications for the cycle of credibility will be further discussed in section 5.

7.6.1. NETWORK

We have included network as a form of credibility in our model as our informants underline this as an important and central resource for doing research. Moreover, they talk about network as a form of credibility – something one can invest in and draw on if needed. The informants describe how their network expands, deepens and is reconfirmed due to the chairmanship. In our data material, we have identified four processes that describe how the chairmanship is a source for network development. Firstly, the chairmanship is a platform for visibility. This is due to the name and picture of the chair being profiled in the program and on the website and because the chair has access to various ceremonial platforms, such as opening and closing speeches. Taken together, these increase the visibility of the chair: *You get hits; you have Google tell you that these people looked you up. People that would never have known your name before* (Informant X). The increased visibility makes a difference for the development of network, because "*you can better fall into conversations - you do not have to say hello, my name is… Because they know."* (Informant XXIII).

Secondly, the chairs' involvement in the logistics of the event makes them a natural reference point at the event. Thus, they engage more easily in conversations:

"they [the delegates] have more reasons to talk with you. It can be that they ask when the bus is leaving, but then you have a chance to chat with them a little bit more." (Informant VIII).

Thirdly, the chair is often involved in appointing colleagues to various positions and roles, e.g. committee membership, session chairs or keynotes. These tasks of inviting colleagues to take on certain roles is important for the development of networks, as it gives potential for some reciprocity in such invitations: "*They do eventually invite you back for something. You get them to notice what you are doing. I can see that now."* (Informant X). The informants generally describe how they get a lot more invitations

after having been chairs. Such exchanges of invitations contribute to the maintenance and development of the chair's network.

Finally, the informants describe how they as chairs gain access to exclusive networks. This could for example be a VIP dinner for sponsors and keynotes. At such events, the chair has a certain position, which informants describe as important for the maintenance and development of the academic network. Here in the words of a chair of a specialty conference:

"*It is a relatively small area, so we know most people beforehand, but it is totally different when you sit a couple of nights in a row and talk to the leading researchers in the area*." (Informant XIII).

7.6.2. BUZZ

We understand buzz as a sense for the trends and emerging hypes of a research field (Hansen et al. forthcoming). Trends and hypes do not merely refer to the research topics, but also to the people, research groups, stakeholders and institutions working in relation to the topics. The concept encompasses both a sense for the direction of the research topics, the groups working in the field and the wider context of the field. Our informants describe how buzz is essential for the development and timing of grant proposals, publications and recruitments:

"Well, you use it [buzz] when you design research projects, so you know where things are moving. You know whose work to read for inspiration. The art is not just moving in parallel with the development, but to try to anticipate where the field will be in two years." (Informant IV).

The chairmanship is a vessel for buzz as the chairs are involved in various formal and informal correspondences related to the scientific curation of the event. One informant describes it as being the *"spider in the middle of the web"* (Informant XIIX).

The involvement in the scientific curation provides the chair with a broad sense of who is working with what. The chair engages with the research of people and groups, with which they would normally not engage. This provides an overview of the field and one informant states it clearly when saying: *"It was the most intense shortcut to the community. Now, I know a lot of the discussions insanely well*." (Informant III). Moreover, the selection of keynotes and prioritized speaking slots involves discussions with other members of the community. The discussions will involve formal arguments, but also carry connotations and views on who is pushing the field and who truly deserves recognition. These kinds of discussions are excellent sources for buzz.

7.6.3. RECOGNITION

Finally, our informants describe the chairmanship as a source of recognition. It is important to underline that within the cycle of credibility, recognition is considered a form of credibility, which allows the researcher to engage in future exchanges. It is another form of credit. We have identified two ways in which the chairmanship is a source of recognition across all our analytical lenses. Firstly, the chairmanship is an academic data point that is added to the CV, reported on websites or included in the email signature:

"I was writing to a real hot shot at STERN Business School and asked if I could be her guest. […] I met her in New York and afterwards we communicated on email. Then I got this forwarded email - that is, I should not have seen it - where she had argued internally for inviting me and her arguments were not related to my research or publications, but that I was organizing that conference." (Informant III).

In this example, the chairmanship is a source of recognition, which is activated in an exchange that leads to enhanced network with a researcher at a key institution. Secondly, and as described above, the chairmanship increases the visibility of the chair among the participating delegates due to website profiling, opening speeches and similar activities. Some informants argue that the visibility is a source of formal recognition in the form of citations:

"I can't prove it, but I think I've gotten more citations after the conference. I think more people have looked me up and checked out my research and then cited some of my papers" (Informant XXII).

Moreover, we have discerned two sub-categories of recognition that were specific to two event types – *associational recognition* in relation to the congress and *stakeholder recognition* in relation to practitioners' meeting. The chairs of congresses gained access to increased recognition within the association, which some used to ascend in the associational bureaucracy. Some informants became president of the association or chair of the scientific committee:

"Of course, it [the chairmanship] also gives some credit. In such associations, there are positions of trust that are interesting. I have served on the research committee of the European chapter and after the event, I managed to become vice-chair." (Informant II).

Within the field of medicine, there are specific reasons for wanting to climb the bureaucracy as being at the top of the associational hierarchy means that one gets to co-author guideline publications:

"There is also publishing activity with our guidelines and when you are at the top [of the association], you are part of this. And there are lots of extra publications […] and

often these get very many citations because it is overviews, reviews and guidelines, which you pretty much have to quote if you are working in the field." (Informant IV).

Thus, the associational recognition is a form of credibility, which is exchanged into publications and probably also network.

The chairmanship of practitioners' meetings is a source of recognition among external stakeholders, particularly in industry. The stakeholder recognition is acquired by organizing the event to accommodate for the needs of stakeholders. An example stems from a professor with important collaborators in industry, who had a clear interest in the event being held at a university:

"[the company] couldn't have lifted it alone. They also try not to have the conference in an industrial context. The link to universities is hugely important. Therefore, the location is important. It was up in the old lecture hall, which was a tremendously fine setting that gives legitimacy. When it is held in the United States, it is often in a hotel. The university gave a sense of independence and professionalism." (Informant XX).

The informant describes it as helping a long-standing and that the stakeholder recognition potentially can be exchanged into money – either via direct contributions from the industrial collaborator or by including the stakeholders in a future grant application.

7.6.4. SOURCES OF CREDIBILITY AND THE ANALYTICAL LENSES

In parallel with the section 7.5 above, this section applies the five analytical lenses to discern patterns in the sources of credibility based on gender, career stage, temporal difference, main scientific area or the type of event.

Two of the analytical lenses, gender and main scientific area, did not provide insights worthy of reporting. The career stage did provide two indications that deserve mentioning. Firstly, the professors presented the access to the forms of credibility in a less favorably tone than the mid-career researchers. Here a characteristic quote from a professor:

"I didn't have a special personal drive to do it. I must say. After all, it's just extra work and it doesn't really matter to me. Of course, it gives access to new networks, but I am already part of so many." (Informant V).

This could indicate that the chairmanship provides a different kind of potential for the mid-career researchers that were much more enthusiastic. Secondly, the interviews with the professors, required firm steering to keep the focus on personal outcomes, as the interviews would otherwise drift towards the outcomes that were made possible for the research group, the department or the scientific community. Taken together, there is ground for a hypothesis on variance between chairing professors and mid-

career researchers, where the latter sees more direct, personal potential in the chairmanship than the professors.

In relation to the temporal difference we note that it is the chairs of the events from 2014/15 that highlight the increased rate of citations of their papers due to the chairmanship. We did not discern other differences related to the temporal difference.

7.7. CHAIRMANSHIP AS MARKETPLACES FOR CONVERSIONS

In the two previous analyses, we firstly investigated which tasks chairmanships encompass and secondly, how the chairmanship is a source of network, buzz and recognition. However, an academic event is not only a source of credibility for the chair, it is also a marketplace for conversions of credibility. This is the case for the delegates at events; Hansen et al. (2020), document numerous examples of conversions of credibility between delegates. Similarly, the chairs do also engage in a range of conversions of credibility.

The chairs reinvest the newly acquired network, buzz and recognition at the events they chair: *"It [the chairmanship] provides the ground for a lot of networks, and we use these to get measurable things, such as outstanding publications."* (Informant XIV). The newly acquired forms of credibility are typically converted to what the informants term collaborations. These cover a variety of activities such as publications, grant applications and shorter or longer research stays. Some informants describe the event itself and the period immediately after the event as particularly important, in the words of one informant *"all doors are open"* (Informant XIII). He describes a situation, where the rest of the research community would welcome *any* collaboration with him or his group. Another informant describes how the chairmanship has a *"significant spill-over effect in relation to the establishment of research collaborations"* (Informant XI).

Obviously, the conversions are not an isolated effect of the chairmanship. More modestly, we argue that the chairmanship underpins the exchanges. Here in the words of one informant, who is converting recognition:

"We are in the process of recruiting a professor from the US. And she really wants to. […] Of course, this is also because of our research, but it is also because of our chairmanship and because she knows who we are now." (Informant XIX).

Moreover, we have also identified examples of chairs, who engage in conversions of other types of credibility than the newly acquired. Here is an example of how data was converted to a high-profile publication:

"[Name of researcher] presented some data they had just created in the laboratory in the US, and it fitted with Martin's cohort of tissue samples. We brought it together and it has just been published three days ago in [Top-journal]." (Informant XIV).

7.8. DISCUSSION AND CONCLUSION

Our analyses propose a refined understanding of the chairmanship of academic events. The chairs of academic events engage in seven various clusters of tasks – spanning logistics, community building and editing scholarly output. The chairmanship is a multifaceted investment, which is a source for specific forms of credibility; network, recognition and buzz. These acquired forms of credibility can fruitfully be converted in relation to the chairmanship as the events are marketplaces for credibility conversions. A key finding of the study is that the outlined analyses converges across our analytical lenses. Our analyses expose a core of the academic chairmanship. This comes as a surprise to us; we had designed the data collection strategy with the five selection criteria, which were applied as analytical lenses along which we intended to identify patterns in the data material.

However, the lenses do only to a limited extent provide a grid through which the data can be structured. It is surprising that the chairmanships are so similar across scientific main area; temporal difference; type of event, gender and career stage. Two caveats should be highlighted in relation to this finding. Firstly, the study is based on a small number of informants – 23 in total – and within each specific analytical lens, the numbers are even smaller for example 10 women and 13 men with respect to gender. Secondly, the finding only relates to the foci of the study, namely the tasks of the chairmanship, the chairmanship as a source of credibility and the chairmanship as a marketplace for conversion. The analytical lenses would likely illuminate important differences on other topics. For example, the rich literature on gender and academic events suggests that topics, such as discrimination or access to speaking slots should be understood through a gendered perspective (Blumen & Bar-Gal 2006; Henderson 2015; Parker & Weik 2014).

7.8.1. CYCLE OF CREDIBILITY – SCOPE AND LIMITATIONS

Informed by our data and analysis, we have reasons to suggest some revisions to the cycle of credibility model (figure 7.2). Firstly, we have included two forms of credibility: network and buzz. As outlined above Latour and Woolgar (1986) argue that the specific manifestations of credibility are contingent and thus it is clearly in line with the intentions of the model to develop other forms of credibility. We document how buzz is exchanged for network and publications. Network is typically invested in exchange for a range of other forms of credibility, including money in the form of grant proposals, but also publications. The two forms of credibility are crucial for understanding how chairmanships have academic impact.

Secondly, the original version of the model indicates that the conversions happen in a specific order; however, our data suggest that the order of conversions is multi-directional in the sense that recognition is not necessarily exchanged to money, but is for example also exchanged to network, data or staff. The multidirectionality of conversions is illustrated by dispersing the forms of credibility inside the circle rather than situated on a line in a specific order.

Thirdly, the revised cycle emphasize recognition as a specific form of credibility, as it both can be further converted as we have documented above, but also be an asset in relation to actors the outside cycle of credibility.

(see figure 7.2).

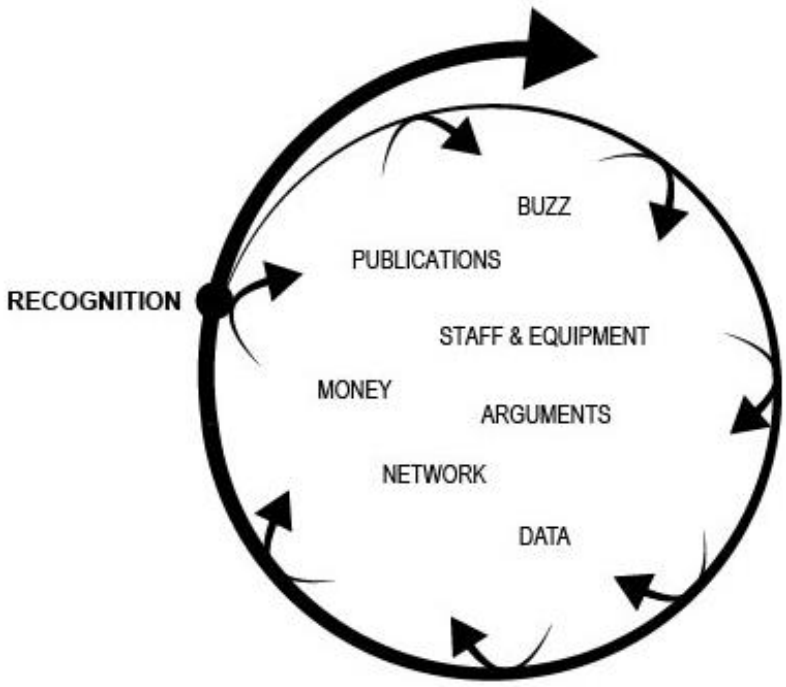


Figure 7.2: revised cycle of credibility

Our use of the credibility cycle framework indicates that there is scope for further exploration of the cycle of credibility as a framework for analyzing academic knowledge production processes. By proposing revisions of the model, our study feeds into a literature on the development of the credibility cycle. Packer & Webster (1996) include patenting activities in their work on credibility cycles, as they argue

that patents are of increasing importance. Several scholars have extended the model to explore the issue of relevance, especially in relation to research councils (Rip 1994) and the wider contract between science and society (Hessels et al. 2009).

The study also taps into an ongoing discussion on how conversions of credibility happen through various structures. This is an important theoretical point made by Hessels et al., (2009): *"There are formal or informal structures which influence the transformation of one form of credibility in another […and] determine the exchange rate, so to speak, of one form of credibility into the next."* An example can help illustrate this point; The researcher who wants to convert a grant into the recruitment of PhD-students do so under the influence of the labor regulation in the specific country and the prestige of the university. In this paper, we conceptualize academic event as an informal structure that influence the exchange rate of the conversions.

The analytical framework of credibility cycles has proven itself well-attuned to describe and analyze the individual, academic knowledge production process and how chairmanships of academic events support it. The model is originally developed to describe research groups (Hessels et al. 2019; Latour & Woolgar 1986) and it would be meaningful to apply it at this level with respect to chairmanships of academic events. The wider research group around the chair and others involved in the chairmanship such as members of scientific committee are likely to gain access to similar conversions as the chair. One could also speculate whether a chairmanship has impact at more aggregate levels, e.g. whether the event raises the profile and prestige of the university with an expected enhanced potential for recruitments. Or whether the event has impact on the community development of the academic societies and associations. However, the credibility model is not applicable for studying impact of academic events on such an aggregate level.

7.8.2. FURTHER RESEARCH

In the introduction to the paper, we pose the question whether chairmanships of academic events should be thought of as a science policy instrument. Our study provides a qualitative description of what a chairmanship is and how it has academic impact for the chair. These descriptions warrant further attention from science studies scholars and science policy practitioners.

Firstly, our study suggests that a chairmanship of an academic event leaves the chair in a better position to engage in conversions of credibility due to newly acquired forms of credibility. Our analysis offers a description of how the chairs gain this position. It would be valuable to further explore the impacts of the chairmanships. This could be done through bibliometric analyses of former chairs, including their co-authorships and citation patterns. Such analysis would warrant assessments of the strength of the impact of chairmanships. Another accessible approach would be to develop surveys with former chairs, where the questionnaire could be based on the categories developed in this study.

Secondly, the study documents that several of the tasks involved in a chairmanship are of a non-academic nature. Nevertheless, the fulfillment of these allow the chair to access academic forms of credibility that can be applied in traditional conversions related to for example data, publications or recruitments. This indicates that the chairmanship presents a particular opportunity for emerging researchers that are not stocked up on classical forms of credibility and that the chairmanship offers an alternative route to conversions of credibility. With the importance of these non-academic tasks in mind, it is advisable that academics consider support from experts on tasks such as logistics, community building or administration.

Finally, we believe it would be fruitfully to include reflections on the personality and motivations of the chairs. Does it make a difference whether the chairs have nominated themselves or only reluctantly accepted the role due to pressure from colleagues or the university leadership. It could also be interesting to explore how extrovert or introvert researchers take on the role of the chair. The chairmanship might be particularly useful for extrovert researchers that already excel in conversions related to networking and recognition. Or it could be that introvert researchers benefit particularly from the chairmanship, as it assists them in converting forms of credibility, which they normally struggle with.

Appendix 1: List of informants

#	**Informant**	**Event**
Informant I	Male, Deputy Director, Humanities	Congress, 2017
Informant II	Male, Professor, Health Science	Congress, 2017
Informant III	Female, Associate Professor, Social Science	Congress, 2017
Informant IV	Male, Professor, Health Science	Congress, 2014
Informant V	Male, Professor, Natural Science	Congress, 2015
Informant VI	Female, Associate Professor, Natural Science	Congress, 2017
Informant VII	Male, Associate Professor, Social Science	Specialty Conference, 2014
Informant VIII	Male, Professor, Technical Science	Specialty Conference, 2017
Informant IX	Male, Professor, Natural Science	Specialty Conference, 2017
Informant X	Female, Postdoc, Humanities	Specialty Conference, 2017
Informant XI	Male, Professor, Technical Science	Specialty Conference, 2015
Informant XII	Female, Associate Professor, Humanities	Specialty Conference, 2018
Informant XIII	Male, Professor, Natural Science	Specialty Conference, 2017
Informant XIV	Male, Professor, Health Science	Symposium, 2017
Informant XV	Male, Associate Professor, Social Science	Symposium, 2017
Informant XVI	Female, Professor, Natural Science	Symposium, 2017
Informant XVII	Male, Associate Professor, Humanities	Symposium, 2014
Informant XIIX	Female, Professor, Social Science	Symposium, 2014
XIX	Female, Associate Professor, Health Science	Practitioners' Meeting 2017
Informant XX	Female, Professor, Natural Science	Practitioners' Meeting 2014
Informant XXI	Female, Associate Professor, Health Science	Practitioners' Meeting 2014
Informant XXII	Male, Associate professor, Technical Science	Practitioners' Meeting 2014
Informant XXIII	Female, Associate professor, Technical Science	Practitioners' Meeting 2017

8. DISCUSSION

In this chapter, I will discuss the previous chapters and address the ramifications of the study for the research fields of event studies and science studies, as well as for the practitioners working within the meetings industry and science and innovation policy. The chapter will be structured with five sections. First, I discuss and compare the insights of Chapters 6 and 7. As Chapter 6 focuses on participation in academic events and Chapter 7 focuses on chairmanships, there is a basis for a comparison of these two forms of involvement in academic events. Secondly, a section on the ramifications for event studies is followed by a section on the implications for the meetings industry. In the fourth section, I discuss the ramifications for science studies and, finally, for the implications for practitioners working with the academic sector.

8.1. COMPARISON OF PARTICIPATION AND CHAIRING ACADEMIC EVENTS

Chapter 6 addresses participation at events, and Chapter 7 addresses chairmanships of academic events. Both studies are conducted within the same analytical framework. This forms the ground for analyzing differences and similarities between participation and chairing of academic events.

Obviously, there are major differences related to the investments made when participating in or chairing an academic event. As laid out in Chapter 7, chairmanship requires engagement in a range of tasks. In that analysis, we offered a qualitative description of the tasks and did not assess how demanding each of the tasks is. To assess the intensity of the required tasks, it would be necessary to develop a quantitative or comparative analysis. Despite this shortfall, it is beyond doubt that a chairmanship requires an entirely different level of engagement compared to mere participation in events. Chairmanship requires investments in various non-academic activities, such as logistics and administration, whereas participation is focused on academic exchanges. Thus, there are major differences related to the investments. Likewise, there are important similarities and differences related to the outcomes.

Starting with the similarities, an academic event is a marketplace for credibility conversions for both chairs and participants. In both Chapters 6 and 7, we study the academic impact as the productive conversion of one form of credibility to another and identify such conversions for chairs and participants. In both cases, the conversions mainly involve network, buzz, and recognition. Thus, my analyses indicate that academic events deliver a particular academic impact through conversions of these types of credibility. The academic events are important platforms

for identifying and exchanging buzz in the form of trends, gossip, and potential hypes. They also provide access to networks, and they are platforms for recognition. Like the analysis of the tasks, our analyses do only offer qualitative descriptions of these exchanges, and thus, we cannot assess whether chairs have *more* productive exchanges than participants. Such an analysis would be very valuable to conduct but is beyond the scope of this research project.

Turning to the differences of outcomes for participants and chairs, the participants at events do not immediately have access to any form of credibility. Rather, their conversions depend on previously acquired forms of credibility. This is particularly evident for emerging researchers, who depend on their presentation at the event or the network of mentors to gain access to conversions. For chairs, this seems to be different as the chairs gain access to several forms of credibility in exchange for the tasks related to the chairmanship. Thus, the chairmanship can offer an entry point for scholars with limited previous credibility.

Another interesting difference becomes apparent when taking the typology of academic events into account. With regard to participants, the typology is useful for describing differences between conversions of credibility. Yet, the chairs experience much greater similarity across the types of events, and thus the typology is not useful for describing differences in relation to the chairmanship. I interpret this finding in light of the limitation on chairs' time and schedule. Across event types, they describe their chairmanship as exceptionally busy working days. This is the same for chairs of congresses as well as symposia. Chairs are constantly occupied with activities, such as worries, official talks, and dinners. Thus, it seems like the time of the chairs is pre-defined; they must fulfill several tasks between which there is a limited qualitative difference. Delivering a welcome address to hundreds or thousands of delegates is likely to have the same qualitative outcome, although the intensity might differ dramatically. However, for the participant, there are major differences between the types of events, as the participants can choose themselves how to prioritize their time at each event, and thus, the differences between the events become more apparent.

8.2. RAMIFICATIONS FOR EVENT STUDIES

As laid out in Chapters 1 and 2, the research project contributes to event studies by engaging and elaborating on the emerging literature that evaluates business events beyond their direct economic impact. These other types of impacts are referred to under several headings, including beyond tourism benefits, legacy, social impacts, and intangibles. More specifically, the dissertation makes two contributions to the literature by 1) distinguishing and elaborating on academic events as an independent category of business events and 2) exemplifying the potentials of interdisciplinary research.

8.2.1. ACADEMIC EVENTS AS AN INDEPENDENT CATEGORY

'Educational and scientific events,' as a category, has previously been identified as a specific sub-category of events (Getz 2008, 2011; Getz & Page 2016a); however, the category has not been developed beyond mere labeling. This research project provides a definition of academic events, which draws on both event and science studies. The definition situates academic events within event studies by highlighting the planned nature of the events, while it draws on science studies in relation to situating events as spaces for academic practice. Thus, with this definition, academic events are distinguished from other types of business events through their function as spaces for academic practice. Following the work of Lunt (2011), a classification of events is always done with some purpose, and the categorization of academic events is only meaningful insofar as it illuminates important differences between academic events and other types of events. As documented in the research project, the category is useful for analyzing academic impact, which is obviously distinctive for this specific type of event. Moreover, the category of academic events is a main category under which four specific types of academic events have been identified.

The category of academic events is illuminative in relation to other research topics than academic impact. Here, I will highlight two topics, where this is the case. First and foremost, there is a long pedigree for studying the motivation and decision-making process of attendees at business events (Jago & Deery 2005; Oppermann & Chon 1997; Tretyakevich & Maggi 2012). This topic has been highlighted as one of the key themes in the business events literature (Getz & Page 2016b; Mair 2012). The literature explores which factors are most important when deciding to attend an event. The studies have provided a range of findings, including differences related to gender (Ramirez et al. 2013), location attractiveness (Rittichainuwat et al. 2001), and loyalty to the event (Kim & Malek 2017). This study and science studies, in general, argue that academics are motivated differently than other professions. Moreover, it is reasonable to assume that academics enjoy more individual freedom in terms of deciding which events they participate in. Taken together, it would be relevant to apply the category of academic events to studies of the attendee decision-making process to compare whether attendees at academic events have a different decision-making process than attendees at other types of events. Secondly, the process of bidding for events has been the object of some research (Getz 2004; Mair 2014); however, it would be fruitful to investigate the matter through the lenses of academic events and explore whether there are differences related to bidding on academic events compared to other types of business events. This is reasonable to assume. Getz (2004) highlights the local stakeholders as particularly important in the bidding process, and the current study indicates that the chairs of academic events benefit in specific ways that are likely different from other types of local stakeholders. Conclusively, the category of academic events is probably a meaningful category to apply to research

questions that explore the evaluation of impacts and motivations. However, the category of academic events is insignificant when exploring research questions related to a whole range of areas where there is no difference between business events, for example questions related to the logistics, sustainability, or practical organization of the event.

8.2.2. ON INTERDISCIPLINARITY

Several calls have been made from within event studies for the development of an approach for studying beyond-tourism benefits (Mair 2014). It has been further argued that the research agenda should focus on business events "*as stimulator and facilitator of economic activity, innovation, learning, and trade."* (Jago & Deery 2012, p. 5). These calls echo strategic statements from representatives of the meetings industry. However, it has also underlined how the research agenda faces difficulties in relation to operationalization and methodological development (Mair 2014). A parallel conclusion was reached in Chapter 5, where we conclude that several types of impact are identified independently of conceptual frameworks. Allow me to illustrate this point through an example. In their landmark study, Foley et al. (2013) identify *Increased Attractiveness of Education Sector* as one of the beyond-tourism benefits and explain the benefit as follows.

> *A business event also provides positive outcomes in terms of increasing the attractiveness of the education sector as a whole. By exposing delegates to local knowledge, research capacity, sites, and facilities, business events can create flow on effects in terms of increasing the attractiveness of the destination's education sector [...] Such growth in the education sector also has wider benefits for increasing the future capacity of the relevant sector* (Foley et al. 2013, p. 318).

It seems plausible that a destination can benefit from a chairmanship by having its education sector on display for a great number of delegates. However, it is also beyond doubt that the concept of the attractiveness of the educational sector, including the mobility of students, is a complex research area, which has attracted a lot of scholarly attention (Altbach et al. 2009; Gürüz 2011; King et al. 2010; Verbik & Lasanowski 2007). The research area is of great economic importance both to universities competing for students and for the wider region hosting universities. My aim here is not to engage with this literature but simply to highlight that there is a significant knowledge base enriched with theories, empirical studies, and a recipient policy environment on assessments of the attractiveness of the education sector. It also implies that the ambition of analyzing the discrete impact of chairing a business event can be situated within a developed conceptual framework. Similar examples can be identified in relation to most types of impact. The type of impact is not exclusively a

result of chairmanships of business events, and often, the interesting types of impact have also been studied in other contexts.

This is the case for the academic impact, which is studied in the current research project by drawing on insights from science studies. I believe the project makes a second contribution to events studies by exemplifying the potentials of interdisciplinary research in relation to documenting beyond tourism benefits.

8.3. IMPLICATIONS FOR THE MEETINGS INDUSTRY

As elaborated on in Chapter 1, the research project is born out of collaborative efforts between Aalborg University and the convention bureaus in Copenhagen and Aarhus. The convention bureaus engaged in the project with expectations of concrete commercial benefits as well as strategic guidelines for future evaluation and impact assessment frameworks. It is important to underline that the implications I draw below are colored by my collaborations with the convention bureaus. However, the insights are also of relevance for other types of organizations from the meetings industry, such as convention centers, hotels, professional conference organizers (PCOs), and associations. Moreover, the meetings industry is global, and there are international organizations and projects that have taken on the task of representing and advocating for the entire industry. Such organizations might also benefit from the implications outlined below.

I will unfold the implications for the meetings industry by pointing toward two overarching research findings. Firstly, the study documents that academics potentially have academic impact when attending and chairing events. Moreover, the organization of academic events depends on services from the meetings industry. I believe this lays the ground for the further development of a mutually beneficial partnership between academia and the meetings industry. Secondly, the research project outlines the difficulties in establishing a quantitively based measure for academic impact. This has implications for how to establish and conduct evaluations of academic events.

8.3.1. A PARTNERSHIP BETWEEN ACADEMIA AND THE MEETINGS INDUSTRY

It is practically unthinkable to organize an academic event without collaborating with some representatives of the meetings industry. The local convention bureau might be involved in delivering the bid material, a restaurant is likely involved in a dinner, and almost surely, the attendees and speakers will sleep at a hotel. Most academic events

would not be possible without the services provided by the meetings industry. In other words, the meetings industry provides the essential infrastructure for the execution of academic events, as the academic impact of attending and chairing events identified in this study depends on services from the meetings industry. Concurrently, the academic sector is also an important commercial client for the meetings industry.

The mutual dependence is rarely thought of as a partnership. Nevertheless, the study warrants the development of partnerships, which rests on the recognition of mutual dependency and interest in developments of joint projects. Such partnerships carry far-reaching potentials, particularly for the meetings industry. A partnership would contribute to the industry being *"recognized as an independent sector beyond tourism and with a clearer story aligned to economic development, knowledge, and innovation"* (Cameron 2018 p. 6). The academic sector is routinely called upon to deliver innovation and even solutions to grand societal challenges, including anything from climate change to malnutrition and cancer. A more developed partnership approach between academia and the meetings industry would allow tapping into the purpose and societal legitimacy held by academia. Achieving such recognition has been identified by leaders in the meetings industry to be one of their greatest challenges (Cameron 2018). The recognition is expected to open a range of possibilities for partners in the industry, in particular for convention bureaus and convention centers that hope to become eligible for funding streams aimed to support knowledge-intensive businesses and academia. The first steps in this direction have already been made in Denmark (Gaining Edge 2018).

Partners in the meetings industry and convention bureaus (or convention centers) ought to initiate new alliances by becoming innovation hubs for academic events. The core idea is that academic events are powerful platforms that can be used to achieve several aims for the academic sector, including how the academic sector engages other sectors in society. Examples include dissemination of research (Desai et al. 2016; Djuricich & Zee-Cheng 2015), platforms for engaging stakeholders such as patient groups (Dimond 2014; Stephens & Dimond 2016), and industry collaborations (Chen 2019; Fitjar & Huber 2015). In the literature review, we outline many other examples of impact. Most of these impacts are also important for the academic sector. However, it is the impression of the convention bureaus as well as mine that few people in the academic sector have realized the potentials of their events. There are numerous reasons for these untapped potentials, including lack of access to insights, network, and resources. The specific conditions will differ from event to event, but in a typical organizational setup of an academic event, an international association will be represented by administrative staff and board of senior academics. These people are experts in relation to running their event but will have limited insights and networks related to local conditions. The local academic chair is typically a prominent figure in the research environment, who is well-equipped for reaching out to the rest of the national and regional research community. However, the local chair and supporting staff will often chair events only irregularly and many years apart. Thus, little

experience and expertise are collected, and even less of this information is analyzed and shared with future chairs.

Convention bureaus or convention centers are organizations that daily work with events. They are well-placed to capture best practices and turn these into applicable insights; to develop networks with key stakeholders such as public authorities, media, and industry stakeholders and to secure funding for fulfilling the potential of academic events. In practical terms, the convention bureau or the convention center needs to develop a modus operandi that inspires the event organizers and facilitates the realization of their ideas. Experiments with such approaches have been or are being planned and realized at several destinations, including Sydney and Denmark (Gaining Edge 2018). The research trajectory outlined in this dissertation supports the idea that convention bureaus and convention centers take on this task of becoming platforms for academic event innovation.

In line with this recommendation, the meetings industry ought to follow trends in academia and science policy closely to know how and where the industry can be of service to the academic sector. Some examples might serve as inspiration. There is a substantial focus on gender inequality within academia (Holman et al. 2018; Powell 2019). The core of the discussion focuses on what has been termed "the leaking pipeline" (Pell 1996), which is a metaphor for the fact that similar numbers of men and women obtain PhD degrees (European Commission 2019); however, from then on and especially the further one moves up the career ladder toward full professorships, there are fewer women than men. The discussion is often framed as a question of how to retain women in academia. One occasionally featured explanation for gender equalities is that emerging, male researchers participate in more academic events, have more speaking slots, and thereby build their reputation and network faster (Hinsley et al. 2017; Johnson et al. 2017; Parker & Weik 2014). The meetings industry could be a partner in securing gender equality at events, for example, by supporting female speakers and by providing better possibilities for childcare at events (Howe-Walsh & Turnbull 2016; Sardelis et al. 2017).

There are several other trends where academia and the meetings industry could collaborate, including access to visas and the further internationalization of academia (McInroy et al. 2018) or predatory conferences, which are characterized by profit-seeking organizers who, without effective peer review, allow anyone to purchase speaking slots and do so by pretending to be a scholarly reputable event (Bowman 2014). These are areas where the meetings industry could play a role in assisting academia in achieving its full potential and thus form the basis for a long-term partnership. However, achieving such a partnership also requires a change in the ways the meetings industry measures success, which will be further explored below.

8.3.2. MEASURING LEGACY

One of the implications of this project is to abandon the ambition of developing a quantitative, easily understandable indicator for legacy. Firstly, I will argue why ambition should be abandoned, and secondly, I will outline some insights from my studies that are of general relevance when evaluating events.

The literature review outlines a very wide range of what we term impacts. The impacts relate to academia as well as to society, and this broad range of impacts cannot be merged into one or a few indicators that could be said to capture the legacy of an event. Moreover, as the section above on interdisciplinarity underlines, assessments of specific forms of impact ought to be analyzed with reference to existing analytical frameworks. Thus, legacy as such cannot be operationalized and measured in ways similar to the direct economic impact. Accordingly, it is not possible to identify one or a few overarching indicators for legacy.

In Chapters 6 and 7, we analyze academic impact. However, in these analyses, we identify two characteristics of events that might be accentuated at academic events, but also apply at a range of other types of events. Thus, these characteristics are of relevance to broader discussions on the evaluation of events. Firstly, events are extensions of the regular workspace. In our analyses, we see this because the identified conversions are a continuation of regular academic work. The identified conversions are not isolated to academic events but also routinely occur in a range of other contexts. For example, the conversion of scholarly output to recognition also happens when a scholar promotes an article on social media or when the article is featured in a journal. The consequence is that it is almost impossible to isolate the impact of the academic event, as this activity blends in with a wide range of other activities undertaken by the scholar. This is likely also the case for most types of events, that the activities at the event are inherently entangled with other work processes. Secondly and in line with the previous argument, events provide an impact of a processual rather than resultant character. The identified academic impact is access to exchanges of credibility, and thus, the value creation happens when one form of credibility is converted to another. The consequence is that measuring academic impact faces the problem of endless changes in currency. Thus, it would be very *reductive* to focus only on network development or another form of credibility, because the value is really the exchanges between these. This point could also be relevant to other types of events. Whether these traits actually apply to other business events is beyond the scope of this study; however, they should be considered when developing analytical frameworks to assess the impact of business events.

8.4. RAMIFICATIONS FOR SCIENCE STUDIES

The study inserts itself within science studies by drawing on the conceptual framework of credibility cycles and by contributing to the research field on research impact assessment. Within this field, I see two main contributions. First, and most importantly, the study presents academic events as spaces of importance when studying research impact. Secondly, the study contributes theoretically by applying and developing the credibility cycles as a framework for analyzing academic impact. Finally, the study blurs the distinction between academic and non-academic activities. Each of these contributions will be unfolded below.

8.4.1. ACADEMIC EVENTS AS SPACES OF IMPORTANCE

The study highlights academic events as spaces of importance for studying academic impact. On the one hand, Chapters 6 and 7 analyze how academic events are platforms that influence conversions of credibility and thus are significant spaces to analyze. On the other hand, the study brings together a wide literature, which either directly or indirectly addresses how academic events have impact. Taken together, the research project and the literature it draws on indicate that there is a lot of scope in studying academic events from a science studies perspective. Moreover, the literature review concludes that the topic of academic events is understudied from a science study perspective.

This approach of analyzing academic events as platforms can be applied in relation to other types of impact than merely the academic one. Two avenues of research seem particularly fruitful. Firstly, academic events could be thought of as platforms for societal impact; the events are, for example, important for disseminating research and developing networks with people from sectors including policy, industry, and NGOs. It would be timely and interesting to explore further the role of academic events in relation to societal impact. Similarly, and as hinted at in Chapter 3, it would also be interesting to explore the role of academic events in relation to internationalization.

8.4.2. ACADEMIC IMPACT UNDERSTOOD THROUGH CREDIBILITY CYCLES

The second contribution to science studies relates to the use of credibility cycles as an analytical framework for analyzing academic impact. The bulk of the literature on research impact assessments relates to societal impact. Limited work has been done on academic impact, and the work that has been done has mainly focused on bibliometric indicators for academic impact (Martin 2011; Penfield et al. 2014). Thus,

this study's use of credibility cycles to describe academic impact provides an avenue that can be followed by other scholars interested in academic impact.

The use of credibility cycles allows for more multifarious descriptions of academic impact than merely focusing on citation and publication data. However, it should be underlined that the cycle of credibility is a quasi-economic model with a specific focus on the internal logic of the scientific incentive and reward system. The model relies on assumptions related to 1) *rationality* understood as scholars optimizing their transactions. Thus, it is assumed that scholars are not motivated by an intrinsic search for truth but rather to engage in exchanges of credibility. This assumption clearly does not offer a full account of how scholars are motivated. The model relies also on 2) *full information* in the sense that the model assumes that the scholars have enough information about the exchange for them to assess whether it is a fruitful exchange or not. This is also a challenging assumption, as many exchanges develop along the way, and thus, at the outset, the exchanges imply very large degrees of uncertainty.

To me, it is beyond doubt that the use of credibility cycles, as applied in the study, delivers a reductionist perspective on academic impact. Nevertheless, I find the model to be a lesser evil than merely describing impact based on bibliometric data. This is so because the credibility cycle calls attention to the processual and contextual aspects of academic work. The model highlights how academic processes are open-ended. Even the delivery of a concrete academic product such as journal publications is part of ongoing processes, where the value of the product will change depending on the context. This is crucial when studying academic events that hardly deliver products, but are platforms for important processes. Furthermore, my use of the cycle of credibility contributes to documenting and elucidating how academic work processes are heavily influenced by social and non-academic activities. As an overarching label, such studies have been termed the social dimensions of scientific knowledge (Longino 2019). The study at hand makes a modest contribution by exemplifying how academic work depends on and is enabled by typically non-academic activities such as logistics. The study investigates academia itself, its micro-practices, and its entanglement with events.

8.5. IMPLICATIONS FOR THE ACADEMIC SECTOR

The current research project ought to have practical implications for how academic events are dealt with in the academic sector. I find it meaningful to unfold the implications by differentiating between two levels: individual researchers and academic institutions.

8.5.1. INDIVIDUAL RESEARCHERS

The core of the research project describes possible conversions of credibility for individual researchers. The study provides an overview of which conversions are common in relation to participation at various academic events and when chairing academic events in general. Thus, the study offers the individual researcher a chance to reflect on her own participation and chairing of academic events.

Such reflections could either follow a line of reasoning, where the individual researcher reflects on her current research activities and identifies which conversions she is in most need of and then identifies academic events, where such conversions are likely to happen. Also, the reflection can follow a path, where the individual researcher reflects on his involvement in academic events and whether this has led to the expected conversions of credibility. If the latter is not the case, there are probably reasons to reconsider how he participates in academic events. Obviously, the decision to chair academic events has greater consequences, as the amount of time and resources invested are much higher; however, it is particularly recommendable if the potential chair is an emerging researcher with limited access to various forms of credibility. See Chapters 6 and 7 for more in-depth analyses.

8.5.2. INSTITUTIONS

The academic institutions ought to think strategically about their involvement in academic events. Firstly, the academic institutions ought to think of chairmanships as an instrument for achieving strategic aims, including outreach, recruitment, knowledge dissemination, and collaboration with knowledge users, such as businesses, public authorities, and clinicians. The events generate attention and visits to the destination and possibly to the institution itself. The chairing of events can be an important generator of visits and attention that can play a preliminary role in a recruitment process or for the development of collaboration with knowledge users.

Secondly, institutions should consider how to involve emerging researchers in the chairmanship. The most established researchers already enjoy recognition and have access to international networks, and thus, the chairmanship is of lesser value compared to emerging researchers.

Finally, the institution ought to accumulate experience and become better at supporting event participation and chairmanships. As a bare minimum, the chairs need the home institution to provide reasonable framework conditions, including a guarantee, where the institution signs up to cover a potential deficit. Moreover, the institution should provide the chair with some administrative support. However, I do

not think that chairmanship should be much further incentivized, as successful chairs are driven by bottom-up engagement.

9. CONCLUSION

In this final chapter, I conclude the research project by outlining how the project responds to the initial research question and the six supporting, analytical steps presented in Chapter 1. In doing so, I will also discuss and qualify the key assumption of the research project, which is that academic events have academic impact. Finally, I will outline two additional contributions of the research project.

9.1. CONCLUDING ON THE RESEARCH QUESTION

The research project sets out to answer and contemplate upon the following research question:

- *How do academic events have academic impact on individual attendees and chairs?*

In asking *how* events have impact, the research project is born with the assumption that the events *do* have academic impact. The preceding chapters give reasons to dwell on this assumption and further qualify it. As shown in Chapter 4, academic events have a long pedigree. They are an enduring practice within academia, and their long-lasting character indicates that the events are meaningful activities. The assumption is also underpinned by the literature review in Chapter 5, where a range of studies documents a range of impacts. Finally, the 45 informants who were interviewed for the studies presented in Chapters 6 and 7 accepted the premise of academic impact in relation to academic events and spoke meaningfully about it. All in all, the core assumption of the research project has been qualified, and future research projects can also work from the assumption that academic events have academic impact.

Returning to the research question, I found it supportive to develop six analytical stepping-stones, which would assist me in providing a fulfilling response to the research question. Summarizing and commenting on each of these will help make the contributions of the dissertation clear.

1. Develop a definition of academic events and academic impact
2. Situate academic events in a historical and science policy context
3. Outline how impacts of academic events previously have been studied
4. Develop a typology of academic events
5. Analyze the academic impact of attendees
6. Analyze the academic impact of chairs

The first step was to develop a definition of academic events and academic impact. The definitions are developed in Chapter 2, where I draw on literature from both event studies and science studies. Drawing on the former, the definition emphasizes that events are planned and confined in space and time. From science studies, it is underlined that the events are a continuation of the academic workspace related to exchanges of research-based insights. Moreover, the events include social activities, which intensify the interaction among the participants. The definition of academic impact is based on the cycle of credibility and is defined as the productive conversions of credibility. This definition was helpful for framing the research project and position the study within existing bodies of literature.

In the second step, I provide a historical analysis of why academic events are important from a science study perspective. The dissertation supports the establishment of academic events as a research topic by carving out space in the event and science studies literature and thoroughly elucidating why it is a relevant topic to study.

In the third step, I deliver a literature review of how the impact of academic events has been studied. The review highlights a fragmented body of literature, which has studied numerous aspects of the impact of academic events. Two recommendations from the literature stand out: on the one hand, the need for conducting impact studies within analytical frameworks and, on the other hand, the need for the development of a typology of academic events to clarify which events are being studied.

In the fourth step, a typology of academic events is developed. The typology includes four types of events: congress, specialty conference, symposium, and practitioners' meeting. The types are differentiated through four differentiating dimensions: size, academic focus, participants, and tradition. The typology is a useful map for talking about differences between academic events.

In the fifth and sixth steps, the research question is answered directly, as these analyses investigate how academic events have an impact on attendees and chairs. Academic events do primarily have academic impact as marketplaces for conversions of credibility for both chairs and attendees. The events are platforms on which attendees and chairs engage in productive conversions of credibility, in particular, conversions involving the following forms of credibility: buzz, network, and recognition. Moreover, the chairs engage in a range of investments in relation to, for example, logistics, administration, and organizational work. For these investments, the chairs gain access to credibility.

In both the analyses of attendees and chairs, I apply a range of analytical lenses and use these to look for patterns that align along the lenses. The analytical lenses are gender, main scientific area, temporality, typology of events, and seniority. Across both chairs and attendees, there are no significant discernible patterns related to

gender, main scientific area, and temporality. That is to say, with the limited data material included in this research project, I have no indications that these lenses are key for understanding how academic impact differs between either attendees or chairs. Moreover, in relation to the chairs, the typology of events was fruitless, as there were no clear patterns related to the types of events. However, in relation to attendees, the typology provided useful insights, as the specialty conference and symposium stand out as platforms for conversions related to exchanges on equipment, data, grants, and publications. Finally, the analytical lens of seniority reveals important patterns for attendees, as emerging researchers struggle to gain access to conversions, in particular at congresses. For chairs, there is a basis for a hypothesis on a significant variance between senior and emerging researchers, as the latter seems to gain more from the chairmanship than senior researchers.

9.1. FURTHER RESEARCH

Throughout the dissertation, the aim of the project has been to contribute to the establishment of *academic events* as an independent research topic. The synthesist definition of academic events presented in chapter 2, the historical and science policy analysis in chapter 4 and the literature review in chapter 5 provide a solid starting point for further research on the topic. Several avenues for future research could add significant insights to existing agendas. Here, I will focus on the topic of academic impact, which is the primary topic of the dissertation, and then outline how the study of academic events more broadly relates to other research agendas.

The academic impact of events is a pertinent topic, which is likely to be a subject of increased research attention. Alternatives to being physically present at events are progressing rapidly. There are technological solutions available that can substitute many aspects of attending an event, including the delivery and exchange of information through telecommunication, but also informal networking aspects as e.g. sophisticated matchmaking platforms (Fraser et al. 2017; Neustaedter et al. 2016; Sá et al. 2019). Add to this, the roaring climate crisis and the role academics play in relation to defining this crisis, its consequences and possible solutions. Academics are at the core of the debate, as it seems inevitable to solve the crisis without monumental scientific and technological progress. For the individual academic, attending events and academic travelling in general, is one part of the work practice, where one can alter behavior, which reduces one's carbon footprint. Thus, the climate crisis provides good reasons for considering alternatives to attending academic events and as the technological alternatives develop, we will see a growing interest. Still, as the dissertation shows, academic events are deep-rooted practices, which continue to play an important role in academia. I have no doubt that we will see further research on the evaluation of academic impact of events.

On the topic of the academic impact of events, I see two future avenues of research. On the one hand, there is scope for developing summative studies on academic impact (van Drooge et al. 2013). Summative in the sense that the studies aim to assess to which degree that predefined indicators of impact have been achieved. Such studies can have various designs and will differ in relation to how the impact indicators are operationalized; however, they are likely be based on quantitative data. In the current research project several categories have been developed, which could be developed further to be fit for quantitative data collection. This is for example the categories developed in relation to the investments made by scholars chairing events and the exchanges identified in chapter 6 and 7. The analytical lenses in chapter 7 could also assist future survey-based studies in developing background indicators. These categories could be included in a survey-based study, which asks the respondents on their assessment of the investments made, and the significance of the exchanges made possible. Another summative approach would be to collect academic event data from individual scholars. Data points could include number of presentations (and audience

sizes), minutes of speaking time, new connections, questions asked in plenary and kilometers travelled. Such data points could be paired with standard, individual indicators of academic impact, such as citations, publications and grants. This would be relevant for assessing to what extent that academic events do have impact.

On the other hand, the other studies could take a formative approach (van Drooge et al. 2013), where the purpose is to learn and improve the academic impact of events. There are many scholars that could improve the way in which they attend events. The same applies for the chairing and organization of events. Studies with such ambitions will often have difficulties comparing and assessing the results, because the specific contextual factors will be important for developing each case. Nevertheless, considering the amounts of time and resources invested into academic events, it would be worthwhile to develop this research agenda further. The agenda could be approached by investigating specific aspects of academic events – an approach that has already been taken by Rowe (2019), who investigates poster presentations, Hansen (2010) who explores the potentials for increased learning and Sardelis et al. (2017) on securing gender equality when chairing events.

9.1.1. ACADEMIC EVENTS AS AN ADDITION TO OTHER RESEARCH AGENDAS

The research project does also point to topical research agendas, where studying academic events could be a fruitful addition. That is to say that studying academic events might be a helpful tool in advancing our understanding of other lines of inquiry. In my view three such agendas stand out.

Firstly, the literature review in chapter 5 demonstrates that academic events do not only have academic impact but are also important vehicles for societal impact. This is for example the case when scholars use events as platforms for knowledge dissemination or networking with actors from other sectors than academia. This is surely very common. Thus, it would be interesting for scholars working on societal impact to include academic events as a notable and interesting arena. This holds particular importance for scholars that investigate societal impact based on the concept of productive interactions (de Jong et al. 2014; Spaapen & van Drooge 2011), where the focus of attention is on exactly the process of collaboration between the scholar and societal stakeholders rather than the result.

Secondly, the research project emphasizes recognition as a key form of credibility being exchanged at academic events. The study focusses on the exchanges of individual scholars; however, academic events are probably also important for managing the reputation of institutions in Higher Education (Simpson 2017). The literature on reputation management feeds into a larger research agenda on the

marketization of academia and touches upon topics such as rankings, talent attraction and brand value (Brown & Carasso 2013; Hazelkorn 2015). Studying academic events could be conducive for understanding one specific aspect and potential tool for managing institutional reputation.

Finally, academic events are particularly important for the research agenda on legacy of business events. In chapter 1 and 8, it is discussed why academic events are important for the meetings industry and thus ought to be important for scholars working on business events. Further research on legacy of business events should include a specific focus on academic events, as they are both a very important client group as well as a necessary partner for societal legitimacy.

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