

**The Non-Corporeal Actant as a Link between
Actor-Network Theory and Critical Sensemaking:
A Case Study of Air Canada**

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Abstract

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This thesis explores the relationship between the choices made by individuals and the influences of the groups to which those individuals belong. To interrogate the nature of groups, the thesis employs ideas from actor-network theory. In the investigation of individuals and their choices, work from critical sensemaking theory is applied. The theoretical contribution of the thesis is the bringing together of these two significant areas of research. The second theoretical contribution is the development of a connecting link between critical sensemaking and actor-network theory described herein as the non-corporeal actant. This newly described form of actant seems to be a plausible means of crossing the gap between the nature of groups from actor-network theory and the choices of individuals as described by critical sensemaking. The work which produced these plausible linkages was a study of one significant event in the history of Air Canada. The case material centres on the appointment of the new CEO for the organization in 1968. An ANTi-History approach was used to follow the actors around in three distinct, but interrelated, networks: Air Canada management; the Federal Government; and the employees. The histories written about these three groups covering the period seem to adopt three very different perspectives on the CEO appointment. By following a series of moves (research steps), both the nature of the groups and the chroniclers' sensemaking are surfaced. In turn, these moves appear to demonstrate powerful influence from the non-corporeal actants on the choices made by the authors of the histories.

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Cast of Characters and Groups

Throughout this thesis there are many characters from within Air Canada, the government of Canada and surrounding groups who play significant roles. This table provides a convenient collection of those names and their background for the reader.

- Air Canada (AC) – Originally named Trans Canada Airlines in 1937
- Axworthy, Lloyd – in 1968, executive assistant to Minister of Transport, he who later represented Winnipeg for the Trudeau Liberals and was a prominent Cabinet Minister
- Baggage handlers – unionized group of employees, whose 1967 strikes forced Liberal Government to intervene
- Baldwin, John R. – Chairman of the Air Transport Board (1949) then Deputy Minister of Transportation (until 1968), who later became President of Air Canada 1968-74 (but not the CEO)
- Canadian Flight Attendants Association – later merged into Canadian Union of Public Employees
- Chretien, Jean – Member of Parliament 1963 to 2003 (except 1986 to 1990), he held various prominent Cabinet positions in the Trudeau period, was a key Trudeau follower, and was Prime Minister from 1993 to 2003
- Drummond, Clint – Executive Assistant to the Minister of Finance in 1967-1968
- Drummond, Kevin – Executive Assistant to the President of the Treasury Board (1968), copied on letters and memos
- Fortin, Paul – Executive Assistant to the Minister of Industry Trade and Commerce (1968), copied on letters and memos
- Government of Canada
- Hellyer, Paul – Transport Minister 1968-1969, previously Minister of National Defense, lost Liberal leadership to Pierre Trudeau in 1968, left the Liberal Party in 1969, joined the Conservative party in 1971, formed the Canadian Action Party in 1997
- Howe, C.D. – the political founder of AC, (who in his role of Senior Minister in the MacKenzie King Liberal Government instructed McGregor to “stay out of the taxpayers pockets”), and was the minister responsible for the airline in the Liberal Governments from two years prior to TCAs founding in 1937 to his retirement in 1957, frequently called “The Minister of Everything” in the MacKenzie King Liberal Governments
- Hughes, Howard – Pilot, Owner of Transworld Airlines (among other things)
- Lalonde, Marc – Principal Secretary to Pierre Trudeau in 1968 was elected to parliament in 1972 and served in several Cabinet posts including Minister of Finance in the 1980s.
- Lothian, George – Air Canada pilot, one of the first hired in 1937, retired in 1968, member of the Canadian Aviation Hall of Fame

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- MacDonald, John A. – First Prime Minister of Canada in 1867 (Conservative), oversaw the building of the national railroad under a private company funded primarily by government. It is suggested that it was the scandals related to this construction and the later foreign ownership position in Canadian Pacific Railroad that influenced C.D. Howe toward a crown corporation structure for Trans Canada Airlines.
- MacKenzie King, William Lyon – Prime Minister of Canada intermittently from 1921 to 1948 (22 of the 28 years - Conservative Party governments interrupted his reign), served as the leader of the Liberal Party for that period.
- Marchand, Jean – Minister of Forestry and Rural Development in 1968, he was a key Trudeau confidant having been recruited along with Trudeau and Gerard Pelletier as the “Three Wise Men” of the Quebec Liberal Party to run in the 1965 Federal Election. He served in several key Cabinet Posts until 1976 when he resigned over the issue of French Language use by Air Traffic Controllers (it was not permitted).
- Martin, Paul Jr. (sic) – Liberal leader and Prime Minister 2003 to 2006, Minister of Finance from 1993 to 2002. He was an MP from 1988 to 2008, and became Liberal leader in his second attempt.
- Martin, Paul Sr. (sic) – MP from 1935 to 68 then became a Senator, he ran three times for the leadership of the Liberal Party, losing all three, the last one was to Trudeau. He served in various Cabinet Posts from 1945 to 1968.
- McGregor, Gordon – Air Canada president and CEO from 1947 to 1968
- McIsaac, R.H. – a Winnipeg businessman in 1968, opposed to the moving of the Air Canada repair shops to Montreal
- McKinsey and Company – Frequently described as the most prominent consulting company in the world, it was founded in Chicago in 1926. Yves Pratte hired them to consult on the best structure for the organization.
- Menard, Yves – VP Sales and Marketing at AC 1970-73
- Milton, Robert – CEO of Air Canada (1999 to present, effectively through a holding company) represented government as the adversary of the airline during the period under study in his book, *Straight from the Top: the truth about Air Canada*
- Nichol, John – President of the Liberal Federation of Canada 1964 to 68, Senator from 1966 to 73
- O’Brien, Al – National Director of the Liberal Federation of Canada
- Payne, John – Communications Chair of the Liberal Federation (1968), copied on letters and memos
- Pearson, Lester – Prime Minister 1963 to 1968 (Liberal)
- Pepin, Jean-Luc – Cabinet Minister from 1965 to 1972 and 1979 to 1984; Minister of Industry Trade and Commerce (1968)
- Perkins Flo – Flight Attendant

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- Pratte, Yves – Air Canada Chairman & CEO from 1968 to 1974, a French speaking lawyer from Quebec. In 1977 the Trudeau Government appointed him a Justice of the Supreme Court of Canada
- Richardson, James – an MP from Winnipeg and Minister without Portfolio while Hellyer was Minister of Transport, Richardson took over that portfolio when Hellyer resigned but held that position for only 5 days then was shifted in the Cabinet. He remained in Cabinet until 1976 when he resigned in protest over official bilingualism (a policy of providing all federal government services in both French and English); he physically crossed the floor of the parliament during a session to sit as an independent in 1978.
- Rood, J.L. – former director of AC Flight Operations
- Seagrim, Herb – Pilot, Executive Vice President of Air Canada 1964 to 1968, was the Board’s official choice to replace McGregor but did not get the appointment
- Stanbury, Senator Richard – President of the Liberal party of Canada 1968 to 1973, copied on letters and memos
- Taylor, Claude – AC CEO 1976 to 1984, represented a return to a businesslike period under an established “company man”. Taylor had worked under McGregor and Seagrim before the Pratte era.
- Trudeau, Pierre Elliott – Prime Minister of Canada from 1968 to 79 and 1980 to 1984, dominated the Liberal Party and Canadian politics during that time. His charisma coined the term “Trudeaumania”, his time in office was landmarked by: “The Just Society”, “The October Crisis”, “Wage and Price Controls”, Patriation of the Canadian Constitution, The Charter of Rights and Freedoms”, Bilingualism, and Multiculturalism. His role in the Pratte hiring is not well described in the traces but it appears he first suggested the name.

The Essential Narrative – A Change at the Top of Air Canada

This thesis relies empirically on the history of Air Canada. The history is contested, but for the sense of continuity I offer a basic narrative of the relevant points. The story is a synthesis of the traces cited in the references.

Since confederation in 1867 Canada has been governed by two political parties: Liberals and Conservatives (sometimes called Progressive Conservatives). In the 19th century a railroad was believed to be needed to unite the large east- west oriented country. The government at the time (Conservative) decided to build the railroad through a private sector consortium which came to be known as Canadian Pacific Railways (later CPR). There was much criticism of this plan, in part due to perceived corruption, and also because much of the funding came from outside the country. A public perception came to include the idea that foreigners were made rich in the building of this railroad.

In the 1930s governments around the world supported the formation of airlines, primarily through contracts for air mail. Once again it was felt that Canada needed an east to west link; this time through the air. In 1937, Trans-Canada Airlines (TCA) was established as a Canadian crown corporation by the Liberal government of William Lyon Mackenzie-King. One possible reason for the crown corporation approach was the concern over private profits from a government operation, which lingered from the railway project.

C.D. Howe was colloquially referred to as “the Minister of Everything” in the Mackenzie-King government. He was a former industrialist and he got things done. He was responsible for TCA and he brought in experienced airline executives from the United States to run it. In a few years they had trained some Canadian-born pilots to take over. From that point, until the appointment of Yves Pratte in 1968, all the top men at TCA/Air Canada (TCA became Air Canada in the 1960s) were pilots and trained within the company.

In 1947, Howe appointed Gordon McGregor to the CEO role. Howe told McGregor to run the airline at breakeven or better financially and in return the government would let him run the company his way. At the time, Winnipeg was the centre for the airline operations. The corporate headquarters and the maintenance shops were there. Winnipeg is near the centre of Canada (on the east-west axis), so it seemed a good location. McGregor liked Montreal as a location for a corporate headquarters. After World War Two it seemed that a key focus was travel to Europe and the eastern United States. He felt this was better served from Montreal (and he seemed to like the city better than Winnipeg *or perhaps his wife did*).

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Meanwhile, Herb Seagrim was making his way up the ranks at TCA/ Air Canada. Herb had been one of the first pilots hired by TCA. He'd been a founding member of the pilots union and even when he moved into management, he kept flying. He flew Howard Hughes on a test run of a plane in 1954 and even flew a historic TCA plane to the national museum after his retirement. Herb became a senior executive at TCA in the 1950s.

Around 1962, Gordon McGregor, Air Canada CEO, started to think about retiring. Herb Seagrim was selected to replace him and became Senior-VP. At the same time, the company began to run afoul with the government of Liberal Prime Minister Lester Pearson. The people of Winnipeg were unhappy about the head office move to Montreal. Winnipeg traditionally elected Liberal members of parliament. Political pressure was put on Air Canada to keep the maintenance shops in Winnipeg. The issue was prominent in the 1968 Liberal leadership campaign. But the corporate executives felt that having the shops in Montreal would be more efficient and cheaper than leaving them in Winnipeg. There were other points of conflict between the government and Air Canada.

In the lead up to the 1967 World's Fair in Montreal, there were several labour disputes at the airline. The executives refused to give in, once again to save money. The government stepped in and gave in to the union's demands in order to ensure air service for the World's Fair. It appears that the pilots running the airline considered themselves and their fellow pilots as a higher class than the other employees, particularly the female flight attendants. One company memo from the 1960s even suggested that a flight attendant be tasked to dance with passengers in the second floor lounge of the 747s (on order from Boeing at the time).

In 1968, Pierre Trudeau became leader of the Liberal Party and Prime Minister. He had a substantial base in Quebec, but there was still a powerful group of Members of Parliament from Winnipeg. The Quebec group wanted more Francophones in the government. Some even wanted Air Traffic Controllers in Quebec to speak French. The Air Canada executives thought these ideas (like the Winnipeg shops) were too expensive, and the pilot in them probably thought that the use of French might be dangerous. They also refused to do business with the advertising companies the Liberal Party Federation (A group consisting of senators and "backroom" political operatives.) recommended.

In late 1968, MacGregor retired and instead of Herb Seagrim, Yves Pratte, a Quebecois Lawyer who had never worked for an airline, was appointed Chairman and CEO of Air Canada. John Baldwin, a historian and bureaucrat from the federal government was appointed President. He also had never worked for Air Canada before this appointment. In the following year, McGregor, Seagrim and several other key staff left Air Canada.

Chapter One – Introduction

Introduction

This thesis examines a possible source of network persistence – the non-corporeal actant (NCA). The NCA is a heuristic for explaining the way that actor networks persist regardless of the human actors involved. The value of the idea of the NCA is explored and demonstrated through a case study of a history of the 1968 CEO appointment structure and stratagem in Air Canada (AC). The term “non-corporeal actant” is produced from theoretical developments within actor-network theory (ANT) (Latour, 2005b, 2010; Law, 2005). This includes recent attempts to historicize ANT through an approach called ANTi-Hani-History (Durepos & Mills, 2012b; A. J. Mills & Durepos, 2010).

In drawing on ANT I am mindful of the advice of leading ANT theorists (Czarniawska & Hernes, 2005; Latour, 2005a; Law, 1992a, 2004a). Their advice is to resist the tendency to construct ANT as a new orthodoxy and to build on the tensions between ANT and other theoretical approaches (Latour, 2005b; Law, 2004b). To quote Law “the most creative texts are often those that change and rework its preoccupations and its tools - or which combine them in one way or another with those of other approaches” (Law, 2004a, web page). With that in mind, this thesis seeks to explore the tensions between and among three theoretical perspectives. These approaches are:

1. ANT, which accounts of the development of knowledge by *following* (human and non-human) actors in networks but ignores issues of the past and history;

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2. ANTi-Hani-History (Durepos & Mills, 2012b; A. J. Mills & Durepos, 2010), which explores the role of *the past* in understandings of knowledge production, but neglects the socio-psychological processes through which knowledge is developed/translated; and
3. Critical sensemaking (CSM) (Helms Mills, Thurlow, & Mills, 2010; A. J. Mills, 2008; A. J. Mills & Helms Mills, 2004), which explores the socio-psychological processes through which organizational knowledge comes into being to the under-exploration of the potential for heterogeneous networks to influence how socio-psychological processes are engaged and enrolled.

This thesis draws on all three literatures noted above to study a particular event in time: Air Canada's appointment of a CEO in 1968. The bringing together of the two literatures is an attempt to make the analysis applying either more complete. In ANT the process by which an actor-network produces an action appears to be implied rather than described. In CSM, there is discussion of social influences playing an important role in decision making, but once again the process is concealed. This review reveals how a fusion of insights can provide a new problem solving technique for explaining a key aspect of knowledge production. That key is the persistence of networked knowledge beyond the presence of many or all of the original (human and non-human) actors. As I will show, the contribution of this approach will be an explanation of the power of network traces to influence knowledge regardless of the intent and motivation of the extant actor. I argue that the insight of the NCA phenomena provides actors with the

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ability to question seemingly immutable knowledge of given situations, people and events.

In the process of detailing the development of the idea of the NCA, this thesis confronts two critical areas of tension:

1. the relationship among the enactor of networked outcomes (e.g., how a particular knowledge of the appointment of a CEO at Air Canada at a given point in time is developed); and
2. the role of the *past-as-history* (Munslow, 2010, i.e., the way that histories convert past events into seemingly concrete singular events) in the creation of powerful non-corporeal actants.

1: Enactors, enactments and sites of production

As the first part of the process of interrogating the three theoretical perspectives, the thesis examines ANT network research as descriptive or enactive (Law, 2009). I also examine ANT research as constituted (i.e., ANT research tends to produce *descriptions* of networks, which are enactive of processes and which are examined at the point of constitution). This ANT focus leads to a sense of inevitability of the outcomes as a result of the constitution of the network. In other words, the logic of the process suggests that (a) the network exists, so, (b) by definition, the actions of the *followed* actors are what ultimately constitute the given network. We do not get insights into the multitude of points whereby different actions come to be fused into an enacted network. By its nature, ANT research does not enter into the site of production of the knowledge, but instead

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describes the network that enacts the knowledge. This leaves a gap in the process, namely, an understanding of how an action takes place, in order to inscribe the produced knowledge. To that end, the thesis attempts to investigate that step, namely, an understanding of the link between enactor and enacted. This relationship was taken up early in the development of ANT and continues to be debated (Latour, 1990; Law, 1992a; Singleton & Michael, 1993). Thus, it continues to be asked whether enrollment is a function of individual interest and whether the products of the network are a function of an understanding of those interests (Callon & Law, 1982). These questions are not clearly defined and are open for further enquiry. It is to follow this particular trail (of the relationship between enactor and enactment) that I have turned to critical sensemaking (Helms Mills et al., 2010).

2: Networks in the past and present

A second layer of problem within ANT is treatment of the past and history as either relatively unproblematic or outside the realm of ANT concerns. When outside, this is perhaps better left to professional historians (Latour, 1999). Some ANT scholars appear to view the past as a dimension to *collapse* (Mol, 1998, 2002a).¹ Rather than collapsing history, I embrace history as integral to the analysis and include historiography tools in the ANT analysis. Drawing on ANTi-Hani-History, I contend that as ANT is focused on production rather than construction of knowledge. The past is controversial. Because, arguably, the production of knowledge occurs as a process in the present and

¹ In ANT the notion of 'collapsing' is a theoretical device for dealing with socially constructed (viz. artificial) binaries such as macro/micro, local/global and, in this case, past/present. While a case can be made for collapsing macro/ micro and even local/global, the past/present binary is less easy to dispense with (Munslow, 2010).

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not in the past. The production of this knowledge (a history) is political in nature. The event may be situated in the past but this production is of a present political interaction of persons and ideas. The confusion produces its own controversy. Through a case study of past events I will reveal not only the shortcomings of ignoring the theoretical problematic of *the past* but also how interpretations, chronicles or histories of the past serve as powerful non-corporeal actants (NCAs). These NCAs reach is much beyond the initial series of enactments that brought certain knowledge into being in the first place.

Theoretical Perspectives

As discussed above, the thesis draws on actor-network theory (ANT), critical sensemaking (CSM), and ANTI- History. Each brings different tensions and resolves to the study of the influence of the persistence of networks and their related knowledge production. In this section I will review in turn the contributions of CSM and ANT and then ANTi-History and ANT.

1: Sensemaking and critical sensemaking

A logical choice to fill the gap between theoretical developments in the understanding of choices and decisions of actors appears to come from the ideas of critical sensemaking. Critical sensemaking focuses not only on the socio-psychological properties of enactment but also the influence of power through discursive activities and the structural contexts in which choices and decisions are made (Helms Mills, 2003).

Critical sensemaking provides insight into the understanding of decisions and choices by actors. This particularly aids in an understanding of how to reconcile past

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events with current realities through a focus on seven socio-psychological *properties* (Weick, 1995). Drawing on Weick's (1995) original work on organizational sensemaking, Helms Mills and colleagues outline the certain properties that need to be read against a background of formative contexts (Unger, 2004), organizational rules (A. J. Mills & Murgatroyd, 1991) and dominant discourses (Foucault, 1979). At the socio-psychological level sensemaking can be viewed as

- 1) grounded in identity construction;
- 2) retrospective;
- 3) enactive of sensible environments;
- 4) social;
- 5) ongoing;
- 6) focused on and by extracted cues; and
- 7) driven by plausibility rather than accuracy.

Through this focus, CSM draws on Weick's (1995) socio-psychological approach to attempt to recover a sense of individual responsibility, action and reactivity to organizational events (Nord & Fox, 1996). At the same time, Helms Mills *et al.* (2010) remind us that individual (as well as collective) decisions are made in contexts that are rarely equal in their decision making processes (Habermas, 1984). That leads us to the issue of power and context, which serve to provide the *critical* in CSM.

The critical aspect of CSM is embodied in the argument that individual decision making is rarely made outside of the context of powerful influences that constrain the possibilities not simply of action but interpretation (and translation). The formative

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context (Unger, 2004) in which an organization operates, for example, involves a series of interlocking practices and images that influence the thinking of the actors within that specific context. An example is Air Canada itself, which, until the late-1980s operated as a crown corporation and as such was subject not simply to specific government rules but also to dominant ideas of the purpose and ethic of the crown corporation. When it finally privatized in 1988 it was then subject to new rules of operation, but also new expectations of the role of the crown corporation in an era of neo-liberal change.

Situating these socio-psychological properties in ANT, each finds an echo in the network processes described in ANT. Indeed, the ANT idea of a network serving as an actant adds a different layer of power and context to the engagement of socio-psychological properties, while simultaneously drawing attention to the sensemaking processes that people bring to bear in such things as becoming enrolled in and enacting networks.

If we return to some of the properties, sensemaking as both ongoing and retrospective (Weick, Sutcliffe, & Obstfeld, 2005) throws some light on the potential of CSM to historicize the idea of actor networks. Thus, to say that sensemaking is *retrospective* is to argue that the temporal understanding of events is *post event*, and as such the understanding changes as actors look back at an event. This affects our understanding of sensemaking as ongoing because it means that a flow of sense is often maintained through a series of retrospective senses of a situation. This appears to be a relevant discussion in understanding the manner in which history is both portrayed and

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reproduced, and how this portrayal and reproduction change in an ongoing sense as truth claims and power sources change in relation to the narratives. CSM thereby produces a way in which to examine the power relations and changes relevant to historical accounts. This literature appears to resolve the nature of internal pressures on chroniclers (i.e., those who play a role in the enactment of a sense of a situation), which, in turn, has influence on the sense that chroniclers construct; but the remaining gap in the CSM account is the means by which chroniclers internalize specific influences. Quite simply, what is the relationship between the power source and the chronicler that generates that particular sensemaking?

According to ANT, the network itself is a source of power, influencing individual actors. Thus, if a sensemaker is viewed as an actor in a network and power exerted by the network. That power could be understood as both an actant (causing change in the action) and a discourse (among actors). The network serves as a powerful influence on the sensemaking of the actor and adds a new layer to the power dimensions inherent in sensemaking. The manner in which the individual (sensemaker) is influenced is enforced by the ongoing power of the NCAs he/she accepts through enrollment in the network.

While the influence of the network appears to persist even when all original actors are dead, there is a gap between the understanding of how this influence happens and the persistence of accounts, even disputed accounts. In many cases, the network also persists beyond the participation of any of the original actors or actants. According to ANT these phenomena allow networks to grow and contract, and members to enroll and de-enroll;

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however, ANT does not provide for explanations of these actions over long periods of time or the persistence of accounts surrounding the network. ANTi-History develops some understanding of the persistence of accounts through inscriptions but does not fully explore the persistence of the network itself.

2: Actor-network theory and ANTi-History

ANTi-History, is a conceptualization that brings together concepts from ANT and historiography (Durepos & Mills, 2012b; A. J. Mills & Durepos, 2010),² centering its focus on the *production* of history (or knowledge of the past) as situated in the interactions of a network of actors (human) and actants (objects) to produce a result (the chronicle of events). The story of supposed actual events in history, then, will be different according to, and acting through, the actors and actants (e.g., methods of communication) involved.

ANTi-History stands in contrast to positivist and more critical realist approaches to history that often present a given past situation as ultimately rooted in ontologically real *discoverable* events (Durepos & Mills, 2012a; Durepos, Mills, & Weatherbee, 2011). Following White (1973), ANTi-History views history as *invented* rather than discovered. Thus, it does not assume that a single history exists (however complex), but rather the potential for multiple histories or alternate narratives. ANTi-History responds to the criticisms of ANT as an ahistoric form, in this thesis a post-ANT approach which

² As an approach to the study of history, ANTi-History was developed as a contribution to the call for an historic turn in management and organization studies (Booth & Rowlinson, 2006; Bryman, Bell, Mills, & Yue, 2011; Jacques, 2006). Although the debate is beyond the scope of this thesis it is intended as a contribution to the current debate about the role of history in studies of management and organization.

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assumes the acceptance of the ideas of ANTi-History is followed. The ANT concepts included in the methodology incorporate ANTi-History perspectives as a means of surfacing possible narratives.

These so-called *alternate narratives* provide insight into similar events from varying discourses, theoretical frameworks, marginal voices, etc. Each outcome, it is argued (Durepos & Mills, 2012b), is determined through a lens of perceptions of outcomes, and is the product of chroniclers, or varying groups of chroniclers, and the theoretical tools of each, which become aligned with one side or another through the interaction of certain *actors*. Through this process or network activities, histories of an event can exist at the same time from the perspectives of multiple networks, allowing for a diversity of views of any event. As I will argue, these chronicles or histories can exert a powerful influence beyond the actors and actants that went into the making of a particular account. To make the point, the thesis will explore a particular event in the past and take into account the role of *past* accounts in the knowledge that actor networks enact. Achieving that insight will involve the use of an ANTi-History informed ANT methodology to problematize the past; to view the way that understanding of the past (as ontologically real) influences enactment of current knowledges; and to reflect on the mediating effect of the current situatedness of the researcher as he or she attempts to *read* the *past* in the present. Hence, as I will argue, following actors in the production of knowledge is confounded by the problem of *the past*, which is problematic not only from the perspective of the hidden network effects on its original production but also in terms

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of the situatedness of the reader as influenced by his or her own networked location(s).

This latter point will be explored in greater depth in the methodology chapter.

Towards the Idea of the Non-Corporeal Actant: Fusions of ANT and CSM

Through sensemaking one event may result in many differing accounts. Yet why is it that the sensemaking of a single account is valid to one chronicler (a teller of history) and not another? What sense factors cause these differing chronicles (or historical accounts of the past)?

To examine the idea of this relationship within the context of historiography, this thesis argues for an expansion of an understanding of ongoing sensemaking in CSM to include *prospective sensemaking* (Helms Mills, 2003). Just as sense is made of the past by recasting events in terms of current understandings and priorities, the future is forecast on the basis of current contexts. Contingent in this forecast is the expected reaction of actors of groups and networks in which they are *enrolled* (Law, 1994, 2004a).

Complementary to the work on CSM is work on the role of networks in history described as ANTi-History (Durepos & Mills, 2012a). In the ANT analysis of choices of narratives by a chronicler, networks of actors and actants generate a history (Durepos & Mills, 2012a, 2012b). Building on ANT (Latour, 2005b; Law & Hassard, 2005), ANTi-History examines the role of networks in the manufacture of history. By examining a network and its actors and actants, surfacing its relations, themes, and power relations, the historiographer can identify the justification(s) for an account; however, the ANTi-History solution remains largely at the topography of the network. The actions of a

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network seemingly *materialize* a solid account from the ephemera of events, *materializing* a chronicle for a network of onlookers – onlookers who have an interest in the account.

Chroniclers and other historians generate narratives as stories of events, usually based on accounts recounted or retold by individuals (actors) through interviews, diaries, logs or memoirs, and artifacts found in archives, libraries or online documents. Indirect sources may include other depictions of events or surrounding context from tangential parties. These pieces of a story are described by archival researchers as traces (Jenkins, 1995, 1999, 1997). Traces may produce a multitude of plausible accounts, while selected traces, ordered by chroniclers following an accepted pattern of events, produce historical narratives, a product of the sense a chronicler has made of specific traces (White, 1973, 1984).

In this vein, ANTi-Historians follow actors in the process of narrative replication. As with any replication, changes occur to a narrative, but no explanation is offered in the discourse of ANTi-History as to why actors choose a specific narrative over another, or what drives actors to express a narrative in a specific form. The lack of a plausible mechanism for the actions of the individuals in a network presents a gap in this development.

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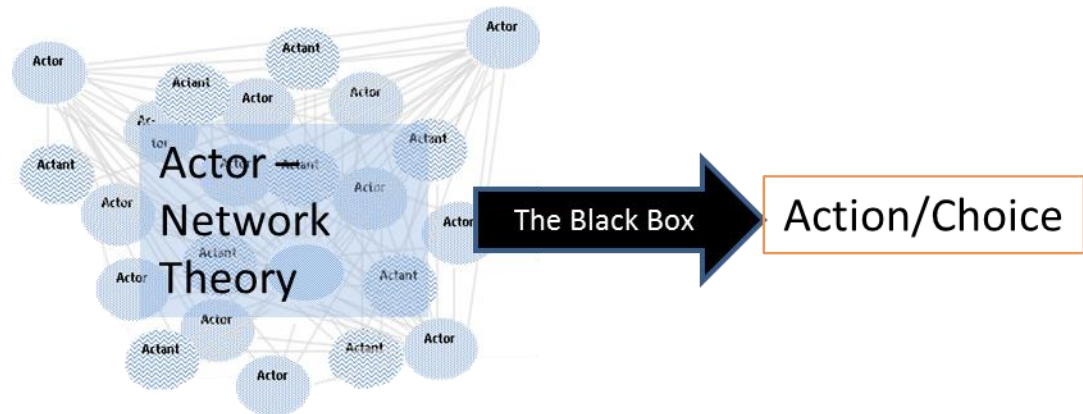


Figure 1 - Situating Actor-Network Theory in the Thesis

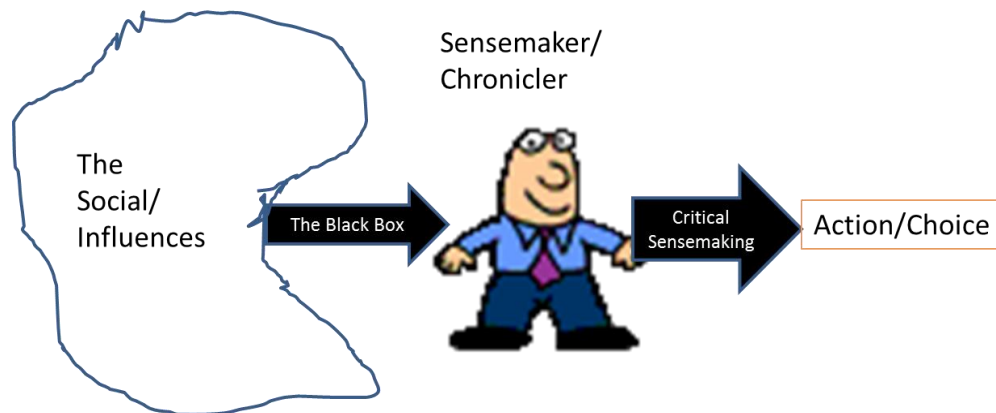


Figure 2 - Situating Critical Sensemaking

The above graphics show the suggested state of the two bodies of literature. A black box appears to conceal the process by which an actor-network produces an action. In CSM, there appears to be a nebulous cloud of social influences, which plays an important role in decision making, but once again the process is concealed. I am attempting to discover if the non-corporeal actant could be a part of both of the black boxes in the diagrams and thereby link the two literatures.

Through the combined discourses of ANT and CSM these gaps may be answered:

CSM provides an understanding of choices made by individuals, but not the sources of

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power as internalized by individuals, whereas ANTi-History describes a network as controlling expressions of the past without plausible explanation of how group ideas are internalized by individual actors. This thesis postulates, then, that this internalization is generated through an individual's relationship with discourse. As described earlier, discourse seems to be reified as an actant in a network. Actors interact with discourse as if it were another actor (discourse-actor) in a dyadic relationship. In this way, a discourse appears to become a powerful non-corporeal actant.

The non-corporeal actant and its discursive role

In order to more fully understand the heuristic value of the concept of NCA, the nature of actant/actor comparison is required. The word *actants* in ANT is defined so as to refer to non-human participants in a network and has been used interchangeably with *actor*. This thesis will distinguish between the two to create clarity, while accepting the blended nature of the concepts. Media forms, such as devices, media or written products of the network, become actants, generate meaning, constraining which limit or control actors within networks, as well as meaning of the chronicler.³ Media form is not merely a conduit, but also a factor in the manner in which networks behaves. In the literature, actants are usually described as physical elements in networks (Latour, 1991; Law, 2005; A. J. Mills & Murgatroyd, 1991).

³ A simple example is email. The presence of email communication changes the nature of communication among actors. An email is written without the inflection of voice, the byplay of conversation, or the formality of a letter or memo (Brigham & Corbett, 1997; Plesner, 2009).

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Actants may be expressions of ideas, but those expressions, in most cases, have been rendered into a physical form, and thus concretized (inscribed). For example, when a group creates a policy statement, the chronicler inscribes (writes) a version of the idea (creates the actant), and the network accepts this version as a common understanding of the discourse, even as the discourse (the non-corporeal actant) continues to change.

In ANT, the validity of the networks and the plausibility of the accounts found by *following the actors around* (Durepos, 2009; Durepos & Mills, 2012a; Durepos et al., 2011), demonstrate how the interaction produces an effect, and thereby changes the telling of a history. Yet, ANT does not appear to explain how that effect (actor and actants interacting) is produced or how accounts of those interactions could persist over long periods of time. That is, how accounts persist even when the accounts may be detrimental to an organization. ANT describes a network at work in the production of history and identifies that produced (inscribed) history as an actor in ongoing events, but ANT does not provide a plausible explanation of how or why the network was expressed in the particular history produced. In this case, an understanding of ANT as a topographical analysis is important, demonstrating plausible effects on individualized sensemaking, but, at the same time, ANT does not create a clear link between the constituents of the network and the choices of individuals.

This thesis examines how the appearance of network interactions results in a written narrative, a chronicle, assembled by a chronicler (or chroniclers). A chronicler of history is viewed as necessarily influenced by other parts of a network: actors and actants,

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as well as ideas, mores, and cultural ephemera of the time and place in which a history is written. ANT seeks to collapse the organization into a single layer to be analyzed; however, ANT, in practice, tends to leave analysis of the individual out of the research and *imply* an internal action (within the chronicler in our case). This lacuna in the theoretical development of ANT has led to some simplification of ANT theory as merely a description of individual reciprocity (Vandenberghe, 2002). This criticism may be answered via the historical discussions of persistence. Through CSM and the development of what I am labeling the *non-corporeal actant*, I seek to open ANT analytical processes and include the internal perspective.

Key to this process is an understanding of the persistence of certain historical chronicles. How do chronicles persist beyond the lifespan of actors and actants who develop, nurture and support these chronicles? These chronicles may experientially continue as textual events, oral traditions passed through storytelling, rules established within organizations, visual art representing ideas or even in the manner of discourse among groups. These chronicles persist where they are supported by ideas and discourses surround the ideas that continue to have power in a network, taking on an active role. According to ANT, these discourses and ideas become *enrolled*. Enrolled is an ANT technical term to refer to becoming an actor in a network, joining or being brought into the group. As these enrolled discourses and ideas have no concrete form, a proposal of this thesis is that the designation *non-corporeal actant* (NCA) refer to influences other than actors and physically manifested actants. In short, a non-corporeal actant is a force or powerful influence on actors and physical actants in a network that

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exists in the intercedes of relationships between those actors and actants without being reducible to any actor or actant. In the empirical work introduced below NCAs are discovered as manifest in the actions of sensemakers as described in newsletters, memos, news reports and histories. NCAs are also at work in the production of these chronicles of enactment.

Air Canada: A Case Study of Network Persistence, Sensemaking and the Past

To *follow the actors* in a network, Latour and others (Latour, 1987, 2005a; Latour & Woolgar, 1986) suggest ethnographic studies. These, however, take considerable time and (often) financial resources and may limit the time period in which any particular network is traced. Durepos et al., (Durepos, Helms Mills, & Mills, 2008a, 2008b; Durepos, Mills, & Helms Mills, 2008) on the other hand, argue that archival research can facilitate a following of actors through various traces and over different time periods. What ethnography may lose in the ability to follow actors over time, it can gain in the ability to question the actors involved. What archival research may lose in the ability to question actors that are long gone it makes up in the potential to trace actors (and associated networks) across various time periods. Having joined an ongoing team of archival researchers who had already conducted considerable research on Air Canada, it made sense to choose archive research as the basis for this thesis. The problems that were raised in doing archival research will be examined in Chapter Five – Method and Methodology.

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My archival study thus examines a history of Air Canada (AC) that draw from a variety of archival sources housed at both the National Aviation Museum and the National Archives of Canada, as well as written histories about the company and its employees before, during and after the CEO change in 1968 (McGregor, 1970; Newby, 1986; Pigott, 2001; F. E. W. Smith, 1970; P. Smith, 1986). These provide data with which to interrogate histories and also clues to the sensemaking of decisions. As indicated above, the ability to extract *sense* from archived documents is dealt with in Chapter Five – Method and Methodology.

In my examination of events in Air Canada over time, I looked for those that had made an impact both at the organizational level and beyond. This was in order to study phenomena that had made an impact on people's sense of Air Canada and set in motion activities to describe and inscribe those events for subsequent generations. Not surprisingly there are many events in the histories of AC that are significant from political, national and organizational standpoints. One such event was the succession of the airline's CEO in 1968, which can be made sense of as a nexus of change within the organization. A number of features made this a useful case study through which to explore issues of the persistence of networks, issues of the past, and questions about the relationships between enactors and enactment.

At the time in question, three powerful networks appear to have been interacting: (1) the management of Air Canada, (2) its employees, and (3) the Government of Canada. Discourses that serve to comment on and explain the event appear to have become

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enrolled in networks in various ways, coming into conflict with previous discourses. In the decades that followed, the impact of the interaction of networks on the 1968 succession decisions within the AC organization provides a valuable period to examine and will serve as the focus of Chapter Six through Eight.

In brief, the story involves the succession of the Air Canada CEO in 1968 against a changing background in which the (Trudeau, Liberal) government of the day were implementing widespread socio-political changes to address issues of bilingualism and a perceived need to raise the status of Francophone Canadians. Concurrent to this change in political policy were issues of political expediency and conflict. Strong actors from within the Liberal party (as described in chapter seven) were from the Winnipeg Manitoba area. Winnipeg had been home to the head office of Air Canada and the primary maintenance facility. In the period leading up to the CEO change, the head office was moved to Montreal and Air Canada was planning to move the shops there as well. This was an issue in the Liberal Leadership campaign of 1968 and continued to be contentious. The government members appeared to be unhappy with the way Air Canada was managed and wanted more Francophones in key appointed positions throughout the country. In the process, the practice of promotion from within the airline was overridden by perceived political need. Herb Seagrim, the internal candidate, who was expected by most AC and aviation industry insiders to be the natural successor to then CEO Gordon McGregor, was in fact passed over in favour of Yves Pratte, a French speaking lawyer from Quebec. The development and influence of competing network accounts are the focus of the case study. As I will discuss later, the telling of these two accounts (internal

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versus political appointment) are part of various accounts that chronicle the event in question. The issue is not whether one account is more valid, better, or more accurate than another, but rather, how the accounts were developed and what role they played in sustaining network persistence.

The Thesis in Summary

The following chapters layout the theoretical development of this thesis, explaining the idea of the NCA and its role in the construction of past (or retrospective) and prospective sensemaking; the methods employed in the research and the foundational methodologies. The theoretical analyses, methods and insights will then be applied (demonstrated) through an in-depth three-part examination of the selection of the CEO of AC in 1968 and its depiction (or absence) in histories related to AC. This examination will seek to provide an analytical development of the plausibility (or implausibility) of the fusion of insights from CSM and ANT in the creation and value of the idea of the non-corporeal actant as an agent for organizational persistence and change. Future research will be proposed on the usefulness of the NCA. The concept of persistence is central to a possible role of the NCA. Privileged narratives persist beyond the lifespan of networks, and networks persist beyond the existence of actors or actants. In ANT the joining and leaving of actors or actants is described as enrolling and de-enrolling. Networks survive complete changes in actors and physical actants, implying that there is some other linking force that binds the network. This thesis investigates the NCA as the possible source of network persistence.

Chapter Two – Actor-Network Theory

Introduction

In Chapter One, I laid out the foundations of a theoretical approach that seeks to fuse elements of actor-network theory (ANT), critical sensemaking (CSM) and ANTi-History in making sense of the influence of non-corporeal actants (NCAs) on events and associated knowledge claims. In this chapter I will trace the development of ANT, the various approaches taken by the key proponents of ANT and problematize the issues challenging empirical work in ANT. In so doing, I will focus on those aspects, which appear to create a need for a form of actant to link the physical and metaphysical aspects of networks and individuals. The need flows from the empirical analysis later in my thesis. In attempting to comprehend the nature of action, I found the theory wanting. The ideas presented in this chapter are central to the work and necessary to support this theoretical development.

In order to do that, I will: (a) provide an outline of actor-network theory to surface some of the key terms and concepts involved and their relationship to the production of knowledge in action thereby demonstrating some of the reasons for the discovery of the NCA; (b) provide an outline of basic ANT-specific terms (Mol, 2010a) and phrases found in the thesis (c) introduce and discuss some of the central developments in ANT in order to position my own approach and to problematize the key concepts that I will be applying to the notion of the non-corporeal actant; and (d) identify some of the critical gaps in ANT and knowledge production to explain why and how insights form both critical sensemaking (Helms Mills & Mills, 2009; Helms Mills et al.,

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2010; Thurlow & Helms Mills, 2009) and ANTi-History (Durepos & Mills, 2012a, 2012b; A. J. Mills & Durepos, 2010) have the potential to address those gaps. The purpose of these objectives is to provide the reader with the tools necessary to confront the subsequent chapters and demonstrate the rationale for describing the NCA. This chapter is intended to provide the setting for the further development of ANT and the inclusion of this new form of actor.

I look at different approaches to ANT: what it is, how it can be considered both useful in understanding the production of knowledge and how it is also thought of as controversial (Doolin & Lowe, 2002; Venturini, 2010). In so doing, I will show how ANT does not adequately explain the expression of the social through the individual and the related matters of persistence of networks beyond the longevity of the actors (Mol, 2010a). The shortfalls and tensions in current ANT give rise to a fertile field for research and theory, which both close and open lines of enquiry. This work could be described as Post-ANT (Blok, 2010; Law & Mol, 2001; Law & Singleton, 2005; Stuart, 2011). Other Post-ANT work, including ANTi-History, has exposed many of these shortcomings in ANT. I propose to extend this work in this thesis by interrogating the relationship between the physical topography of ANT and the metaphysical experience of the human participants. As ANT flows from semiotics, this chapter must first position the taxonomy of ANT. In the following paragraphs I provide a basic structure of the language and identify the problems between the concepts and the possible solutions offered by post-ANT scholars. Challenges remain in the application of ANT, these challenges pose the theoretical opportunity engaged in my thesis. In ANT, discursive practices are proposed

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as a material connection among the actants in the network, it appears that the ideational role of discourse is under-accounted; this paucity appears at least partially redressed by the introduction of the NCA.

Actor-Network Theory

In *Reassembling the Social*, Latour (2005) provides a retrospective description of ANT from its roots in his earlier works and the contributions of others. ANT had been described by Latour in several ways in previous efforts; for example, 1987's *Science in Action* lists seven "Rules of Method" (Latour, 1987, p. 258). Other authors focus on the theory of social explanation (translation) found within ANT (Law, 1999; Law & Mol, 1995; Law & Urry, 2005; Mol, 2002b) but Latour focuses on the more narrow practical implications, "Far from being a theory of the social or even worse an explanation of what makes society exert pressure on actors, it always was, and this from its very inception (Callon & Latour, 1981), a very crude method to learn from the actors without imposing on them an a priori definition of their world-building capacities" (Latour, 2005a, p. 20). By 2005, Latour describes it this way, "ANT is a method, and mostly a negative one at that; it says nothing about the shape of what is being described with it" (Latour, 2005b, p. 142). He uses the phrase *travel guide* (Latour, 2005b, p. 17) to refer to the sets of instructions. Latour seems to eschew the words theory and method in describing the use of ANT but at various times in various writings he uses both to refer to ANT. Nonetheless, in keeping with Law (1999), I treat ANT as a theory of a method, or more precisely, as an idea as to how one might try to do a study of a network,

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“...we may imagine actor-network theory as a machine for waging war on Euclideanism: as a way of showing, inter alia, those regions are constituted by networks. That, for instance, nation states are made by telephone systems, paperwork, and geographical triangulation/points. It isn't the only literature that does this: one thinks, for instance, of writing in the new area between geography and cultural studies. However, posing the point generally, actor-network theory articulates some of the possibilities which are opened up if we try to imagine that the sociotechnical world is topologically nonconformable; if we try to imagine that it is topologically complex, a location where regions intersect with networks” (Law, 1999, p. 7).

One of the main foci is ANT as a process of following actors in networks and examining the connections, which produce knowledge and disassembling the fact claims from the social ties (Latour, 1987, 2005a, 2005b, 2009a). Latour's 2005 description of this as a *travel guide* is an apt means of describing the way in which one could practice ANT given the interest in mapping networks and the series of *clamps* Latour proposes for studying networks: clamps is a word that Latour (1987, 2005) borrows from the hard sciences where researchers literally clamp a specimen in place for close study.

Thus, the early work in ANT extended the idea of sociology of translation that challenged both the concepts of method and theory (see for example Law, 1999) and expanded the use of ANT to fieldwork outside a laboratory. I would agree with Law's (1999) contention that the growth of the theoretical and practical base of ANT is worth

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pursuit. Latour (2005b) does, however, provide a valid starting point from which to explore this expansion into, what was later to become, the *after ANT* theory debates. In this thesis, I will attempt to examine some of the basic controversies described by Latour in *Reassembling the Social* to show how those controversies have been interpreted by others, and discuss some remaining gaps and possible ways of resolving them.

In what he describes as the 'second' controversy,' Latour (2005b) proposes the argument that the assemblage of persons does not adequately explain how and why networks mobilize (do things). In reference to 'the third controversy', Latour examines the role of objects and concludes that objects have agency and therefore are actors. It is through this development that the word *actant* is coined, to extend the concept of actor to the non-sentient object. From the perspective of a traveler, this travel guide seems to jump from the need to explain mobilization (there must be more than actors to explain why actors act), to its resolve through identifying objects as actants. Theoretically, this raises the question of the full connection of actors, actants and action beyond an expression of interaction. There are other potential links between actors and chosen action (not to deny the agency of objects but to extend the explication). To quote an anonymous protestor of the Occupy movement of 2011, "you can evict us but you cannot evict ideas!" (Malveaux, 2012; O'Keefe, 2011). ANT accounts for people and things, but not ideas, and as the Occupy protestor declared, it is ideas, which both create and maintain collectives.

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Ideas, expressed through traces of what was said, pictures of what has taken place and inscriptions of what we believe are considered a form of link between actors but do not have agency in and of themselves in Latour's *tour guide*. This presents a problem when you consider the importance of the ideas themselves and our understanding of them in the actions of a network. Yet theories and ideas are shown to be central to the development and performativities of actor-networks (Callon, 1986, 1998; Law & Urry, 2005) and thus the agency of ideas is a central theme in the development of my thesis. This concept of the agency of ideas is situated in that *ether*⁴ of actor-network theory, where connections travel but the manner in which they do is not fully described. I propose the NCA as a possible bridge across this gap. By solidifying some of these connections, I do not eliminate the context but merely provide more form. Latour's controversies remain intact but some aspects of the agency of ideas are more fully described by other ANT authors (Callon, 1986, 1999; Law & Hassard, 2005; Mol, 2002a). In order to attempt to theorize the role of ideas, it is necessary to first agree to a shared meaning of some of the key words in the vocabulary of ANT.

An Outline of Actor-Network Theory Terms

“Building on the semiotic turn, A(N)T first brackets out society and nature to consider only meaning-productions; then breaking with the limits of semiotics without losing its tool box, it grants activity to the semiotic actors turning them into a new ontological hybrid, world making entities; by doing

⁴ “Ether” as in the pre-Einstein explanation of the movement of light. Ether in that sense is the unseen medium through which light waves pass even though there appears to be a vacuum. This has been replaced by the dual understanding of light as both a particle and a wave.

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such a counter-Copernican revolution it builds a completely empty frame for describing how any entity builds its world; finally, it retains from the descriptive project only a very few terms -its infralanguage- which are just enough to sail in between frames of reference and grants back to the actors themselves the ability to build precise accounts of one another by the very way they behave; the goal building of an overarching explanation -that is, for A(N)T, a centre of calculation that would hold or replace or punctualise all the others - is displaced by the search for ex-plicitations, that is for the deployment of as many elements as possible accounted for through as many metalanguages as possible” (Latour, 1990, P. 11).

ANT engages research in the world of semiotics (de Saussure, 2007). This collision of signifier and signified produce a very specific and technical language. To that end the research and its outcomes cannot be undertaken before agreement on the terminology being used to describe the network and all its parts (Mol, 2010a). This semiotic situ is a plausible reason why Mol (2010) tells us that one way of describing ANT is as a list of terms. Those terms originate with Latour and Woolgar (1986) and are described in detail in Latour (2005b; 1993; 1987). Other authors have given us a broader understanding of those terms and addressed the controversies that those terms create (Callon & Latour, 1992; Czarniawska, 2008; Law & Mol, 1995; Mol, 1999). I draw on these works as a means of situating the NCA in the ongoing challenges of successful use of ANT in the post-ANT period (Law & Hassard, 2005). “The term ‘post-ANT’ is our abbreviation of a set of discussions within ANT; in other words, it is a short hand for

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‘reflexive’ ANT texts ... which we use to discuss three central concepts: complexity, multiplicity, and fractality” (Gad & Bruun Jensen, 2010, p.56). Because ANT is an expression of semiotic relations -- a description of a network which is shaped as a result of the interactions of its parts -- ANT provides adequate means of describing the human and physical aspects of a network, however, in the process, ANT under-examines the metaphysical aspects (Law, 2009; Mol, 2010a).

Semiotic relations are defined through unique uses of signs (Law, 2009) and the relations of signs to object in some ordered (or disordered) fashion (Haraway, 1991; Hetherington, 1999). Material semiotics requires labeling of each aspect of the structure in order to generate a mental picture of the web of interaction. As ANT developed through a study of natural science and a *Sociology of Science* (Latour, 1990, 1993b, 1996a), many of the words are shared with the natural sciences. By employing a scientific sounding form of analysis, ANT strengthens its attraction for researchers and readers (Bachelard, 1932/1992, 1940/1968; Strathern, 1999). This lexicon of ANT (incomplete as it is) involves some technical sounding words with relatively practical meanings (Law, 1991). Without building a shared understanding of this taxonomy, the description of gaps among the targets of these terms is not possible; I build this understanding in order to situate the NCA.

1: Networks, action-nets and worknets

The words network, actor-network, action-net, worknet, collective, assemblage and actant-rhizome are all among those used by Latour in *Reassembling the Social* to describe similar associations with nuanced meanings (Latour, 1993a, 2002b, 2005b).

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Some terms are more favoured by others such as Czarniawska's (2004) use of action-net. The action-net appears to be the formative network; some event or idea propels a previous unformed group to action. By virtue of their shared action they become connected: literally, a network that acts. The action-net appears to fit within the umbrella term of the actor-network but is a specific form closer to the initial coming together of the human actors. In this thesis I will use the form *worknet* to describe an actor-network that has become stable and is ongoing, or, in Latour's (1986, 1987) terms, an immutable mobile. However, I would argue that a metaphysical dimension remains for which an accounting must be given. The worknet could be understood as an actor-network doing work on a continuing basis. Latour (2005) describes actor-networks as provisional, forming and breaking up, enrolling new members, de-enrolling others in a contested forum of a cacophony of "millions of contradictory voices about what is a group and who pertains to what" (Latour, 2005b, p. 31). But common understanding would permit distinction between newly assembled action-nets and the persistently acting worknets. These words could be seen as a family of terms rather than synonyms or discretely separate (Law, 1999). So as I proceed through the discussion of actor-networks, I will attempt to differentiate the forms by the choice of sign (word) for the concept.

In the broad sense of an actor-network as a collection of humans and objects, I choose to use the word *network* for the group and *actor* to represent the individual. In the formative phase of a network, a logical choice of terms is an *action-net* to represent the dynamic nature of newness. An established network with reinforced patterns of connection is referred to as a *worknet*, to denote its ongoing actions, which tend to follow

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familiar, normed, patterns. By using these separate terms, I hope to provide the reader with a feel of the life of actor-networks. Actors are key to each of these terms but enjoy a dual role as both individuals and members of a collective. The collectives described enjoy the multiple roles of networks. A more traditional view would hold these as a lifecycle of actor-networks from action-net in the formative phase to work-net in an ongoing form. But, Latour (1983, 1986, 1993, 2005) expands the nature or formation; actor-networks are constantly reforming, morphing and changing. It is in this extension of the formative context (Unger, 1987, 1988), that I term the *re-formative context* to understand the oscillation of networks among the forms of actor-networks (and the importance of the separate descriptors). We may find a plausible explanation for the ongoing nature of networks in the oscillation of forms of actor-networks and the memetic ideation of discourse (i.e. actors remake their understanding isomorphically by copying from their surroundings) (Law, 2007; Law & Moser, 1999; Marshak, 2004). Through an exploration of network persistence, the nature of action in the network may provide a sense of the role of the NCAs and their oscillation toward corporeal actants in worknets.

2: Actors, actants, traces

Networks cannot exist without actors, one could situate the hyphen in actor-network as representing that key connection (Latour, 1990, 2005a, 2009b). It is in this connection between networks and the action of individual actors that the metaphysical is implied but not exposed. It is through the idea of the NCA that I hope to enable this exposition. The key lies in the notion of agency. As mentioned earlier in this chapter, Latour (2005b) ascribes agency to human and non-human actors. He expands the word

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actor and coins the word *actant* to permit this expansion. “An ‘actor’ in A(N)T is a semiotic definition -an actant-, that is, something that acts or to which activity is granted by others. It implies no special motivation of human individual actors, nor of humans in general” (Latour, 1990, p. 5). An actant in a network can change the outcome or interaction of others, actants are able to act or are given the ability to act (Latour, 1990, 2009a; Mol, 2010a). The inclusion of non-humans as actants provides for the possibility that non-humans may recruit, enroll and mobilize humans in new networks (Law, 1992a). Actors act and make choices which produce the outcomes of the network, objects (actants) control and distort the actions of human actors, and in some cases produce the outcomes. By these influences both actors and actants are agents, implementing and changing the actions of others (Law & Mol, 2008). In some ways these changes are a function of the understanding of actors/actants by other actors. Actors and actants socially construct each other through their interactions (Callon, 1999; Latour, 1992).

Humans are said to have motive when they effect change and it is difficult to give motives to the non-human actant (Strum, 1982, 1987). But, I contend, networks are collections of many different individuals, groups (punctualized networks), and various types of objects. Thus, a network may be heterogeneous in its composition yet be *viewed* as homogenous (Latour, 1986, 1993b; Moser & Law, 1999). It is difficult to anticipate how such disparate participants can commune and produce common outcomes. Once again Latour relies on analogies from science to resolve this conflict by proposing that motive be reduced to simple causality of politics (Latour, 1993b). Political relations among actors and actants produce change, which we interpret as the result of some

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motivating force (Alcadipani & Hassard, 2010; Hassard & Alcadipani, 2010; Hassard, Law, & Lee, 1999). The political relations are surfaced by following actors and actants and observing the *traces* they leave behind. In most cases these traces are accounts of their action or artifacts which imply that something has taken place (Latour, 2005b, 2007, 2009a). In the study of Cumbrian sheep, Law and Mol point out the foolishness of staring at a sheep in order to ascertain its role in a network, but through interaction they show the agency of the sheep (Law & Mol, 2008). We learn not to focus on who or what has acted but on what has taken place (Law & Mol, 2008).

Over time, the meanings of actor and actant have become blurred (Callon, 2002; Law, 1997; Mol, 2010a). This may reflect the blurring of human and machine or person and position in the various forms of cyborg (Moser & Law, 1999). If we can use tools (some of which may be integrated with our organic parts) and we can be described by our role in society, then humans are both actors and actants. Actor and actant may be considered synonyms, however, initially the word actor was reserved for humans; actant for non-human. When actants and actors gather they may form a network. If both have some form of agency, we must consider the possibility that there is no reason for a separation, they are all actors.

In this blurring of the concepts of actor and actants we also reflect a delamination (or mode of failure) of the word network. If the word is constructed of the idea of a net and the idea of work, does a *net* require discrete participants? And, even so, what is a discrete participant? Haraway (Haraway, 1988, 1991, 2006) challenges us to consider a

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cyborg as a network of a human and technology. In the development of the NCA, I extend this theory to propose that a human identity could be conceived as an outcome of physical and metaphysical components. That identity could extend outside the person into their products as in an author and his/her work (Strathern, 1999). Identity could also include the person's understandings gleaned from the networks in which they are enrolled; the idea of a NCA helps us delineate this connection. A network may be a gathering of scattered actors or of actors housed within one approximately human form. When an outsider considers the network he/she sees one object, just as the urban visitor to sheep country sees a flock or a sheep, or when he/she goes to the market perceives an industry as a unity (Law & Mol, 2008).

3: Punctualization and multiplicity

A gathering of actors may occur virtually, serially or in any manner of formal or ad hoc connection. This is the nature of an actor-network and provides for an understanding of the non-human actant. For example, when we network via telephone or email, we do not gather in person and our connections may be asynchronous but yet we are collectivized (Verburg & Den Hartog, 2005). We may act collectively and influence another assembly. If we do so, we could be perceived as unitary actors rather than separate individuals in that network. When a network performs as an actant in another network in this case, the network is said to be *punctualized* (Latour, 1986, 1996b; Law, 1992a). *Punctualize* refers to the meaning *to stop or freeze* to imply that a network has taken on an understandable position or *to act as one* (Law, 1992a, p. 384).

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A punctualized network arguably denies its multiplicities and takes a unitary form. Such a denial is temporary, hence the oscillating nature of the relationship between actors as members of a network and as individuals acting within the network (Law & Mol, 2008). In ANT a phenomena may be perceived differently by the actors of separate networks (Law, 2001b, 2009; Mol, 2002b). Some actors may perceive the experience in more than one way as a result of their enrollment in more than one network (Law & Mol, 2008). These actors experience a liquid society, reflexively constructing multiple understandings (R. Lee, 2011). The actor may not consciously choose the meaning given to the events but produce it from the associations of the network currently dominant (Callon, 2002). Thus, as the actor changes back and forth from part of a punctualized actant to an actor in the network and his/her understanding also oscillates between one meaning and another. When one network participates in another, such as the Federal Government in the management of Air Canada, the position of all the members of the participating network is represented by one small subset of members and is relatively narrowly defined. The external network may be expressed as a collective noun in the larger network and treated as a monolith rather than recognizing the possible multiple perspectives of the members (Law, 2001a; Mol, 2002b). For example the Trudeau Liberal Government is considered one actant in the network of Air Canada management of 1968.

A punctualized network is perceived as a unit by outside actors. Sometimes, others see the network as some idea or thought that seems to emanate from it and attempt to influence other networks. Usually, these ideas are spread in written form such as

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policy statements or analyses published by the worknet. At other times, ideas are spread by word of mouth or direct contact with images produced by actors interacting with other networks. The way in which we understand these communications is key to the nature of the NCA. Therefore it is useful to discover the nature of the punctualized network in communication.

4: Inscriptions

Actants and actors require a reason to gather together into groups (networks).

These reasons are discovered in the analysis of interessement and translation, in common parlance we might refer to them as the motivation. When we discuss motivation we frequently refer to ideas as motivators. In ANT, ideas are relational through their expression in discourses (Callon, 1986; Mueller & Whittle, 2011; Rehg, 1997). Ideas become enrolled through expression, but those expressions, in most cases, have been rendered into a physical form (written down), and thus concretized (inscribed).

Inscriptions may represent a way in which networks punctuate as nonhuman actors, or when a network and its task are conferred to a material delegation (Akrich, Callon, & Latour, 2001). Because a text is mobile and may be consumed independently, an inscription becomes an actant both within the network that created it and outside that network. Within a worknet, the inscription influences each actor in his/her pursuit of actions on behalf of the group. Outside the worknet, an inscription is seen as the visible punctualization of the network. The worknet is what is written in the inscription. The inscription may attract new actors to enroll or inspire new action-nets to form in opposition. The inscription of one network may be a force of interessement in another.

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An inscription suffers a similar problem with ANT research in its effort to freeze time. The understanding of the inscription, the idea and the discourse surrounding it continue to evolve within the network beyond the point of inscribing. Discourse continues to be relational in the intersement of the network but beyond this relational role among actants, the ideas change and effect change on the network. For example, when a group creates a policy statement, the chronicler inscribes (i.e., writes) a version of the idea (i.e. creates the actant), and the network accepts this version as a common understanding of the discourse, even as the discourse continues to change. The concept of ideas and discourse as merely relational is problematic in ANT. In ANT the problem has been negotiated among the members during the translation phase and some action has been mobilized (Dugdale, 1999). As complex social systems, networks produce understanding through engagement, imagination and alignment (Law, 1992b; Wenger, 2000). There is a diffusion of the manner in which the network has negotiated its action but that diffusion is mediated by the nature of the network. When the network interacts with other networks, the inscriptions may be given even more concrete form and seen as the unitary view of the enrolled. The network moves from being a gathering to an actant.

5: Oscillation

The movement back and forth between being punctualized as an actor in other networks and being a collection of actors within a network is referred to as oscillation (Callon, 1999; Durepos & Mills, 2012a). Oscillation in natural science means to move from one place or state to another. For example, the group of managers at Air Canada may appear to act as one (be punctualized) when interacting with the unions, but when

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they meet on their own they are each separate entities again (actants). Events in the past oscillate between *the past* and a collection of histories (Durepos & Mills, 2012a). If we think of a network of events and rememberings, or memories, being punctualized and inscribed in a history, there is an analogy to the individual actor and the network. Within the network, the actor acts politically to influence the other actors and the punctualized network is a representation of the associations. Actors may oscillate politically and change their role from agent of the network to actor in the network (Hunter & Swan, 2007). In the development of the NCA, I examine both the oscillation between the corporeal form of ideas in the inscriptions and the metaphysical forms of understandings. In the same way that the past and history, and actors and networks, are oscillating expressions of assemblies, it appears that NCAs and inscriptions may co-exist. The inscription expresses the understanding of the NCA at one point in time, it is possible that an individual within the actor-network may retain that meaning of the idea and/or that many human actors may acquire or reacquire that understanding from time to time. But, it appears more likely that the meaning that influences their actions (and decisions) will differ from the specifics of the inscription. So, I believe it is possible for the understanding to shift from the inscription (a corporeal form) to an individualized meaning (a non-corporeal form). This shifting may repeat either through interaction with other actants or the inscription itself.

6: Recruitment, enroll, de-enroll, and translation

Recruitment is simply the attempt to attract new actors into a network. Once they identify with the network they are said to be *enrolled* (Singleton & Michael, 1993).

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This may be concrete, as in the buying of a membership card; implied via attendance at meetings or activities supporting the network; or unsignified and privately through silent agreement (Yue, 2006; Zapf, Knorz, & Kulla, 1996). Enrollment may be visible or invisible, as it is a process of individual choice and thought. In this way enrollment is a key form of sensemaking in action-nets (a point we shall return to it in the next chapter). Networks grow and contract with the enrolling of actors and actants (Callon & Latour, 1981). In this process of recruitment and enrollment, the actors begin the process of *translation* (Callon, 1986, 1991), which could be compared to the process of changing from a group to a team. "...the elementary operation of translation is triangular: it involves a translator, something that is translated, and a medium in which the translation is inscribed" (Callon, 1991, p. 143). Following Callon, translation requires an assembly of mediators (at least two) and the process enables a shared understanding among those mediators; at least a temporary punctualization. This sociology of translation is described in a four step process which commences with the identification of a problem (step one) and the attraction of other actors to a centre of action (step two) related to the challenge at hand (Callon, 1986). As actors join in the action-net of the immediate problem a more durable network begins to form (step three) and attract more allies to the cause. Callon and Latour (1981, p. 286) describe an actor as any "element which bends space around itself, makes other elements depend upon itself and translates their will into a language of its own." (Step four) from this use of the word *translate* we can imply a relationship to the concept of translation - the process of mobilizing a group into a network (Callon, 1986).

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When newcomers join a network they accept its norms while providing their own insight (Wenger, 2000). Bringing outsiders into the network and having them mobilize would seem like a manner to reduce uncertainty in the context; however, these new actors may also subtly or substantially change the network – they may group and/or form networks or punctualized actors in other networks (Law, 1992a). This process brings, ironically, more uncertainty as the new actors bring different insights and opinions (Verran, 1999). It is a negotiated process. The actors come to terms with the purpose of the network, agree that there is a problem to be addressed and that they wish to connect with these other actors to address it.

7: Mobilization, interressement

In the early period of an actor-network (or a reformative period) the network is consistent with the action-net form. Action-nets are busy, there is an issue in play, the actors are motivated to enroll by some ideational discourse (i.e. a hot issue which attracts interest) and feel a sense of purpose (Czarniawska, 2004; Czarniawska & Hernes, 2005). The purpose of the network is to address a problem. The process of addressing the problem is *mobilization* (doing something about it); those who are enrolled begin to work on the problem and actively enroll others. Referring back to the idea of an action-net, there is a passion which brings potential actors together and inspires a common action (Gomart & Hennion, 1999). The humans may not fully understand each other's reasons for coming together so a building of shared knowledge is required. Mobilization requires an interaction among actors in the *interressement*, i.e., the process of negotiation of understanding and enrollment of actors to form a network (Acemoglu, Aghion, Lelarge,

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Van Reenen, & Zilibotti, 2007; Akrich, 1992; Akrich & Latour, 1992; Callon, 1999). The intersement includes some form of discourse.

The initial problem or reason for association sparks interest among the actors and through discourse others become enrolled and a form of mobilization is proposed. This informs the prospective sensemaking of future action – how actors understand what they are going to do to prosecute the purpose of the network. Shared understandings are the engine of power within the network and the means by which the network maintains a certain hegemony over outsiders (Katz, 2006). Outsiders may be attracted by the agenda of the network or its apparent power and thus enroll. But, either enrolled or not, the outsider may feel compelled to follow the normed practices of the network, in this way the network exerts a hegemonic control over actions.

As Fox (2000) notes, actor-network theory does not theorize on central authority within a network issuing directions but does specify that actors have a sense of the need to act which has been translated through the network and an understanding locally enacted (Fox, 2000). The flow of translations, which intertwines the actors, has three key features: point-to-point connection; empty space around the connection; and a cost of connecting (Latour, 2005b; N. Lee & Stenner, 1999). From a practical perspective, one can see how commitment is required to establish the features of a worknet. By establishing the point-to-point connections and differentiating them from the empty space, actors commit to the involvement of non-humans as either mediators or intermediaries. This leads to the inclusion non-humans in ANT. The ANT notion of the

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heterogeneous character of a network as inclusive of both humans and non-humans remains, however, controversial (Castell & Jenson, 2007; Lowe, 2001; Sismondo, 2010). I extend this controversy by the addition of the NCA, and the notion that the non-corporeal understandings of ideas and the surrounding discourses appear to have as much agency as inanimate objects.

8: Mediators, intermediaries

In ANT non-human objects fulfill two roles: the *mediator* and the *intermediary*. An intermediary merely carries the information. Intermediaries are not actants because they do not effect change. Mediators transform, translate, distort, and modify the meaning or the elements they are supposed to carry (Latour, 2005b). In basic communication theory we discuss the medium as a modifier of the message. Usually we refer to this intervention as noise (Nunes, 2010). This sort of noise may occur with an intermediary but the mediator has a stronger role. Mediators change understanding of the network in a specific and regular way. As in the example above of the request for proposals, the actant has modified each of the human actors understanding of the expected outcomes of the bid and construction process. It is more common for a mediator to constrain rather than modify. As Latour puts it in establishing agency in mediator and in underpinning the idea of an actant: “Something happens along the strings that allow the marionettes to move” (Latour, 2005b, P. 214). Actants may participate in more than one network but we attempt to limit our description of an actant to its role in the network under study (Newton, 2002). For example, in the case work for this thesis, I study three interlocking networks: the Government, the management and the employees. The roles of mediators

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across networks are important. Some actors in these networks may be intermediaries in the connection of networks, others are mediators. Distinction between the two forms and possible oscillation will be important in the analysis. The role of ideas and the surrounding discourses in the network is similar to the physical non-human actants. Just as discourse reflects ideation, ideas reflect discourse (Fairclough, 1992; Foucault, 1972). Some ideas constrain, others modify, and it is in this essence that the NCA becomes important as an actant.

9: Clamps

If we want to follow the actors around and discover the actants they encounter, we have to structure our analysis. This is particularly important if we are adding a metaphysical dimension to the puzzle. In some analyses we might survey the chain of command and try to follow the purpose down that chain. But, ANT strives to describe a web of interaction, eschewing the hierarchy and emphasizing the collective; each part of the heterogeneous collective has equal value as a mediator and actant. In order to describe these effects, a large amount of data is required and some tools are necessary to keep it in order (Latour, 2005b). One of the basic interrogative forms of the ANT framework is the *thick description* - essentially a small piece of empirical material is closely examined. The thickness of the analysis requires it to focus on a very narrow range of enquiry. ANT once again borrows some ideas from natural science and in this case geography. Our *tour guide* suggests holding the subject in place and looking at it closely (Latour, 2005b). The method of ANT could be compared to an entomologist studying an insect. The specimen is pinned in place and carefully observed and

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measured, then dissected and each organ examined and weighed; colours, textures and structures are carefully described (Fowles, 2004). ANT employs a similar thorough examination: rather than looking at organs and colours, ANT researchers carefully follow actors and seek out the actants (Oppenheim, 2007). Interactions are described in order to fully populate the network.

Latour (2005) admonishes the researcher to discard ideas of levels of analysis, clamp them into a two dimensional (flat) world. Time must also be clamped. There is no up/down or cause and effect but merely a series of interactions. Each interaction must be microscopically inspected and described. This attention to detail has been criticized for creating a process driven nature in ANT (Button, 1992; Law, 2004a; Neyland, 2006b). The essence of this debate is to force the ANT researcher to be aware of the potential for the process to produce knowledge. This irony is extremely important in ANT - it maintains the hermeneutic circle of the analysis - imposes a process while observing and critiquing the process. ANT proposes a social aspect of knowledge creation. However, the ANT analysis itself is an attempt to produce knowledge and is therefore susceptible to the same social effects. The ANT researcher must be very reflexive in order to surface the social construction of his/her own outcomes.

This produces a circular argument against ANT. A detractor may argue that the research outcomes are socially produced and therefore the research is faulty. But, if the research is faulty then the conclusion that there is a social dimension to knowledge production is faulty. If the research outcomes are not socially produced then the original

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outcome is correct. That outcome proposed that knowledge is socially produced. The researcher must pursue the work from the perspective that the knowledge s/he produces is both real and relative; both socially produced through the analysis and pre-existent. This conundrum reinforces the need for a deliberate and rigorous procedure through the use of clamps. In the empirical work with Air Canada I will be placing a small piece of time and place into the clamp in order to fully examine the traces of the event.

10: The oligopticon

A controversial aspect of ANT is the collapsing of dimensions through the use of these clamps. As we study both the collective (macro) world and the individual (micro) world simultaneously, ANT researchers experience conflict over the facets of the data. Latour (1987) proposed the solution as very close study. Get in very close to the object and look at the fine details. The close focus on a small area of inquiry is referred to as an Oligopticon (from the Greek to mean 'look at a little bit'). The analogy would be more like the map of one single sidewalk tile than of a town. The research calls for rich description of each square millimeter and the connections thereto. Even when very small areas are mapped, the myriad connections make the map look more like a large scribble collected from the testing of pens. This word may be unnecessarily complex but in it he seeks to acknowledge a philosophical difference. Oligopticon is a contrast to the *panopticon* of Bentham and Foucault, where the prisoners are always in view and everything is revealed (Bentham, 2010; Hetherington, 1999). The panopticon sees everything. For Latour, only one small aspect of history is viewed and studied well; it is clamped into an oligopticon – a narrow view of the local. In the empirical interrogation

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of the idea of the NCA, I will limit the material to one event and study it very closely in the manner of the oligopticon. By taking such close study of one decision and the interpretations of that choice it is possible to surface the actors and follow them as they interact with non-human and non-corporeal actants. The study oscillates between very close analysis of a network and the contextualization in the society of the time. In this work the NCA is linked both to the very local and the larger picture.

The context (panoptica) and local (oligoptica) are connected by narrow interactions designed to keep the conduits clear and well defined (Oppenheim, 2007). This would appear to conflict with the collapse of the level of analysis and move ANT closer to the micro level, but in practice ANT situates the context in the network. In many ways the outcome of an ANT analysis appears to be at the higher levels of analysis through the amalgam of these oligoptical slices. ANT refuses to consider up and down; it only looks across and between, “The landscape will never be flattened enough for the cost of connecting vehicles to be made fully visible” (Latour, 2005b, p. 184). ANT seeks to place all actors, actants, intermediaries and traces on one plane, the complexities and interactions fully visible in one glance. If agency is ascribed to some larger or smaller external force without describing the enrollment of that force in the network in a localized fashion then the explanatory role of the description is lost. This fetish with the local is an aspect of the close thorough examination in order to completely describe the things under study.

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11: The social

As we have processed through terms we have discovered some problems in ANT. One could characterize the material-semiotic approach as looking very closely at the connections, traces and actants in an actor-network but one could lose sight of the whole of that effect in studying via the oligopticon. A link needs to be made back to the larger collective and the vision of the whole: a sort of oscillation between micro and macro. Latour (2005b) admonishes us to see both at the same time, disregarding the traditional *level of analysis*.

The collective of all action-nets, networks and worknets may *bundle* into what Alfred Whitehead, the British mathematician, logician, and philosopher, described as *society*:

“In spite of the criticism I made earlier about the notion of society— by opposition to what I proposed to call the collective—an even more radical solution would be to consider these bundles of actor-networks in the same way that Whitehead considers the word *society*. For him societies are not assemblages of social ties—in the way Durkheim or Weber could have imagined them—but are all the bundles of composite entities that endure in time and space” (Latour, 2005b, p. 301).

In his words, a society needs new associations in order to persist in its existence (Whitehead, 1921). And of course, such a labor requires the recruitment, mobilization, enrollment, and translation of many others—possibly of the whole universe. What is so

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striking in this generalized definition of societies is that the respective meanings of subjectivity and objectivity are entirely reshuffled. Is a subject whatever is present? Is an object whatever was present? So every assemblage that pays the price of its existence in the hard currency of recruiting and extending is, or rather, has subjectivity (Barthes, 2000; Hughes & Oliver, 2010). This is true of a body, of an institution, even of some historical event which he also refers to as an organism. Subjectivity is not a property of human souls but of the gathering itself—provided it lasts of course. If we could retain this vastly expanded meaning of society, then we could again understand what Tarde meant when he said that “everything is a society and that all things are society” (Latour, 2005b, p. 218).

Latour believes that society requires the recruitment, mobilization, enrollment, and translation of *the everyone* and *the everything*. Society is described through the entanglements and connections of each actor and actant. Latour enrolls the whole universe in this network of society. This huge indescribable mass renders *society* useless as a term. What Latour suggests we trace is collectives. The traces of connections within networks and across collectives can be described but *society* like *nature* is a useless term. ANT scholars can investigate networks and collectives but no one can interrogate the whole of society. Actors can be placed in networks. This exposes another controversy or perhaps an oscillation, namely that analysis of multiple networks produces multiple understandings (Law & Urry, 2005). This idea is central to my thesis; I study three networks which each produce unique understandings of the same event.

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Central Developments in the 'ANT and After' Literature

By 2005, several criticisms of ANT had emerged and ANT scholars had explored and expanded the controversies surrounding the original descriptions (Law & Hassard, 2005; Mol, 2010a; Venturini, 2010). Latour (1999) critiqued the name actor-network theory, and each of the four constituents but by 2005 he appeared to have somewhat accepted the viability of the name (Latour, 2005a). Latour continues to vacillate on the question of what ANT is, a theory, a method; ultimately referring to it as a *tour guide* but occasionally ANT is depicted as a method (Latour, 2005b; Law, 1992a, 1999, 2009). Ultimately, in the manner of tour guides, Latour offers very specific directions as to how and where to go (Latour, 2005b).

ANT has been controversial since the beginning of a discussion of a 'Sociology of Science' in the late 1970s. The best description of how ANT began is offered by Jonas Salk in his introduction to the 1986 edition of Latour and Woolgar's *Laboratory Life*. Salk (1986). Salk described Latour as a young French Philosopher immersed for two years in an anthropological study of scientific culture. From this examination of scientific culture, it appeared to Latour that the construction of scientific knowledge included a social process (Latour, 1983). This differed from the traditional view of science, which was that science was a process of discovery and description of empirical fact (Heidegger, 1976). Latour in describing ANT suggested that the social is a part of the production of the knowledge and should be considered along with discovery and description (Latour, 1983, 1987).

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ANT challenges the notion that science does not think (Heidegger, 1976)⁵.

Latour and others have shown that this facticity is less absolute than was thought. In this thesis I present the political nature of history and by extension science. There is a social factor in all outcomes. As history is part of every enquiry, we cannot investigate the future (unless we extrapolate the past). So the methods of study used in all field are some form of historical analysis. The interrogation of the scientific production of knowledge has been borrowed into organizational theory (Oswick, Fleming, & Hanlon, 2011). As I am interrogating both history and organizing, methods of discovering the social construction in each field are critical to the theoretical developments. However, ANT reduces this social construction to following physical actors and actants around. In the empirical material found in Chapters Six, Seven, and Eight of this thesis it appears that *actants* are not sufficient to describe the importance of ideas and discourse in the networks which produce knowledge. In Chapter Four, I construct the NCA to partially address this gap.

ANT and Science

If as opposed to Heidegger, science does think (i.e., is not objectively separate from the processes under study), then concepts of legitimacy, validity and reliability are entered into the production of what is considered knowledge. In quantitative analyses these concepts have established patterns of interaction frequently built upon a normal situation (distribution); actual data sets rarely produce a bell curve (Maruyama, 1999). In qualitative research the concept of saturation is proposed as a measure of validity

⁵ Heidegger's science includes history.

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(Bowen, 2008; Jick, 1979). ANT research suggests that neither process produces fact. A combination of acceptable methods and a network of the social generates plausibility, which is posited as truth (Callon & Latour, 1981; Latour & Woolgar, 1986; Law & Mol, 2008; Mol, 2002b). Truth becomes an amalgam of belief and proof. This is described as a merger of fact and folktale (Jørgensen & Boje, 2008; Keshet, 2011). When written as history, truth constructed becomes a social expression of the actors enrolled and the acceptable narrative forms (Durepos & Mills, 2009). While we could debate what constitutes *fact* versus *truth claim*, we can extract the ordinary meaning of the word and surface the idea that knowledge is a social production based on experienced *fact* and believed narratives (Keshet, 2011). For example, C.D. Howe, the political founder of AC, is reported as telling the President of the company that if he does not require government money the Government will not interfere in the operation of the firm (P. Smith, 1986). This idea is repeated regularly in the histories and traces, yet, there doesn't seem to be a direct record of it being said in a transcript or written trace from Howe. We do not know whether this is a fact or a produced *truth claim*.

The acceptance of a repeated narrative as truth demonstrates a form of production of knowledge. ANT in its sociology of science goes beyond the production of knowledge and enters into the pre-production (Latour, 1988). Pre-production in this context refers to the understanding of the situation under enquiry prior to the study. If one wanted to ruminate over these ideas one could look into the discovery of such processes as grounded theory (Glaser & Strauss, 1967). The word discovery implies that the process was already there, waiting for someone to find it. All it took was an open mind. This

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grounding also primes the pump of results by providing expectations and possibly an accepted range of results. This may be why Maffie situates the construction of knowledge as *a posteriori* as opposed to an *a priori* (Law, 1994; Maffie, 1999).⁶ The knowledge is found as a result of the outcome expected rather than existing before the research was conducted. This is the underpinning of ANT, knowledge is produced as an outcome of a social program rather than found in a beaker, test-tube or microscope (Latour, 1996c).

So, the question no longer appears to be whether science thinks but in how science thinks. In the 'ANT And after' literature, the manner of thinking is developed from the intimal ideas of a social collection producing knowledge to an interactive effect of agents (Law, 1992a). Latour had described discourse as a means of interaction but other works seem to allow for interaction with discourse (Law, 1992a; Mol, 1998). This practice seems to open the way for the discussion of discourse as an actant, a discursive actant. As we will visit in Chapter Four, the discursive actant is an ontological precursor to the NCA. In the network, the interaction is among actants, while in the individual there appears to be interactions between sources of uncertainty and coping mechanisms.

I link this to Chapter Three's topic, critical sensemaking in order to help situate the NCA in this debate. The action of the process of knowledge construction can be found in an example of sensemaking in childhood emergency room visits. Weick (1995) refers to a study of where initially doctors divorce certain childhood injuries from

⁶ The roles of ANT in relation to Critical Sensemaking are both *a posteriori* in the nature of retrospective sensemaking and *a priori* in the construction of the privileged sense.

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parental intent, assuming that the parent were normally caring and that some children were accident prone; so the doctors perceived that the injuries must be unintentional (Weick, 1995). It took considerable disruption of this produced knowledge (or sense of situation) to lead to a new set of conclusions in the 'discovery' of battered child syndrome. From this story we can see the possible restrictive effects of networks as potentially serving to exclude alternative understandings of a situation. The medical network constrained itself from alternative ways of assessing childhood injuries and it took persons outside the powerful network to offer a contrary view which overthrew the *conventional wisdom*. From the perspective of NCAs, a change of enrolled ideas occurred. The accepted NCA of *all parents are caring* was disrupted by the possibility that these children were injured by their parents and a new NCA came to form. ANT investigates the social nature of the production of knowledge in networks not experiencing disruption - the *normal* practice of science (Beech & Johnson, 2005).

ANT represents a collision of method and theory (Law, 1992a, 1999). The theory of ANT appears to be that knowledge is the result of a social process. By surfacing a process ANT describes a method for discovering the roots of knowledge. The conflict between theory and method presents the opportunities for *Post-ANT* discussions (Gad & Bruun Jensen, 2010). Some of the criticisms of method imply a rigidity in a process leading to inevitable outcomes (Law, 1999). ANT has some orthodoxy as represented by the clamps and admonitions described earlier but the techniques were intended to provide a framework for open discussion of any theoretical material which can contribute to the understanding of the production of knowledge (Law, 2004a). A good example of the

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openness of ANT is the approach to the traditional *level of analysis* in organizational studies. ANT seeks to collapse these levels. Macro, Micro and Meso do not exist in an orthodox view of ANT (Latour, 2005b). These traditional divisions can be traversed with impunity. ANT research moves from the societal view to the individual view without regard to *normal* research limitations (Law, 1992a). This concept is extended further through the study of interactions with non-human actants and even cyborgs, as in the relationship between humans, medical appliances and tools (Haraway, 1991; Haraway & Goodeve, 2000; Kreps, 2007). In the description of the NCA, I build on this openness and rhizomatic search for connections by reconnecting the micro, meso and macro with the meta. But, there are rules which constrain this openness.

Arduous Review of Empirical Material

This sort of detailed analysis cannot be done quickly (Latour, 1990, 2005b; Law, 2009). The many links and forces at work in a network take time to reveal themselves. By controlling speed (to slow) and refusing to allow any leaping over intervening steps, ANT forces a researcher to describe all connections in a network. Each connection has a cost; the sum of the network cannot be found unless all the costs are detailed (Latour, 2005b). In looking at these connections the researcher encounters interactions - interactions of connections with other actors and actants. Each is different, some are fundamentally different (Latour, 2005b). When researching the networks surrounding Air Canada, I found that the corporeal forms of actants did not allow me to fully describe the connections which led to common understandings of events. Ideas, ideologies and their surrounding discourses appeared to take on the role of nodes in the network. The same

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actants played significantly different roles when they interacted with actors. For example, the perspective of Gordon McGregor on the 1968 appointment of his successor as CEO of Air Canada would be very different than the perception of Transport Minister Paul Hellyer. But, it might be similar to the perspective of McGregor's chosen heir (Herb Seagrim) who did not get the appointment.

The perspectives of the actors and actants of the action may be completely different and viewed differently. Actions are not the same materially, because the essences of the network changes with each action; the subsequent actions are changed (Czarniawska, 1997, 2004). In my empirical work, I compare the perspectives within three networks on one event. The networks are inter-related but separate. Each group of actants oscillates between being a punctuated actant and devolving to a network of actors. So we look at the small bits (individual actors) and then at the whole network (punctuated actant). This sort of oscillation between the oligopticon and the panopticon results in a hermeneutic approach to the understanding of the network in context and the context in the network. This dual view is an ongoing controversy in ANT (Venturini, 2010). The following of actors in the network results in a very close examination of their paths, but the collection of their traces provides a broader understanding of the social interactions which produce knowledge (Latour, 2005b). This has been problematic for ANT, a *social* is described and an outcome is demonstrated but the gap between the two is not closed (Law, 1992a; Law & Urry, 2005). By introducing the NCA, I anticipate a means of more closely linking the local with the social.

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In order to develop an understanding of a social process Latour requires us to freeze that process and deal with it as if time did not exist (Latour, 2005b). The resulting analysis may only provide a snapshot of something that was, but can no longer be. It seems we must ignore history. Ironically ANT research appears to work well when applied to a past and contextually within a version of history. By reintroducing the ideas as actors in the network in their form as NCAs, we can recontextualize time without violating the flat analysis of ANT. Time is not portrayed as causal but the ideas from the past are expressed as persistent actors: NCAs.

History as Controversy

With that in mind, this thesis seeks to explore the tensions between ANT and history through the exploration of ANTi-History (Durepos & Mills, 2012b; A. J. Mills & Durepos, 2010). ANTi-History explores the role of *the past* in understandings of knowledge production. Latour seemed to think the nature of history unimportant, outside the realm of ANT concerns, and only a problem for historians (Latour, 1999). As mentioned in the discussion of clamps, ANT scholars seem to freeze time and collapse the past (Mol, 1998, 2002a). This sort of collapse seems to privilege history as a form of science not subject to social production. Durepos and Mills (2012b) have critiqued this as a serious flaw in ANT's otherwise useful approach to reassembling the social.

The past is controversial: it is controversial because, arguably, the production of knowledge occurs as a process in the present (Jenkins, 1991). Therefore histories are produced in their time of publication rather than the time of the events described. They are written retrospectively, reassembled by actors embedded in different, later,

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networks(Durepos, 2006). This is potentially a confusing and possibly un-clampable contradiction; it is a confusion produces its own controversy (Law & Urry, 2005). ANTi-History research has shown that the production of knowledge of the past is impacted by the very description of events: accounts of the past play a role and constrain understandings of events (Durepos & Mills, 2012b). Once again the temporal paradox of what is the past defies simplification. It is possible that the introduction of the NCA may unravel this contradiction, the past (in the realist view) is not present in the network, rather, an understanding of the past is an actant in the network. So time is held still but the impact of history is active.

Case Analysis in Actor-Network Theory

Example tends to be the means by which complex paradox can be surfaced into less confusing narrative. In my thesis I work through a case study of past events in Air Canada to reveal some of the shortcomings of ignoring the theoretical problematic of *the past* and how interpretations, chronicles or histories of the past serve to influence the production of knowledge and accepted understanding. The case analysis examines how the appearance of network interactions results in a written narrative, a chronicle, assembled by a chronicler (or chroniclers). A chronicler of history is viewed as necessarily influenced by other parts of a network: actors and actants, as well as ideas, mores, and cultural ephemera of the time and place in which a history is written. This sensemaking of the chronicle is used in the case analysis to demonstrate the impact of the NCA on the outcomes of the network. The chronicler assembles traces in a scientific manner, in the same way that ANT has shown science to be influenced by the social,

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ANTI-History has shown the inscription of History to be a social process (Durepos & Mills, 2012b). In my thesis, the application of scientific ideas to narrative construction and analysis is very important in the linking of the sociology of science to organizational theory.

Early ANT studies take place in a scientific setting (Sismondo, 2010; Tatnall & Gilding, 1999). Science and history are inextricably linked and both are historically linked to philosophy (Lakatos, 1970). History is linked to organizational studies (Durepos & Mills, 2012b). It may only be in the fiction of the modern that we separate science from the philosophical, but the separation of science and history, although contemplated, is not achieved. The nature of enquiry is common. Both science and some forms of history seek to describe an extant truth. The scientist may dissect or combine in order to see a truth, where some historian digs or translates to find his/her data. Regardless, some basic rules keep history in the realm of science as described by Heidegger and his philosophical ancestors. As ANT was initially posed as a criticism of essentialist scientific methods, which placed process ahead of results (Neyland, 2006a), it is ironic for us to consider ANT without historical analysis in the work.

Hard science and work in the laboratory was assumed to be objective and empirical (Latour & Woolgar, 1986). Perhaps it is this fetish with hard science that leads Latour to dismiss history as best left to historians (Durepos and Mills, 2012b), but we can see how his work and the work of other ANT theorists can aid us in the understanding of historiography and then oscillate that understanding to use historiography to understand

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ANT and science (where is this ever done in ANT?). An ANT analysis of scientific outcomes appears to demonstrate science as a product of social construction (Latour, 1983). The social construction of knowledge (science or history) appears to be an outcome of the discourse of the network.

Discourse Versus Knowledge

Mass media is rife with reports of scientific studies in conflict with one another. “Vaccines cause autism.” “Vaccines do not cause autism.” “Coffee is bad for the health.” “Coffee is good for you.” This confusion has produced what Steven Shapin describes as a societal move from a *trust me* to a *show me* view of facts or truth claims (Shapin, 1982, 2004). Conceptually, this fits with the notion of performative knowledge, or material semiotic construction (Law & Urry, 2005). Facts are relative rather than absolute. This relates to *Weak continuity reliabilism*, a concept that grounds justification and knowledge in a particular kind of causal genesis (Law, 2001a; Maffie, 1999). We see some sort of causation and accept that as knowledge, rather than relying on *scientific study*. Fact becomes what is believed rather than what is proved. This implies a network in the production of the truth claim rather than some empirical *fact*.

ANT has postulated that networking plays a role in the production of scientific truth. Latour’s work on the nature of scientific discovery and explanation informs his theory of the assemblage of society (Latour, 1999, 2005b). In simpler terms, scientific knowledge production is a social expression. That science did in practice, *think*. Objectivity is lost in a social world; theories accepted as scientific are in reality produced

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socially. This development in ANT allows for an interrogation of the political nature of knowledge (Gibbons, Limoges, Nowotny, Schwartzman, & Scott, 1994); thereby bringing to the fore the theories of sociology of knowledge (Durepos & Mills, 2012b). However, the interaction of human actors and objects as actants does not fully describe the social system producing the knowledge. Discourse provides a means to describe foreclosure of ideas but the ideas themselves appear to influence the other actors, the NCA mortars some of this gap between the assemblage of things and the outcome of the network. The network and its outcomes become agents in other networks but this does not appear to require a physical presence. This ability to act without a corporeal presence is a challenge in the understanding of ANT's social production of knowledge.

The Social Process in Causation

In order to describe causation, social science may invoke an unseen hand, like a marionette moved by a person above the stage (Latour, 2005b); however, ANT requires a trace of the unseen hand to be found. So we search around looking for the puppeteer, yet in reality the puppeteer is not one factor but a collection, not one person, but a network of people and things. Latour denounces the sociological approach of explaining as over describing: "I had to say, following Tarde, that the first had simply confused the explanans with the explanandum: society is the consequence of associations and not their cause" (Latour, 2005b, p. 238). This passage relates back to the debate of knowledge as *a posteriori* rather than *a priori*.

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ANT seeks to separate the production of expected knowledge out of a social process, away from the discovery of understanding. In this separation ANT research tends to focus on the process and thereby break its own orthodoxy of crossing levels of analysis (Law, 2004a).

It appears from the research methods and descriptions of the work-in-progress that the micro level is crossed and included but the outcomes of the research focus on the interactions among actants and seem to leave out individuals and the extremely local nature of decisions (Law, 1992a). Later in this thesis, I will discuss the role of critical sensemaking in the description of the very local expressions of the network. At this point, I would point out that the very local expression of the network appears to be a case of individual sensemaking. The other actors of the network are not physically present, the metaphysical *gun to the head* of a choice-maker is non-corporeal, it appears to be the ideas of the network, understood through discourses.

The Role of Discourse

Analysis of the discourse within the network demonstrates relational effects of enrollment and de-enrollment. Discourse is important in ANT as is ANT in discourse analysis (Brummans, Cooren, & Chaput, 2009; Whittle & Spicer, 2008). This social production, much like the development of ties in a network, is produced through politics (Kilduff & Brass, 2010; Law, 2001a; Law & Urry, 2005). Discourse provides opportunity for political alignment and reduction of uncertainty. It is this alignment, which forms the basis of the political power of the network in the production of knowledge (Gibbons et al., 1994). Discourse in the narrow sense is the means by which

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actors signify their enrollment in a network. For example an actor who uses the word, “scab” identifies himself as enrolled in a network quite distinct from the actor who uses the phrase, “replacement worker”. The words chosen in discourse signify enrollment. Discourse illuminated the ideas accepted within a network and confirms the relations among the enrolled. However, discourse does not foreclose meaning, each actor sensemakes his own meaning for the ideas within the spectrum of the shared meaning.

In ANT, discourse is employed as a means to account for the manner in which the network acts – influences outcomes (Law, 2009; Law & Urry, 2005). ANT requires a belief that actions are a function of interactions (Law, 1997). Interactions are political; they demonstrate power relations in the network (Bergström & Diedrich, 2011; C. W. Mills, 1956). Politics in the network are critical to the formation of the *real*. Discourse is the means by which these relations are enacted. Discourse produces an oscillation between the real and the relative, expressing the relational power of networks and choice. “Relativism is self-refuting. It is also an argument about knowledge, that is, it is epistemological. The argument we are making is about method-making-knowledge-and realities; it is both epistemological and ontological” (Law & Urry, 2005, p. 405). This real-relative duality as to the nature of ANT can also be applied to the nature of discourses in networks which may be both ideational and constrained practice. The idea produces the discursive practice which in turn reinforces the ideation (Fairclough, 1992; Fairclough & Thomas, 2004; Foucault, 1972). However, the discourse cannot account for the manner in which the idea is enacted by an individual; by itself the discourse can

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merely point to possible explanation. Ideas interact with each other producing unique sensemaking in each actor.

Power and Persistence

A criticism of critical-ANT is a fetish with power (Madden, 2010; Venturini, 2010). Power is everywhere; power replaces society as the unseen hand at work in motivation. Yet, at times, ANT seems indifferent to power and politics. Power and domination have to be produced, made up, composed (Latour, 2005b, p. 64). An ANT analysis has to account for the assemblage that produces a power result rather than resort to an omnipotent social source of influence. The network (community) has accepted certain information as truth or knowledge and reproduces that acceptance in future roles and productions in the manner of communities of social practice (Wenger, 2000). The network itself is a source of power, influencing individual actors, encouraging enrollment of new actors (Battilana & Casciaro, 2010). Some actors/actants have more power and influence than others (Callon, 1986; Callon & Law, 1982). That power and influence is related (at least partially) through discourse. Discourse also appears to inform our understanding of the life-cycle of a network.

Networks appear to persist even when all original actors are gone, the humans are dead the technological actants are obsolete (Tai-Young, Hongseok, & Swaminathan, 2006). Yet, the network and its influence may continue. There is a gap between the understanding of how this influence happens and the persistence of accounts, even disputed accounts. The nature of networks, according to ANT processes of translation, allows for growth and contraction through enrollment of new members even when

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current members de-enroll. ANT does not provide for explanations of these actions over long periods of time. Some traces of a network may spawn new networks, and accounts surrounding the network may persist in the face of counter-narratives. ANTi-History provides some insight into the persistence of accounts through inscriptions (Durepos & Mills, 2012b). These inscriptions may form the skeleton of the network but ANTi-History does not interrogate the continuing life of the actor-network.

Herein, I contend that the network itself has power. It is into this gap that the methods of critical sensemaking aid in the understanding of ANT. If an actor (sensemaker) is influenced by power exerted by a network, the exercise of power should be understood as both an actant and a discourse in the network. This generates a duality of existence in power as it is both a medium for connection and an outcome of the collective (Fairhurst & Putnam, 2004; Giddens, 1986). This dialectical understanding of dualism can be extended to a more physical conception of duality where a concept has two incommensurable forms (as in light as both a wave and a particle, it cannot be both at the same time but acts as if it is.) In terms of the duality of power as both a force within the network and an outcome of the network; I observe a connection to critical sensemaking and an opportunity to extend these theories

Production of Knowledge

The ANT research narrates a sense of inevitability of the outcomes as a result of the constitution of the network. This appears to give the network ultimate power without regard to specific aspects of the network or context. By following the actors and

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describing a network, the analysis explains how an outcome is produced. The paradox returns, was the outcome there or did we construct it while searching for it? This appears to be the same question Latour asked about microbes and Pasteur. Were the microbes there before the process for detecting them was developed or did the social process of developing the technique somehow also cause the microbes to come into existence? This leads to the conclusion that ANT based research invariably requires an ANT analysis of its analysis. The lacuna of 'which came first the result of the analysis or the method?' appears to exist because ANT research often does not appear to enter into the site of production of the knowledge. ANT researchers tend to follow the actants and trace interactions among them but do not seem to describe what actions are taken by individuals.

ANT describes the network which is said to enact the knowledge through negotiation (Latour, 2002a). ANT collapses and clamps the organization into a single layer to be analyzed. It seems the individual is written out of the research or at the very least merged into a punctualized actant. Individual action is rendered inevitable because the network exists. This lacuna in ANT has led to some simplification of ANT theory as merely a description of individual reciprocity (Vandenberghe, 2002). However, when we insert the NCA into the network we discover an action beyond reciprocity. We discover the interaction between the ideas of the network and the identity of the individual. Relationism among physical actors and actants and the discourses employed among the enrolled cannot fully account for enactment, interaction between the individual

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sensemaker and the NCAs signifying enrolled ideas and concepts produce a more complete explanation of the actions mobilized.

In the 1980s the discussion of the internalization of the network in relation to the identity and actions of individuals was briefly investigated and some debate continues (Callon & Law, 1982; Koole, 2010). The gap in the process is an understanding of how an action takes place. The NCA provides a connection. Utilizing this connection in the space between the network and the outcome, filled by an individual actor, provides for examination of the link between the social and the outcome. The NCA links the network to the individual's identity. The implied relationship between individual interest, Machiavellianism, impression management and network enrollment is a contested field (Luoma-aho, 2008; Seibert, Kraimer, & Liden, 2001). By connecting through the NCA, I hope to begin describing how critical sensemaking exposes the relationship between the enactor (individual actor) and the enactment (perceived as the outcome of a network).

This connection is the challenge in my thesis: how does a network cause an individual to make a choice. In the case analysis to be presented in Chapters Six, Seven and Eight, I expose difficulties applying ANT even with the assistance of ANTi-History. The connection between the individuals who choose to follow some traces and ignore others when transcribing an account of events and the networks in which they are enrolled is implied in an ANT analysis which does not employ the NCA. But, for the many reasons stated in this chapter, that connection is not fully developed. Thus, I will

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argue, the addition of critical sensemaking concepts and insertion of the NCA into this gap appears to offer a stronger method of analysis.

Summary

The challenge of this chapter has been to present the important concepts of ANT (as related to my thesis) without re-presenting thirty plus years of work and research. Much of the useful products of ANT were described by Latour in 2005. In the first section of this chapter I have presented some of the key terms and concepts from the early years of ANT and the debates surrounding those terms. The unusual vocabulary of ANT makes the *travel guide* provided by Latour (2005b) difficult to use.

Since 1999, the concept of a Post-ANT has expanded the form of research. This Post-ANT, begun with the ``and after`` literature and crystallized in Gad et al. (2010). I include in Post-ANT, the work in ANTi-History, Sociotechnical systems (STS) and action nets. This work demonstrates the admonition that ANT needs other forms of inquiry to grow and produce more complete research. My development of the NCA is an attempt to further the description of actor-networks and the social construction of knowledge.

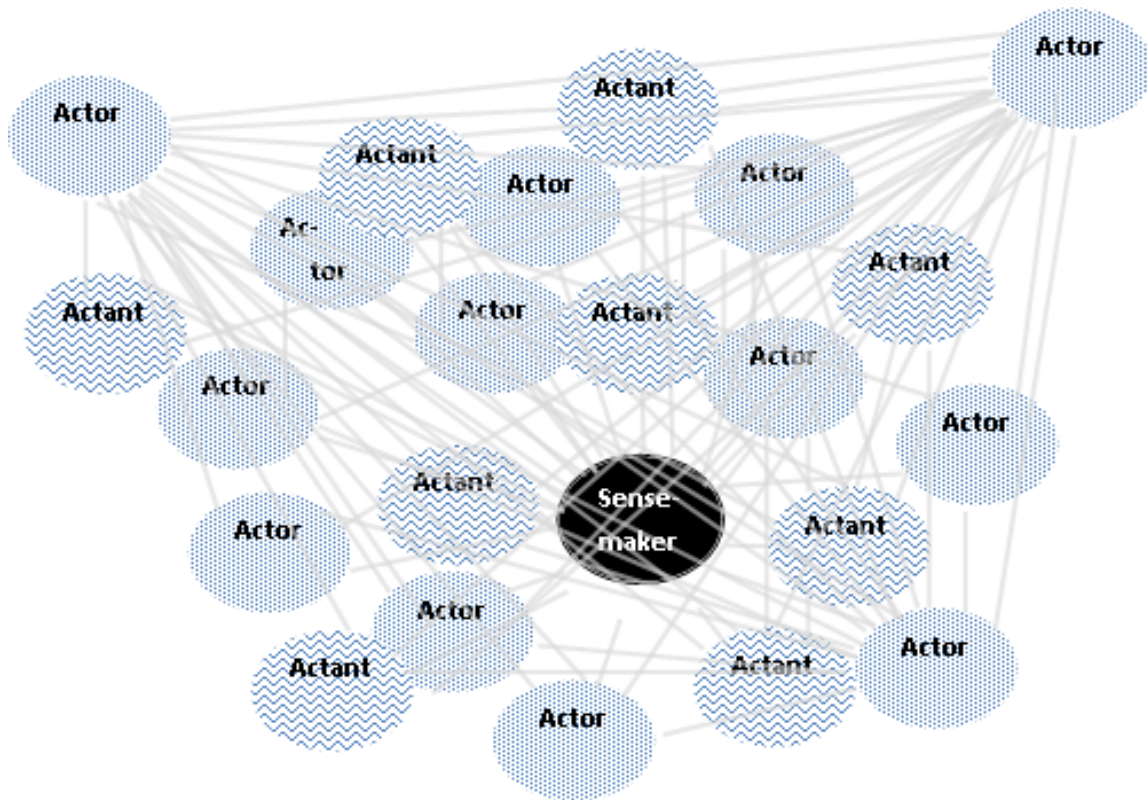
Throughout this chapter, I have described some significant gaps in the expository capacity of ANT. Through the use of clamps, ANT allows for a viable means of studying the connections among actors but seems to leave out any possible means of discovering the reasons for actions. The translation of networks is given over to concepts such as discourse but in praxis, the ANT research seems to jump from assembly to outcome:

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outcomes are usually produced by individuals, individuals who make sense of their choices (Dewey, 1933). In the following chapter, I will delve into the concepts of critical sensemaking that help us understand individual choice. In this chapter, I have tried to show a need for a connection between the network and its expression through an individual. The network may collectively sensemake and resolve conflicting positions or ideas but it is more plausible that the network and non-human actants sensegive. Sensegiving is a process by which sensemakers are influenced by external factors. Sensemaking is arguably a sentient process requiring the ability to interpret. Meme theory implies an interaction of ideas but this interaction takes place within a human host. Therefore, it is most plausible that NCAs are produced by individuals acting under the sensegiving of NCAs produced by other actors, actants and networks.

The writings of an individual may become knowledge. Latour (2005b) pointed out how what becomes knowledge may be an expression of the social as much as it is a discovery of the real. As he described, it is both real and relational. In the description of ANTi-History, Durepos (2012a) brings our attention to the importance of narrative forms in the writing of knowledge. So, Latour has told us that the others enrolled in our actor-network help establish our *truth claims* as facts and Durepos has shown us how this social is extended to include a requirement for a particular style in order for our knowledge to be accepted.

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A partial drawing of an actor network with an embedded sensemaker. As can be seen there are 23 actors and actants (nodes). Only about 25% of the interactions (connections) are drawn. Theoretically all nodes could be connected. Most networks would have more than 23 nodes. A full drawing would become indecipherable. In the noise of the complete network, the sensemaker must extract cues for decision making.

Figure 3 - The Sensemaker in the Actor-Network

Each of these ideas demonstrates the need for a more salient link between the choices of the individual and the presence of actor-networks. The networks to which we belong are an important source of our individual identity (as will be explored in Chapter

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Three); we choose to accept certain concepts. These concepts, ideas and discourses are present in the network and clearly have a strong role in our individual understanding of the network (see Figure 3). In Chapter Four, I will explore the salience of these in the form of the NCA. From this chapter, I believe we have seen how the clamped analysis of ANT without the NCA does not account for the timeliness of discourses, the gap between the possible choices available to actors and the chosen actions of individuals and the need to explain the manner in which networks constrain individual actors.

Chapter Three will bring us closer to this understanding by describing the critical sensemaking process and how choices are made by individuals in their context, but the link between the network and the individual appears to require a connector such as the NCA. This chapter has tried to introduce the following observations about the heuristic value of the NCA in analysis of networks in and over time. They will form the basis of further discussion and analysis throughout the thesis:

- Ideas, values and beliefs have the ability to enact change
- As change agents these forms should be included as actants
- These actants interact with one another as well as other actors
- These actants may have multiple meanings particularly when they participate in multiple networks.
- The lack of a clear (common) means by which these actants produce change evokes the depiction of non-corporeal thus the NCA.

Chapter Three – Critical Sensemaking

Introduction

This project flows from curiosity. In the journey to understand actor-network theory, I was left looking for works which truly collapsed the levels of analysis and included the very micro levels at which I believed decisions were made and at the point where the enactment of the actor-network occurs. I sought sensemaking and later critical sensemaking to satisfy my curiosity. I confess that my cognitive dissonance has not been dispersed but I feel more comfortable with both the idea that actor-networks produce knowledge and a perspective of individual choice that situates a source of power and influence in the process of sensemaking. In the beginning of this journey I was not convinced that the narrative of either actor-network theory or critical sensemaking was complete and compelling. This chapter details the thought experiment that is my understanding of the role of critical sensemaking in my efforts to build a plausible understanding of how we make sense of our decisions from within a social existence. In the detailing of this discovery I employ examples from the empirical material. It may be beneficial to review the essential narrative (beginning on page 13) to contextualize these examples.

The challenge of this chapter is to search for a plausible link between the composition and actions of the actor-network and the choices of individual sensemakers. In Chapter Two, I unpacked and discussed the development of actor-network theory (ANT) and surfaced limitations and lacunae in the current state of ANT in order to present the opportunity for CSM to contribute to the understanding of the mobilization of

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actor-networks. In this chapter I will trace the development of CSM, the various approaches taken by the key proponents of sensemaking and CSM, and problematize the issues challenging empirical work in CSM. In so doing, I will focus on those aspects, which appear to create a need for a link to the metaphysical and physical properties of actor-networks. The need flows from the empirical analysis later in my thesis. When discussing ANT it becomes clear that CSM might help explain how the influence of the actor-network impacts the decisions of individuals. Similarly, this chapter proposes that ANT can help understand the means by which an individual is influenced by others. CSM permits the researcher to view the means by which the voices of others, the social immersions of the sensemaker and the context in which the decision made contribute both to the sense made and the choice taken.

To build the foundation of this potentiality, I will focus on Weick's 1995 sensemaking framework, particularly the development of the properties of sensemaking (Weick, 1995, p. 17). CSM which views Weick's socio-psychological properties more as heuristic devices than actual embedded thought processes (Helms Mills et al., 2010). CSM moves beyond the socio-psychological to context – linking decision making to organizational contexts (e.g., rules) and broader formative contexts (e.g., dominant practices and imaginations). Finally, CSM contends that Weick's socio-psychological properties are problematic in both their descriptive character (things are as they are) and their overly focus on (rational or cognitive) individual decision making at the expense of those aspects of collective sensemaking (i.e., formative contexts, rules, discourses, and

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both structural and discursive power) (Hartt, Helms Mills, & Mills, 2012; Helms Mills et al., 2010).

To find the common ground between CSM and ANT Analysis, one must understand the role of the network in the process of making sense of decisions, choices or unconsidered actions. Could the network provide a source of power in the sensemaking process? As will be discussed later in this dissertation, networks legitimize actions and provide power to choices. CSM is an analytic lens through which we observe the power relationships involved in the sensemaking process. The power relationships are reflected in differential decision inequalities. The consequences of those power effects enact a restriction of choice for individuals (Thurlow, 2007). In CSM, power and influence are central to the understanding of how we create order; however, the manner in which context, the social and other voices affect this influence appears to remain elusive in the CSM work.

“How can I know what I think until I see what I say” (Weick, 1977, p. 279), this phrase is oft repeated in Weick’s works (1977, 1979, 1995, 2001, 2012). The phrase refers to the retrospective nature of our understanding of our choices. We seem to think we know why we make choices while we are making them but our understanding of those choices changes post hoc and continue to change over time as our life experiences redefine what is important. Weick describes many aspects of this process; I will describe these concepts in detail as they are crucial to my understanding of the retrospective, ongoing and prospective nature of individualized meaning. As this discussion

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progresses, these descriptions seem to produce some questions about how other voices, the social milieu in which we situate ourselves and the context (which may or may not be of our choosing) impacts sense, sensemaking and the decisions we make. Central to this journey of discovery is the focus on the one, the individual and his/her experience in organizations or more directly actor-networks.

Weick's sensemaking concentrates study and analysis at the individual level (Weick, 1995). In the critical form of sensemaking (Benschop, Helms Mills, Mills, & Tienari, 2012; Helms Mills, 2003; Helms Mills et al., 2010), context and localization are invoked to demonstrate the effect of external power on the individual. CSM does not claim to be devoid of a level of analysis. At the point of interest CSM is at the micro level. Following the process of macro to micro, one might suggest that Karl Weick's sensemaking is closer to a nano level (even smaller than micro) because he deals in a much individuated form of study. CSM extends Weick's emphasis on individuals and small groups to larger entities but continues to focus at this micro level. As such, in CSM there are lacunae with regard to the manner in which the larger entity (context, the social, and the voices of others) influences the individual. In this research, I investigate those gaps and employ ANT theories to demonstrate a link. Somehow the external must persist in the individual and be internalized so sensemaking is influenced by these factors.

Through descriptions of the works of Weick and his advocates, I will show the successes and weaknesses in current sensemaking research. CSM is a relatively new and developing methodology. I believe I have contributed to this development and anticipate

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this work providing a further contribution to this area. In the discussion and analysis of CSM provided in this chapter, I will outline the work to date and demonstrate the opportunities for extension that I believe are available through interrogation of ANT and integration with CSM as described in Chapter Four.

CSM goes a long way to providing a more complete description of the internal process of decision making. By extending the time period the CSM borrows from Weick's seven properties from retrospection and ongoing to include prospective sensemaking CSM provides a link to Actor-Networks. We look prospectively to see how decisions will be interpreted by others and accepted by those in our networks. I believe this feature to be a key in the linking of ANT and CSM and the prosecuting this dimension of identity and choice later in this thesis.

The Framework of Sensemaking Theory

To describe the concept of CSM, we must first examine the framework underpinning Weick's theory of sensemaking. Sensemaking is a process in which individuals engage past experience as an aid to cope with ambiguous situations in the present. Karl Weick's dissatisfaction with more traditional approaches to organizational analysis and their concern for structure over process led him to develop the concept of sensemaking (Weick, 1979, 1995; Weick et al., 2005).

Sensemaking began as a means of breaking an organization down into small pieces and evolving mini-theories about those small pieces. This situational perspective relates well to Latour's Oligopticon approach (Latour, 2005b) [look very closely at an

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organization]. Both Weick and Latour are entreating the researcher to keep to a very narrow view but different narrow views. Latour would have us narrowly look at associations and Weick has us look narrowly at individual actions. Weick (1979) introduced the ideas of both retrospective sensemaking (because we are forced to study matters that have occurred) and ongoing sensemaking (because situations constantly change and our *sense of the organization* is in concurrent flux); these ideas continue to permeate sensemaking analysis.

Weick began this journey with an effort to open the black box of enactment (Weick, 1979). Much of the inquiry began in his 1979 work survives into our work in CSM. In 1979 Weick introduced us to ideas around decisions including: retrospection, enactment, vicious circles, equivocality, social construction of reality, deviation amplifying, self-fulfilling prophecy, memory, causal chains and openness. Key to understanding sensemaking is the seven basic properties of sensemaking situations, which provide the researcher with a means of finding viable empirical material.

1. Grounded in identity construction

Identity is a precursor to sensemaking. According to this property, our past experience has shaped our identity and the factors that have shaped our lives influence how we see the world. Individual identity is continuously redefined by experiences and contact with others. Our parents and friends play a strong role but clubs, teams, religion, schools, jobs and organizations also influence us and help develop our identity. Thus, identity construction is making sense of the self. At AC, the identity of the managers is situated in a hierarchy where pilots are at the top. The organizational hierarchy exists in

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the metaphor of the airplane; the pilot is the boss and all other positions are relative to HIS power. For a large proportion of the employees at AC the change from a pilot to a lawyer as CEO disrupted their identity within the hierarchy by refuting the metaphor.

2. Retrospective

Sensemaking is primarily retrospective. We cannot anticipate our future so we rely on past experiences to interpret current events; thus, sensemaking is a comparative process. In order to give meaning to the present, we select events and experiences from our past to compare with the prospective decision or path. In the prospective sense, we employ the past to propose a future which gives meaning to decisions, choices and actions. In essence the prospective sensemaking is an enactment of the retrospective. When discussing the Winnipeg shops, the management of AC enacted retrospection on previous decisions such as the move of the corporate headquarters from Winnipeg to Montreal. That choice was based on the change of the traffic patterns to concentrate on the eastern part of the country (McGregor, 1980). The decision to move the headquarters was to save money. Arguably the shops should be closed because that would also reduce costs.

3. Focused on and by extracted cues

The choice process requires a filtering of information. The sensemaker must choose which factors are important and which can be disregarded. The sensemaker focuses on certain elements, while ignoring others, in order to support one's interpretation of an event. Because sensemaking is retrospective, past experiences, including rules and regulations, dictate what cues the sensemaker will extract to make

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sense of a situation. The Government regularly provided cues to McGregor and Seagrim that they wanted decisions to be made which were not cost effective but the Managers did not extract those cues. They were constrained by their understanding of the organizations rules to a cost cutting mindset.

4. Driven by plausibility rather than accuracy

CSM is an ongoing process occurring in real time. Full analysis to determine accuracy is not preferential or probable therefore sensemakers do not rely on the accuracy of perceptions but look for cues that make the interpretation seem plausible. Distortion or elimination of key elements may result and conclude in faulty decision making. It seemed plausible to the Minister of Transport and the Government on the whole that a French-Canadian Lawyer who had been successful in other matters could run AC with the assistance of the current staff and a former Deputy Minister. This seemed plausible, but when faced with deficits, it appears that Pratte reverted to the narrative of McGregor and the past and sought to separate the organization from Government influence by becoming profitable once again (Pigott, 2001).

5. Enactive of the environment

CSM occurs in the context of our surroundings, our environment. Surroundings include not only physical structures but also the metaphysical reality of organizations, interactions and reflection. Making sense of an experience within our environment is constrained or created by the very environment produced by the sensemaking. In a manner not unlike a hermeneutic circle the sensemaking creates the environment that reinforces and produces the sensemaking. This property has been likened to the self-

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fulfilling prophecy where the expected result is produced by the expectation. Neither McGregor nor Seagrim could conceive of an environment in which what they perceived to be a more expensive option such as the hiring or promoting of more Francophone employees would be the correct choice. So they chose to resist such measures in the face of a Government that clearly felt that redressing the discrimination against French-Canadians was a priority (McCall-Newman, 1982)).

6. Social

Sensemaking is a social process contingent on our interactions with others and hypothetical interactions that we superimpose on the future. Whether physically present or not, relatives, friends, co-workers, superiors and subordinates influence our perception of events. Past experience informs our projected future. In the formal sense organizational rules, routines, symbols, and language direct an individual's sensemaking activities by providing routines or scripts for appropriate conduct. At AC, McGregor had been hired from within. It was a social process in which an internal candidate was identified. McGregor and his network could not perceive a situation in which an external candidate would be preferred; therefore he did not look for any alternatives to Seagrim. Concurrently, the central power structure of the governing Liberals could not conceive of appointing a CEO for AC who was not in their social network.

7. Ongoing

Sensemaking is circular - it has no beginning or end. Sensemaking never stops, because sensemaking flows are constant, the feedback of one loop produces another. Sensemaking is provoked by shocks or ambiguity from which we embark upon cycles of

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understanding. Weick maintains that we are constantly making sense of what is happening around us and that we isolate moments and cues from this continuous sensemaking to make sense of the current situation. As new cues are produced or encountered the process is adjusted and reinforced. The Minister of Transport demonstrated a resistance to the appointment of Seagram early after his appointment by Trudeau but McGregor appeared to view this as an obstacle that would be overcome (McGregor, 1967a, 1967b). Each step along the way, he extracted the cues that reinforced this perception until the ultimate shock of the Pratte appointment that led him to withdraw from AC completely (McGregor, 1980).

Although some properties are more visible from time to time and appear to dominate, the seven properties of sensemaking situations identified by Helms Mills as central to the development of CSM may influence individual sensemaking simultaneously (Helms Mills & Mills, 2000b). The property of enactment tends to be more visible in the CSM process, but as individuals enact their beliefs, they also make sense of them. The enactment of meaning influences the plausibility of other actions, and simultaneously the construction of individual identity. The choice of the language of description enacts the construction of sense.

From this basis of inquiry, sensemaking and CMS researchers set out to study situations which fell within the descriptions of the seven properties and twelve characteristics. For example crisis and failure provides ample empirical material for sensemaking analysis, these types of situations reflect the properties and characteristics

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Weick (1995) described. There is both a problem and uncertainty built into the situation, these are central to Weick's properties and characteristics. Weick studied sensemaking in organizational disasters and the processes that set them in motion (Weick, 1993a, 2011). Through a study of the cockpit tapes of the Tenerife air disaster (Weick, 1990; Weick, Sutcliffe, & Obstfeld, 2008). Weick showed us how small separate failures could contribute to a major disaster. He suggested that, when interruptions of important routines lead to system breakdowns, people revert to familiar scripts and habitual responses (Weick, 1990). Weick's 1990 study of the Tenerife incident, which resulted in the most fatalities in aviation history, is one of the earliest applications of sensemaking as an analytical tool (Weick & Roberts, 1993). It shows how interdependence and sensemaking, through the extraction of cues, lent plausibility to the pilots' actions. In addition to Tenerife, Weick has used the tools he developed to investigate several separate situations, primarily those with negative outcomes (Weick, 1993b). In the cases analysis of Air Canada, I find many small steps that appear to create a chain of events that leads from a presumed appointment of H. Seagram to the eventual hiring of Y. Pratte as the new CEO of the organization. It appears that Pratte would be an unlikely candidate in 1964 but by the fall of 1968 he has the job. His qualifications do not change but it appears that a series of choices and events lead to him as the only possible candidate. Weick (1995) demonstrate how a small shift in inquiry can lead to a major shift in perspective, a paradigm shift.

Weick investigated the development of the medical recognition of Battered Child Syndrome (Weick, 1995). Previously, the medical infrastructure had seen the indicators

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and symptoms of this phenomenon as naturally occurring childhood injury. Previous experience and the value/moral make-up of the observers (medical staff) led them to conclude that the children were unlucky, clumsy or simply misfortunate. They could not conceive the idea that parents were abusing their children. Only when the many cases were looked at from the macro view did the diagnosis of Battered Child Syndrome become apparent, and even then the possibility of parental abuse was resisted by many. The need to see the large perspective in order to understand the small is a reflection of the nature of many situations. The Tenerife air disaster is not comprehensible from the large perspective but can be broken down into micro-momentary events, which lead to failure. In the battered child example, it is the broad view that identifies the individual incidents as problems.

Weick theorizes that organizations are products of these micro-momentary decisions and events. Each event leads to a response and subsequent event. The cues for subsequent action are embedded in the understanding of the initial event within the framework of training, education, experience, and organizational culture. Individuals attend to cues from their environment and interpret those cues. The meaning is formed through the legitimate understandings accepted by the organization, as socialized and/or trained into the individual (Aaltio-Marjosola & Mills, 2002; Bisel, 2009). Our brains develop shortcuts for dealing with choices and situations. These shortcuts are learned in the same manner that we learn that 4×5 equals 20 rather than having to add $5+5+5+5$. The cues inform the shortcuts to be chosen and those shortcuts override detailed process. In the interpretation of organizational cues, past practices, organizational values and

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priorities, as well as the individual's experience, inform the subsequent actions. When asked, individuals can describe the processes that occurred in the making of sense although they may not have considered the process from the outset (Weick, 1995, 2010). In the same way as we learn to multiply we learn to accept ``truisms`` without question; to practice discourse and make decisions on the basis of truisms as if they were proven. In our network these truisms, have power over our sensemaking. We crave these comforting sources of choice because it is our nature to abhor uncertainty.

“In a fluid world, wise people know that they don't fully understand what is happening right now, because they have never seen precisely this event before. Extreme confidence and extreme caution both can destroy what organizations most need in changing times, namely, curiosity, openness, and complex sensing. The overconfident shun curiosity because they feel they know most of what there is to know. The overcautious shun curiosity for fear it will only deepen their uncertainties. Both the cautious and the confident are closed- minded, which means neither makes good judgments. It is this sense in which wisdom, which avoids extremes, improves adaptability” (Weick, 1993, pp. 650-651).

Even in the process of analytical sensemaking, using sensemaking “recipes” (Weick's, 1995 term) to open the black box on an event or crisis, the researcher can fall victim to sensemaking complications. Even Weick fell into that trap when he revisited the Bhopal disaster in 2010. In the course of his original analysis, he presented the problem of misidentification of the warning odour of Methyl-Isocyanate (MIC) as

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confusion with the smell of mosquito spray (Weick, 1988, 2010; Wong, 2008). Weick presented this as an issue seeking a plausible explanation, but remarked that MIC has a distinctive smell, like boiled cabbage. He ignored his own description of the activities of the workers as smoking bidis, chewing betel and drinking tea, which could plausibly interfere with the olfactory acuity of the workers and, instead, he focused on his own idea of the confusion of MIC with the smell of mosquito spray. While enacting a sensemaking analysis, we are sensemaking. Our sensemaking is impacted by our own goals and the power they hold over our pursuits.

In order to locate a situation in which sensemaking is likely to occur and could produce faulty results, Weick proposed a series of properties of events (Weick, 1995). In the development of critical sensemaking, these properties are central to the understanding of an uncertain outcome where decisions are made on the basis of power and influence structures expressed through identity. The expression of network interaction through discourse appears to exert significant influence in these decisions.

In order to consider the importance of actor-networks and their influence on the individual in the sensemaking process we must first visit sensemaking and the role of identity.

“Sensemaking is understood as a process that is

1. Grounded in identity construction
2. Retrospective
3. Enactive of sensible environments
4. Social

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5. Ongoing
6. Focused on and by extracted cues
7. Driven by plausibility rather than accuracy” (Weick, 1995, pp. 17-18).

When we examine these seven properties we can generalize that the sensemaking situation derives from a feeling of uncertainty. The presence of a paradox forces the individual to seek means by which to resolve the unknown (Benschop et al., 2012). The starting point is the individual’s identity. CSM provides a means of discussing the importance of power in the construction of identity (Helms Mills et al., 2010). As discussed in Chapter 2, membership in an Actor-Network is a source of power and influence. Surfacing of the actor-networks and power relationships enables greater understanding of decision making, through the crossing of the synaptic gap between the individual and the network.

Critical Sensemaking Described

CSM is an analytic framework that offers understanding of how individuals make sense of their complex environments by building on the social psychological properties of how individuals make sense of their experiences in organizations. CSM puts the sensemaking process in context. The inclusion of issues of power and privilege is central to the understanding of meaning as a product of language, social practices and experiences. Using a case study approach to access meaning in the social context of organizations provides the opportunity to surface the ongoing process. From this action we can discover the role of actor-networks as sources of power and connection in sensemaking. Networks are studied as local contexts in which individuals make choices

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but those networks are also shaped by a larger environment, climate and organizational culture. In the case study of Air Canada, the actor-network of Government members provides the political environment influencing the managers and board members. Using CSM we can investigate how sensemaking occurs within a broader context of organizational power and social experience. As a result, the process of CSM may be most effectively understood as a complex process that occurs within a network and influenced by a broader social environment (Helms Mills, 2010). A descriptive, detailed form of case study is very useful to surface the complexity of the CSM process (P. Baxter & Jack, 2008).

By combining the ideas of sensemaking and organizational power, CSM paints a more complete picture of how individuals process their experiences. The analytic approach of CSM argues that Weick's sensemaking needs to be expanded to discover the relationships among the many contextual factors of structures and discourses, which influence individual sensemaking (L. Baxter & Braithwaite, 2008). The most profound form of individual sensemaking is the ongoing process of identity construction. Identities exist from a situational perspective. Each person constructs identities proximate to organizations and relationships in which they participate. New identities take form from the interaction with others in that organization or relationship and are defined from the language of individuals (Fiol, 2002). Individuals construct their identities from their prior beliefs and experiences, ongoing interactions, and the retrospective process of sensemaking, in the process reconciling changes in social and organizational identities (Helms Mills et al., 2010; Thurlow, 2007).

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“CSM argues that an analysis of sensemaking needs to be explored through, and in relationship to, the contextual factors of structure and power in which individual sensemaking occurs. In this way, it provides an approach to understanding the role of language in the process of change and it offers an opportunity to view the effects of change from the perspective of the individual employee. At the same time, CSM provides an important framework for investigating how individuals make sense of language and enact it on an individual basis...Privilege in the process of CSM comes largely through the ability of a particular actor to extract cues, convey plausible explanations, and resonate with the identities of those involved in the process” (Thurlow & Helms Mills, 2009, pp. 464-466).

The Role of Rules

Individuals make sense in a contemporaneous proximate level; the concept of organizational power places the local level in a societal and organizational milieu of rules and privilege. CSM draws on Mills’ organizational rules theory in the analysis of how actions are determined (A. J. Mills & Murgatroyd, 1991). The ways in which groups organize and get work done is directed by social practices; however, the rules set limitations on individual sensemaking and actions (Thurlow, 2007; Thurlow & Helms Mills, 2009). “There are two elements to the rules approach, (a) the rules themselves; and (b) the actors who engage in the process of establishing, enacting, enforcing, misunderstanding and/or resisting rules” (Helms Mills, 2003, p. 194). In the connection between CSM and ANT, rules are a key link. There is the role of actors described by

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Helms Mills above and the rule of discourse and ideas which I link together in Chapter Four. If actors (human) make rules; it appears that actor-networks constrain their choices.

Rules may be formal or informal within the organization. They reflect the processes that impose order and devise routine. Rules inform understanding of unity and cohesiveness while constraining individual action (Mills & Murgatroyd, 1991). By doing so, rules may emasculate (de-power) more appropriate interpretations of situational cues. Individuals may follow a perceived rule rather than enacting analysis - analysis that may have produced a more plausible sense of the situation. This cautionary in the framework of CSM provides insight into both the power of the actors enacting rules, and the constraints under which they act. However,

“...the rules approach fails to explain the process through which actors come to develop and make sense of organizational rules, it nonetheless provides a missing element of the sensemaking puzzle – drawing attention to the fact that organizations are localized aspects of formative contexts and, as such, shape not only the next generation of formative contexts but help to bridge the divide between formative contexts and activity systems. Organizational rules mediate between formative contexts and activity systems – forming a localized framework in which sensemaking actors and, in turn, influencing the development of future formative contexts. The primary strength of the rules perspective is that it fills in a missing piece of the puzzle...” (Helms Mills, 2003, P. 195).

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The link among formative context, rules and sensemaking is contextualized in the development of the connection between actor-networks and individual choice. Actor-networks are a part of the formative context (in a more localized sense). The role of the Actor-Network in the development and understanding of rules and subsequent individual sensemaking activity is arguably (re-)enforced by the influence of ideas, notions and privileges enrolled in the network. Power of individuals in the network contributes to the sense of which ideas have more influence as well as concepts of value constructed by actors. The question posed from a CSM analysis when linking to an ANT analysis is the means by which the power and influence of the network impacts the decisions of individuals when acting alone, without other members of the network to observe. This link is the key connection I seek to explore. What preserves the power? How does the influence persist over time and in the face of other influences?

An inherent inequality exists among organizational members that may affect the realities they construct (Helms Mills & Mills, 2000a). Powerful actors in the organization may lead the development of the rules, both tacit and inferred, but they are constrained by context and the interests of the network. Failure to maintain enrolment in the network renders rules impotent. Rules must maintain a sense of cohesion within the organization and be consistent with the network values and culture. Therefore, these actors are constrained by meta-rules and formative contexts that limit the availability of alternatives they may enact.

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Formative contexts, and the related organizational rules, are both productive of, and produced through, discourse, thereby reinforcing the hermeneutic circle of meaning within organizations. Actions reinforce meanings and meanings produce enactment. Formative contexts are the institutional and social practices from which the organization is formed. They help shape a society's routines. The context in which an organization is formed limits what can be imagined and done by the group. At Air Canada the organization originally came into being in an environment (formative context) where Government interference in the economy was disabused (P. Smith, 1986). The organization developed as if Government were its grandparent, watching its moves and supporting when necessary. CSM positions the formative context as a link between dominant social values and individual action. Formative context is variable: it tends to be a pre-existing (but may develop concurrently) set of rules that constrains how organizational language, events, and actions may be viewed (Blackler, 1992; King, Felin, & Whetten, 2010; Roulet, 2010). Some forms are privileged within society above others but none are so privileged as to exclude all others. In CSM we see the effect of the formative context on the individual through their choices but we are left without a clear means to observe the cause and effect of context and action. How does the rule or ideology found in the environment influence the individual? We surface the negotiation of the dominant context enacting a restrictive influence on organizational rules and those rules having power over sensemakers. Individuals seem to achieve meaning through the privileging of these dominant assumptions and the influence on the internalized sensemaking (Dixon, 2010). Thus the introduction of the dimension of formative

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contexts, the CSM framework creates space for a discussion of how the macro-level context affects which cues are extracted and acted upon in the ongoing. Each narrative, story, discourse, and text is evaluated in terms of plausibility within the formative context and the nature of enactment is informed by the interaction. The process by which these interactions occur is the subject of the analytical approach. That approach appears to resolve to a description of context and outcomes.

Why Critical Sensemaking: What is Missing in Sensemaking?

“...we note how organizational culture acts as a sensemaking device that influences how people construct the reality of the organization in which they are a member. This sensemaking process must, however, be controlled in order for the organization to come to mean the same thing by its various constituents, such that adherence to core corporate values become routine. A critical sensemaking approach... sees organizational culture as an important ordering principle for enacting a dominant sense of the organization” (Long & Helms Mills, 2010, p. 326).

Sensemaking in Weick’s form has been critiqued for not addressing issues of power, organizational rules, gender, culture, context, and voice. For example collaborative learning has been described as *merely sensemaking* unless the learning is informed by communities of practice (Mezirow, 2000; Ng & Tan, 2009). The community of practice must be considered both an actor-network and a source of identity for each individual participating. The ideas which hold the community together in a

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network must also be considered influences on the choices made by the actors. By adopting the critical approach we surface the sources of power and the influence of these sources. Organizational rules provide a pre-existing sensemaking tool that contributes to the plausibility of an interpretation or the likelihood of a cue to be extracted as meaningful (A. J. Mills, 1988; A. J. Mills & Murgatroyd, 1991). This introduces the concept of meta-rules to sensemaking practices. Elsewhere these meta-rules might be described as ideologies or even hegemonies (Fairclough, 1992, 1995). These rules (including privatization, competition, and globalization) are broad in scope and represent points of intersection between and among a number of formative contexts (Bolsmann & Miller, 2008; Dixon, 2010). These global constructs are localized through the networks of organizational life. Application of actor-network theory to sensemaking provides a location for the formation of these sources of power. Meta-rules when enforced locally become constraining.

The formative context analysis will surface meta-rules of gender and voice in the historical context and the replication of these forms of oppression (Myrden, Mills, & Helms Mills, 2011). The study of voice in context provides an understanding of the mechanism of power in organizations (King et al., 2010; Roulet, 2010). The network produces the organizational rules, and when accepted, the rules become an actant in the sensemaking process. Power is given to people, networks and inscriptions (written depictions of actions/choices) of the networks. This power controls many aspects of the sensemaking process. Gaps in power or conflicts in power regimes force actors to enact sensemaking. One of the significant effects of ambiguity in the power relationship is the

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lowering of the threshold of plausibility when choices are considered by actors in crisis situations (Weick, 2010). Relating this sort of conflict in power to the empirical material surrounding Air Canada in 1968, we can envisage the conflict between the apparent power of the AC Board of Directors and the power of the Federal Government.

Decisions made by individuals are contextually situated in their understanding of the power relationships. Early in the period leading up to the change in CEO, I found memos in the Hellyer files indicating dissatisfaction with the decisions being made by the management of Air Canada (Hellyer, 1964). It appears that this dissatisfaction led to the uncertainty surrounding the choice of successor.

Sensemaking comes from discrepancies and as a result relates to cognitive dissonance. Where the ambiguity of the situation is greater, the experience of dissonance is stronger. A manifestation of sensemaking is the process of dissonance reduction/elimination (Helms Mills, 2010). Individuals seek to reduce uncertainty and may discard uncertainty for the comfort of a plausible choice. In the ready-fire-aim model we resolve the dissonance over an action via sensemaking (Weick et al., 2005). This form is regularly experienced in our efforts to rationalize a decision we have made (viz. action shapes cognition). In the ready-fire-aim model, the stages of decision making evaluation and change occur in the same way a mortar might be fired on a target range. An initial plan is based on prior understanding and justified within the mental model. A choice is made based on that justification. Upon firing, the justification is examined in retrospect and discrepancies identified. Upon failure some understandings may be jettisoned in favour of others that offer a plausible chance of success. A new aiming

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model is justified. In this way the action shapes the cognition of the action. Choices are constructed socially from the prior experience and other influences. The critical aspect of sensemaking deals with the social process of power and influence that shapes the construction. In this thesis, I seek to illuminate this social process through a connection between CSM and ANT. It appears clear that the presence of a network influences the choices of individuals and that when those individuals make sense of a choice they rely on shortcuts to guide them. What is not clear is the means by which the ideas of the network become part of the identity of the individual and persist well beyond the physical connection.

Weick's sensemaking was seen as a possible heuristic for investigating power relations in organization. In particular the relationships among gender, power and decisions (A. J. Mills & Helms Mills, 2010). CSM is seen as a means of placing the emphasis of research on the power relations among the sensemakers in the context of the organization and society (Mills & Helms Mills, 2010). By introducing the concept of relationships among individuals as a source of sensemaking, CSM drives the logical connection with ANT. In the analysis of the AC materials it appears clear that the shifting power structures between the new vision of the Government and the management at AC results in changes to the identity of the workers. The CSM view that power is social is built upon the notion that an organization is much more than a structure holding people and tools in place but also a relational culture including rules and norms producing power relationships (Carroll & Mills, 2006; Helms Mills et al., 2010). Helm Mills and her colleagues were drawn to the role of those power relations in the

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construction of identity in the individual. Identity had been previously identified as a key factor in the means by which an individual made choices and retrospectively made sense; changing identity had been linked to ongoing sense (Weick, 1995).

As Helms Mills and her various co-authors developed notions of critical sensemaking they began to view the process from a poststructural view of organizational rules (Mills & Murgatroyd, 1991(Lyotard, 2009)), the power of discourse (Foucault, 1978) and individuated sensemaking (Helms Mills & Mills, 2009). This leads to conceptualizing CSM as a socio-psychological process (Mills & Helms Mills, 2010, p. 144). In the context of my thesis, I see a strong link between CSM view of choice as a socio-psychological process and the individual actor's role in ANT. For example, some employees at Air Canada may choose to contact their Member of Parliament with regard to a grievance rather than use the processes in place in the corporation because he/she sees the network of power at AC as political rather than managerial.

In the examination of rules in organizations, rules are situated as an expression of organizational culture (Helms Mills & Mills, 2009; Long & Helms Mills, 2010).

Organizational culture could be seen as an expression of the interrelationship of the Actor-network. How actants perform is negotiated in the formative stages of network development (Latour, 2005). In previous work on Air Canada, the formation of the airline and reinforcing sensemaking of discriminatory practices was shown to socially construct the male and female opportunities in the organization (Carroll & Mills, 2006). "The concept of organizational rules is built around interplay between structural and

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phenomenological factors (that is, rules are developed and maintained through the actions of people but also serve to structure how people think about rules)...” (Helms Mills & Mills, 2009, p. 172). This concept provides a clear link between individual identity and the actor-network as described in ANT (Michael, 1996).

Discrimination is a powerful concept and one can easily accept the need for considering this source of power in the analysis of a sensemaking situation (Miller, 2002). But, what of other types of situations where sensemaking appears to be ongoing? It is contended that all choices involve sensemaking and that all sensemaking involves power (Helms Mills et al., 2010; Thurlow & Helms Mills, 2009). Further examples are needed to support this contention. It has been found that events may trigger sensemaking. For example, the introduction of workplace spirituality programs may change the retrospective sensemaking of past choices as well as enable a changed prospective sensemaking of actions (Long & Helms Mills, 2010; McKee, Helms Mills, & Driscoll, 2008). McKee et al (2008) found that forms of workplace spirituality may lead to discriminatory actions in organizations. This limitation of view (to choose only those who are in an identifiable group) can be linked to our perceptual process. The worship of pilots in an airline can be compared to a religion, but in the AC example, the more strongly relevant comparator is the ideology of business. An ideology is built of ideas and can be a source of domination and control (Marcuse, 2002). Our sensemaking is influenced by our understanding of the ideas within the collective that is our ideology. Grand discourses (Foucault, 1971; Rabinow, 1991) influence our understanding of ideas and their place in individual identity while discursive practices (Fairclough, 1992, 2005)

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can be evaluated to tease out the influence of others, the social and perhaps ideas with agency in an actor-network. The managers at AC controlled and dominated the Board and the employees until the governing Liberals shocked the system by hiring a non-business, non-AC, non-pilot to be CEO. For some, the ideology may have been shattered by this shock but the constituent ideas persisted and appear to have re-coalesced over time.

One of the way external sources of power change our sensemaking is by influencing the choices we make when consuming data and information. We experience much more information than we are able to acquire and as a result perceive selectively (Yi, Kang, Stasko, & Jacko, 2008). Yi et al, in the discussion of this perceptual process, cites Weick and sensemaking theory with regard to choices of cues to perceive. This is related back to the process of retrospective sensemaking. When triggered an individual may recall information which was available at the time of the event but not selected for inclusion in the original *sense* but is later added in to provide *sense* in the new context; by the same process earlier recollections are discarded (Yi et al., 2008). When we read through the McGregor's histories of AC book in particular we can perceive changes in sensemaking from his memos in the early 1960s to his writing in the period after he left AC (McGregor, 1967a, 1967b, 1980). McGregor recreates his sense of the events from his ongoing sense in 1967 of the Government's objections to Seagrim as 'issue related and merely a roadblock to overcome.' Later McGregor develops a new sense of the decision, this time as something that appears to be related to political cronyism and an inevitable outcome regardless of the efforts that he (and Seagrim) made to mollify the politicians.

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This critical sensemaking perspective – i.e., the need to situate individuals as sensemakers in the power structure of the culture and climate of organizations, has been widely promulgated, including discussions of corporate social responsibility (Basu & Palazzo, 2008); use of information systems tools by a community of emergency measures professionals (Aedo, Bañuls, Canós, Díaz, & Hiltz, 2011); the debate surrounding the Clinton Healthcare proposal (Nigam & Ocasio, 2010); and the sharing of information in a hospital trauma centre (Paul & Reddy, 2010; Weick & Sutcliffe, 2011). These diverse studies are among the many that employ sensemaking sometimes specifically referred to as CSM but in many cases given other adjectives such as collaborative sensemaking (Paul & Reddy, 2010). In all of the forms of current use, sensemaking analysis attempts to include descriptions of the social dimension in the choices of individuals. In this thesis it becomes clear that each of the decision makers – namely, political; management, employees; and respective authors of accounts-- make their decisions in a social environment. Each of the groups concerned with AC is an actor-network of sensemakers influenced by the ideas contained within their network. CSM appears to be the most plausible descriptive for the form of analysis but we should not deny the contributions of others simply because they choose alternate terminology.

Both Weick's (1995) sensemaking and Helms Mills (2010) critical sensemaking analyses, study the post-structural effects of the social on individuals. Each of these forms relies on the initial description of sensemaking in situ and factors generating the ongoing sense as Weick outlined in 1995. Relating the method of analysis from CSM to ANT reveals a shared interest in thick description across both perspectives and all

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variants. The archival material from the AC case enables this sort of work. CSM alone would reveal many interesting aspects of the events surrounding the appointment of Pratte to the CEO position. By inserting an ANT search for relations among actors more is surfaced. However, this addition makes the need for a better understanding of the role of ideas a clear requirement.

Situating a Sensemaker

Weick describes twelve characteristics of situations that lend themselves to sensemaking (Weick, 1995, p. 93). These characteristics are useful in the CSM analysis (informed by ANT) because we first surface a sensemaking situation and extend the Weickian approach as per Helms Mills to include the role of power and influence.

1. The nature of the problem

The nature of the problem is the first characteristic of a situation described by Weick. In straightforward situations, the problem and its solution may be apparent; however, when the problem is unclear, the actor must balance possible outcomes. This was likely the case with Air Canada (AC) where the Minister appears to need to balance the Government's desire for a change of direction at AC against the lack of external candidates who may be acceptable to management. The act of judgment appears to be informed and influenced by the ideas enrolled in the sensemaker's network.

2. The clarity of the problem

The clarity of the problem frequently results from the second factor, the lack of reliable information. The strong group of Liberal Party operatives wants the Winnipeg

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Shops kept open. The AC senior managers say they will consider the Minister's view on the Winnipeg shops(Hellyer, 1964). The AC Managers have demonstrated an unwillingness to consider the government's position on issues such as advertising contracts, francophone promotion and settling labour disputes. As a result the Minister does not appear to trust the AC senior managers' word and seeks new management which will support Liberal Party interests.

3. Paucity of information

A paucity of information or unreliability in the source gives rise to the third factor - multiple interpretations, which conflict and raise the cognitive dissonance mentioned earlier. When the actor selects information to employ in the decision making process he/she is more influenced by the actors and actants with the most apparent power within their actor-networks. Competing ideas may clash forcing contested choice. The Minister has established a desire to have AC act as an arm of the political objectives but AC's management appears to value the need for businesslike practices more.

4. Clashers of values, politics and emotions

This conflict may raise clashes of values, politics and emotions. These clashes of values, politics and emotions are the fourth characteristic and open the opportunity for power and influence to change decisions.

5. Possible outcomes and understanding

The fifth characteristic relates to possible outcomes of the situation; when the problem is unclear the goals may also be unclear. These first five characteristics relate to the understanding of the situation for the actor who is trying to make sense.

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Each of these five is critical to the discovery to be described in Chapter Four. The role of the ideas in the proposition and resolution of conflict and dissonance provides a means to link the individual's sensemaking and his/her place in an actor-network. Sensemaking situations are spawned from conflicts of more than ideas. There is the organizational competition for assets that generates conflict.

6. Scarcity of resources

Traits of the sensemaking situation include a scarcity of resources. When the resources are only available for a limited number of choices, the actor may choose to limit the possible actions to be taken. In the AC case, the majority of managers perceive limited financial resources, they expect that the Government will refuse to fund an operating deficit and they appear to believe that keeping the Winnipeg shops open and increasing the number of bilingual staff (French-English) will be expensive (Pigott, 2001).

7. Paradoxes

Scarce resources and the lack of clarity of information, problem and goals contribute to the seventh characteristic - paradoxes. One choice may eliminate another. This may later force the actor to close her options or put aside a plausible choice in favour of another with more flexibility. Conflict between resource allocation choices of efficiency and the priority of influential ideas can generate significant paradoxical cognitive dissonance.

In the Air Canada decision discussed in the case material, the Federal Government appears to face a paradox. The political power brokers from within and without the

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cabinet are at odds with some decisions made by the then management (Hellyer, 1968a). It appears that a preferred decision is identified - replace the CEO with an outside candidate. When Trans-Canada Airlines (Air Canada's original name) was set up in 1937, managers were brought in from large successful American airlines (P. Smith, 1986). Hellyer attempts to replicate this narrative (Hellyer, 1968a). Candidates are sought from within the industry but the response is weak, in fact one airline CEO suggests that Hellyer has the best candidate in house [Seagrim] (Executive, 1967). The actor-network of senior Liberals (Government) faces a paradox, they want change away from the current AC management but a highly qualified outsider does not come forward. In the challenge to resolve this paradox it appears that the individuated conceptualization of Party objectives has more influence. The Board of Air Canada is forced to make a choice to follow the directions of Government. They are situated in a context where the characteristics of the situation are highly complex.

8. Lack of clear roles

The interrelatedness of the characteristics is exacerbated by a lack of clear roles. The Board of AC has a mandate to oversee the operation but they are ultimately appointed by the Government (McGregor, 1980; P. Smith, 1986). When the actor perceives her role and responsibilities as vague (the eighth characteristic) in terms of the other actors, s/he may make choices that relate to models of decisions s/he projects on other actors. The Board of Air Canada is unsure as to whether they are to run the organization or follow the directions of Government.

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9. Measure of success

Where goals are unclear it is common for the measures of success (the ninth characteristic) to be absent. Even when a goal is apparent, if the measurement of relative achievement is not clear then the actor may be left with uncertainty as to the preferred outcomes. This becomes even more challenging in the absence of a clear path from action to reaction. AC managers predominantly accepted the discourse that their goal was to *stay out of the taxpayers' pockets* – this goal conflicted with the objectives of political patronage, job protection and the ‘Just Society’⁷ (McGregor, 1980).

10. Lack of clarity in choices and outcomes

The tenth characteristic relates to situations where the cause-effect relationship between the choices and the outcomes is unclear; a situation that may cause the actor to lose confidence in the chosen approach. For Air Canada in 1968 there is a conflict between the long-standing influential understandings related to financial performance and efficiency and the new (in 1968) goals of the political masters related to patronage, electoral success and the *Just Society* of Pierre Trudeau. Where the preferred outcomes seemed to be clear “keep your hands out of the Government’s pocket”, in 1968 (and

⁷ “The Just Society will be one in which all of our people will have the means and the motivation to participate. The Just Society will be one in which personal and political freedom will be more securely ensured than it has ever been in the past. The Just Society will be one in which the rights of minorities will be safe from the whims of intolerant majorities. The Just Society will be one in which those regions and groups which have not fully shared in the country’s affluence will be given a better opportunity. The Just Society will be one where such urban problems as housing and pollution will be attacked through the application of new knowledge and new techniques. The Just Society will be one in which our Indian and Inuit populations will be encouraged to assume the full rights of citizenship through policies which will give them both greater responsibility for their own future and more meaningful equality of opportunity. The Just Society will be a united Canada, united because all of its citizens will be actively involved in the development of a country where equality of opportunity is ensured and individuals are permitted to fulfill themselves in the fashion they judge best.”(Trudeau, June 10, 1968)

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beyond) they were nebulous. The metaphor of the pocket was easy to understand, the new goals lacked that clarity.

11. Clear symbols and metaphors

Many organizations are grounded in value symbols or metaphors of the organization. The sports team may use the symbol of the lion to demonstrate the clarity of purpose or the coach may speak in the metaphor of war. Airlines, because many of their leaders in the 1960s came from World War Two air forces tended to use military metaphors. The Trudeau Government changed the metaphors.

In situations with readily understandable metaphors, the goals are clear and choices are straightforward but when organizations fail to provide clear symbols and metaphors (the eleventh characteristic) their members are unable to use these cues to guide choice. Many of these characteristics are present when an organization is in flux.

12. Changes in the power structure

The final characteristic refers to changes in the power structure or organizational path. When new leaders come into power, the organization may flounder while waiting for clear goals, symbols or plans to guide the choices of each member. When leaders refocus an organization, the clarity of purpose may be lost between the old goals and the new ones. Helms Mills (2003) demonstrated this aspect repeatedly in her study of an electrical company facing privatization. Air Canada in 1968 faced a similar crisis of power; it appeared that power moved from pilot elite to a political network.

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Each of these twelve characteristics can be seen as present in the 1966-68 events at Air Canada. The organization is placed in a situation of uncertainty. The President is beyond standard retirement age and has indicated his desire to step down. Yet, an appointment does not take place. Actors in the organization search for an explanation. There appear to be conflicts in the power structures and no clear authority system to control this decision. Information is incomplete and perhaps most disruptive is the change in political leadership in the Government. Using Weick's description of characteristics of sensemaking situations the AC period in study appears firmly appropriate.

Evolution to the Critical

The importance of rules, discourse, power and influence on the sensemaking process has been surfaced as central to (critical) sensemaking. Helms Mills and her colleagues have presented compelling plausibility to the importance of these factors in the sensemaking process (Helms Mills & Mills, 2009; Helms Mills et al., 2010; A. J. Mills & Helms Mills, 2004). To discuss sensemaking without including the ideas of CSM appears illogical. In forward thinking, I conclude that all sensemaking must be CSM. So I look to these scholars for guidance in the use of sensemaking theory and method.

To evolve the practice of sensemaking research from the critical lens, Helms Mills developed a framework for understanding events (Helms Mills 2003). The framework helps to make sense retrospectively from observed behavior and can direct individuals into action, to manage situations and to create meaning (Thurlow, 2007). The Helms

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Mills framework of CSM process, as discussed at length above, begins with seven ingredients from Weick's properties of sensemaking situations but goes on to reflect on the situation in which the sensemaking process is located:

1. Grounded in identity construction
2. Retrospective
3. Enactive of sensible environments
4. Social
5. Ongoing
6. Focused on and by extracted cues
7. Driven by plausibility rather than accuracy" (Weick, 1995, pp. 17-18).

These seven properties have separate and conjoined effects in the sensemaking of individuals. Some properties are found in most sensemaking situations where others may be more transient. When considering sensemaking from the CSM perspective property 1. *Grounded in Identity Construction* is key to my understanding. To situate CSM in an ANT environ, I invoke the importance of the *social* (property 6). The social construction of identity provides a plausible link to the importance of the actor-network in the identity of individuals and the importance of this constructed identity in the cues they extract when sensemaking.

Individuation and the Link to Actor-Network Theory

Individuals within organizations may not make sense of the same event in the same way. Even those who ascribe to the same ideology may place more importance on some ideas than others (Marcuse, 2002). In the AC case some managers see the idea of

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being business-like as cutting costs and others saw it as increasing revenues. Individuals generate a unique compromise among the ideas and persons who influence them (their social experience). The metaphysical nature of individuated decision making invokes consideration of aspects of choices which cannot be concretized. These aspects are described herein as without a solid existence. If anything they have meaning because the ideas are individuated and internalized. Each meaning is given legitimacy by the individual who constructs it (Weick et al., 2005).

Participation in a network by an individual may limit the choices among plausible meanings attached to a given experience. The power of those legitimacies presents the critical aspect of sensemaking. Are the legitimacies the product of illegitimate systems such as gender or race discrimination? Does a network of actors and actants produce a power relationship that influences the range of legitimate choices and thereby individual sensemaking? It seems quite clear that the Minister of Transport made his decision about the CEO within the context of the network of political operatives of his Party. The surfacing of that social expression is challenging. Obviously, the choice of a non-pilot was an issue for the employees (and the managers) at AC, yet Minister Hellyer must have believed that Pratte would be accepted. CSM offers a frame of analysis that looks at actions and beliefs as driven by plausibility not accuracy. The formative nature of the network informs the construction of plausible and by opening that *black box* CSM provides a tool for analysis.

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Plausibility essentially refers to a sense that one particular meaning or explanation is more meaningful than others. It feels right within the range of possible explanations available to sensemakers in a given situation. However, there is no specific definition of what makes a particular explanation plausible. Weick suggests that options make most sense when there are no better alternatives, other individuals seem enthusiastic about this alternative, other individuals or organizations have taken this same perspective, and/or this explanation resonates most closely with existing identities and perceptions (Weick, 1995). So when we consider the choice available to the unionized employees to either consider the Pratte appointment as a shift in management style (based on past experience) or a continuation of the same experience (i.e., managerial authority and the exploitation of employees)— we see no change in the narrative of the unions (Newby, 1986). From accounts of unionized flight attendants, there was little difference between ‘internal’ pilot-managers and ‘external’ Government political appointments in terms of gendered attitudes to and expectations of female flight attendants (Newby, 1986).

Summary

In this chapter, I have outlined the problems of sensemaking analysis, which have been identified by Helms Mills and Thurlow in their work in the evolution from sensemaking to critical sensemaking. While Weick identified power in the organization as a source of sense, he did not give the forces of power and influence their due role as central to an individual’s development of identity and the related construction of understanding, choice and decision which appear to be controlled by these critical forces. Thurlow and Helms Mills have demonstrated the importance of power and influence on

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the sensemaking of individuals and postulated (following Weick) that there is significant interaction with the identity of the individuals. They insert the nature of formative context and organizational rules into this gap in order to situate the power of the external forces of the organization within the sensemaker. I seek to demonstrate the more local effects of actor-networks on the choices of individuals.

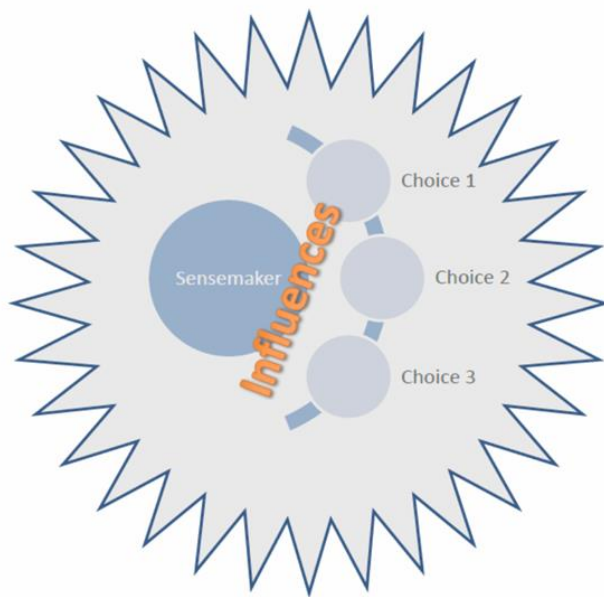


Figure 4 - The Sensemaker in the Context of Influences

To extend this idea into the gap described in actor-network theory I have endeavored to examine the role of ideas and surrounding discourse in the development of power and influence. Ideas enrolled in the network and demonstrated in discourse appear to shape and limit the understanding of situation in the individual. As mentioned earlier it appears that discursive practices reveal the ideas, ideology and grand discourse influencing the identity of the actor. I believe that the influence of the network is

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expressed in the CSM of the individual at this nano level. That very small place where an individual adopts the influences of external factors into his/her identity and continues to be influenced by those factors long after changes to the membership of the group. I contend that the understandings assimilated into identities represent ideas that play the role of serotonin in the synaptic connection between the actor-network and the sensemaking of individuals.

The work of CSM Scholars has opened up the understanding of the retroactive, prospective and ongoing processes of sensemaking to a contextual dimension. This contextual dimension links the individual's actions (choices, decisions and sense) to the network as described in ANT. In order to further delineate and surface this connection I will pursue historical research. Historical materials provide a form of convenience sample for the surfacing of actor-networks and several layers of retrospective sensemaking. Over time, material becomes available (in the case of the Federal Government what was secret becomes available), but if too much time passes documents are lost and memories fail. The time lapse of forty-four years since the Pratte decision was made appears to locate the case analysis in a viable period.

In the materials available, I am able to locate decisions being made along the path to the ultimate choice of Pratte and surface the influences that inform the sensemaking by individuals. The actor-networks in which they participate give clues to their identity construction and, in particular, provide plausible evidence of the presence of some actants that hold power over decision making. Following the events forward in time to their

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retelling in histories allows me to surface the changing discourses representing new retrospective sensemaking events.

Chapter Four – The Non-Corporeal Actant

Introduction

The notion of the non-corporeal actant (NCA) arises from consideration that ideas – especially those that convey beliefs (e.g., employment equity) – influence people’s actions. Such ideas are often inscribed (e.g., in such things as employment equity legislation and procedures) and from person to person. In other words they are conveyed through human and non-human actants. However, there is arguably a metaphysical (or non-corporeal) aspects to ideas in so far as some appear to be reproduced at some distance from transmission (i.e., at a temporal point that is far removed from an individual reading of an inscription or interactions with other persons. For example, a person may be motivated by a sense of worker rights to join a union despite the fact that they have no immediate memory of having either read about or being told about the importance of worker rights and trade unionism. Somewhere between the person’s interactions with a union (be it an inscription or an actual person) they make sense of union membership through reference to the idea of worker rights (Hartt, Mills, & Helms Mills, 2012). That *making sense* process is where an idea (e.g., worker rights) is turned into an actant and serves to propel the actor to enroll in a union (network).

To be clear, I am not suggesting that an NCA ultimately related to embodied selves. Rather, I am suggesting that actants do not only arise out of direct human interactions or direct exposure to particular (non-human) actants in the form of inscriptions as suggested by Latour (2005b). We need to account for ideas and beliefs that serve to influence behaviour even where they have no apparent connection to sets of

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direct influences (including network influences) or even, in some cases, indirect influences. In particular I am interested in those ideas/beliefs that appear to influence behaviours at a sub-conscious level (e.g., the deep-rooted assumptions that underlie some historical accounts; assumptions that are arguably the actant that encouraged the writing of the historical account). ANT in previous forms employs discourse as a means of tracing relations however; the NCA provides a means to express the power of ideas and relations among ideas, human actors and non-human actants. Later in this chapter I will provide a means by which a researcher can search for these powerful actants through a series of deconstructive moves.

In order to produce these moves a logical progression through the gaps and links between Critical Sensemaking (CSM) and Actor-Network Theory (ANT) is necessary. In the discovery of the connection and a means to seek out the connections in the empirical material in Chapters Six through Eight, I explore key theoretical aspects of CSM and ANT in conversation with one another. From this I propose to demonstrate where the two literatures speak to one another and where they do not. The objective of these explanations is to demonstrate the intercedes where the moves enjoining the two literatures may produce plausible analyses. Connections between the literature provide the starting point for this work.

Allied to the notion of the NCA is the process whereby a set of ideas is given voice, or enunciation (Ermarth, 2007), through sensemaking. The idea of worker rights, for example, is just that, an *idea*. Its potential as an actant may rely on how it is made

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sense of by an individual actor and subsequently reinforced or challenged by other actors. Thus, ideas – written or personally conveyed – are not simply passed on they have to be translated and that is where sensemaking provides a useful heuristic for understanding how ideas come to be embraced as motivating.

To put it simply, the term non-corporeal actant (NCA) refers to a non-embodied influence on network persistence. Its characteristic lies in the fact that it is neither associated with selected individuals and persists even when original actors may have left the network through de-enrollment or death. Its influence can arguably be found as spanning time frames regardless of the existence of its original framers. The persistence may be accounted for by inscriptions, memories or other forms of text rather than a magical reincarnation. But, ultimately the renewed NCA takes a revised form through interaction with recently enrolled NCAs through the sensemaking of actors.

The link between critical sensemaking (CSM) (Hartt, 2011a; Hartt, Helms Mills, et al., 2012; Helms Mills et al., 2010; Thurlow, 2010) will be exposed theoretically. In the second half of this chapter I will propose the method of application of the NCA through a series of moves (Norris, 1987) with the empirical data. In the following chapters I will demonstrate the plausibility of the NCA as a viable aspect of analysis through the use of the case material.

From a practical perspective, in past work I have struggled using ANT or CSM separately in analysis. My difficulty lay in building a connection between the assemblage of the network and the choices of the individual sensemaker. ANT seems to present the

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network topography and imply that actions are the result of the described relations. CSM establishes the relation between a power source and the identity/actions of an individual (Helms Mills et al., 2010). *The social* is provided in CSM as a plausible source of power. However, I would argue that the *social* of CSM could be described by the assemblage of ANT (Latour, 1983). Concurrently, the translation (action) produced by a network (in ANT) could be arguably viewed as the result of the choices of the individual sensemaker as described by CSM.

It is into this connection between ANT and CSM that the concept of the non-corporeal actant (NCA) is proposed as a plausible means of linking CSM and ANT. The word *actant* is used in ANT to refer to objects or humans who have agency and therefore appear to be able to modify the actions of other actors and actants in a network (Mol, 2010a). In general, actants, as described by past authors of ANT, appear to have material being (either bodies, as in the case of humans and material properties as in things) (Law, 1992a, 1992b). These actants are either people or physical things, i.e., corporeal. As will be described herein, I believe that the corporeal actant is insufficient to describe both the persistence of networks and the means by which networks have power over the choices of individual choice. The concept of the *non-corporeal actant* is proposed to explain these effects.

Earlier CSM work suggests that leadership have an influence on the actions of followers through the making of meaning (Dickson, Den Hartog, & Mitchelson, 2003; Thurlow, 2007, 2009). I see this influence as a key in the understanding of the link

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between leaders and followers who would be considered enrolled in an actor-network. I contend that the *making of meaning* appears to be created by the collective as well as leaders and it also seems to persist or return even in the absence of leaders. In the case studies found in Chapters Six through Eight, one could draw the conclusion that meaning continues to be made even when all of the original members of the Air Canada networks have left (de-enrolled). It seems like the ideas are enrolled in the network, but the meaning of these ideas is constantly changing and different for each human actant. So, even though Latour (2005b) provides a means by which ideas can be physical actants (the inscription), this is insufficient to explain the continuation, evolution and change of these ideas. As I hope to demonstrate later, an individual understanding of an idea and use of that idea in decision-making can be quite different from a particular idea as originally inscribed. This evolution of the idea is never present in a physical (corporeal) form.

But what is a non-corporeal actant, how can its existence be demonstrated, and what is its heuristic value? At the opening of this chapter I have tried to define the concept of the NCA. However, its viability, or more properly, its plausibility lays not so much in its definition as in evidence of its performativity. In other words, I set out to reveal a theoretical gap in the literatures on networks and sensemaking and theorize the necessity of identifying (i.e., naming) the phenomena that appears to lie between the two and offer a hitherto unaccountable explanation. Once the theoretical position is established I can begin to present a practical means by which an investigator may tease out the possible NCAs influencing a decision.

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To attempt to surface the 'existence' of an NCA, it appears necessary to triangulate a decision. This can be done by tracking an understanding through a period of time and surfacing NCAs that seem to influence decisions but do so differently as time and other NCAs interact with them. In other words, looking at one event and seeing how the interpretation of it changes over time seems to be a viable course of action.

The empirical work undertaken for this thesis is situated in the past (in the history of Air Canada). The study of Air Canada provides access to naturally occurring data and extensive collections of traces through its archived documents and the existence of several histories of the airline. However, as I will argue in my utilization of ANTI-History theory (Durepos & Mills, 2012b) and poststructural history (Carr, 1961; Jenkins, 2003; White, 1988), studies of 'the past' raises particular problems for the researcher attempting to capture a series of events in time. In brief, studies of networks in time need to take into account not only how knowledge is produced through those networks but also how 'time,' history and 'the past' are themselves the artifacts of knowledge production.

In attempting to surface NCAs over time I will described later in the chapter a series of deconstructive *moves* in the research process (Derrida, 1978b; Derrida & Mehlman, 1972; S. Newman, 2001). The concept of *moves* is borrowed from Norris (1987) and appears to be consistent with a deconstructive approach to research (Chia, 1996; Derrida, 1978a; Patterson, 1997). Norris (1987) describes Derrida's deconstruction in moves, which provide a relatively clear means of processural following of the data. The moves described in this chapter are not Derrida's, nor are those of Norris, rather my

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moves informed by the specific dictates of my research and analysis, as informed by the ideas of ANT (Latour, 2005) and CSM (Helms Mills et al., 2010).

Chapters Two and Three have attempted to describe the relationships between the power regimes enacted through networks and the sensemaking of choices in individual actors. These chapters have provided a theoretical base for considering the NCA but have not described the manner in which this idea could be prosecuted. To tease out the bodiless actant (NCA) from an event, we need a serialized process to help find the traces left by the NCA. I apply ANT (Callon, 1999; Latour, 2010; Law, 2009) in a process which provides a circular hermeneutic opportunity (A. Prasad & Mir, 2002). I open up a dialogue among the traces of narratives and the sensemaking of actors, both at the time of the event and its reporting in histories.

From CSM and ANT to Making Sense in the Network

To identify the research lacuna that demonstrates the need for newer explanations of actant power, I will return to the interdicies between CSM and ANT. Over the following pages I will attempt to reconstruct the theoretical base for the work and prepare for the seven moves explained in detail later in this chapter.

The transparency of inputs and knowledge production: I have argued above that both critical sensemaking (CSM) and actor-network theory (ANT) leave aspects of their program unexplained. In a sense both ANT and CSM models have aspects of the black box (see Figures 1 and 2, p. 25) (Latour, 1987; Woolgar, 1991). Programs of interest enter, and results exit, the box, yet the way that the inputs are transformed is

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concealed from the observer, because they are in the black box. In the realm of CSM, this opacity (the blackness) is attributed to conspiracies of exploitation or control. Within ANT results are less important than the observation of the network in action. Interjection of NCAs into these explanations increases the ability to build plausible narratives of decision.

Narratives, legitimacy and the production of knowledge: Review of these two theoretical bases (CSM and ANT) within the framework of ANT provides a connection that may open both black boxes. Historiographic study of the nature of the production of accounts and the reproduction of narratives surfaces the concept of legitimacy (Durepos & Mills, 2012b; White, 1984, 1988), that is, how certain narratives became legitimized over time. The legitimacy of an account makes that account the privileged narrative. Privileged narratives are reproduced in subsequent retellings, and eventually, in recorded histories. The ANTi-History approach of Durepos and Mills (2012b) has shown how the accuracy of the account is less important to its legitimacy than the network in which it is enrolled for reproduction. It may be the enrollment of the network that produces legitimacy for the narrative. Critical narrative analysis (Boje, 1995, 2008; J. Brown, Denning, Groh, & Prusak, 2005; Dempsey & Sanders, 2010) has shown that plausible alternatives to existing accounts can be surfaced through a process of destabilizing the accepted account (Mumby & Stohl, 1991). It is this destabilization of the narrative that promotes deconstruction (Chia, 1995; Chia & Holt, 2008). By outing a truth claim as a social construction, rather than an uncontested fact, critical narrative analysis provides the base for ANT research. Subsequently this impacts our networked sense (the sense we

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make while [mentally] within the actor-network). Within this positioned view of histories we are able to observe the insides of the *black box* –i.e., the unexplained aspects of both CSM and ANT.

Network effects, cohesion, and legitimacy and associated narratives: When evoking ANT, the scholar seeks to understand the actors and actants that produce effects (Casey-Campbell & Martens, 2009). Groups of actors may be punctualized (the ANT term for an apparently cohesive network) to become an actant in a further network (Mol, 2010). This process of describing a group as a monolithic actant seems simplistic because it omits the pluralism that exists within each network. This process may be acceptable for the limited actions of the actant within a specific third space (Bhabha, 1990, 1994, 1996). For example, each member of the punctualized actant (the group perceived as a unit) may conform to a shared consciousness within a narrow issue. Enrollment within the actant may thereby enforce conformity in other networks. Simply put, a person who is identified as a member of a group (a punctualized network) may feel that he/she must reflect the beliefs of that group when participating in other networks or in conversations with outside individuals. One could reflect on elements of groupthink (Janis, 1982), the inability to disagree with the members of one's group. The NCA gains power from both these processes. The representation of a punctualized actant by one actor forces that actor to represent what he/she believes are the shared ideas, values and beliefs of the group. This expression is the actant shared with the external world and presents the opportunity for the NCA to be spread to the other group.

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Agreement, adhocracy, and punctualization: The actant may become punctualized (a group of actors seen as one entity) through many processes, but two are most influential – agreement and adhocracy (Mol, 1998, 2002a, 2010b). Once punctualized, the network is considered a collective actant and may produce ideas which are shared with other networks through the influence of the body. The notion of an NCA replicating and enrolling in other networks requires contact among members (either actors or inscriptions). Each human member of the group may agree with the position on the specific issue within the larger network but hold his own unique interpretation. That interpretation is influenced by other ideas he holds.

Such punctualized actants tend to be more stable and longer lasting. An adhocracy may become a punctualized actant when those participants individually and jointly express the same opinion on an issue. This actant may breakdown when confronted with other issues. Such is the nature of ad hoc networks: actors enroll and de-enroll as an ongoing process of the network (Callon & Law, 1982; Mol, 1998, 2010a). Agreement seems to reinforce the shared NCAs. An adhocracy (temporary issue oriented group) may only demonstrate shared interest on one issue. The NCAs would logically have less influence in an adhocracy.

Network power and sensemaking: The power of the network is arguably a strong influence in the internal processes of sensemaking (Helms Mills & Mills, 2000b; Helms Mills et al., 2010). It goes way beyond what Weick (1995) saw as ongoing and even social sensemaking. But what constitutes ‘network power’? It is an open question.

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A purpose of this thesis is to demonstrate how network power may be affected by NCAs. Corporeal actants also play a role. In some cases power may be achieved through some reference to rules and regulations that are inscribed in a network's practices (A. J. Mills & Murgatroyd, 1991). Nonetheless, the inscription alone does not create network power. Arguably, some influence is generated when successive actors interact with inscriptions to understand them and translate them into action. This influence is an NCA. Since it is not an inscription, but rather an idea or concept, it cannot be considered a full bodied actant. For example, hiring more Francophones in leadership roles is ephemeral unless quotas are set and rules written. In practice those doing the hiring (individually) sensemake and enact the idea of redressing the anti-French bias decried in by Trudeau in his description of the *Just Society*. The interaction of the NCA, the people and inscribed rules (actants) produce individualized understandings of concepts and give them power. The network creates legitimacy of ideas, concepts and constructs; these ephemeral players become actants in the network (Hartt, 2009). It is through the legitimacy of these non-corporeal actants that the sensemaker experiences the power of the network.

Enrollment durability: An actor enrolled in a network may feel compelled to accept the ideas of that network in order to maintain enrollment. This is most evident in political organizations (Law, 2009). The choice to join a political movement is voluntary; however, in the multiplicity of experience are those whose enrollment is prompted by historical or familial connections to the network, and those who join for other reasons. Regardless, once enrolled, actors in a political network, especially one

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where the political rewards are fairly tangible, are unlikely to de-enroll. The durability of the network gives life to concepts and ideas (NCAs) seen as core to the network.

Ideas, concepts and NCAs: In 1963, a change in such political networks in Canada, from Liberal to Progressive Conservative, gave rise to a tension in Air Canada (McCall-Newman, 1982; McGregor, 1980; Pigott, 2001; P. Smith, 1986). In the Canadian conservative political networks the idea of “entrepreneurship” was given life as an actant within the networks with as much (or more) power than individual actors or punctualized group actants (Perlin, 1980). In the Liberal political network of the time, the ideas of “Francophone rights” and “social justice” fulfilled similar roles as powerful actants (McCall-Newman, 1982; Stewart, 1971; Trudeau, 1993). I would argue that these ideas and concepts (entrepreneurship, Francophone rights, social justice) are the non-corporeal actants that influenced power at that time.

Enrolled actors in these networks accept these ideas and concepts (or non-corporeal actants) as powerful drivers of the actions of the network. I would argue that, in the sensemaking of the individuals, these ephemeral concepts had as much power as their own thought processes. The nature of these bodiless actants in the network is similar to the role of leadership in an organization. The power of transformational leaders comes from their ability to enroll (engage) members of their organization in their vision. NCAs appear to have similar influence to charismatic leaders; they may become viewed as one and the same. As such these leaders become the face of the punctualized

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network. Their speech becomes the legitimate view of the network and thus is reproduced in the actions of the individual members of the network.

Examples of the power of ideas: Ideas legitimized by the network exert power in a sensemaking situation, as do ideas punctualized by the network. These ideas (non-corporeal actants) appear to be actants in a network because of their role in the persistence of the network. Members of the network die, retire, move away, or otherwise de-enroll, yet the network persists. Persistent networks which survive deaths, retirements etc. are unlikely to contain any actors who participated in the initial legitimization of the concepts, yet those ideas persist.

It is these persistent non-corporeal actants (literally the power of ideas) that provide the glue that concretizes the durable network. New members enroll in response to leadership, affiliation ideals, or attraction to the ideas and philosophy of the network. New members adopt the mantras of the network and reinforce the punctualization of the ideas. In some cases these non-corporeal actants are inscribed and thus are actants as inscriptions in the ANT model. But many remain unwritten, sometimes unspoken but always understood. The embodiment as inscription is arguably unnecessary in the persistence of the network and the role of these actants.

NCA's and sensemaking processes: I would argue that non-corporeal actants are important in the sensemaking of decisions but may be lost in actions of prospective or retrospective sensemaking. Retrospective sense making is making sense of the past; while prospective sense making is an attempt to make sense for the future (Gioia &

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Mehra, 1996). The prospective sense is the imagination of a desired future state. We conceptualize the future. Within a network, the future we construct is frequently one where the sensemaker is playing an equal or more significant role in the network. If the NCAs are to have significant power in the actor-network, then personal alignment with the NCAs is essential to increasing influence.

Past ideas and current sensemaking: The vision of retrospective sensemaking described by Weick involves the bracketing and labeling of partitioned experiences (Weick, 1993, 1995, 2010, 2011). These brackets can then be reordered into a sense of the experience. Meanings are imposed on the equivocal data by overlaying past interpretations as templates to the current experience (Choo, 2002). In the networked model of sensemaking, the meanings are constructed by the shared past experiences and beliefs of the network. In this way the individual needs not apply their own experience or belief, but may apply the non-corporeal actant (belief or value) from their network, which provides guidance. Unlike a child who may need to touch the stove to know it is hot, a member of the network shares the memory of some long gone member who touched the stove (Rowlinson, Booth, Clark, Delahaye, & Procter, 2010). The firefighter does not have to experience the derision of having lost a tool but has the knowledge from the storytelling of the network (Weick, 1993).

In the prospection phase, the actor employs the knowledge of the network, the values and beliefs to which she has enrolled in her choices or inactions. In the process of memory the actor is influenced by the prospective view held by the actor going into the

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decision. This interaction between prospection and retrospection is expressed in the memory of the event. A common saying: “There is my story, your story and the truth” implies that the truth lies somewhere in between the first two. The expression of a *truth* in a history of an organization is a reflection of this process. The truth that becomes inscribed is an expression of a network – the network which enabled the inscription. This is a central tenet of ANT (Latour, 1987, 2005).

CSM and truth: The process by which one of those *truths* that exist among the possible multiple expressions of an event, becomes the accepted truth, must be considered in terms of CSM. One’s prospective view informs the retrospective sense made of the events. The process follows the same mantra as the *ready, fire, aim* (repeat if necessary) model of prospective decision-making (Weick, 1995). The initial firing is informed by the sense of the situation evoked through the expression of the network. Subsequent aiming and firing is an interaction of realignment of that sense and retelling of the situation. In the retrospective there is an intermingling of the prospective expectation that produced the first firing, the subsequent events and the retrospective sense made in an effort to reconcile the initial understanding with the outcome. In these terms the ongoing sense made of the situation is a compromise between the expected, the actual and subsequent understanding produced by the network in power. This connects with CSM in the application of power and influence to *sense* (Helms Mills & Mills, 2000).

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I contend that a strong or punctuated network will act to maintain itself by, among other things, reconciling events with the beliefs and values of the network (non-corporeal actants). Thus, a history or narrative which does not conform to the network's sense of the situation is rendered unacceptable. For example, in the development of a history of Pan American Airways, a number of potential authors were rejected by those in charge of the 'history project'. Those rejected were the authors who were not prepared to write a hagiography (idolizing biography) featuring CEO Juan Trippe as the airline founder-pioneer (Durepos, Helms Mills, et al., 2008b). In this manner, it is the sense of the network that creates the truth of the events. Networks are in control of the reproduction of the story, and thereby become the legitimators of the history. In the historiographic process, the influence of the network of knowledge production (the people and things involved in the research, writing, publishing and sales of the work) privileges the official story as the story told (Durepos, Helms Mills, et al., 2008a; Durepos & Mills, 2012b).

These forms of construction in our sense of the past and plans for the future can be found in daily life, past lives and future plans. But, the study of this process is most concretely performed in the past. Records of the past are less contested in the present. Although the non-corporeal actants (values and ideas of the network) persist over time, the networks morph to other priorities and make it possible to study these bodiless actants retrospectively and problematize their truth claims, as did Durepos and Mills (2009). Even continuing networks are willing to re-examine their past if it is sufficiently distant. The records of public corporations become available after a period of confidentiality has passed, to make this possible.

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Towards the Idea of the Non-Corporeal Actant

“By dealing simultaneously with human and non-human agencies we happened to fall into an empty space between the four major concerns of the modernist way of thinking.” (Latour, 1999, p.21)

I believe that ANT does not provide a mechanism for the discussion of individual action. The role of a network in outcomes is clearly articulated, but the nature of the interaction of the network and enrolled actors is not clear in ANT. A group of people and things get together and stuff happens. Why? How? Such direct causal links are never clear due to the nature of human interaction. CSM offers us a view of the how and why (Helms Mills et al., 2010). This offers a plausible account for a large portion of the interaction.

In CSM, we generate discussions of power and discourses of power relations, such as gender and race, in the explanation of individual choice (Ferree, 2009; A. J. Mills, 1997, 1998). CSM is definitive in expressing the importance of power (Helms Mills et al., 2010), but I believe that the sources of power are not completely described in CSM. Discourses such as masculinity and identity are central to the plausibility of CSM discussions, but the interaction between and among different influences does not seem to be specifically explained.

I think that the majority of the work to date in CSM reflects a retrospective method of understanding, and in its retrospection CSM relies on history. The nature and processes that produce history are the grains from which ANT has been brewed. In our

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creation of history we engage in sensemaking. History is a form of consensual retrospective sensemaking produced through the actions of the network.

The role of the past and history: Historiography is most often a solitary pursuit. A historian researches, assembles and inscribes her work in connection with a network or networks, but she writes the history herself. She chooses the traces and she assembles the narrative. This is a process of sensemaking. As shown by ANTi-Historians this assembly is influenced by the networks (Durepos & Mills, 2012b).

In order to influence the writing of the history (in the absence of physical participation in the inscription), the network must persist beyond the connection in some form within the historian. In this manner the network exists both within and without the individual. A person becomes hybridized to the network in the cyborg of the history (Haraway, 1991, 2006). The network extends into them as they extend into the inscription. As authors we recognize our work as a piece of ourselves and in doing so we must be sufficiently reflexive as to see our beliefs, values and ideas in the work (Fairclough, 2005; Foucault, 1966/1989).

In CSM we discuss these beliefs, values and ideas as parts of our identity. In a similar way, situational theories discuss affiliation as a source of identity (Dutton, Roberts, & Bednar, 2010; Ricœur, 1992; Sveningsson & Alvesson, 2003). Affiliation by its core is a form of network creation. How do networks enforce and develop our identities?

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Enrollment and choice: The choice to enroll in a network is a function of many factors. Some join networks as a result of proximity (Garfinkel, 1964, 1988). In the ordinary world of organizations, we affiliate with those with whom we come into contact. But proximity itself is also a choice; a choice informed by sensemaking. We join a network of co-workers because we have chosen a workplace. We chose a network of community or neighbourhood because we have chosen a place to live. In general, we assume that others have chosen the workplace or living place for the same reasons we have.

What is the source of these reasons? New workplaces and new homes develop in a formative context. Within that context there are discourses of value. For a workplace, these could relate to wages, quality of workplace, or the nature of the work (not an exhaustive list). Housing choices could be based on price, proximity to other locations of value, nature of the development, and many other things. When choosing the workplace or home, we enroll in that network and accept the other members. Just as people and things can influence decisions related to participation in a network, so can ideas. In the acceptance of ideas, values and beliefs as influencers or actants, I proposed the concept of the non-corporeal actant – an actant without a clear physical manifestation or body, to which we can point and say, “there it is!”

These non-corporeal actants can be manifest in inscriptions, as described in ANT (Latour, 1988, 2005a). We create a set of policies to enforce our values and beliefs. Groups set mission statements and constitutions, which document why they exist. But

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these actants (the policies, mission statements or constitutions) merely represent a snapshot of the non-corporeal actant as it travels through its metamorphosis. As stable documents, inscriptions do not reflect the enrollment of new actants or the de-enrollment of past actants. This is comparable to the inaccuracy of membership rolls of clubs, which frequently include past members and have trouble keeping up with new members.

The ghost of an idea: The persistence of networks and ideas within networks has been the subject of many discussions. As popularized by The Police in *Ghost in the Machine* (Police & Padgham, 1981), the concept of a de-enrolled person, and the stories about them, become a form of NCA in the network (MacAulay, Yue, & Thurlow, in press). The choice of the *Ghost in the Machine* as a metaphor for these actants (NCAs) is an interesting interrogation of the relationship between the individual and her surroundings. Ryle originally proposed the *ghost* as a relationship between the mind and body of an individual (Ryle, 1949/2002). As such, the extension of this ghost beyond the machine of the individual and into the machine of the network echoes the notion of cyborg (Haraway, 1991). MacAulay et al. use a more literal notion of ghosts as the specters of members past and the persistence of their ideas. These ghosts play a role in stories to support the discourses enrolled by the leadership in order to fully integrate the discourses they represent into the network. At Air Canada, the ghost in the corporate machine may have been disembodied spirit Gordon McGregor or Herb Seagrim, but more likely it was the ideas and discourses their network instilled in the organization. A ghost may be the most useful example of a non-corporeal actant, yet the ideas that persist seem

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to be the means by which these metaphorical *ghosts* influence the decisions of the new members.

Socialization and identity work: Individuals are socialized into a workplace and re-socialized to the revised network in many different ways. As discussed, the identity of the individual is crucial to the engagement of sensemaking (Helms Mills, 2005; Helms Mills et al., 2010; A. J. Mills & Helms Mills, 2004). Identity is formed through acceptance of discourse, as well as group membership and affiliation (Helms Mills, 2005; Helms Mills et al., 2010; A. J. Mills & Helms Mills, 2004). To influence individuals and change the outcomes of their sensemaking activity, the powerful ideas (NCAs) in a network must change the identity of the individual sensemakers. It has been shown that affiliation contributes to acceptance of ideas and choices by virtue of the surrounding discourse being accepted as an actant in the network (Callon, 1986; Czarniawski & Joerges, 1996). Stories are a means by which organizations enact identity change (A. J. Mills & Helms Mills, 2006; A. J. Mills, Helms Mills, Bratton, & Forshaw, 2006; A. J. Mills & Simmons, 1995). I believe that these stories support enrollment of the new idea (non-corporeal actant) as a powerful player in the network and aid in the understanding of the non-corporeal actant by virtue of the intra-network interaction of stories, impressions, and inscriptions, which produce the discourse in the specific form that is an actant in the specific network.

Sensemaking: Human actors sensemake. This sets them apart from non-human actants in a network. (And is the reason I have not used the terms ‘actor’ and ‘actant’

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interchangeably in this thesis.) An actant can change, enable, inhibit or otherwise influence the enactment of sensemaking by the sentient actor, but cannot consider and choose. Therefore I separate the roles of actors and actants as distinct. In the language of organizations, actants are personified, given authority and described as if they have animate qualities. For example: “the printer ate my document.” In this personification, actors concretize these actants and reify the power of the non-human. By observing this behavior we surface the phenomena of non-corporeal actants.

In the interessement (bringing together in the network with other actors and actants) of understanding of these non-corporeal actants, the actors negotiate their form of the discourse; the form accepted in the network (Changeux & Ricœur, 2000). Once enrolled, non-corporeal actants are persistent. These actants influence all future activities of the network. As they become reified through inscription, actors may attempt to de-enroll the actant by excising the inscription from the records of the organizations. In the manner of repeal of laws or policies, previously accepted discourses are removed from the formal network. These NCAs do not leave easily and may never be completely de-enrolled. In this way they differ from the concretized actant, which has been eliminated by virtue of the repeal of the law or policy.

The process of change could be described in the terms of ANT (inclusive of the NCA) as a process of enrolling new non-corporeal actants and/or de-enrolling extant non-corporeal actants. Through this analysis we can observe resistance to change as a product of the persistence of those non-corporeal actants, which the leadership seeks to de-enroll.

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The individual identities of actors in the network include the influence of these past NCAs. As sensemakers, individuals may attempt to reconcile the new NCA with the old. In that attempt they may resolve in favour of the old and become resisters, or enroll with the new in the reformed network. In the common vernacular this choice is called *buy in*. When actors buy into change, they resolve their meanings in favour of the enrollment of the new actant; however, the NCA is negotiated. The ability of leadership to influence this process may dictate the success of change (Thurlow, 2009; Thurlow & Helms Mills, 2009).

Network control: The importance of what I describe as NCAs (ideas, meanings and perceptions) as sources and barriers to power has long been established (Machiavelli, 1515/2004). The importance of controlling the actants in order to control the network is a feature (although implicitly) in most works on organizing and change (Akrich et al., 2001; Alas & Vadi, 2006; Buroway, 1979). In the contemporary sociology of management, pseudo-democratic forms of organization have surfaced the need to understand the relationships between and among actors and actants in the application of power and decision-making (Beer & Nohria, 2000; Hartog & Verburg, 2006; Townsley, 2009). In some markets, the leadership still has an ability to behead (fire, de-hire) those who resist the implementation of new non-corporeal actants in the organizational network. Unionization, job-mobility and the competition for competent workers have pushed the leadership model in most markets towards a process which builds support for the leader among the actors. In order to be a leader a person must represent the non-corporeal actants espoused by the network. It appears that in order to produce change, a

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leader must be able to sell ideas to subordinates and thereby successfully enroll new NCAs and de-enroll the less desirable NCAs.

Sensemaking Properties at Work

In previous pages and chapters, I have examined how NCAs are enrolled or de-enrolled in the network as a result of their development in the context of either formative or reformative change. This extends the nature of context from formative to reflect the ongoing sensemaking of a changing organization. The organization evolves, not in the sense of modernist *progress* but in the sense of gradual change to adapt to conditions in the context. In some contexts these changes may be dialectic in a relationship of evolution and de-evolution; however if we adopt an amodern perspective, these two constructs (evolution and de-evolution) cannot be differentiated (neither is preferred) (Habermas & Ben-Habib, 1981). From this we view Weick's seven social psychological properties of sensemaking as subject to change (Weick, 1995).

Retrospection: How do the seven properties of sensemaking relate to NCAs and therefore to ANT? By characterizing sensemaking as retrospective, we immediately place sensemaking in the formative development of history. In describing the unexpected, Weick and Sutcliffe (2007) discuss the process by which one retrospectively develops a narrative of events (Weick & Sutcliffe, 2007). This process begins almost immediately after the events when the individual begins to process the experience in terms of their expectations. Expectations are the basis upon which decisions are made – the prospective sensemaking of choice. Events rarely match precisely with expectations,

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but in the retrospective processing of the information, the expectations are preserved as accurate in the sensemaking of the events and outcomes ((Weick, 1977, 1995, 2002). Individuals introduce new complications, networks and their personal expected outcomes as actors/actants in the retrospection of events. The narrative, which when shared, becomes the precursor to the history, is therefore enacted via the sensemaking. In order to become a shared narrative, which becomes accepted by an actor-network as history, the narrative must reflect the network and therefore must conform to the NCAs of the network. If the narrative does not reconcile the NCAs it cannot persist. By examining each of the seven properties in relation to NCAs we can understand the nature of the role of the network in the CSM producing a history as understood via ANT.

Identity construction: CSM is grounded in identity construction (Helms Mills et al., 2010). Networks play a significant role in our production of identity. When asked to describe ourselves nearly everyone will begin by describing some groups to which we belong. This belonging describes an enrollment in a network. We are enrolled in some networks prior to birth and others through norms or choices of our parents or ancestors. A race, gender or ethnic background pre-exists our birth – de-enrollment from that network is extremely difficult. Commitment to that network, however, is a function of the actor's allegiance with the non-corporeal actants that are espoused by the network. This commitment therefore may be strong, weak or at any level along that continuum. Other birth-accident related networks such as church, locale or even political party may be de-enrolled from in a simpler form. These networks are more likely to reflect our individual identity. The groups we chose to join: workplace, social groups, friends, action

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groups, etc., reflect both the proximity of persons and opportunities, and our beliefs and values.

When we find ourselves belonging to a network by proximity or other accidental designation that includes NCAs that we do not accept, we experience cognitive dissonance (Aaltio-Marjosola & Mills, 2002; M. Brown, 2007; Helms Mills, Dye, & Mills, 2008). We may relate this experience to the concept of *bad faith* from existential philosophy (Sartre, 1938/1959). Our constructed (changed) identity may become in conflict with our beliefs/value and therefore we are in bad faith with ourselves. Some choose to live within this nausea (Sartre, 1938/1959), others vacate the proximate network and many resolve the conflict by accepting the NCAs in the negotiation of continued interestment.

The collective of actors shape their network similar to organizational culture (Calás & Smircich, 1999). Each individual brings his or her values, beliefs, exposures and experiences to the network. Physical actants in the network limit the nature of interaction, but also facilitate the sharing of values. When discourses exist in the context of the network, those discourses become shared and evaluated in the terms of the productive choices of the network. When those discourses are valued by the networks they may become inscribed and become actants in the network and therefore are able to influence the actors in the network. They may also remain as ideas (NCAs) and still have a profound influence on the actors. When one is enrolled in a network one's identity is invested in the ties of the network. For example, in the same way that each member of an

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organization that chooses a particular brand of computer becomes invested in promoting or supporting the use of that brand of computer (corporeal actant), each individual in a network becomes invested in the values of the network (non-corporeal actant (NCA). In Air Canada, the 'being businesslike' NCA became pervasive and when the idea of hiring more French speaking employees was proposed the management team could only conceive of doing this if it did not add to expenses. The discourse negotiated in the enrollment of the NCA becomes a feature of the identity of each individual. It informs his or her sensemaking; prospective in decision-making and retrospective in the negotiation of the narrative, which will form the history of the event.

The retrospection of each individual actor in a network is influenced by the NCAs of the network that are involved in the events. When I read the histories of Air Canada written with or by management informants, the Pratte period of leadership seems to be described as a failure. This could be attributed to the NCA that Herb Seagrim should have been appointed CEO. I believe that when those NCAs are shared and enrolled in the network they impose order over the events and therefore have sway or power of the constructed narrative. The position of the NCAs in the network of publication enacts its power over the sensemaking of events by the historian once she has enrolled in the persistent network. As time passes, the strength of the NCAs over the interpretation of events increases. The stories reform and transform to better reproduce the discourses which underlie the NCAs. In studying the actor networks of a report, we may find traces that reflect this ongoing retrospective sensemaking by surfacing accounts that vary from the history, but show an evolutionary change from truth claim to established account.

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Enactment: Weick describes sensemaking as enactive of sensemaking environments (Weick, 1977, 1995). We find these environments by discovering the network that produces the understanding. Through this sociology of knowledge approach (Mannheim, 1985), we can surface the network that produces the history. By examining that network we can discover the dominant discourses and therefore identify what are the most powerful NCAs in the sensemaking process experienced by individual actors in a network. The actors who direct the action of others (the leaders) achieve and maintain this opportunity to influence through their close alignment (in and of the network) with the most dominant discourses. In the same manner that actors achieve power through affiliation with strong actors; leaders sustain leadership through their affiliation with the powerful NCAs. Prominent among these powerful actants are the NCAs that extend within and without the individuals in the network becoming part of their identities and therefore the ghost in the machines that are both the individual and the network. As an embodiment of the NCAs, individual actors enact sensemaking within the bounds set by the NCA without conscious effort.

The social in sensemaking: Networking is in its essence a social process. The most visible aspects of networks are the personal interactions of the human actors in what are commonly described as social events: a meeting; on Facebook; or at a dinner, for example. The nature of that social is bounded by the corporeal actants and the manner in which they permit or deny relationships to form. For example, the people, places and objects which intermediate and modify the interactions: such as the shape of the table or the speed of the Wi-Fi. Regardless of the boundaries set by time, space, location and

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intermediaries, networks persist through social interaction (Gersick, 1991). I believe that it is through this social process that ideas (NCAs) form, change and become enrolled as actants in the network. Without a social process, an NCA could not develop and influence formation or change. Other discourses exist outside the network. The network is exposed to these discourses through common media: television, radio, newspapers, speeches, presentations, academic journals, etc. Members of an established network sample these discourses and may choose to express them in the social theatre of their network (the method of communication enrolled as an actant in the network). Through this social process, the discourse is negotiated and formed. Should the negotiation (interessement) be successful, the discourse (NCA) would transform and achieve the ability to influence or act within the network. This would bring about change in the organization. In the alternative, where the interessement is unsuccessful, a counter-discourse may evolve and take root as an NCA. The result would also be a changed network. In either case, as a result of the change in the network, some actors may de-enroll from the network and possibly form new networks. Some of those new networks may adopt as an NCA the contrary discourse to that enrolled in the original network.

Returning to the discussion of Air Canada, we find that the Liberal Government (the established political network of the time) enrolled the NCA of *the Just Society* as more important than the concept of *profitability*. In response, the airline adopted discourses of being political, as more important than their discourses surrounding being businesslike. The Liberal Party NCAs became the ones with power over the sensemaking of future decisions. Some actors from within the airline network resisted the idea of the

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Just Society because they saw it as costly. For a short period of time, AC materials discussed social change at the airline, but it was not very long before profit, efficiency and business practice discussions dominated the newsletter, *Between Ourselves* as they had prior to Pratte's appointment. In this way I believe we can see how schism and resistance in a network can be the result of social processes surrounding NCAs and actors' sensemaking of enrollment or de-enrollment of NCAs.

Ongoing reality: Sensemaking does not end with a decision, action or choice. Sensemaking continues through the retrospective reflection on that choice, as well as the events and outcomes, which appear to flow from the initial sensemaking. Going back to the ready-fire-aim model of decision-making we see the sensemaking process continues with more firing and aiming until the active phase ends and then the retrospection of the events and outcomes begins to influence our narrative of the events. The compromise of expectation, experience and outcome is processed through our sensemaking facilities in an ongoing effort to reconcile the experience with the expectation, the outcomes with those proscribed by the NCAs of the network(s) in which we are enrolled.

We cannot understand our experience outside of the context of our life (Unger, 1987). Our life is substantively expressed through and within our identity. Identity is, in part, an amalgam of those networks in which we participate, the other actors in those networks, and it appears this is especially influenced by the NCAs, which guide the actions of the network and its members. Our retelling of the events is an ongoing convergence of experience and desired outcomes reflecting the NCAs of our network. In

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historiography we can find this ongoing sensemaking in the narrative forms (White, 1984). Histories tend to conform to forms; these regularities influence the understanding of the events in the form of a familiar story. In the ongoing process of sensemaking retrospection, the experience of the past re-forms to express familiar themes and stories.

Plausibility: The plausibility of the history is reflective of the NCAs in the organizational network. A history is more plausible if it fits into an accepted form of narrative or story. A romantic tale of an organizational founder struggling against opposition to establish Pan American Airlines, for example, was more plausible than a fragmented story of groups and stakeholders surreptitiously enacting a Government initiative. As a result the romanticized story was adopted by the network which produced the first Pan American histories and reproduced by the later networks (Durepos, Helms Mills, & Mills, 2008a).

Plausibility extends beyond the retrospection of the historical account. Plausibility extends to the prospection of understanding of events as they present themselves and occur. Weick (1995) describes the presentation (to physicians) of children with injuries and how they were interpreted to accident prone or easily hurt youngsters. Only in the late 1940s when the idea (NCA) of Battered Child Syndrome becomes enrolled in the medical network does this alternate explanation become plausible. It appears that once the powerful actors in the network negotiated the interessement of this NCA, the application of this diagnosis becomes plausible and is retrospectively applied to previous cases.

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Being on cue: We limit our understanding. This is found in the way in which we extract the cues upon which we act. In every situation we extract cues; some cues are highlighted, others are ignored or silenced. Those cues that are given voice are selected because they *fit* the story and enact the sensemaking as it is shared by the network: the NCAs shape the story, shape the understanding. By doing so they shape which cues are important and which are irrelevant. If a cue supports the sensemaking of the incident as consistent with the network's members (actors and actants), then that cue is likely to be extracted and retained. When the cue runs contrary to the NCAs that cue may be discounted as faulty, recast or ignored. In the extraction of a historical account these cues are found as traces in oral histories, written fragments, archival records and previously written histories. The selection of traces by an author reflects the nature of her account as framed by the network of publication and the constituent NCAs. A network of publication that seeks a salacious narrative will extract traces that, for example, support extreme stories.

Praxis - Historically Networked Sensemaking in Action

Over the previous pages we have discussed the relationships between the power regimes enacted through networks and the sensemaking of choices in an individual actor. The theoretical base appears compelling, but does it prove anything in application? Can we surface themes of networks enrolling non-corporeal actants (NCAs)? Can we locate the discourses surrounding those NCAs with power over the individuals' choices? In order to tease out these clues from a situation we need a serialized process, a recipe or brew guide to help us find the traces left by the actors. Each of the processes (ANT &

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CSM) we wish to study provides a technique to surface clues from the haystacks of data left behind by actors. The need for more objective information requires us to situate this analysis in a historiography context through ANT. Histories provide summarized accounts and inform us of the legitimized narratives (von Ranke, 1875; White, 1973, 1987) . The stories that in the past derived the most support from the networks are those told in histories.

To surface networked sensemaking, the researcher must apply the techniques of ANT and CSM. A processional approach should provide a hermeneutic opportunity to direct the research. This direction travels from trace to trace in order to open up a dialogue between the traces. ANT surfaces the legitimizing of narrative (Hartt, Mills, et al., 2012). CSM aids in the location of the choices of actors at the time of the events. Both theoretical bases enable the discovery of the actor's selection of events to report and the explanations of those events selected by the chronicler (Bowden, 1999). This procession logically begins with the problematization of an account through ANT techniques. The process is comprised of a series of moves based on Derrida's deconstruction (Norris, 1987 – See Table 1).

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Table 1: Proposed Seven Moves for Surfacing NCAs	
Move 1	Identify the problematic event
Move 2	Identify the actors and corporeal actants in the networks
Move 3	Surface the possible locations of sensemaking activities
Move 4	Identify the sensemaking properties of the event
Move 5	Identify significant enrollments and de-enrollments of human actors (and punctualized networks)
Move 6	Identify the NCAs enrolled and de-enrolled: Describe changes in sensemaking apparent in the network after the enrollments and de-enrollments
Move 7	Identify persistent NCAs linked to de-enrolled human actors: Surface the influence of previous networks and future networks in the production of identity and therefore sensemaking

This process of seven moves is designed to provide the opportunity to surface (in moves six and seven) those NCAs that appear to remain constant in the network even though the human actors who had championed them do not. If NCAs persist in the network even without the humans who promulgated them, and in the face of contra-narratives and opposing NCAs enrolled by new actors, then we can argue that these original NCAs are plausible sources of power and influence in the sensemaking of individuals. If the NCAs are able to influence sensemaking, they have the properties of change agents in the network and should be considered plausible forms of actants within ANT (Law, 1992a, 1999, 2009; Law & Mol, 1995).

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Move 1: Identify the problematic event

The first move begins with the analysis of an organizational history.

Organizational histories seem to provide the view of events that have been legitimized by the network of the organization (Durepos & Mills, 2012b). In cases where such histories are written for the organization or by dedicated members of the organization, the motivation tends to be a desire to provide the *correct* view of the organization for posterity. A professional may be employed to draft the treatise but her efforts appear to be constrained by the network. Her fees, expenses and access to data are subject to the whim of the organizational network. Book sales are channeled through the organization and therefore the author's prestige is moderated by the commitment of the organizational network to the final product. Because of these factors, the organizationally supported history is a rich source of problematic accounts.

The researcher may review the organizational history for descriptions that fail tests of plausibility or may seek alternate accounts. In either case, unauthorized histories or histories of competitors may provide opportunities to surface ANT events. Once an event is identified as having potentially conflicting narratives associated with it, the researcher may pursue that event through archival searching (Zhou, 2008). The substantial advantage of the historical frame is the access to this data from many sides of the issue. Inscriptions related to the events may be available through newspapers, journals, personal websites, organizational websites, libraries or physical archives. Once the researcher has located inscriptions related to the events she may begin to assemble the story.

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Histories consist of narratives that have been established as legitimate in the view of the network of publication (Durepos & Mills, 2012b). Through review of the inscriptions, the researcher can surface themes of legitimacy surrounding the narratives. The researcher seeks to discover the narratives that have been accepted by the network of publication and trace those narratives to fragments from the archival research. In the archival research, the researcher may surface alternative versions of the story or varying explanations for events. Some may form plausible alternative narratives, such as the possible founding of Pan American Airlines by Hap Arnold as opposed to by Juan Trippe (Durepos & Mills, 2009). The traces supporting these unsuccessful antenarratives (Boje, 2001) should be followed in order to surface a plausible explanation for the failure of persistence.

Move 2: Identify the actors and corporeal actants in the networks

Move 2 aims to identify the human actors and corporeal non-human actants in the networks. By identifying the *who* and *what* of the networks we can begin to see the interrelationships between and among networks. Are the same actors participating in more than one of the studied networks? Have actors become enrolled or de-enrolled by virtue of the interrelationships among (between) networks? Do corporeal actants become similarly enrolled/de-enrolled? What about non-corporeal actants?

The inscriptions of the networks become an important source of this data and therefore must be located and thoroughly consumed in order to source the traces of networking. By thematically ordering the traces we can begin to surface the discourses present in the network. The formative (reformative) nature of these discourses produces

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a visual description of the evolution (de-evolution) of the organization. Direction, values, beliefs and ideas can be surfaced from these themes. As themes become punctualized as NCAs the official inscriptions of the organization (articles, by-laws, policy statements, annual reports and other publications) should begin to formalize the discourse.

As inscriptions these statements become actants in the formal network (Latour, 1993b, 2005b). Traces of the ongoing discursive sensemaking surrounding the NCA would be found in minutes and informal communication. The NCA continues to change as other discourses are enrolled and the forces of power and resistance within the organization reform the discourse in terms of the inscriptions and individualized sensemaking. Ongoing negotiation of the discourse fills the role of the NCA.

I believe that through the review of the traces and cues from the organizational records we can examine the changing nature of the network and the ascendance/descendance of NCAs in the power structure of the network. The relative power positions of those actors most closely aligned with the NCA may be used as a proxy to surface the directional nature of the power of the NCA and its possible de-enrollment. De-enrollment of an NCA may be signified by de-enrollment of an actor or the release of a reinterpretation of an inscription. These changes produce an opportunity for a sensemaking analysis.

Move 3: Surface the possible locations of sensemaking activities

During Move 3, the possible locations of sensemaking activities are surfaced. To begin Move 3, the researcher must locate the situation in which plausible alternatives

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were evaluated and sensemaking occurred. The choice made in the situation designates the logical NCAs in action. The question to be asked is, “What justification for the decision has the sensemaker internalized?” This justification can be located by analysis of the discourses more or less concordant with the choice made.

All sensemaking opportunities have the characteristics of choice (Weick, 1995). The characteristics of the situation include: justification; choice, discrepancy, points of divergence, paradox, action, and vagueness. Each of these is interrelated and surrounds alternatives. If the inscriptions surrounding the choice provide explanation then the nature of justification may be apparent; however the justifications given may be plausible expressions of *reasons* consistent with the enrolled NCAs of the network producing the inscription.

Taking an ANT approach to these inscriptions provides a potential means of surfacing the themes of discrepancy and therefore points of divergence between (among) networks. Points of divergence will surface the paradoxes of enrollment in multiple networks.

Move 4: Identify sensemaking properties of the events

Move 4 involves identifying sensemaking properties of the events as described in the previous moves. How is the event linked to each of the properties of sensemaking situations as outlined by Weick (1995, 2009)? As noted above, the seven properties are: grounded in identity construction; retrospective; enactive of sensemaking environments; social; ongoing; driven by plausibility; and focused on, and by, extracted cues.

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To understand a sensemaking event, the researcher must frame the event in the terms of each of these properties and then situate each property in the locus of the network. Each property of sensemaking references an actant of the network. Some actants are interrelations between the embodied and non-corporeal. In a hybrid fashion each actor embodies their understanding of the NCA and reinforces its role in the network. This is the essence of individual identity and identity situated within organizational culture.

Once the seven properties of the event are surfaced, each property may link to actors, inscriptions, mechanical actants or NCAs. I contend that individual identity is (in part) shaped by the enrolled NCAs of the network. Therefore when describing the identity construction of the actor making the choice, the researcher describes the influence of NCAs and leaders in the network on the construction of the performative identity. This action is social and therefore by describing the interactions among the actors/actants of the network in the construction of identity, the researcher describes the social property of the sensemaking.

The actors extract cues from their environment. The cues extracted support the choice made. The extraction is therefore controlled by the values, beliefs and ideas (NCAs) enrolled in the network. Once the NCAs have been surfaced, the logical selection of extracted cues becomes apparent. Actors have selected the cues that align with the NCA in the reproduction of the network. These cues support the case for plausibility of the choice made. Contextually, the choice is plausible because it aligns

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with the accepted NCAs. Cues have been chosen to reflect the dominant discourse.

These cues may include privileged inscriptions of the organization.

Ultimately, this process is ongoing. The cues extracted, including those not selected, interact with the understanding of the NCA. The NCA changes to reflect the cues and the discourse produced by the unselected cues. In a network there will be those who extract the non-conforming cues. The participation of these actors in the network will change the discourse and therefore de/evolve the NCA. This process occurs even when the non-conforming actor de-enrolls.

Once the critical NCAs are identified, their actions can be followed. Traces of their effect on sensemaking can be discovered and plotted. The NCAs will have provided guidance in three areas: decision-making, control over choice, and direction in strategy and tactics (Chia, 2004). Once the NCAs are surfaced, the actions of the organization can be studied along these three axes. The researcher should answer the following questions: Has the selection of choices been influenced by the NCA? Has an unseen hand of the values, beliefs and ideas enrolled in the network guided the choices made? Are any choices and voices silenced and unselected as a result of a controlling NCA? Are rational boundaries created by those discourses? And finally, has the organization chosen a future path or strategy because of the enrollment of an NCA in the network? Guidance and control – once the path has been chosen (strategy set) – are given over to these core concepts (dominant NCAs) and actors act within the constraints of the powerful discourse.

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Move 5: Identify enrollments and de-enrollments of human actors (and networks)

Critical to understanding of the flow of NCAs into and out of the networks is the relationship between individual actors and the discourse. As an NCA is enrolled, some actors will de-enroll and other actors will enroll. The punctualization of a discourse as an NCA may be signified by the enrollment of a new actor in the network (or a group of actors). In some cases an outside group may represent this as cooptation of the organization but in other cases it may signify ongoing change in the organization.

By identifying points in time where significant de-enrollment occurs we may locate the enrollment of a controversial NCA or the de-enrollment of a longstanding NCA. Examples of the change in a network signified by the enrollment of an actor and related discourses can be found in a wide variety of organizations.

Move 6: Identify the NCAs enrolled and de-enrolled

In the sixth move, we study the significant enrollments and de-enrollments (surfaced in Move five) to examine changes in sensemaking. Changes in sensemaking may signal the enrollment of new NCAs. A persistent human network may adopt new discourses and enroll NCAs that result in changes to sensemaking and therefore choices and outcomes. Similarly, the human actors in a network may completely change and yet the choices and outcomes are similar because the sensemaking within the network continues to be controlled by the same NCAs.

A macro view of nomologically similar networks (including the same names) in two distinct temporal spaces (different times) produces two networks: the network of

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before and the network of after. Physical mapping of the network may surface an understanding of the change, but only if the NCAs can be surfaced. Through cues and traces contemporaneous with the networks, the enrolled NCAs can be distinguished and therefore substantive change found. Have new inscriptions changed or repudiated the old ones? Have previously important actors disappeared from the discourses? Which NCAs produced the change? This question may not be answerable but plausible explanations may be surfaced from the points of de-enrollment and enrollment of human actors found in the records of the organization. These points are found in the roll of those attending meetings, receiving inscriptions and being consulted on decisions.

In the analysis of this change, the researcher must consider previously associated networks. The nature of that change and the discourses surrounding the change provide clues to the nature of the divergent NCAs that have enrolled and those NCAs which de-enrolled either as cause or effect in the divergence.

Move 7: Identify the persistent NCAs linked to de-enrolled human actors

Moves 5 and 6 have surfaced changes in the network. The network has become a new entity. As a punctualized actant, the reformed network now acts in other networks in a different manner. New discourses are supported. These discourses are significant NCAs within the new network and as the network interacts (interests) with other networks negotiating enrollments, the new network injects these discourses in a mimetic effort to influence other networks to enroll the discourse as an NCA.

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These interactions of advocacy recommence the change process. The discourse surrounding the NCA changes in an effort to influence others. In a manner similar to a virus, the meme changes in order to enter into a new host (another network). In the new host the concept, idea or belief is changed, the NCA is similar yet different.

This is the ongoing nature of sensemaking within a network and among networks. Each idea (meme) is different in its expression in the network (Balkin, 1998; Blackmore, 1999; Ricœur, 1992). As a controlling NCA, the idea, concept, message and surrounding discourse affects each network differently and continues to evolve/de-evolve. This ongoing process is never ending and therefore requires constant updating and revision within the individual sensemaker. As a cyborg of mind, human, machine, network and ideas, each individual re-produces her identity through an organic assimilation of all other actors and actants in the many networks enrolled.

Finally in Move 7, we must recognize the influence of previous networks and future networks in the production of identity and therefore sensemaking. Sensemaking does not discard the past (it is retrospective) nor does sensemaking ignore the future (it is prospective). To make sense of sensemaking one must consider past networks and possible future networks. We may not interact with old friends but we want them to respect our choices; we may covet new friends and in doing so we anticipate their impression of our choices. In the individual, the network includes not only the cyborg-parts previously discussed but also all past and future traces of connections.

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Summary

In this chapter we have followed the theoretical development of the NCA and established a series of moves that may enable research of an event possessing sensemaking properties with an aim to surfacing possible NCAs. The moves are:

- Move 1: Identify the problematic event.
- Move 2: Identify the actors and corporeal actants in the networks.
- Move 3: Surface the possible locations of sensemaking activities.
- Move 4: Identify sensemaking properties of the events.
- Move 5: Identify significant enrollments and de-enrollments of Human Actors (and punctualized networks).
- Move 6: Identify the NCAs enrolled and de-enrolled: Describe changes in sensemaking apparent in the network after the enrollments and de-enrollments
- Move 7: Identify the persistent NCAs which were linked to de-enrolled human actors: Surface the influence of previous networks and future networks in the production of identity and therefore sensemaking.

Theoretically, these moves are based on the properties of both ANT research and CSM. The two literatures have some common aspects but diverge at the point of the enquiry. CSM research focuses on the individual and his/her identity. That individual is situated in a social system that has influence on his/her identity and therefore, the choices made. ANT focuses on the assemblage of connections, actors and actants in a network

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and the outcomes that appear to be produced by that actor-network. The outcomes (knowledge) produced by an actor network appear to be similar to the choices made by individuals in a CSM analysis. The agent of the actor-network is the individual sensemaker who enacts the assemblage. The influence on that individual appears to be the effect of the networks in which he/she is enrolled. The NCA is surfaced as an aspect of the network that is taken into the identity of the individual sensemaker and influences their choices. In the case material presented hereinafter, the choices that may be observed are the decisions made in 1968 and how they are portrayed in the histories written about Air Canada. As established in ANTi-History, the books written and the narratives they contain are the produced knowledge.

Chapter Five – Method and Methodology

Introduction

This chapter positions the empirical work of the thesis in the philosophical realm of post-positivist qualitative research (Morgan & Smircich, 1980; Morrow, 2005; P. Prasad, 2005). In it I explain why I have chosen this ontological base and the epistemological underpinnings of the research; my beliefs as to the nature of knowledge; and how it is constructed. In essence I have adopted a pluralistic stance allowing for the inclusion of as many meanings as possible (Reiss, 2009). This stance incorporates a need to develop themes rather than define relationships. I am suggesting that interactions of NCAs result in a nearly infinite number of perspectives and therefore multiple realities.

In order to demonstrate the plausibility of the ideas and the potential value of the NCA I have sought the most interrogatable form of data I could consider – archival material. Archival data is perhaps the most stable and reflexively definable source of research material (Mueller & Carter, 2005; Mueller, Carter, & Ross-Smith, 2011; Nevile et al., 2007). By choosing a single event that occurred between 40 to 50 years in the past I anticipated uncovering an extensive data set, which is less tainted by concealment or lost traces.

The width of the approach is constrained by the narrowness of the time period. My hope was that this would render the empirical study manageable and the explanations open to interpretation, contestation and describability. Through this chapter I present the material aspects of the methodology and in conjunction with Chapter Four, the method of

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research. By the end of this chapter the reader should be able to see my perspective on this research, why I have chosen the methods and how I have attempted to address the issues those choices present.

Over the following sections I explain my choices in the selection of methodology, methods and sources of data. Ultimately a series of choices led me to the use of archival research on Air Canada to seek out the NCAs. Archives are a source of Naturally Occurring Data, explained more fully below as a means of at least surfacing bias in the collection of empirical material. Key to this work, and any work employing the moves describe in Chapter Four, is the choice of incident which will be explained in this chapter. The section below entitled “The Study of One Event from Three Perspectives” is a contribution to the theory of method in postpositivist research. A positivist might seek to find similarity by triangulating quantitative and qualitative research; the three studies found in Chapters Six through Eight demonstrate difference in what might be expected to be similar data. This could not have been accomplished without being informed by Critical Sensemaking and Actor-Network Theory in the development of the series of moves. Understanding histories and their production is not possible without employing historiography. Below I also describe my choice of case study and the use of cluster and thematic analysis to prosecute the studies. These processes are attacked deconstructively through use of moves. All of these concepts, methods and ideas could be considered NCAs in my empirical work. They all hang on the strength of my data collection method which relies on archival research. The bulk of this chapter explains this data collection method, its strengths and weaknesses. The choice of this method is an outcome of the

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process of evaluating each of the concepts described before I get to the more exhaustive discussion of the use of archives. It is important to my research philosophy that I use found empirical material instead of manufacturing data through active research.

Naturally Occurring Data

The naturally occurring data in this analysis are extant texts, i.e., existing texts that have been found and collected. This reduces the biases associated with the soliciting of text or performance and transcription of interviews (S. Silverman, 2005). Bias can still be introduced through the selection and collection process, in which the biases of the researchers may influence the collection. The biases involved in the use of archival material can be related to the choices of the researcher (disclosed reflexively); the choices of the archivist as to what materials are important enough to collect and in what order they are cataloged; and the choices of the donors of material as to what they are willing to donate, what they consider to be unimportant or what possibly they feel should be concealed (Jenkins, 2003; Rowlinson, 2004; White, 1985).

An alternate strategy in researching a historic event would be to interview surviving participants and observers of the events. This is challenging but possible for events that occurred approximately 40 years ago. This method was avoided due to the other forms of potential bias that would be present using such an approach (as well as the challenge of finding a sufficient number of persons who would remember the events), and my opinion that these other biases present more uncontrollable issues than the biases related to naturally occurring data. Examination of the networks surrounding the authors

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and the text in context provides clues to the motivations for the creation of the text and the inclusion or exclusion of specific content (Drury & Stott, 2001). Rather than being a weakness of the data, this analysis may provide a richer understanding of the situation. Biases relating to collection, archiving and selection remain in the data set. Reflexive disclosure of the researchers' opinions of the situation should help frame and contain this bias potential (Alvesson & Sköldbberg, 2009; Latour, 1988; Weick, 2002). One effort to reduce this bias is the selection of the event to be studied – incident choice.

Incident Choice

The material selected for this research is approximately 40 years old. Its age reduces the likelihood that some is still held in secret files. Its relative newness, compared to the records of the Hellenic wars, or even the First World War, for example, increases the possibility that records can be found in useable condition. It is unlikely that every record created at the time of the events is available, but much of the central traces should be. I was able to access confidential memos and notes related to the government discussions that took place at the time under study. Some of this material was held as secret until very recently; the insights provided may not have been available in the analysis of a more recent event. On the other hand, the flight attendants' union in place 40 years ago has merged into another union and, as a result, those original traces were not found. The timeframe selected for this thesis study resulted in some records becoming available, while others were lost in the passage of time; however the 40-50 year time period appears to fit into a window where the material available is near maximum.

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Reflexively, I can situate myself in these events. When they occurred, I was seven years of age. When the Liberal Party swept to power in 1968 I would have counted myself among the Trudeau-maniacs (mostly young people caught up in the charisma of Pierre Trudeau – plausibly Canada’s J.F. Kennedy). For me, the bloom began to come off the proverbial Trudeau rose in 1970 when Trudeau enacted the War Measures Act. As a Nova Scotian, I was parochially attracted to Robert Stanfield, our premier, who had become the leader of the Federal Progressive Conservatives (PC), but was defeated by Trudeau in several elections.

The Study of One Event from Three Perspectives

In the empirical work for Chapters Six through Eight I apply the methods described in this chapter to the moves described in Chapter 4 (Table 1), focusing on one event, considered from three perspectives. Through these moves, I argue that we can identify the persistent NCAs that were linked to de-enrolled human actors.

The empirical work of my thesis centres on one incident: the appointment of Yves Pratte as CEO of Air Canada in 1968, which is described fully at page 13. This appointment is examined from three vantage points: the perspectives of management, employees, and the Government of the day. I believe this to be a key feature of my work: demonstration of difference in something that might be expected to be the same – three tellings of the same narrative. Management seemed to view the appointment of Yves Pratte as a major turning point in the life of Air Canada and the introduction of party politics into management of the organization (McGregor, 1980; Pigott, 2001; P. Smith,

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1986). The political party histories describe the Government's view of the appointment as being a successful redressing of anti-French hiring practices (McCall-Newman, 1982; Stevenson, 1987; Stewart, 1971; Trudeau, 1993). The employees, as represented in proxy by their unions, appeared to view this appointment as a non-event – I was unable to find any traces of the appointment in the available histories (Newby, 1986; F. E. W. Smith & MacLaren, 1970).

Many dissertations apply the theoretical process to three different sets of data separated in time and possibly in other dimensions (Phillips & Pugh, 2000). In this study, the data sets are overlapping as some traces may be found co-existing in the same publications or archives; however, the distinct perspectives of the three groups separate the traces and provide the potential for differentiation. The significant advantage of studying the same event from three different perspectives is that this appears to allow an interrogation of the theoretic idea of the non-corporeal actant as well as the impact of the actor-network on the presentation of history. It is clear from the narratives of the three networks that the event is perceived very differently. I contend that the examination of this difference is performable through the use of the NCA. As seen in the empirical chapters (Six through Eight) the network of management seems to see the appointment as not businesslike (businesslike being an important NCA); the network of leaders in the government and related Liberal Party seem to see it as a triumph of justice for Francophone Canadians (which is an NCA of the *Just Society*), and the unions and employees appear to consider it as a non-event (reflecting the NCA of Air Canada management as a unitary enemy). These recorded recollections appears to differ from

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traces found from the period in the archival material, thereby providing an opportunity to apply the moves and concepts described in the preceding chapters.

Informed by Critical Sensemaking and Actor-Network Theory

To find the appropriate methodology for my empirical work I needed to look at the choice of theoretical bases (Ackroyd & Hughes, 1992; Bowen, 2008; Lynch, 2002; Speer, 2002). The use of CSM (Helms Mills, Thurlow, & Mills, 2010) and ANT (Callon, 1986; Latour, 2005b; Law & Hassard, 2005) implies a thematic analysis stemming from text. It is by following text and its creators that networks are drawn. Then, from examining the positions of the individual as stated in those texts, the influences on the identities of sensemakers and their choice can be inferred. This does not foreclose other methods of analysis, but for this topic and interrogation the use of archival materials appears to be the most logical.

I view this examination of the data as a two-step process: 1) explore the sensemaking aspects of enrollment and goals of the networks; and, 2) explore the power dimensions (particularly with regard to gender) of the sensemaking. These steps may be accomplished in concert or iteratively, depending on the data. For the purpose of this case analysis I have produced a series of seven moves incorporating CSM and ANT concepts along with the methods of information production (cluster and thematic analysis). Combining two research approaches produces a complex process but has been shown to render stronger plausibility (Hitt, Beamish, Jackson, & Mathieu, 2007).

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ANT requires an oligoptic view of the network in order to thoroughly examine the network (Latour, 1986, 1987, 2005). The essence of the science of assemblies is the extreme complexity of each network (Fleck, 1979). By narrowing to a micro-slice of an organization, it may be possible to describe the worknet (a task specific network) and the role of other networks in that worknet. From archival sources, I hoped to be able to identify the key actors within the worknet, the actants and then identify other significant networks in which these actors and actants were previously, or concurrently, enrolled. The influence of the interrelated networks on the work of the worknet will become more explicit.

The manner in which this influence is expressed within the worknet was examined using the critical sensemaking techniques. It is my contention that both the power and non-power related aspects of the network production are inter-related. Following the theories of ANT, politics must be considered in each interaction; however, the ANT motto of "*Be sober with power!*" admonishes the researcher to focus on the non-political possibilities of the interaction before examining the power/dominance themes (Latour, 2005b, p. 260).

History and Historiography

In my thesis I contend that history cannot be separated from any analysis; it is inherent in the search for data. All data is from the past and therefore the tools of history are the tools of data analysis (Ankersmit, 1997, 2001). "The inclusion of historical perspectives and methodologies as part of successful social science is not merely a matter

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of arbitrary choice; it is demanded by the rational acknowledgement that contemporary forms of human behavior all have, by definition, a history.” (Gray, Williamson, Karp, & Dalphin, 2007, p. 242). We define our history in text (Collingwood, 1956). For some scientists the text may be in the fossils found in the Great Rift Valley of Africa (Townesley, 2009) or the notebooks of Nils Bohr. For the organizational scientist, the text is found in the archives of an organization and the traces found in records available from the archives of other organizations.

Use of Jenkins (1991) proposed understanding of history presents an opportunity to examine the history and the past from a historiographic lens. This perspective places history as a changing element in society morphing from one explanation to another as opinions and attitudes change (Cooke, 1999). These changes are reflections of the power of persons and ideas within the groups (networks) publishing and presenting history (Jenkins, 1995, 2003; Jenkins, Morgan, & Munslow, 2007). The work in ANTi-History has pushed this programme further to demonstrate the influence of actor-networks on History (Durepos, Helms Mills, et al., 2008a; Durepos & Mills, 2012b; Durepos et al., 2011).

These perspectives on history modify the common understanding of history as a collection of relevant facts and historiography as the search for these facts (Carr, 2002). A political agenda appears to be preserved in the writing of history as described in the writing out literature (Cooke, 1999). The proposal of the exclusion of people, programmes and ideas, which are politically unfashionable or abhorrent, is controversial

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but appears plausible in the consideration of the bodies of work from specific time periods related to contested events (Cooke, 1999; Jenson, 2008; Wright, 2006).

History is also constrained by the sources available and these sources are affected by the processes of memory involved in their collection (Taylor, Bell, & Cooke, 2009). As we progress through the case studies related to Air Canada, we can compare the statements made at the time of the events as presented in text and the histories written that reflect on the period. In terms of sensemaking, Weick (1995) might present us with the belief that the histories are the recollections which best fit with the narratives of life present at the time of recall; however CSM (Helms Mills et al., 2010) and critical historiography (Berger, 1995, 1996; Durepos & Mills, 2012a) would introduce a power dimension suggestion that the traces selected for inclusion and exclusion are influenced by a political process (Cooke, 1999, 2006).

Case Study

The data sets for each of Chapters Six, Seven and Eight could be labeled cases; the research upon them case studies. The descriptive, detailed approach of case study analysis is particularly suited to the analysis of a complex process (L. Baxter & Braithwaite, 2008; Noor, 2008). The empirical work bringing together ANT and CSM is, in my opinion, very complex. In particular, case studies are useful for in-depth research into a narrow issue within a specific organization (Patton, 1987, 1990; Yin, 2011).

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Cluster and Thematic Analysis

Both cluster analysis (Notelars, Einarsen, DeWitte, & Vermunt, 2006) and thematic analysis (Bowen, 2008; Krippendorf, 2008) were used in the production of this study with the emphasis on the surfacing of themes, which provide clues to the NCAs at work in the situations and events. Using cluster and thematic analysis, the archived materials and histories may be analyzed for *evidence* of critical discourses (Fairclough, 2003, 2005). These two concepts are closely related in outcome, but not necessarily in method. In the analytic use of cluster analysis, related terms and concepts are brought together in a processural manner. Thematic analysis is more post-processural; text is read or listened to by a human interpreter who may code or cluster similar themes. The themes clustered are based on the understanding of the text acquired by the interpreter (S. Silverman, 2005).

Use of Moves

In Chapter Four I described a series of seven deconstructive *moves* in the research process that I have applied to the traces (Chia, 2004; Derrida, 1978; Derrida & Mehlman, 1972; Foucault, 1972, 1977; Newman, 2001; Norris, 1987; Patterson, 1997). Norris (1987) describes Derrida's deconstruction in moves that provide a relatively clear means of processural following of the data. The moves described in Chapter Four are neither Derrida's nor those of Norris. The moves I have described are informed by these specific dictates of research and analysis in addition to the ideas of ANT (Latour, 2005) and CSM

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(Helms Mills et al., 2010). The concept of moves is borrowed from Norris (1987) and appears to be consistent with a deconstructive approach to research.

Archival Research

The source of empirical data for my dissertation is archival data (Gunn, 2006). The method of research was archival searching for textural clusters, themes and identifications of networks. As the material is archival and subject to an existing history, the methodology was informed by ANTi-History (Durepos, Helms Mills, et al., 2008a; Durepos & Mills, 2012b). Archival data is subject to contestation but, because the material has existed for a period of time those contests have developed and should have produced artifacts (Jenkins, 2003). These artifacts should also be available for study.

The archival materials used are from the late 1960s and early 1970s. The texts examined are published between 1970 and 2005. Most are from the period 1970-1980; only the Milton text is from a later period. The narratives examined are primarily from the 1968-1969 periods following the temporal clamping admonition of ANT (Latour, 2005). Material collected by *Library and Archives Canada* and the *Canadian Aviation and Space Museum* form the bulk of the material examined. Other sources housed in the Sobey School of Business, sourced from libraries and available online are also used.

The use of archives as an extension of the methodological considerations of the sections above, which flows from my philosophical choice of naturally occurring data to produce three case studies surrounding one event, produces the rationale for choosing archival research. The validity of archival research as a method of surfacing empirical

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data is complex, requiring interrogation of the characteristics of archives and the methods employed. The following sections describe the essentials of my understanding of archival research and the manner in which I have prosecuted the process of accessing empirical data.

1. Theoretical basis for archival research

Archives form the documentary source of history. “Man is a social and an historical actor who must be understood, if at all, in a close and intricate interplay with social and historical structures” (C. W. Mills, 2000, p. 162). The line between pre-history and history is set at the point in time when people began using text. These texts are archived intentionally in buildings, folders or earthenware jars; unintentionally in swamps, piles and closets. Regardless of the physical location, the traces of the past found in archives should be more reliable than oral histories, myths and rumours (Thomassen, 2001). Archival material allows for examination of praxeology as per Bourdieu. Bourdieu (1984) contextualized attitudes within sub-cultures. By reviewing multiple sources, Bourdieu was able to describe networks by comparing similarity of characteristics (Bourdieu, 1984). His process is nearly the opposite of my search for differences.

Much of our understanding of organization, collective and society is derived from archival research (Thomassen, 2001). For example, Marx’ historical materialism appears to be based on the study of reams of records found in the British library. The critical form permits exposition of interest-laden decisions in which conflict dynamics are involved; the formation of elites, interlocking networks and emerging ideology (Prasad, 2005). Use

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of the archives of public organizations is central to the understanding of social phenomena because those organizations are more transparent than private firms. The documents of private firms tend to be closely held.

In some cases private firms have been more open to study. For example, documentary sources have been very illuminating in the understanding of identity construction of corporate America (Kaufman, Zacharias, & Karson, 1995). By reviewing archival material Kaufman et al. (1995) were able to demonstrate complex relationships among individuals and groups within and without corporations. This analysis did not explicitly involve ANT; however, the nature of the discussion lends itself to be compared to ANT theory.

2. Strengths of archival research

Archival materials exist; they are not prepared for the researcher. Most are documents that can be read (seen), have not been produced for the research, are preserved, and are relevant (Bryman & Bell, 2007; Gilliland-Swetland, 2000)). Documents provide a heterogeneous source of data – a broad range of viewpoints not found in other forms (Bryman & Bell, 2007). Therefore the research is more objective and less open to influence from the theory or question being studied than is research entered into after the researcher has defined a hypothesis. The qualitative archival researcher sees text as a heuristic device (tool) to identify data consisting of words and images that have been recorded without the intervention of the researcher (S. Silverman, 2005, P. 52). Separate texts or even separate expressions within a text provide the contemporaneous viewpoints of an issue, idea or decision.

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My research is evolved from constructionist ontology (Callon & Law, 1982). I am prospecting the traces of an organization in order to find the patterns of development, which create the sense of the organizational direction and validate the choices. The constructionist orientation is concerned with the process through which texts depict *reality* rather than with whether such texts contain true or false statements (S. Silverman, 2005, P. 160). Within the archive, the statements are facts from the perspective of what truth is, and constructed to be, from within the actor-network proposing the claim as fact.

The strength of the archival research method is in exacting as many useful sources as possible. By carefully describing historical traces from the archives, we will accurately explain the phenomena at work and the network processes that evolved those phenomena.

3. Method of archive searching

The archival research I conducted for this thesis flowed from the snowball method of sampling (Johnson & Duberley, 2000; Morrow, 2005; Salkind, 2000; Zikmund, 2003). An archive may exist from an organization or government that can be studied but the study of one archive will lead to sourcing outside materials to enrich the descriptions. The archive may include one form of text, which provides a list of individuals involved causing the researcher to *snowball* to other sources of information about those actors. For example, materials such as obituaries provide clues to what aspects of the person's life were important to his or her survivors. These traces can give clues as to the interaction between and among the worknet at study and other networks.

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Each piece of data was interrogated: “Ask key questions about your data” (S. Silverman, 2005, P. 150). For instance: data cannot be intrinsically unsatisfactory – it all depends on what you want to do with the data. No data can be untouched by human hands (it is recorded in some manner). The differences between *natural* and *non-natural* should be investigated rather than used as a tacit research resource (Speer, 2002). The text must be evaluated to determine its validity and reliability. Relevance of each criterion depends on the kind of document (Bryman & Bell, 2007). Criteria for evaluating the quality of text are authenticity, credibility, representativeness, and meaning (Bryman & Bell, 2007). Authenticity is a measure of genuineness; credibility of the lack of distortion; representativeness measures the text as typical of the representations; and meaning refers to comprehensibility (Scott, 1990). Authenticity must be verified by external criticism and accuracy should be verified internally (Salkind, 2000, p. 191). Is it a plausible reflection of what happened, as verified by external sources? Do others from within the source corroborate it as accurate?

Once each of these characteristics is found, examined and discussed, the text proceeds to the analytical aspect of the investigation. The determination of useable text is difficult and exacting. The process of finding a sufficient body of text to be examined requires a great deal of archival research. Searching through organizational records and public records and subsequent verification of the reliability of each data point is very time consuming. Textual analysis depends on detailed data exploration. The analysis is also time-consuming. To be effective it is imperative to limit the body of data. Too much data will render analysis superficial (S. Silverman, 2005, P. 55).

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4. Limitations of archival research

One of the difficulties in overcoming the plausibility/causation hurdle in archival research is the issue of agency in transcription. “We cannot, for instance, learn through written records how an organization actually operates day-to-day.” (Atkinson & Coffey, 2004, p. 58). Not all aspects of the operation are written down and that which is written may not be what is done. It is a common experience to visit a public washroom, which appears to have last been cleaned during the First World War and discover a checklist on the back of the door indicating that Andrew mopped twenty minutes ago. The written record does not match the enacted behavior or the observed results.

In the above paragraph, employee Andrew had made a participant account of mopping. His credibility with the patron was questionable. Credibility of all records must be problematized. The motivation for the creation of the record is rarely transparent and efforts are required toward surfacing the motives. Why was the record created? Was it to satisfy a government regulation? A corporate policy? To avoid a lawsuit?

Meeting minutes are not as good as diaries. In most jurisdictions as freedom of information legislation dictates, the minutes of public organizations are available for viewing for at least a portion of the year, so the minutes are manicured to those reports that the organizational elite are willing to have disclosed. Meeting minutes are a reflection of the network and power structure of the meeting. The materials included in the minutes are that which the recording secretary believes important and unlikely to cause uproar at the next meeting. The chair usually reviews the minutes and members

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may require amendments. These hurdles frequently result in very limited detail in the minutes.

A diary is kept for personal use (some public figures may expect them to be read). As the text is meant to be a personal record, it is more likely to be unmanicured or censored than if it were for public consumption. Even here, we need to be cautious because the writer is likely writing for an imagined audience. Where personal diaries or correspondence between and among associates are available, they may be more complete sources. All sources must be examined to determine the motivation for recording. Assessing intent is challenging but necessary.

Once the motivation is explored, the issue of distance remains. There is a hierarchy of credibility: eyewitnesses, secondhand accounts, third hand, etc. The written reports of an eyewitness should be more accurate than secondary sources (Gray et al., 2007). The questions to be asked are: Did the creator of the text see the events? Who told him or her about them? Why did s/he write them down? For example, Homer was not with Odysseus; as a result we do not consider his report of the journey taken by Odysseus completely accurate. Homer wrote about a small slice of the Greek population and unfortunately many people have romanticized the culture from that small slice. The organization under Homer's quill was an elite segment. His findings may be stories representative of that group. In qualitative research, using a small data set of examples from one organization may result in anecdotalism (S. Silverman, 2005, p. 211).

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Anecdotal research may point to an issue worthy of study, but it does not present reliable findings.

5. Method of collection and selecting

As noted above, the data employed for this research was collected using a snowball method (Zikmund, 2003). Initial collection of histories was done using an electronic library search of both the interuniversity system and the municipal library systems. The search was for books related to Air Canada, the Liberal Party of Canada, Prime Minister Pierre Trudeau, Paul Hellyer as Minister of Transport, unions relevant to Air Canada, and similar materials. As the books were received, they were read and annotated. Special attention was taken to the references, footnotes and bibliography of each book in order to identify potential traces as well as other books or articles related to the study. As found, books were sourced and read in the same manner.

This work produced a list of potential sources of traces related to the period, as well as passages commenting, reporting, or observing on the event in study. This produced a potential project plan for the collection and analysis of trace documents. First among the traces sought were the newsletters for Air Canada employees: *Between Ourselves* and *Horizons*. Many of these were found in the Helms/Mills Collection.⁸ Alternate sources for Air Canada materials also were sought. A bound volume of *Between Ourselves* for 1969 was purchased. Online sources of other traces were also searched, providing some anecdotal tales from employees, and most importantly, access

⁸ I am referring here to an extensive collections of Air Canada materials amassed by Jean Helms Mills and Albert J. Mills, from 1999 to 2002, as part of a SSHRC-funded project to undertake an archival study of the airline. For ease of discussion I refer to it as the Helms/Mills collection.

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to the Cabinet Conclusions, which served as summary minutes of the Federal Government closed door meetings. These searches also turned up several reports in the news media, academic journal articles, doctoral theses, and analytical reports related to Air Canada.

I visited both the *Library and Archives of Canada* and the archives held at the *Canada Space and Aviation Museum*, located in Ottawa, Ontario. During the visit more than 2,000 pages of documents from the collections were photographed and subsequently re-read. These included previously secret documents of the Government of 1968 related to the CEO selection, which had been donated to the Library and Archives of Canada by Minister Hellyer and recently became available for inspection; issues of employee newsletters from Air Canada, which were not available from the Helms/Mills Collection or an online source; other newsletters from the Canadian Pilots' Association and related groups; as well as an extensive archive of newspaper clippings, which had been collected by Air Canada and donated to the *Canada Space and Aviation Museum*. In addition, an extensive search of the archives was undertaken for any related material. In total, in excess of 200,000 pages of material were read and reviewed for this research. Copies were kept of any material which appeared related to the topic or potentially valuable to the research. The traces selected are subject to the bias of the researcher, archivists and the original collectors of the material preserved. Reflexively, I report that as wide a net as possible was set and all found resources were read and evaluated as to their potential for informing the analysis.

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Summary

In this chapter I have attempted to present the logic for the use of archival material in a qualitative analysis and the technical aspects of the program of study used for the case analyses in Chapters Six, Seven and Eight. My contention is that archival material and the tools for its research are very useful in the examination of a new theoretical tool. In this case I am examining the power and usefulness of the non-corporeal actant (NCA) in an actor-network approach informed by critical sensemaking. I believe this to be a complex situation; use of transparent data sources makes this analysis less complex.

Archival data can be interrogated for the rationale of collection. We can look into the motives by considering the donation of the material to an archive, the collection of the material by the archivist, and reflexively investigate my choice to include it in this research. There is no doubt that questions can be raised on each of these steps. Some questions have been, or will be, addressed in the preceding and following chapters. Other challenges to the data may be raised. The advantage of archival research is that accessibility of the data for such interrogation.

I have espoused a constructionist ontology resulting in my belief that qualitative data should be examined from a postpositivist perspective. I enjoy the positivist methods of searching for mathematical relationships, but I have not found them to be useful in explaining or predicting human behavior. Humans act in unpredictable ways; our best chance to begin to understand how individuals make sense and how participation in a

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group or network influences this sensemaking is to view multiple perspectives and seek out themes rather than functions.

It is hoped that extensive sourcing of text through archives in their many forms can provide a wide sample of the possible themes. Restricting the data set to a very narrow time period and focusing on one event is not only true to the philosophies of actor-network theory but also practical when evaluating the NCA as a plausible force. Use of data from 40 to 50 years ago as the primary sources provides a good opportunity to access data before it is lost and after self-interest has waned and secrets have been revealed. An exciting evolution of this idea of applying ANT's oligopticon to these events is the development of the three perspective approach. The result has been quite surprising: where positivists use triangulation to confirm and narrow their conclusions I have found nearly the opposite, taking a three perspective approach has legitimized three very different narratives from the same event. The three perspective approach may be applicable to research outside the archives and within the archives it has demonstrated a leap forward in the development of plausible understanding.

Chapter Six – The Management Perspective

Introduction

Each of the next three chapters interrogates the same series of events but from three differing perspectives and it appears very different recollections. The beginnings of each analysis come from histories written from the perspective of the network described. The nature of the networks appears to produce different sensemaking of the events. The purpose of reviewing these three perspectives is to propose the theoretical possibility that the different recollections (retrospective sensemaking) are the results of non-corporeal actants (NCAs) that are specific to the actor-network that produced the narratives.

This chapter focuses on the managers and executives at Air Canada in the period before and after the decision to appoint Yves Pratte as CEO. The decision itself appears to take place during this time frame, however it is difficult to pinpoint exactly when the decision was made. The public traces of the announcement can be used to provide some information about the timeframe (see The Essential Narrative in the front matter). The decision seems to have produced dramatic changes in the enrollment of the Air Canada management network, yet some of the discursive practices did not change (CP, 1971, 1973; Pratte, 1970). I believe this is due to persistent NCAs in the network.

To describe any actor-network I believe one should probe the motivation to join the network. For this particular group of human actors the enrollment in the network is a product of two choices: the choice of the individual manager to seek the position; and the corporate selection process. Among the managers in the pre-Pratte period there appears

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to have been a valorization of the pilot (Pigott, 2001; P. Smith, 1986). The view seems to have been that in order to run an important aspect of an airline, one had to have captained an airplane. This led to a gendered management team with an operations focus (A. J. Mills & Helms Mills, 2006). Post-Pratte there was more of a sales and marketing focus and a move toward experience in these areas among the senior executives and managers (Milton, 2004; Pigott, 2001). The flight attendants, baggage handlers, reservation departments and other functional areas appear to have been left out of the management teams both before and after Pratte's time as CEO (C. Baxter, 1968; Collins, 1978; Leclerc, 1986; Mintzberg, Brunet, & Waters, 1986; Shalla, 1993; Todd & Budgeon, 1977). The means and manner of enrolment may impact the NCAs enrolled and the discursive practices of the participants. From a critical sensemaking (CSM) perspective this may constrain the decision making options of individuals.

Traces

Because major international airlines tend to save their records, the AC archives have been very useful (A. J. Mills & Helms Mills, 2006). For this chapter the materials searched included thousands of pages of the airline records, government records and press reports (online and offline as with the other chapters). Specific to this chapter were searches in the *Aviation and Space Museum* archives and the *National Library and Archives*; both in Ottawa, Ontario. These extensive collections augmented the material available in the Helms/Mills collection and augmented by online acquisitions and purchases made for this research.

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The Narratives

Air Canada was formed in 1937 as Trans-Canada Airlines (TCA). The ideas and related understandings present in that formation seem to have persisted through into the period of the events discussed in this analysis. At the time (1937) a struggle existed between two railways in Canada, Canadian Pacific (CPR) and Canadian National Railways (CN). The latter was a crown corporation and described as the chosen instrument for nation-building of the William Lyon MacKenzie King Government (Liberal Party). CPR was a private corporation that had received significant construction funding from the John A MacDonald Government (Conservative) of the late 19th century. The establishment of CN as a crown corporation was at least partially in reaction to a perception that foreign investors were reaping the profits of CPR (P. Smith, 1986).

The 1937 Federal Government was criticized for creating a subsidized corporation to compete with the fledgling 'air lines' springing up across the country; but the Government saw a need to provide service to remote areas of Canada. In debate C.D. Howe stated, "...Without a national airline, we might as well be back in birchbark canoes" (P. Newman, 1992). Being sensitive to questions surrounding the subsidies, Howe (the Liberal minister responsible for the airline) was careful to minimize the funds provided to the airline. These funds were usually provided in the form of loans to CN, which in turn funded TCA (Collins, 1978; McGregor, 1980). The understanding (NCA) that evolved in Air Canada's management ranks was of cost control and profitability (Giddens, 1971; Hartt, 2011b; Marx & Engels, 1996). The discursive support of this

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mantra was strengthened by Howe's oft reported comment to Gordon McGregor early in McGregor's reign as President, "You keep the airline out of the taxpayers pocket and I'll keep out of your hair" (Garwood & Todd, 1967).

Within the management of the airline this comment developed into a strong understanding and direction from the stakeholders. At first the understanding appears to have been, if the airline is able to fund itself, the Government will not interfere in management decisions. But like all meanings this evolved further. TCA, and later Air Canada, management began to see their role as to be businesslike and independent. The airline was created out of a government policy to provide service to the whole of the country, but internally, management struggled against that understanding to establish an NCA linked to the superiority of financial responsibility and its resulting independence of action.

Throughout, the various histories of Air Canada we see described a struggle with Government and with the idea of privatization or merger with Canadian Airlines which was from time to time a subsidiary of CP Rail) (Gillen, Oum, & Tretheway, 1987; Leclerc, 1986; Shalla, 1993). The message which emerges from the Air Canada management side is that the Government presents roadblocks to financial independence while restricting funding. To managers at Air Canada, government is a problem we can surface this as an NCA. Each manager has a perspective on government and government relations informed by their relations with others in their network and any direct contact. In order to avoid interactions with government, the airline pursues a small profit while

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fighting for efficiency, routes, airports and capital funding (McGregor, 1980; A. J. Mills & Helms Mills, 2006a; Milton, 2004; Pigott, 2001). In the events of 1968, it may be the idea of efficiency that creates the divergence among the three sets of narratives described in this and the next two chapters. To understand this and the elements of meaning within the management narrative of financial responsibility one needs to break this meta-discourse down into sub-units.

Being financially responsible begins with two factors: revenue and expenses (M. Brown, Sturman, & Simmering, 2003). The revenue of Air Canada is/was tied to fares charged and routes serviced; in 1968, both were controlled by Government. The organization struggled against the Government's decisions to allow other airlines to service desirable and profitable routes (high traffic/low cost) while forcing Air Canada to fly routes that had few passengers and little freight (McGregor, 1980; Pigott, 2001; P. Smith, 1986). These routes also added to the expenses of the firm (the other aspect of financial responsibility). Air Canada management seemed to accept these decisions as illogical but outside their control. The cost control understanding was stronger within the firm and led to capital choices (new airplanes) based on operational costs such as maintenance and repair.

Throughout the organization's history discussions of cost control and revenue generation are detailed in the corporate newsletters (*Between Ourselves* and later *Horizons*). Virtually every issue of *Between Ourselves* includes stories of efficiency and profitability. Most editions have front-page stories of the businesslike behaviour of the

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organization. For example, the April, 1960 edition features a front-page story, “Increased Productivity by Employees Gives TCA Ninth Successive Surplus” (Thackery, 1960). On the same page there is a story about the cost of bomb threats. Air Canada management presented a discourse of financial responsibility to its employees and other readers of the employee newsletters, press releases and annual reports, etc.

Management extended this understanding of the role of the firm to include other business concepts. The idea that the Government would stay out of their business seems to have become the concept (NCA) of independence as long as the financial house is in order. Management appeared to believe that any businesslike practice was appropriate as long as it produced positive financial results. The firm hired advertising agencies in New York, believing that they were the most efficient and effective. Senior managers took on senior roles with international airline organizations in order to increase the reputation of TCA/AC and build alliances for passenger sharing and information sources on new equipment and practices.

Gordon McGregor (Air Canada president from 1947 to 1968) had been hired from within the firm (Pigott, 2001). After the initial start-up of the company most senior positions had been filled by promoting from within or recruiting experienced people and placing them in developmental positions. The general business practice of the 1950s and 1960s of hiring young staff and developing them to their potential was adopted by the organization. In the early 1960s as McGregor approached retirement age the Board of Directors searched internally for his replacement. The selection model appears to have

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been based on McGregor - an experienced pilot who had demonstrated the capacity to be a leader in the organization.

Herb Seagrim was the Board's official choice to replace McGregor (McGregor, 1980). That choice had been guided by McGregor but in many ways it had been ordained many years before. Seagrim was a pilot. He had been among the first employees of the firm and various internal narratives and histories spoke of him as having played a role in many of the significant events in the organization's history (Ashley, 1963). He had tested and demonstrated new aircraft. At one point he met with Howard Hughes to show him an airplane for possible inclusion in the TWA fleet (Pigott, 2001). On key flights, Seagrim would be on the deck. He was at the first meeting of the Pilots' Union (F.E.W. Smith, 1970). He had been promoted up through the ranks to the level of Vice President. In 1962, the Board selection committee recommended Seagrim be groomed as McGregor's successor and he was approved by the board (McGregor, 1980, p. 175). At the time he was Senior Vice President, Operations.

Over the succeeding years McGregor began to prepare Seagrim to be his replacement. Issues of *Between Ourselves* began featuring Seagrim on the front page in photographs with staff, aircraft and important persons from related organizations such as suppliers. A memo in the Hellyer files expressed the acceptability of an interim structure with Seagrim running the airline and McGregor in the background as a sort of trial run for a future structure with McGregor as Chairman and Seagrim as President and CEO (McGregor, 1967a). This planned interim structure was later applied when Pratte was

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Chairman and CEO and former Deputy Minister John R. Baldwin was President (but his role is unclear). The decision to appoint Pratte was not well accepted by McGregor and the senior managers of the airline. Later writings on the choice of Pratte cast it in a negative light (McGregor, 1970; Pigott, 2001).

This section of the thesis examines the company endorsed histories of the events in terms of the seven moves for description of an event from the perspective of the non-corporeal actants (NCAs) found to link actor-networks with the sensemaking (CSM) in individuals.

Move 1: Identify the problematic event

I have identified the problematic event to be researched as the choice of Pratte over Seagrim. This event is chronicled very differently in the three sets of recollections described in this and the next two (seven and eight) chapters. In Gordon McGregor's memoirs of his time as president of Air Canada, "The Adolescence of an Airline" (McGregor, 1980), he refers to the selection of his successor in very unflattering terms. His descriptions of political interference by the Trudeau Liberal Government in the operation of the airline appear to form the basis of other inscriptions of the company's history. The two significant corporate histories of the period ("It Seems like only Yesterday" by P. Smith, 1986 and Pigott's, 2001, "National Treasure") appear to benefit from access to a 1970 draft of McGregor's memoirs. In at least one history a quote attributed to McGregor does not appear in the 1980 published version of "The Adolescence of an Airline." McGregor is quoted as fearing a political appointment (Pigott, 2001, p. 448); several references are made to Government's bilingualism

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initiatives and the appointment of two new leaders for Air Canada, one French, and one English. In the other history McGregor is quoted as saying, “I m so worried about a political appointment that I can taste it” (Smith, 1986, p. 276). The omission of this statement from the published (1980) edition of McGregor’s book implies that a choice was made to remove the criticism. It is possible that this was to permit Air Canada’s internal promotion of the book. For most of the intervening period a Trudeau Liberal government was in office promoting an book which was overtly critical may have been perceived as potentially damaging to the airline-government relationship.

That criticism was not completely silenced. The idea that Herb Seagrim (McGregor’s choice) had been unfairly passed over was a understanding in the context of Air Canada as distributed through the employee magazine, “When president G.R. McGregor retired in 1968, he wanted Herb (Seagrim) who was then Executive Vice President of Air Canada to succeed him. Instead the Federal Government named Yves Pratte and John Baldwin to head the company” (Todd & Budgeon, 1977, p. 13).

The McGregor and Smith histories were both promoted in the employee newsletter of Air Canada (after Pratte resigned). This implies that these narratives were accepted by the management of Air Canada as the *one truth* establishing a claim to be examined using the ANTi-History approach.

Move 2: Identify the actors and corporeal actants in the networks

The human actors in the networks of these histories are the authors or chroniclers, their informants (who in this chapter are primarily members and former members of the

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Air Canada Management Team), those who are involved in the publication and promotion of the books, and any actor-networks to which these people belong. The non-human (but corporeal actants) would be the objects that are enrolled in their actor-networks. For example, if telephone interviews were undertaken the phone service could be an actant. For the most part the material seems to have been researched in person and from paper records (inscriptions). An unseen actant may have been the secrecy laws of the time. Pigott and Smith in the preparation of their histories of Air Canada (Pigott, 2001; P. Smith, 1986) spoke with those members of management who were available to be interviewed. They also referred to McGregor's 1970 manuscript; archival material available in the National Aviation Museum; the collections of Canadian Airlines, Air Canada, British Airways; and other airline-related resources. They did not source material from the Canadian Library and Archives, which houses politicians' papers and Cabinet summaries. The narrative of the stories reflects the support their manuscripts received from the company. Perhaps most indicative of the sourcing for this discussion is the first paragraph of Smith's *It Seems Like Only Yesterday: Air Canada The first 50 Years*, which opens with a quote from Herb Seagram. Smith's book was promoted in the company employee magazine. Both Piggott's and McGregor's works are mentioned in the company newsletter implying that management wanted employees to read the books.

The time of publication for all three books was after Pratte's departure in 1975. The organization has experienced a series of financial difficulties from 1969 to the present day (Dipchand, 1992; Gillen et al., 1987; Leclerc, 1986; Milton, 2004; Mintzberg et al., 1986). The dominant understanding (NCA) of managers surrounding the pre-Pratte

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period could be described as *the good old days*. The Pratte period became a negative in the organizational history followed by a return to success under Claude Taylor in 1984 (McGee, 2010; Milton, 2004; P. Smith, 1986). Claude Taylor represented a return to a businesslike period under an established *company man*. Taylor had worked under McGregor and Seagrim before the Pratte era. The understanding of 'success but for the meddling government' is represented in other works on Air Canada in more recent periods (Dipchand, 1992; Leclerc, 1986; Milton, 2004; Stevenson, 1987). Milton, in particular, as a later CEO of Air Canada (1999 to present [effectively through a holding company]) represents government as the adversary of the airline during the period when Jean Chretien (a Trudeau associate) was Prime Minister (Milton, 2004).

The acknowledgements, promotion and usage of the narrative as described by McGregor, Smith and Piggott in their chronicles of the 1968 event implies that the network in support of the publications was similar to the network which believed that Seagrim should have become the CEO as successor to McGregor. The organization under Pratte enrolled some new actors and ideas (NCAs) but those actors left and the ideas withered in the period up to and soon after Pratte's resignation. The network of Air Canada Management appears to be restored to the pre-Pratte form and this form supported the narrative of organizational downturn as a result of government interference.

The Smith, Piggott, and McGregor histories can be seen as inscriptions of the network of management of Air Canada, including similar actors and most importantly the NCA of the businesslike crown corporation. When, in later years, it appeared that

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Government would *meddle* in the financial responsibility of the firm (in the acquisition of Canadian Airlines), the network of management chose to seek new capital structures (Milton, 2004).

The pre-Pratte period demonstrates an increasing importance of the NCA of financial viability and diminishing influence of the NCA of public policy such as provision of service and employment (along with political priorities of the Party in power). During the Pratte period there was a brief flurry of enrollment of NCAs such as bilingualism, patronage and regional development but these NCAs waned in the face of poor economic performance. Ultimately, the NCA of financial viability regained its precedence, and aided by some scandals involving Pratte's initiatives and hirings, lead to his resignation (Collins, 1978). This NCA seems to exist independently of individual actors through communication and other relational actions but it is not embodied by any specific inscription. The idea and understandings around it are collectively ethereal; leaving sufficient ambiguity for each sensemaker to apply his own understanding. Even during the Pratte period an understanding of being like a for-profit business appears to be a strong NCA expressed in part by the hiring of McKinsey and Company. Post-Pratte, the network of board and management of Air Canada retained some similar actors to the Pratte period but the power structure appears to have enrolled the NCAs surrounding the earlier McGregor-Howe understanding of staying out of the taxpayers' pockets and the NCAs of the 'Just Society,' associated with Pratte's appointment, appears to take a subservient role.

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Move 3: Surface the possible locations of sensemaking activities

The where and when of the sensemaking of the chroniclers and their informants may aid us in situating the NCAs in the contextual media and the humans in other actor-networks. From review of the Hellyer files in the *National Archives* and the Air Canada files at the *Canadian Space and Aviation Museum*, other narratives are surfaced. For example, Air Canada experienced labour strife in the period that led up to the 1967 World's Fair in Montreal and the unions representing the workers in the maintenance shops in Winnipeg were not happy with the movement of jobs from those shops to new ones being built in Montreal. In both cases the Government was forced, through political pressure, to become involved. From these events and others, a narrative of a need to move from a pilot-managed company to a professionally managed organization could have been constructed. This does not happen. The histories dispute Pratte's suitability as a professional manager and ignore Baldwin's experience in the federal bureaucracy. One of Pratte's first acts as CEO was to hire McKinsey and Company to consult on the best structure for the organization (Pratte, 1970). Regardless of opinion of Pratte's experience as a lawyer in Quebec and suitability to run a major airline, Pratte took the steps that professional managers were taking throughout North America. He hired a well-respected consulting firm to tell him what to do.

This plausible alternate narrative is not included in the histories produced by the network of Air Canada management. The comments included in those histories denigrating Pratte's lack of relevant experience could be construed as actively disputing the narrative of Pratte as a leading edge (or even isomorphic) leader. This choice - to

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write about political interference and leave out professional management – is, I contend, the result of sensemaking. That sensemaking is localized in the authors but is a product of the power and influence of the network. This choice can be characterized as an opportunity. Using Weick's (1995) characteristics of a sensemaking opportunity, I look for discrepancy, divergence, paradox, action and vagueness.

Clearly, there is a discrepancy between the one truth of political interference and the alternate plausible explanations of a large company in need of professional management or a government in need of an agency that is more respectful of its political objectives (Hinich & Munger, 1996). The narratives diverge from one another in terms of the descriptions of Pratte's period of control as unsuccessful due to ineffectiveness, even though it would have been possible to write a narrative that the airline was unsuccessful due to the 1970s oil crisis, which greatly affected all airlines.

There is an apparent divergence between any possible valid explanation of the choice not to hire Seagrim and the choice to hire Pratte. The histories appear to describe the decision as an active choice of a political candidate, Pratte. However, reading the archival material indicates a possible anti-narrative (alternate version of the story): the Government did not want Seagrim and Pratte was the most viable available candidate.

This presents a paradox. The event cannot be described in both ways: political interference and rejection of the internal candidate by the owners of the organization. The choice is clear, either Pratte is a patronage appointment sent to serve the political masters or Seagrim is unacceptable to the Government because of the labour disputes and

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ongoing lack of cooperation with Government. The public documents at the time do not provide opportunity for understanding of the decision. Throughout the period Seagram is presented as McGregor's right hand man and, at times, the face of Air Canada in his own right. In the newsletters and in news reports he represents the firm (*Between Ourselves*, 1965-68). The Government makes no effort to dispute his position. Pratte's appointment is sudden and without prior public discussion. At the time of writing, the authors of the histories did not have access to Hellyer's files, which describe a concentrated effort to find an alternative to Seagram. Nor do they seem to have reviewed the Air Canada internal memos, which provide some insight into the ongoing disputes between the Government and the organization.

The poor performance of Air Canada in the Pratte years; several years of deficit; employee discontent and morale problems (some resulting from the McKinsey consulting project); and the scandals around "sky shops," Air Canada Vacations and the travel agency; all contribute to the justification of describing Pratte's hiring as a poor choice motivated by politics (Pigott, 2001). Within the network of publication, it is easy to see the understanding of Pratte as a failure becoming a strong NCA in the support of the narrative of political interference.

Move 4: Identify sensemaking properties of the events

In the discussion of move 3, I have hinted at some of the relationship to social-psychological properties that have been surfaced. In relation to the NCA the most central properties are the social and retrospective nature of the construction of the narrative. The identity of the members of the network is *a priori* linked to their position in the network.

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Enrollment in the network assumes acceptance of the network into one's identity. The nature of the NCA is to become integrated into the identity of each member of the group.

As each member of the management network at Air Canada enrolled they appear to have accepted the understanding (NCA) of financial responsibility and related independence. In their individual performative identity they would accept the values of breaking even, acting businesslike and the resulting entitlement to independence. Essentially, an important contention was if *my area generates a profit and acts in a business-like fashion, I should be permitted to make decisions*. In the sensemaking of choices these ideas would form a significant influence on one's prospection. The profit idea is a powerful concept (Giddens, 1971; Preston, Wright, & Young, 1996)

This NCA persisted in the network through the Pratte years because it was so strongly imbedded in the identities of the actors of the network. Even though it appears that Pratte was appointed in an effort to change the understanding of Air Canada to fit more with political needs, the network did not permit the abandonment of the NCA of financial responsibility and related independence. As time progressed, the NCAs related to financial performance influenced Pratte to become more profit oriented instead of Pratte being able to influence the enrollment of understandings of public policy as strong NCAs.

In the historical accounts we deal with both the prospective sensemaking from the time of Pratte's appointment in the disappointment expressed by McGregor and the retrospective sensemaking of Pratte's leadership as a failure. This surfaces the ongoing

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nature of sensemaking. The traces from before the appointment indicate that the network is very uncomfortable with the appointment. For example, in a memo to Hellyer (McGregor, 1967b), Air Canada's President refers to a newspaper article suggesting that Baldwin may be appointed (C. Baxter, 1967) and describes the choice as unethical. Is the concept of "unethical" a part of the NCA of being businesslike or a separate actant?

During the time when Pratte is CEO, it appears that he is enrolled in the network. Throughout the period, he is quoted on the financial performance of Air Canada in the company newsletter and in the mainstream press. For example, he is quoted in 1971 explaining the need for layoffs due to fiscal downturns (CP, 1971). As layoffs plausibly could be considered in opposition to the political agenda of the Party in power, Pratte is clearly willing to stand in opposition to the Liberal Party's NCAs and in favour of the dominant NCA of the network of Air Canada management, fiscal prudence.

In retrospection of Pratte's era, the histories of the firm attribute the poor performance of the firm to the failure to appoint experienced airline people, in particular insiders from Air Canada, to the leadership roles. The appointment of Claude Taylor is characterized as successful and he is as such, an insider. The cues extracted from the events are those related to the persons appointed and their position in terms of the NCAs enrolled rather than extracting the narratives (and related cues) providing other plausible stories.

It appears that the dominant NCA of fiscal responsibility and political independence directs the choice of narratives to reveal. Other cues exist in the traces

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found in the archives and other available materials but those cues are not extracted. The powerful understanding became a dominant actant in the network of publication, promotion and purchasing the histories.

Move 5: Identify enrollments and de-enrollments of human actors (and networks)

Enrollments and de-enrollments in the networks occur on an ongoing basis.

People and things join and leave. The lead up to the change of CEOs, the Board of Air Canada saw a number of changes. The board had approved McGregor's succession plan originally in 1964 and continued to support it; but when faced with opposition from the Government, McGregor felt compelled to refer the Minister to a number of ex-Board Members (McGregor, 1967a). Some of these former members of the Board had been replaced after the election of a Liberal Government (that unseated the Conservatives); others had retired from the Board.

These changes had moved the Board to become more in line with the Liberal Party understandings and less influenced by the NCA of fiscal responsibility. Along with the new the Board Members in the organization there were the enrollments of the NCAs of the Liberal Party into the decision-making network. These enrollments produce messages related to doubt, doubt in the previously enrolled actors and actants. Doubt becomes an agent of de-enrollment. People doubt their role in the network and leave. As actors de-enroll, new actors are enrolled to take their places in the network. These actors doubt the established NCAs and produce uncertainty in the individuals. This uncertainty

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leads to sensemaking behaviours that may produce a return to familiar scripts about profitability and businesslike practices.

These enrollments did not extend to the employed managers of the firm until after the Pratte appointment. During the first few years of his management, a major restructuring of the organization occurred (Garwood & Todd, 1969). This restructuring resulted in the de-enrollment of Seagrim and several others as well as demotion and reassignment of others who had held sway. New positions were created and both social and political associates of Pratte and the governing Liberals were introduced into senior management. The understanding of bilingualism and the related understanding of French-Canadian affirmative action were enrolled into the network influencing the hiring practices. It became a priority to place French-Canadians in senior positions. The organization had not promoted many Francophones in the past so many new managers were brought in from outside the firm (some were connected to the Liberal party).

These enrollments changed the network of Air Canada and appear to have delayed the publication of the McGregor memoir as well as changing the actions of the company. Toward the end of the Pratte period, many of these persons left the firm and the related NCAs became less influential although never completely de-enrolled. The NCA of financial responsibility regained its position of influence over the Pratte period. When Pratte departed and eventually Claude Taylor became CEO, the organization returned to the fiscal responsibility and reduced political interference but the new NCAs that had been enrolled did not completely disappear.

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The persistence of the NCAs even when rejected by senior management is quite clear. While the histories were being published, each decrying the damage done through political interference, there continued to be political interference over route assignment, international agreements and ultimately in the merger with Canadian Air Lines (Milton, 2004). Management continues to operate in a network including the Liberal party NCAs regardless of the human actors and their individual interests.

Move 6: Identify the NCAs enrolled and de-enrolled

In order to be successfully published and sold, a corporate history must attract sales from the community of the firm: managers, employees, board members and customers. An effective way of achieving this is through promotion in the organs of the organization. In Air Canada's case there is a newsletter in which the books are noted and promoted. This implies that the narrative is acceptable to the network of management at the time of publication. This appears to influence the traces chosen and the material presented. Perhaps the most significant overt example of an effect of the change in the network is the publication of the McGregor memoir. McGregor retired in 1968 and appears to have finished his book by 1970. In Piggot's (2001, p.448) book, he quotes McGregor as saying that, "I do regret the fact that the board did not now find itself able to select and appoint the appropriate man as a replacement chief executive of the company on a permanent footing." Although the sentence appeared in the 1970 draft it is, in fact, not found in McGregor's 1980 published book. It appears that changes in the network (enrollment and de-enrollment) resulted in the delay in publication and produce some editorial changes. The statement is a clear indictment of the Trudeau Liberal government

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as interfering and irresponsible. That government was in power for most of the period between 1970 when the first draft was shared and 1980 when *Horizons* promoted the sale of the 1980 edition of the book.

In the published edition, McGregor decries political interference in the organization in nearly as vehement terms but he seems more tolerant of Pratte. In the late 1970s, leading up to the 1980 publication, it seems like there are some remnants of the Pratte period in the network. NCAs such as cooperation with government initiatives and political priorities continue to influence sensemaking through until the Milton period (after privatization). The *Just Society* ideas of affirmative action and fairness appear to continue in hiring practices and in the presentation of senior management in the newsletter, *Between Ourselves* and later *Horizons* as well as annual reports. Both French-Canadians and women (across the linguistic divide) are displayed as important people in Air Canada. Air Canada appears to hire political candidates and connected Liberal insiders to staff positions and appoints similarly connected persons to the Board during this period.

After the Pratte period the NCAs related to understandings of fiscal responsibility and diminished government involvement strengthen. The organization seeks profitability and independence. These NCAs had not disappeared during Pratte's term as CEO, in many ways they regained influence. This persistence demonstrates the power of the NCA. Most of the remaining McGregor managers are separated from Air Canada in 1970 as part of the McKinsey & Company designed reorganization (P. Smith, 1986). Yves

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Menard, a politically connected French-Canadian is hired into a pivotal role. These changes in the actors of the central network of management appear to signal a move toward patronage, political influence and affirmative action, yet the NCAs of being businesslike do not disappear. In their persistence, these NCAs change the Liberal Party understandings into NCAs that share the bottom line mentality.

Move 7: Identify the persistent NCAs linked to de-enrolled human actors

Our discussion of the network of management at Air Canada has surfaced a transition of networks. The initial network (for the purposes of this discussion) consisted of actors enrolled by McGregor, physical actants in terms of the inscriptions of C.D. Howe's admonition to stay out of the taxpayers pocket, the physical devices of communication and operation and the NCAs emanating from the understandings generated by the inscriptions. The network appears to have been dominated by the personality of McGregor and the NCAs of being profitable, businesslike and avoiding government involvement.

The lead up to the Pratte appointment saw changes in the network. From the traces, we have surfaced changes from a McGregor dominated Board to a Board including divergent views and a willingness to cooperate with the governing Party's priorities. These changes appear to have permitted the selection of Pratte as CEO. The persistent network of AC management appears to have resented and resisted this change. However, that view was suppressed from publication. In the traces over this period, the new NCAs related to patronage, affirmative action and cooperation with government

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priorities even when they were not fiscally efficient appear to have enrolled but in competition with the persistent NCAs of the McGregor era.

After Pratte resigned and many of the associates of his era left the network, the narratives of resentment and resistance began to resurface in the newsletters of the organization. Over time the new network permitted the publication of histories that included narratives of Pratte's poor performance, his unsuitability for the position and the political nature of his appointment. These narratives are consistent with the NCAs of the McGregor era.

The new network of Air Canada management that emerged in the Claude Taylor era is similar to the McGregor era but changed by the Pratte period. It is a hybrid of the businesslike NCA and the NCAs of the *Just Society*. Patronage continues to play a role but a diminished one. It is from this period that the histories are published and these books provide an image of the organization that is consistent with each of the NCAs. The NCAs have strongly influenced the sensemaking of the author's in their retrospection of the events. McGregor tempers his language somewhat. Piggott tells a story of interference. Smith celebrates the heroic Seagrim and decries the poor treatment of the man.

Summary

At the beginning of this chapter, I described the manner in which the network of managers and executives at Air Canada becomes enrolled. These men (even today there are very few female managers at Air Canada (Corrigan & Mills, 2012)) choose to join the

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airline for a variety of reasons related to career, interest in airplanes and (according to Milton, 2004) a childhood fascination with runways. The airline selects from these candidates. Therefore enrollment comes only with the consent of the other actors in the network. The notable exception was Pratte (and Baldwin) in 1968. These men were selected by the Government through their sensemaking process, which is described in Chapter Seven.

Enrollment of actors (Pratte and Baldwin) without the consent of the existing actors in the network resulted in significant de-enrollments in the network and a change in the selection process. Air Canada management has morphed from pilot-led to marketing driven; from a meritocracy based on cockpit management to a blend of political influence and salesmanship. Many new NCAs have been enrolled in the network, such as those related to the *Just Society*, but the long standing ideas of being like a business and fiscal responsibility have persisted. It appears that these ideas are able to change the choices and decisions of the human actors in the network. They seem to have agency. Their persistence and influence in the sensemaking of individuals enrolled from outside the original network plausibly gives weight to the concept of the NCA as an important form of actor in this network.

Chapter Seven – Governing Liberal Party Perspective

Introduction

“Politics is a strange mistress” (Halbert, 2012). Although this quote is from 2012, it represents the patriarchal nature of the political process in 1968 quite well. Politics is an actor-network that is driven primarily by men and male processes. It could be argued that this has changed in the last forty years but we should be reminded to contextualize our history (White, 1984, 1988). In 1968, the political parties consisted primarily of men and those men reflected the male ego and significant desire for power (McCall-Newman, 1982). For this reason, this chapter has been phrased in particularly androcentric terms.

Joining a political party in the 1960s was more a process of family tradition and social groupings than a choice based on ideological principles. Pierre Elliott Trudeau (Prime Minister of Canada in 1968) may have been an exception to this generalization as he appears to have been an independent thinker (Stewart, 1971; Trudeau, 1993). But as a French-Canadian Roman Catholic, Trudeau would have been expected to be a Liberal from birth regardless of the path he chose. Paul Hellyer (Minister of Transport under Trudeau) was from a similarly Liberal background although he was an Anglophone. In the manner of politicians, they both sought power. Trudeau defeated Hellyer for the Party leadership in 1968.

In the analysis of an actor-network of political operatives CSM (Helms Mills, Thurlow, & Mills, 2010) is more prominent in the seven moves searching for NCAs than it might be in another study. The rationale behind this is the nature of politicians which

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tends to focus on the desire to get re-elected or for those in the backroom, to get their guy or party elected and re-elected so they can wield power. Political persons seem to network because networks are necessary to secure power rather than being motivated by affiliation or achievement (Trudeau, 1993). Affiliation is a means of building alliances for power in the political structure. When the Air Canada management refused to support Hellyer's promise (during the leadership campaign) to keep the Winnipeg Shops open, it seems affiliation with Herb Seagram, then Executive Vice-President of Air Canada was no longer of value to Hellyer (Pigott, 2001). Yves Pratte who was appointed CEO of Air Canada in the autumn of 1968 had been mentioned by Trudeau as a possible candidate, so it is conceivable that Hellyer thought appointing Pratte would build his influence with Trudeau (Pigott, 2001). In order to surface the NCAs present in this network we have to delve deeply into the sensemaking of the individual actors within the network. Therefore, in this chapter as I process through the seven moves described in Chapter Four, I will focus on the properties of the sensemaking situation (Weick, 1995) in order to surface NCAs.

Traces

For this chapter the materials searched included thousands of pages of the airline records, government records and press reports (as with the other chapters). Specific to this chapter were searches were the materials available online: the Cabinet Conclusions and those from the Liberal Party and the Trudeau period. Newly available (previously secret) material in the National Library and Archives (Canada) allow a fuller interrogation of produced narratives. AC, like most airlines, saved a great deal of its

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material, the archives available are exhaustive (A. J. Mills & Helms Mills, 2006). I used this material to surface themes from the traces left by actors (A. J. Mills & Helms Mills, 2011).

The Liberal Government Narrative

In the period leading up to the founding of Trans-Canada Airlines (later Air Canada) in 1937, there was a political struggle stemming from the conflicting ideas behind the national railroad project: the railroad had been built by private firms using government money. As the project progressed it was beset by cost overruns and scandals related to the use of the money and political interference. A belief that the private firms had unfairly benefitted and that Government should not directly invest in this way developed. This was deepened by the level of foreign investment in Canadian Pacific Railways (CPR), the builder/owner of the largest portion of the rails. CPR had received significant construction funding from the Government of Sir John A. MacDonal in the late 19th century (Conservative). By 1930, a struggle existed between the two primary railways in Canada, CPR and Canadian National Railways (CN). The latter was a crown corporation, which appears to have been formed by successive Liberal Governments to counter CPR and was described as the chosen instrument of the MacKenzie King Liberal Government (Pigott, 2001; P. Smith, 1986).

Airlines began to operate in other countries and regionally within Canada.

Discussions in both the public and private sectors began about the need for a national airline (Collins, 1978; F. E. W. Smith, 1970; P. Smith, 1986). Because Canada is a large

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and sparsely populated country, the feeling was that competing private airlines would not naturally evolve as they had in the United States. Government involvement would be required as it had in the railroad project. Competing debates of whether the airlines should be private or public challenged the political will. The political discourse of the problems of the railroad project appears to have performed as a stronger NCA in the network of the Liberal Party. They did not want to repeat the problems of foreign ownership, so chose to form a subsidiary unit of CN as an airline (P. Smith, 1986).

The debates present in that formation (public versus private) persisted and continued through into the period of the events discussed in this analysis. The competition of understandings also spawned a competition between airlines. Small private airlines developed and some merged into a CPR project that eventually became Canadian Airlines, a political-economic foe of Air Canada.

Being sensitive to questions surrounding the subsidies C.D. Howe -- the minister responsible for the airline in various Liberal Governments from 1935 to 1957 -- was careful to minimize the funds provided to the airline. These funds were usually provided in the form of loans via CN. The shared idea (NCA) that evolved in Air Canada was of cost control and profitability. It was politically advantageous to the Liberal Party that Air Canada was cost neutral and in turn, the Liberal Governments permitted the airline to operate somewhat independently.

This understanding within the Party may have changed when the Liberals returned to power in 1963 following the defeat of a Conservative Government. The Conservatives

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had not dismantled Air Canada or any of the crown corporations. Some in the Liberal Party may have decided that the criticisms of crown corporations as anti-democratic were moot. Protecting the Party from criticism over public funds usage was no longer a strong NCA. However, it appears that the management of Air Canada did not comprehend the change. Air Canada continued to follow the apparent NCA of being businesslike and independent while the Liberals seemed to want their crown corporations to be instruments of Party priorities. The contradictions of NCAs appear to have produced much of the conflict which led to a management change.

Move 1: Identify the problematic event

In the management histories described in Chapter Six, the apparent passing over of Herb Seagram is a significant event. But, the story is not told in accounts of the Liberal Party or Federal Government of the late 1960s. The differences in the chronicling of the story position this event as problematic. The Liberal Party story of that period is the ascendancy of Trudeau-mania, the followers of the charismatic Pierre Elliott Trudeau, who became leader of the Liberal Party and Prime Minister in April 1968 (Trudeau, 1993). Central to Trudeau's election as leader and Prime Minister was his concept of a *Just Society*. The *Just Society* was to be bilingual (including French-Canadians), tolerant and participatory; protecting civil rights and promoting social justice. To enact these ideas (NCAs), the Government set about the righting of past wrongs, particularly the perceived poor treatment of French-Canadians (Stevenson, 1987).

Accounts of the Pratte appointment as a political accomplishment within the histories of the Liberal Party, Trudeau and the Government of the time, focus on his

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French-Canadian lineage (McCall-Newman, 1982). Pratte was French-Canadian; few senior managers in Government, government agencies or crown corporations were French-Canadian before Trudeau became Prime Minister. Pratte is included in the long list of appointments made by the Trudeau Liberals redressing this injustice (McCall-Newman, 1982). In the history of the Liberal Party of the period, the retrospective sense made of the appointment is that it was a positive step, demonstrating the successful balancing of the two 'founding cultures.'

Traces from the records of the Party provide alternate narratives for the story of the selection and appointment of Pratte (Axworthy, 1969a; C. Baxter, 1968; Hellyer, 1968b; O'Brien, 1969; Stoner, 1968b). It appears that the bilingualism narrative is a plausible storyline leaving out political intrigue, personal battles and the struggle for power over the direction of the airline (Executive, 1967; Hellyer, 1968a; Staff, 1968b; Stoner, 1968a). Digging into the archives of the Minister of Transport and Cabinet Conclusions of that time produce competing narratives of a Minister and a Government determined to get rid of McGregor and Seagrim; with Pratte as the benefactor (and perhaps later victim) of this desire (Hellyer, 1968a; McGregor, 1967b).

Histories of the Party and leader may omit this anti-narrative necessarily. The books are sold to both advocates and opponents of the Party but in this case; Trudeau was/is a popular man. There are more potential buyers from among his fans than his detractors. The network of publication would not look for negative aspects of the *Just Society* or the use of its slogans for political expediency. It is also possible that the

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authors did not have full access to the files related to patronage and advertising among Crown agencies; however the conflict surrounding the Winnipeg Maintenance facility was public and available to them.

Move 2: Identify the actors and corporeal actants in the networks

Key political figures of the time in Canada form the basis of this network. Some of these people were in the backrooms or the hierarchy of the Party outside of public life. Their service could be described as public but might be more aligned with the idea of keeping the Liberal Party in government. These persons and their means of interaction are the key actors and actants enrolled in the actor-network surrounding the political party. Much of their interaction was hidden from the chroniclers of the histories who wrote before Paul Hellyer's files and the Cabinet Conclusions became publicly available. Nonetheless, the contents of that information were known to the informants (i.e., the chroniclers interviewed and corresponded with to research their books). In the network of the Liberal Party surrounding the Air Canada succession decision there were strong players with vested interests in the decisions of the organization. Paul Hellyer, Minister of Transport, was a central figure. Ultimately the organization reported to parliament through him. Along the way to that reporting relationship, Hellyer networked with Prime Minister Trudeau; with Minister without Portfolio, James Richardson (an MP from Winnipeg); and with Lloyd Axworthy, his executive assistant (who later represented Winnipeg for the Trudeau Liberals). The actions of this network were contentious among Quebec Liberals (Staff, 1968a). An important issue to these actors was the relocation of the maintenance shops from Winnipeg to Montreal. For Quebec Liberals, this was a plus,

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but for Richardson and Axworthy it was a problem (Axworthy, 1969b). Loss of jobs in Winnipeg could lead to a loss of votes.

Hellyer wanted to keep the shops in Winnipeg. He had run against Trudeau for the leadership and as part of his campaign had promised to keep the jobs in Winnipeg. At one point he tried to get a commitment from Air Canada CEO McGregor and VP Seagrim so he could announce it, but they refused. This may have contributed to his desire to replace the senior management. Hellyer's choice at one point was a businessman named McIsaac from Winnipeg (Hellyer, 1968a). It appears that the Quebec members of the Liberal network stymied that move. Hellyer appears (from his correspondence) to have attempted to recruit airline executives from the United States but they seem to think that he had a viable candidate at the airline (Seagrim?). Pratte's name did not become public as a possible candidate until October 1967, only a few weeks before the appointment (Staff, 1968b).

Beyond the public network of the discussion mentioned in the previous paragraphs there was a more secretive link to the desire for change. Liberal Party insiders had developed a plan to share government advertising contracts among Quebec-based agencies (Axworthy, 1969a, 1969b). The actors in this network included Clint Drummond, Executive Assistant to the Minister of Finance; Kevin Drummond, Executive Assistant to the President of the Treasury Board; Paul Fortin, Executive Assistant to the Minister of Industry Trade and Commerce; Senator Richard Stanbury; Minister Marc Lalonde; Minister Jean Marchand; Minister Jean Pepin; Al O'Brien, National Director of

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the Liberal Federation of Canada; John Nichol, President of the Liberal Federation; and John Payne, Communications Chair of the Liberal Federation. Air Canada had been using a New York advertising firm and refused to place its million-dollar contract with the firm chosen by the group. These members of the Liberal Party (and Government) actor-network may have enrolled an understanding that involved appointing a leadership at Air Canada that would participate in the advertising program. The central corporeal actant enrolled in this network appears to be the “memo describing political distribution of advertising contracts”. Minister Hellyer donated a file to the National Archives titled, *Patronage*. This file is filled with memos among the actors that appear to inscribe the idea of employing a specific list of advertising firms (Hellyer, 1968b).

Within the Liberal Party there appears to be an extensive list of actors interested in change at Air Canada. Into that group, the election of Trudeau as leader enrolled new understandings and ideas for the future of the country and party. The concepts of the *Just Society* became powerful actants in the network. These NCAs included bilingualism, affirmative action for French-Canadians and social justice for everyone. It became important to provide a living income for all Canadians. These understandings did not interact well with Air Canada’s most powerful NCA of fiscal responsibility.

In a response to the 1968 throne speech commenting on the *Just Society*, Walter Stewart, a journalist and political commentator, wrote, “There is a woman who lives in Winnipeg, in a crumbling slum, in a house that must hide, between its dank walls, at least thirty people within five rooms. She has several children—I couldn’t make out how many

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in the hubbub – one of who (sic) is retarded, a drooling vegetable, the woman is on welfare. Her husband worked; he had quite a good job as a mechanic, but then Air Canada closed its overhaul base in Winnipeg, and he was bumped out of his position by an Air Canada mechanic with better qualifications and then because of the anti-inflation fight, jobs were hard to get...Finally the man said to hell with it, and took off. ... So the woman is on welfare...” (Stewart, 1971, p. 17). This sort of criticism of the effectiveness of the promise of social justice provoked a response against the crown corporation, which had seemingly acted so capitalistically.

NCAAs develop as a conversation among positions established by the corporeal actors and actants. But they do not exist merely in that discourse but also in context and within each actor. A relational description or depiction as identity does not adequately describe the existence of NCAAs. As they live in many places at the same time, possibly under the same name with different meanings. The positions of the various sectors of the Liberal Party enrolled several understandings that criticized the pre-Pratte management of Air Canada complicating the history’s inclusion of the hiring of French Canadians as a triumph. In the Cabinet meeting where the appointment of Pratte was approved, the Winnipeg shops, possible labour strife (strikes), organizational growth, and a need for *new blood* were given as the primary rationales for the appointment (Stoner, 1968a). These understandings appear to have reinforced one another and enrolled a primary NCA of change; change away from McGregor and Seagrim.

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Move 3: Surface the possible locations of sensemaking activities

The purpose of this move is to situate the activity that prompts sensemaking in physical locations and points in time. Much of the activity in this actor-network seems to take place in memos circulated among senior Liberals (both politicians and party officials). In the surfacing of the possible locations of the sensemaking activities, it is observed that some discussions took place in Cabinet Meetings; it is deduced that Minister without Portfolio Richardson (from Winnipeg) and Minister of Transport Hellyer may have had some ad hoc discussions about the issue. This is likely given that Richardson's office was located within the Transport Minister's offices. In addition some memos in Hellyer's files indicate that meetings with members of the Liberal Party Federation officials on the matter also occurred. Much of the material was transcribed into memos. Several memos have hand written notes on them. These artifacts provide traces of the private discussions. The public discussions around the Air Canada appointment centre on the struggles between the Government and the airline over a French-Canadian presence at the management table (Bureau, 1968). Several names were considered including Herb Seagrim, then Executive-VP; a Winnipeg businessman named R.H. McIsaac; Deputy Minister John R. Baldwin (who later became President but not CEO); and Lawyer Yves Pratte. News reports indicate that Trudeau directed Transport Minister Hellyer to pick Pratte, a choice Hellyer instructed the Board of Air Canada to make. It could well be that Trudeau's role led to the dominance of the narrative presented in the histories of Government and Party.

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The clear indication from the post-appointment issues of *Between Ourselves* and *Horizons* is that Pratte was focused on running the organization. Baldwin made speeches and wrote columns, but Pratte made decisions. Pratte was French-Canadian, and was Trudeau's suggested appointee for the job. In the examination of the *Just Society*, Pratte is a symbol of the redress of the discrimination against French-Canadians. The NCAs spawned by the *Just Society* have influenced the decision, but more centrally to this discussion, they have provided influence over the sensemaking of the choice of narratives in the histories of the party. Over time the importance of each NCA has changed as has the manner in which sensemakers interact the NCAs. Over time the person, Trudeau, appears to have become more important than his ideas.

Histories of the Liberal Party are generally celebratory of Trudeau, his accomplishments and his intellect. The concepts of appointments for patronage reasons or spiteful reasons over the unwillingness of McGregor/Seagrim to *play ball* on the Winnipeg shops would be contrary to this celebration. It appears that the understanding of Trudeau (and his era) as *just*, influences the writing (sensemaking) and limits the possible narratives to those which show the choice of Pratte in the most positive light.

Move 4: Identify sensemaking properties of the events

The previous section surfaced some relationships to the properties of sensemaking. In this section Weick's (1995) seven socio-psychological properties of sensemaking are linked to these relationships. The most central properties relevant for the surfacing of NCAs are the social and retrospective nature of the construction of the narrative. The narrative is a product of one individual but he is situated within the

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network. The network is a strong constituent of the identity of each human actor. Their enrollment in the network attaches the individual to the understandings of the network and gives power to those NCAs in their sensemaking. Each individual's identity is (in part) an expression of their dyadic relationship with each actor and actant, particularly NCAs. As their own unique understanding of memes and understanding the NCA, strongly influences the choice of narrative.

As each member of the Liberal Party network of the Trudeau era enrolled, they appear to have accepted the ideology of the *Just Society* and the positive image of Canada under the Trudeau Government. In their individual performative identity they would present the need to redress wrongs of the past and to mimic the success of Trudeau. The choice to be involved in a patronage plan around advertising may well have been made sense of in terms of the need to perpetuate the good works of the Party. In the publication, authorship and promotion of histories of the period, the network members would make prospective sense of the image produced.

It would be an anathema to the members of this network to include narratives contrary to the sense of the times (the holistic view). The controlling NCAs: *the Just Society* and; Trudeau *the good* shape the choices of traces to be followed and anti-narratives to be dismissed. The only plausible story is the story that fits with the dominant understandings, i.e., linking the change of AC's CEO to the NCA of *redress of the discrimination against French-Canadians*.

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Move 5: Identify enrollments and de-enrollments of human actors (and networks)

The election of the Liberal Party under Lester Pearson in 1963 began a series of de-enrollments and new appointments to the Board of Air Canada. This changed the relationship between the political party and Air Canada. The selection of Pierre Trudeau as leader of the Party in 1968 began a series of changes to the network of the Liberals who were interested in the management of Air Canada. These enrollments and de-enrollments played a significant role in the Liberal Party and AC through the next twenty plus years, and particularly, in the publication of histories of the period.

The most significant de-enrollment was Minister of Transport, Paul Hellyer. In the years following his defeat by Trudeau for the leadership of the Party, Hellyer left the Party, formed his own Federal Party, folded that Party, joined the Progressive Conservative Party, ran for its leadership, lost that, and left politics. Each of these steps took him further and further away from the inner circle of the Liberal Party. At the time of the decision to appoint Pratte as CEO of Air Canada and Baldwin as its President, Hellyer was central to the network - the directives went through him. It appears that he may have gone along with the Trudeau suggestion to appoint Pratte as a means to consolidate his position. When he could not convert his connections into support for a housing policy he had written, Hellyer left the Party. He was written out of the official narrative of Liberal success. As the narrative of the period was converted into history, Hellyer was on the outside.

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Other party insiders, who may have been inclined to continue the messages of C.D. Howe, also left the inner circle of the Liberal Party after the 1968 leadership race. For example, Paul Martin Sr. ran three times for the leadership of the Party. After his last loss (to Trudeau) he accepted appointment to the Canadian Senate and appears to have focused on the career of his son, Paul Martin Jr. who was successful on his second attempt to become Liberal leader and Prime Minister (McCall-Newman, 1982). In the intervening years, the Martins were on the outside of the Trudeau (and later Chretien) incarnations of the Liberal Party.

The histories of the Party and the Trudeau period were initially written during the period where the inner circle consisted of actors who accepted the NCA of the actions of Trudeau as in the best interests of the country. These actors who may have presented anti-narratives were de-enrolled and no narrative criticizing Trudeau was permitted enrollment. The treatment of the “Sky shops” scandal as peripheral to the Party and limited to Marc Lalonde (then Minister of Transport) in the histories demonstrates the *Teflon* nature of the Trudeau myth (Meisel, 2004). Lalonde, who was part of the network proposing the *patronage* advertising contracts, was not de-enrolled from the network even though he resigned as Minister. In the Prime Ministership of Paul Martin Jr., it appears that the anti-Chretien members of the inner circle permitted wider discussion of the failings of the Party, which may have led to the “Sponsorship Scandal” (McCall-Newman, 1982; Stewart, 1971; Trudeau, 1993). The “Sponsorship Scandal” involved several members of the Trudeau/Chretien Liberals (including Lalonde) in a scheme to funnel advertising and promotion contracts through a group of Quebec-based advertising

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agencies. The nuts and bolts of this scheme appear very similar to the one described in Hellyer's files for 1967-69 (Hellyer, 1968b).

It seems that Martin's network of the Liberal Party permitted anti-narratives of Liberal patronage to reach the media and they are included in more recent histories. But, the Trudeau era is still cloaked in the understandings of the *Just Society* and *Trudeau-mania*. These NCAs have been very persistent in the changing network of the Party surviving nearly complete de-enrollment of human actors.

Move 6: Identify the NCAs enrolled and de-enrolled

The enrollments and de-enrollments described in the previous section do not appear to have made significant changes in the sensemaking of authors when dealing with the Trudeau period of the history of the Liberal Party. The understandings enrolled as NCAs appear to persist and influence the choice of traces followed and chosen; however, we do see a change in message with regard to the Post-Trudeau period which appears to undermine the ongoing influence of the understanding of whatever is done is for the greater good.

In the descriptions of events in the Chretien era (1993-2003), narratives of graft and misdeeds are permitted (Clarkson, 2005; Cross & Young, 2002; Jeffrey, 2010). This is a departure from the previous period and appears to be the result of the de-enrollment of the person, Pierre Trudeau as an actor and the delegitimizing of the understandings protecting those acts as for the better good. These NCAs appear to be tied to the presence of the actor, Trudeau. The narratives surrounding similar events and producing divergent

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histories appear to demonstrate the persistence of the NCAs surrounding the Trudeau period.

A contrary ANTi-History (Durepos & Mills, 2012b) view of the difference between accounts of similar circumstances from different periods would be the discussion of persistence of accounts. In the ANTi-History works of Durepos, she has shown that accounts persist even in the face of contrary evidence. Later authors tend to rely on the histories of their predecessor authors when recounting a period already researched and described. In this way the inscription, which is a prior history, is enrolled as an actant in the network of future publications.

The persistent NCAs surrounding the Trudeau period, particularly the understandings surrounding his altruistic and heroic nature appear to suppress contrary accounts. Sensemaking of the events of the time appears controlled by the same NCAs regardless of the chronology of the retrospection.

Move 7: Identify the persistent NCAs linked to de-enrolled human actors

The Liberal Party as a network of insiders relating to Air Canada changed substantially over time, but the Liberal Party as a discussant of the appointment of Yves Pratte as CEO of Air Canada has not changed very much. The differences are very much related to retrospective and prospective sensemaking. It appears that the network has foreclosed its view of the Trudeau period. The network of that time is punctualized and an understanding of it has become an NCA in the ongoing network of the Party. Essentially speaking, the understanding of the Trudeau period has become a dominant

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NCA of the ongoing network of the Liberal Party. It persists and in its persistence the NCA is a powerful influence on the sensemaking of those events. Retrospections change in only a very limited fashion.

Relating this persistence to the individual, we plausibly conceive of the understanding as having extended from the external to the internal. The actor/sensemaker has changed; their identity now includes the idea as they understand it. The NCA has become fused with the human in a form of cyborg (Haraway, 2006). Not a fusion of a corporeal actant as in the cyborg of steel and human flesh, but a cyborg of human and NCAs, in their changed identity (Silverman, 1990).

This new identity controls our sensemaking of past events and future choices and it also influences our networking decisions. We enroll in networks of new friends who share the NCA and de-enroll from networks of old friends who don't. For the author, this identity, which constrains their narrative to those celebrating the Liberals of the late 1960s, provides for them a readership of others who share the understanding and may exclude others who don't. To the advantage of the network of the Liberal Party, some may choose to read the history because they previously enrolled in the network of this author. The understanding may be further promulgated and the NCAs may find themselves enrolled in new networks via the publication.

Summary

Understanding the nature of the network and the reasons why actors enroll is central to the following of actors within an actor-network. These reasons are a form of

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sensemaking but they are also cues to the forces of influence and power at work in a network. NCAs seem to represent ideas that work together to form the ideology aspirational to the members of the network. As actors identify with the group and become more tightly enrolled in the network, the strength of the network's influence upon them becomes stronger.

But, the actions of individuals are very personal and local. To describe any act as the product of a network ignores the choice made by the person who acted. When we look closely at choices made (as I have in this chapter) we can see the influence of specific understandings of ideas. For example, we do not see discussions of political scandals in histories when they refer to Trudeau. We could attribute this simply to a desire to portray the Liberal Party in the best light, but we do see the scandals referred to when other leaders are mentioned. Somehow this NCA became modified by a competing desire to be frank and honest. Party writings in the 1960s attribute some credit to Hellyer, but in later works he is written out. The actions of individuals in the network seem to have been influenced by the network.

In the analysis of the specific events of 1968 and the appointment of Pratte, I have surfaced a change in the network fundamental to the *Just Society* movement within the Liberal Party. This *Just Society* does not have a firm description, it is a generalization. I have compared it to an ideology, which is a collection of ideas. In such a collection there is much room for ideas to interact and take many different forms, this is central to the idea of the NCA. History seems to demonstrate that being business-like and profitable

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remained important to AC, but these ideas took a backseat to the political priorities of the Liberal Party. Even though Hellyer was responsible to Parliament for the financial health of AC, he seemed to believe he was more responsible to the Liberal Party for providing a cooperative crown corporation; one that was willing to use the correct advertising firm, keep jobs where there were Liberal Members of Parliament and promote French-Canadians (with ties to the Party).

Chapter Eight – Air Canada Employee Perspective

Introduction

The Air Canada (AC) employee perspective of the appointment of Yves Pratte as CEO and President appears to be an excellent example of the intersection of actor-network theory (ANT) and critical sensemaking (CSM). In the union histories, the events of 1968 regarding the hiring of a new CEO for AC seem to be written out. *Written out* referring to not being included (Cooke, 1999; Cooke, Mills, & Kelley, 2005; Fixico, 1996; Hartt, Helms Mills, et al., 2012). This concept of writing out was referred to in Chapter Seven when I described the *writing out* of the possible problems of Pratte as AC CEO from any accounts of the history of the Liberal Party.

One could see this writing out as motivated by the desire of the Liberal Party to project the most positive view of the Trudeau period, or possibly as simply a matter of expediency: the editors may have felt that the material did not add to the story. In the case of the Pilots' and Flight Attendants' union histories, expediency as the motivation is less plausible. As described below, Herb Seagrim (the management candidate for CEO), was a prominent pilot. He is mentioned several times in the union history and in the memoirs of a pilot, but his candidacy for the top job at AC is not. As to the Flight Attendants' history (Newby, 1986), it seems clear that the flight attendants were not happy with the pre-Pratte management of AC; this would suggest that they would laud a change in management, but they don't mention it in their histories. *Writing out* is described in the literature (generally) as motivated by political expediency, narrative preservation or fear (Cooke, 1999; Cooke et al., 2005; Fixico, 1996; Hartt, Helms Mills,

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et al., 2012). For example, fear of McCarthyist persecution could be a conceivable explanation for the writing out of the political left from management thought during the Cold War (Cooke, 1999, 2006; Cooke et al., 2005)); theory development related to the leaving of women out of management may have been due a narrow perspective of androcentric ideology (A. J. Mills & Helms Mills, 2004); or Aboriginal contributions may be written out of American histories in order to preserve the narrative of *Indians* as savages (Hutcheon, Metafiction, King, Grass, & Water, 2008). This same sort of plot analysis can contribute to the understanding of management change being written out of the employee histories.

It is conceivable that employees feared retribution from the Pratte administration if they wrote positively about Seagrim or negatively about Pratte; however this is implausible because the histories were produced after Pratte's departure and, as I have described above, management backed books that criticized Pratte. The more plausible understanding comes from a CSM analysis of unions and their purpose. A union is an actor-network consisting of workers who share a type of employment. Union histories tend to be written by union insiders and it is assumed that these insiders identified strongly with union ideas. I would argue that these ideas as non-corporeal actants (NCAs) contribute strongly to the persistence of the union and the nature of the narratives chosen for the histories.

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Traces

Specific to this chapter were searches of the records of the unions. This was done in person at the Aviation and Space Museum in Ottawa, Ontario and online through exhaustive searches of related topics as well as union and successor union websites. The Internet was also searched for employee memoirs and other traces of the period. These sources were documented and accumulated.

In the AC unions case it appears that the history is intended to reproduce the anti-management relationship and portray management as a monolith or unitary object. Line employees are embroiled in an ongoing story of labour struggle (Brett, 1980). Any narrative supporting a management figure would be in opposition to this concept. The struggle of labour against management appears to be a strong NCA in these actor-networks. The influence of that NCA over the sensemaking of the authors of the histories is surfaced in the empirical material.

The Narrative of Air Canada Employees

In Chapters Six and Seven, I described the NCAs in the actor-networks associated with the management of AC and the Liberal Party (then Government of Canada) and how those themes and discussions contribute to understandings of the non-corporeal actant (NCA). The management perspective might suggest that the employees of the firm supported Herb Seagrim, a pilot and Executive VP of Air Canada in 1968, and would be very upset with him being passed over for CEO. On the contrary view, we have the governing Liberal Party network whose narratives include a belief that there was labour

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unrest at AC, which might lead one to expect that the employees would be happy with a change of leadership from the traditional pool of leaders (pilots). However, two histories written about the airline and the unions of the most prominent employee groups (pilots and flight attendants) make no mention of the appointment of Pratte or the non-appointment of Seagrim, nor do they mention the departure of Gordon McGregor, who had been president of the airline for 20 years. The appointment is also written out of the published memoirs of a long time AC pilot, (Lothian, 1979).

But, Seagrim is mentioned several times in the history of the pilots' union. He was present at the first annual general meeting in 1938 (F.E.W. Smith, 1970, p. 2). In the various histories, Seagrim's role as an important pilot is taken up. He is mentioned as one of the airline's first hires (Collins, 1978). The pilot memoirs set out several stories about Seagrim, including a 1954 anecdote with Seagrim taking Howard Hughes for a test flight of a new Viscount airplane, which TCA had purchased and TWA was considering (Lothian, 1979, p. 148). Other stories in the various pilot histories recount Seagrim's importance as a pilot and his rise into management but not his demotion or leaving the crown corporation.

The corporate histories rely on employees for their anecdotes and data traces. One could infer that the narratives in those histories suggesting that the staff liked Seagrim and were unhappy with the prospect of a choice other than him in 1968 are a reflection of the employee story. But, these histories appear to rely primarily on senior staff and possibly Seagrim himself for much of their material (he is mentioned as a

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source). The union histories and pilot memoirs are more independent histories of the organization from the standpoint of the employee.

Both union histories include a discussion of labour unrest in the period 1960-1980 (Newby, 1986; F.E.W. Smith, 1970). Flight attendants were required to retire at an early age until the mid-1970s and the union history specifically mentions this occurring in 1968 when Flight Attendant Flo Perkins turned 50 (Newby, 1986, p. 60). The mandatory retirement age increased to 60 in 1971. Management is described as out of touch with the *modern woman* in stories such as the proposal to assign a flight attendant to dance with the passengers in the upper deck lounge of 747s. Yet, from reading their histories, the flight attendants do not appear to have observed significant change at the time the *Just Society* enrolled in the Air Canada actor-network.

The labour unrest continued. There were strikes and barely avoided strikes in the Pratte era. The management shake-up brought about by Pratte's hiring of world renowned management consultants, McKinsey and Company is also not mentioned in the memoirs of the unions or of the individual pilot, Lothian. It appears when reading these books in full that management was and is viewed as an entity (punctualized actant). The individual managers are transient, but their roles (and characters) are permanent. From the perspective of the employees, management does not change and Government is separate from management. Government is mentioned periodically as intervening in labour disputes, but not as the *owner* of the airline.

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Move 1: Identify the problematic event

The lack of an account of the management changeover in the three employee-focused accounts of the airline history qualifies this as a problematic event. The event is a key feature of the management histories described in Chapter Six and is mentioned in the Liberal Party histories as described in Chapter Seven but seems to have been written out of the employee histories. The memoirs written by the pilot Lothian provide a striking example of the story of the early 1960s: a story is reproduced involving Executive VP Herb Seagrim participating in a flight school and remarking on his retained pilot skills even though he is “McGregor’s right hand man” (Lothian, 1979, pp. 159-160). Lothian left AC in 1968 but made no mention of the concurrence of his departure date with Seagrim being passed over as CEO. It seems Seagrim (for Lothian) was a character whose importance was only noticed when in direct contact.

The pilots’ union history was published in 1970, but focuses primarily on events up to 1967; only significant events after 1967 are mentioned in the final two chapters of the book. Seagrim is mentioned as a pilot and his involvement in the union is discussed but only as a member. Individual executives from AC are rarely mentioned and only in relation to a pilot event, such as an air crash or labour dispute. Discontent with management in 1966 is mentioned and McGregor, then CEO, is named (F. E. W. Smith, 1970, p. 176). This makes the omission of the significant management change more curious.

In the history of the flight attendants’ union there are occasional references to specific leaders of the various airlines for which the members were employed, but in

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general the management of AC is described as a monolith. The references to the airline use the acronym TCA or name AC as opposed to the specific naming the Industrial Relations Manager at CPR Air when referring to a dispute with that airline (Newby, 1986, p. 38). It appears that AC is so large from the perspective of the union that individuals are not differentiated. The narratives of the history tend to focus on three themes, misogyny, safety and expansion of the union (Sabia, 2006). The role of management in these themes is as oppressors of women and opponents of union expansion. The role of management in the struggle for increased safety is mixed: cost control is seen as negative toward safety but everyone is described as safety conscious.

As management at AC has an important role in both the union histories and a significant role in the pilot's memoirs, it is odd that significant change in management is not included in the narratives chosen for the histories. It is not clear that the story is written out, but there is reason to consider this plausible.

Move 2: Identify the actors and corporeal actants in the networks

The two union histories are written by employees of the unions. The author of the flight attendants' union history was hired as a researcher for the union directly from graduate school. Her work on the history was an extension of her research and published fourteen years after her initial hiring (Newby, 1986). The pilots' union history was written by the longtime editor of the union newsletter, *The Pilot*, with the assistance of one of the union's first employees. In both cases, one would describe the authors as insiders writing from the perspective of the central network of the organization. Traces from *The Pilot* were available for review for this analysis, but the Flight Attendants'

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Union has since merged into CUPE and I was not able to find many union publications specific to flight attendants.

In the foreword to George Lothian's memoirs J.L. Rood, former director of AC Flight Operations, talks about Lothian as setting out to describe the development of "one of the world's great airlines from the personal viewpoint of one who contributed much to its development..." (Lothian, 1979, p. IX). The book's acknowledgements include other pilots, AC public relations and historical services senior staff, and the editor of *Canadian Aviation*, an industry periodical. This book appears to benefit from archival material, but is primarily the tales of a pilot hung on a framework of traces from the official archives of the organization.

In the identification of the human actors in the networks of publication of the two union histories we have located the presidents and other officers of the unions. The publication is funded by the union and therefore has to serve the union's purpose. As a general narrative rule, union histories deal with the struggle of oppressed workers to organize and obtain power in the face of management opposition (Brett, 1980; Ponak & Thompson, 2001). In some cases (Canadian Airlines in particular) the faces of the management ogres are important to the story; but when the story is about AC, management is cast as a faceless machine. It is plausible that inclusion of the story of management change might cast the Government in a heroic role. However, government is cast in these stories as an oppressor along with the employer, so the inclusion of the story may have been contrary to the NCA - The employer is the enemy. The concept of

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AC as a unitary enemy of the union is enrolled as a strong NCA in the networks of publication of both union histories.

In the pilot's memoirs, the organization is celebrated. As pilots seem to be valued above other employees in the firm, it does appear logical that a pilot would be happy with his position. In the Lothian book, there are no negative narratives about TCA/AC. Company decisions are merely described as facts, not issues. The inclusion of a narrative of a bad decision made by the board may have run contrary to the role of the organization in the story. The involvement of senior managers from the Public Relations Department and the Manager of Historical Services in the research of the book may also contribute to the leaving out of the changeover. The book describes the organization as a successful, efficient actor. This understanding of AC as an NCA in the network of publication of the memoir would be restrictive of any negative narrative.

Move 3: Surface the possible locations of sensemaking activities

When events are not mentioned, location becomes a matter of inference. To locate the sensemaking for this chapter, it appears necessary to attempt to find the times and places where the chroniclers would have been faced with the choice to include or not include the story of Pratte's appointment or Seagrim's non-appointment or perhaps Seagrim's retirement but chose not to write about the events. In the absence of a narrative of the specific events the alternative is a presence. The alternate history would include a story of the events of the management change in 1968. In the discussion of this anti-narrative we consider the traces employed by the authors of the histories and particularly

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those traces related to the other narratives included in the story. By surfacing the network of traces employed and following them we may locate the sensemaking that occurred in the authorship process.

Lothian uses the AC Historian (a specific job at the time) and Public Relations Department as resources in the creation of his history. These groups are also involved in the publication and preservation of the AC employee newsletters *Between Ourselves* and *Horizons*. These newsletters contain several stories about the changeover. For example, in early 1969 there are many articles about what great men Pratte and Baldwin are and the great plans they have for AC (Romaine & Hazlitt, 1969). During the research of Lothian's book, the general tone of AC publications was positive about Pratte. But, that message began to change in the period after Pratte's resignation in 1975. It is plausible that the narrative about Pratte was changing and may have been left out to avoid controversy.

In the period prior to the 1970 publication of the pilots' union history, the stories in the company newsletters are generally positive about Pratte and the change. The pilots' union members and the network of publication of Smith's history of the pilots union would be aware of these publications but they would also source their own newsletter, *The Canadian Air Line Pilot*, (later *The Pilot*), which did not appear quite so complimentary. The pilots' newsletter generally discussed safety issues, hijacking as a big concern in this time period, but also occasional comments on management. Particularly in the winter of 1968/69, an article attributed to the nom de plume, Sardonyx,

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(referring to the company's planning process) implied a significant disdain for the President and management team chosen. It noted that after "intense deliberation" the Senior VP, Sales was proposing "a year with twelve months in it, much like the one we had in 1963" (Sardonyx, 1969, p. 42). It was noted that the plan was subject to amendment and that on the question of what day of the week the year would start on the engineering department was "adopting a wait-and-see attitude". The President of AC was mentioned as closing the ceremonies around the presentation of the plan. In the context of a history that notes Seagrim as an early member of the union, it seems plausible that this feeling toward AC management would make it into the history.

The flight attendants' history seems to list more favourable relations with management after the changeover than before. Rules on retirement age were liberalized; some issues on attire were resolved in favour of the union members; and wages increased. It would seem plausible that the inclusion of a significant shift in management attitude would have made it into the story. However, labour disputes and the struggles with management continued. It is also plausible that the unions identified with an anti-narrative of *no real improvement even though Government tossed out the misogynist pilots from the control of the company*. For examples of pilots' attitude toward flight attendants at the time, one needs only to review the cartoons in *The Canadian Air Line Pilot*, which demonstrated a sexualized perspective.

Move 4: Identify sensemaking properties of the events

In Move 4 we are discussing three events; three separate choices by authors to write out the changeover in management in 1968 as a narrative of the history of a

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relationship with AC. In the previous move we discussed how the inclusion of a story of the management changeover is plausibly a significant aspect of the history of the period. As each history is written in a chronological form it is noticeable that the event is left out of the discussion of the late 1960s. Each decision involves different networks of publication, there are some common elements and in the cases of the pilots' union history and Lothian's pilot memoirs, some common human actors. Inscriptions and traces sourced in the writing of the three histories would include the newsletters of AC and so some common actants are present in the networks of publication.

The similarity between the two union networks relies more prominently on the NCAs related to the struggles between union and management; both unions saw AC as the enemy, a unitary opponent to the wishes of the union and its membership. This is evident even though it seems clear that pilots at the time had a sexual view of flight attendants (in general) and flight attendants had a tensioned view of pilots – admiration and fear (of sexual harassment). This NCA of management oppression would form part of the identity of the publication and its author in the dyad of author/book; actor/actant. The identity of the story requires the inclusion of the message of union/management conflict influenced by the strong NCAs of unionism and solidarity. It would be difficult for a union publication author to make sense of a narrative that reflected positively on some managers (McGregor and Seagrim) or a specific period of management. There is likely less cognitive dissonance toward the choice of ignoring the change among the network of flight attendants because, at the time, there was the sex separation with the profession of pilot (shared by Seagrim and McGregor). In the production of the pilots'

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union history, the sensemaking would be more challenging but the NCA enrolled in the union network (management is the enemy, we must never say anything good about management) appears to be a powerful influence in the sensemaking.

In the Lothian memoirs, a different narrative appears to influence the retrospection of the events. AC is a hero in this story, allowing the pilot to be even more heroic. The celebration of the organization is an important narrative in the history. A narrative of poor choices made by the AC Board and bad management by Pratte would run contrary to the celebratory narrative. The ideas of AC as a well-run, excellent company appear to be enrolled in the network of publication of this book. The concept of *AC the good* appears to act as a powerful NCA in this network prohibiting the inclusion of any narrative contrary to this understanding. In the sensemaking of the author, the NCA becomes an important aspect of the identity of the memoir. Events are framed in this context while those which cannot be fit into the frame are not reproduced.

Move 5: Identify enrollments and de-enrollments of human actors (and networks)

Although there are enrollments and de-enrollments of human actors and corporeal actants in the networks surrounding the production of these histories, in general they do not appear to change the network. The persistence of the NCA of distrust of management, and preservation of the messages surrounding the anti-management ideology, seem to maintain the nature of the networks regardless of the comings and goings of human actors. In the networks of union members it appears that the people and things are less relevant than the NCAs. Meanings around such concepts as solidarity or

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employment condition progress change but those changes seem to be the result of interaction with context rather than personnel or equipment changes.

It should be noted that the Flight Attendants' Union merged into the Canadian Union of Public Employees (CUPE) in 1987. This could be an indicator that unionism as an identity became more important than identity with the airline or the occupation. In the case of the pilots' union history it is conceivable that the de-enrollment of McGregor and Seagrim from the firm and the enrollment of Pratte and Baldwin occurred during the time of writing and the interaction among the network and these men may have impacted the choices of traces to include; but it was difficult to surface this effect. It is more likely that these human changes to the membership of the network had little impact.

The central understanding of the unions – in battle with management continued to be enrolled as an NCA. The concept of the company as a hero, continued as an NCA in the network of publication of the pilot's memoir. These NCAs appear to be stronger than any corporeal actant. This appears to be a good illustration of the role of the NCA in the persistence of a network.

Move 6: Identify the NCAs enrolled and de-enrolled.

It appears that in these three networks of publication there were few significant de-enrollments of human actors during the period of publication. Any change in human actors or corporeal actants was overwhelmed by the power and influence of the NCAs. This resulted in little change to the retrospection of the events in the publication period. It is possible to consider the strengthened enrollment of the NCA of a unitary AC as the

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enemy as changing the narrative of AC managers as newly incompetent described in the Sardonyx article to a retrospection of a unitary AC which was managed poorly.

Move 7: Identify the persistent NCAs linked to de-enrolled human actors

The analysis did not surface a new network in any of the cases. However, it is plausible to surface a stronger union network more committed to the NCAs related to union solidarity and anti-management. In this consideration, the network may prospectively sensemake in a more militant anti-AC perspective going forward from the publication of the histories. In other words, in the future the author would have expected the union members to become even more anti-management. Any further retrospection on 1968 would be even less likely to produce a narrative suggesting that the change of CEO was a good move.

The most significant de-enrollments appear to have occurred in the identities of the authors via their interaction with the NCAs of unionism. The Sardonyx article, among other traces, appears to demonstrate some feeling toward the new directions AC was taking in the Pratte period, but these feelings were written out of the histories. The strength of the anti-management NCAs and the importance of portraying AC as an unchanging monolith overrode any possible discussion of personnel or personnel changes at AC.

Summary

In this chapter I have discussed the role of NCAs in the sensemaking of authors when they write out events from history. There appear to be many traces in the various

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archives that would suggest that a change in leadership of the crown corporation would be momentous to pilots or flight attendants (or any other employees). Yet, in the published histories from these perspectives there is no mention of the appointment of Pratte.

The only traces available from the employees at the time of the appointment appear to indicate some displeasure with the new directions Pratte was taking the company. There are also plenty of traces indicating that the flight attendants were not happy with the way the McGregor/Seagrim managers treated them or viewed their position in the organization. These two apparent perspectives at the time of the events appear to be quite strong, but they do not seem strong enough to override the dominant NCAs, which are thematic to the histories.

Lothian, a pilot writing his memoirs, is writing a heroic first person story. He builds a case for his own role in history and key to that role is the strength of the airline he helped to build – Air Canada. He does not appear to be able to besmirch that image by recounting a negative narrative. The change from a pilot (hero) leader to an outsider would have been (I believe) a negative narrative. Lothian is looking for other pilots and AC insiders to read (and buy) his book, in his sensemaking of the story, the NCA of AC as a successful firm is too strong an influence for him to write anything negative.

In both the union histories there is a strong voice for unionism. As an ideology, unionism includes a collective of ideas such as solidarity among members, pride of union work and militancy toward management (Ponak & Thompson, 2001; Shalla, 1993;

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Thompson & Ponak, 1984)). Seagrim had been a founding member of the pilots' union and continued to be a pilot while in management, but as a manager he became part of the enemy. Even though the union history for the pilots mentioned Seagrim in the early years, they did not mention his leaving. In several passages the pilots' union history seems to celebrate the rise of one of their own, Seagrim, to high office in the firm but they did not laud any specific managerial actions. And, when Pratte was chosen as CEO over Seagrim, it was not a matter worthy of inclusion in the history. The pilots' newsletter at the time seemed to criticize the new management with negative comparisons (which were not present before the CEO change) but the event was written out of the union history. It appears that the story of pilots' struggle against management is the stronger NCA, no matter how unhappy pilots were with the appointment of Pratte's team.

The flight attendants did not like the management at AC in the early 1960s. They were unhappy with the sexualized roles and uniforms. They were unhappy with the wages and benefits and such employment restrictions as marital status and age. Many of these problems were improved after the enrollment of NCAs of the *Just Society* into the management of AC. But, the history of the flight attendants identified no differentiation in the attitude of management towards flight attendants. In those stories, AC continued to be a monolith trying to hold these women back. The changes were described as successes in the struggle against management. Like the pilots' union, the flight attendants union in the creation of its history does not seem to want to distract from the narrative of anti-management struggle. It seems that an un-acceptable discourse would

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be to describe people in the AC management as that would humanize the foe and therefore lessen the power of the NCAs related to solidarity in struggle against an oppressor. Therefore, the story of the Government intervention in management was written out. The histories include stories of Government interventions in negotiations, but those stories were used to reinforce the narrative of management as the enemy.

It seems clear from this analysis that NCAs are as important in the sensemaking of writing out as they are in the sensemaking of inclusions in the creation of a history. Some traces make it into the story and some do not. Ideas as actants in the network of authorship and publication play a strong role in the choices of individuals as authors. It seems that the agency of these NCAs is plausibly confirmed.

Chapter Nine – Conclusions

Introduction

In this thesis, within the empirical study of Air Canada, I have tried to bring together the disparate worlds of actor-network theory (ANT) (Callon, 1999; Czarniawska & Hernes, 2005; Latour, 2005b; Law & Hassard, 2005; Venturini, 2010) and critical sensemaking (CSM) (Helms Mills et al., 2010). This has been a large task rendered possible by devising seven moves interrelating ideas from these two approaches to qualitative analysis. The seven moves were theoretically produced from the intersection of ANT and CSM resulting in the postulation of the non-corporeal actant (NCA). This analysis would have been improbable without adopting a post-ANT approach informed by ANTi-History (Durepos & Mills, 2012b).

Conceptually I pursued a thought experiment based on my dissatisfaction with the explanations of effects found in empirical work using either ANT or CSM. The thought experiment resulted in a possible interaction of the two as depicted in Figure 5 (below). I considered the possibility that actors and actants in a network accepted ideas, beliefs, values and concepts as important aspects of their coming together. In ANT this is described as part of relationism (how actors relate) and described through discourse; however, I felt that the role of these ideas was stronger than merely glue between and among actors. I felt that these ideas were driving the network to action, causing enrollment and de-enrollment and were key to network mobilization. This led me to elevate the status of these ideas to actants – without bodies (non-corporeal actants or NCAs).

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By drawing on meme theory I began to explore the interaction among these ideas, beliefs, values and concepts within and without the network. Clearly ideas change the understanding of other ideas; this change may be produced internally within a sensemaker, in the relations of the network or in the context. This location of change is not always clear. Ultimately, the understanding of the ideas by each individual sensemaker is unique. But, that understanding is also in flux. This lack of a clear consistent meaning of any idea, value, belief or concept was one of the primary reasons that led me to label them non-corporeal (without body). As shown in Figure 5, the thought experiment produced a concept of the NCAs from the network being taken in by a sensemaker who acts on a unique understanding of the interaction of these NCAs at a specific point in time.

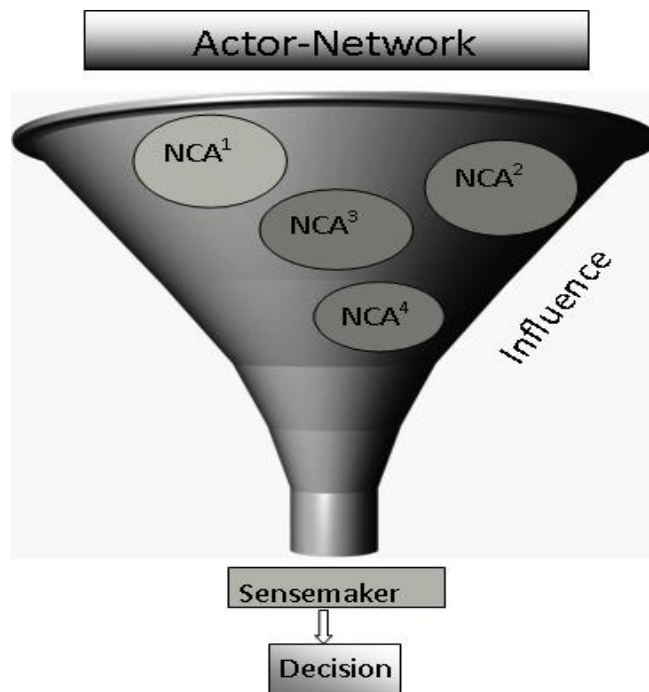


Figure 5 - Making Sense in the Network

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The second compelling aspect of the power of ideas, values, beliefs and concepts that led me to label them NCAs was their persistence. NCAs seem to remain (sometimes dormant) in the network even though the people who supported them have left, the inscriptions which established them as actants have been repealed, lost or even burned. In the network of management staff at Air Canada nearly all of those who had worked under and followed the instruction of C.D. Howe left upon the appointment of Pratte, yet a few years later, the NCAs related to Howe's direction on the need to be businesslike resurfaced as more important than the instructions of the Government of the day.

The inkling of this idea existed prior to the commencement of the work on Air Canada but was concretized through the empirical work. As I examined an event along the historical path that took Air Canada from formative idea of the Canadian Liberal Government of the 1930s, through establishment of the crown corporation and on into private enterprise, I began to see how NCAs formed and spread, spawning variations and new understandings. As I studied the appointment of Yves Pratte to the role of CEO in 1968, in the place of the choice of the AC Board of Directors – Herb Seagram – I recognized that a major unenrollment and replacement of the human actors did not result in the apparent desired change in enactment/action. The new actors did take on some of the NCAs introduced by government but they retained key elements of the purged actors and discredited inscriptions. It seemed clear that the ideas had persisted even when there was no physical location available to them.

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While the significant events took place in 1968, they are framed by events in earlier years and carry forward into the future. The archival data of Air Canada, the Federal Government and several airline unions, provided a chance to discover multiple interpretations of the events. These alternate narratives were generated by investigating several histories and available traces some of which were likely not available to the chroniclers who wrote the books. The empirical work led to further refinement of the ideas and illumination of the contributions of this thesis.

Contributions

Theoretical and methodological contributions include:

1. The bringing together of the two literatures (ANT and CMS) to demonstrate how the black boxes of each may be illuminated by the other.
2. The non-corporeal actant (NCA). This is the key aspect of the thesis. It challenges us to think more critically about the role of ideas, beliefs and values in the formation and character of networks and also the processes of making sense of things.
3. The plausible contention that all ideas, beliefs, values, and concepts are potential NCAs.
4. The seven moves as a methodological strategy for pursuing how decisions are made and ultimately for surfacing the idea of NCAs.
5. A focus on histories and the political character of history production. The empirical work following the use of the seven moves shows how histories are

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politically produced.

6. A demonstration that the networked processes that history (as knowledge) goes through in its production are both a process of retrospective sensemaking (on the events) and prospective sensemaking (on the acceptance of the final product).
7. The focus on three networks – managers, employees and government – and ANT clamping three networks in interaction. This demonstrates that the ANT concept of a punctualized network produced an interactive effect which further complicates the analysis and requires very close inspection and perhaps unique clamps.
8. The focus on a single event from multiple perspectives as a methodological strategy. In the empirical work I have demonstrated that multiple histories are produced from the same event. These histories can co-exist without controversy as long as the actor-networks surrounding the histories are generally separate.

In addition to the theoretical and methodological contributions, empirical steps forward in the history of Air Canada and possibly other Canadian crown corporations have been made:

1. The demonstration of three very different views of the period in the time at Air Canada produces an understanding of the contestation of the period.
2. The unions and employees appear to have perceived this period as a time of antagonism with the airline; a period where the nature of the management and operation of the airline did not change. This is in stark contrast to the

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Government history which appeared to view the time as a great success in social progress. Meanwhile, management saw it as an economic disaster. These three views are very difficult to resolve.

3. In the story of crown corporations, the narrative is usually of independence with rare intervention by government. The story of Air Canada, as revealed in the empirical work, demonstrated almost constant Government involvement in the operation of the airline.
4. A significant difference between the union attitude toward Air Canada and their attitude toward Canadian Airlines is found in the history of the flight attendants' union. The story named the key people at Canadian Airlines, but treated Air Canada management as a monolithic enemy.
5. The pilots' union newsletter showed disdain for the managers of the Pratte period through the publication of the Sardonyx piece. Yet, even though Herb Seagrim was a founding member of the union, the appointment of an outsider over him was not mentioned in the history

Discussion of the Theoretical and Methodological Contributions

1. Bringing together of ANT and CMS

A purpose of this dissertation is to investigate the local effect of the network as expressed in an individual's choices for inclusion in a history. This was approached by the bringing together of the two literatures (ANT and CMS) to demonstrate how the black boxes of each may be illuminated by the other. The local choice is postulated as an expression of sensemaking; sensemaking influenced by power. As discussed, this falls

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into the realm of CSM. The sources of power examined are the networks in which the chronicler is enrolled, particularly the network surrounding the publication of the history. This publication has been described as a product of ANT (Durepos & Mills, 2012); therefore the use of ANT concepts has been informed by Durepos' work (ANTI-History).

2. The non-corporeal actant

At the intersection, between the network and the individual, it is necessary to explore both the workings of the network and the internalization of the individual. The key question for examination is the interaction between the network and the individual when the chronicler is alone, writing the history. ANT demonstrates a plausible link between the network and the account; CSM exposes the role of power in the choice of account. I have sought to discover the linking source of power. This led to the proposal of the non-corporeal actant. This is the key aspect of the thesis. It challenges us to think more critically about the role of ideas, beliefs and values in the formation and character of networks and also the processes of making sense of things.

Each NCA is understood differently by each actor and situationally in context with other actors and actants (including other NCAs). It is this ephemeral, changing nature which renders the NCA without body. The NCA is different for each actor; any inscription is merely the chronicler's expression of a malleable idea. When I situate the NCA in the gap between the network and the individual I begin to form a plausible understanding of the interaction between the network and personal decision-making. CSM presents power as controlling the choices and decisions of individuals, but power is not solely coercive. Individuals make choices due to systemic and localized interactions,

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which are neither due to hierarchical authority or inscribed policies or rules. Choices are affected by the social.

3. All ideas, beliefs, values, and concepts as potential NCAs

Social power that is the product of the network and every actor and actant in the network determines which of the potential NCAs become active. Each active NCA expresses an idea as formed by the nature of the network and its values, norms and initiatives. Each member of the network conforms to those NCAs and expresses them in their actions, choices and behaviors. Beyond the prospective influence of the NCA in the choices made, the NCA also interacts with retrospective sensemaking. The individual retells the story of the events in a manner that conforms to their changing understanding of the NCA. A sensemaker chooses the NCAs which are relevant to the decision at hand. The interaction of the active NCAs produces a unique influence and prospective sense of the outcome of his choice.

4. The seven moves as a methodological strategy

It is very difficult to tease the NCAs out of the relationism in ANT or the concept of the social in CSM. In this thesis a means of surfacing the NCAs was outlined. In Chapter Four, the seven moves were described as a methodological strategy for pursuing how decisions are made and ultimately for surfacing the idea of NCAs. This concept is a process, requiring many hermeneutic circles and repeated looping of activity. The numbering of the moves implies a linearity which just is not possible. As seen in the empirical work, some moves are repeated, some must be returned to after new discoveries, and in some circumstances a move may not be possible. The deconstruction

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of this process demonstrates that it must be a conversation a researcher has with him or herself.

5. Focus on histories and political character of history production

History writing is retrospection writ large. As such, the choices of a chronicler are retrospective sensemaking in the telling of the story and the formation of the narrative. In this thesis I have shown how we must focus on histories and the political character of history production. The empirical work following the use of the seven moves shows how histories are politically produced. The collective NCAs of the actor-network provide the formative context of the history. The NCAs have power over the network of publication. As a chronicler, the historian (a writer of history) is influenced and controlled by these NCAs.

6. Network of publication - retrospective and prospective sensemaking

In the expression of networks through history it is suggested in this thesis that the network of publication would be the strongest source of NCAs. The network of publication surrounds the chronicler. It includes those who provide the chronicler with the stories that serve as the foundation to the history (informants); those who fund, edit, and produce the physical inscription (the book); those who may buy the book; and more directly, those who publicize, review and promote the book to those who may purchase. This is a demonstration of a networked processes of history (as knowledge) goes through. It is produced as both a process of retrospective sensemaking (on the events) and prospective sensemaking (on the acceptance of the final product).

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Historians participate in more than one network when they write a history. In addition to the network of publication, they participate in the network of *legitimate history* (White, 1988). It is the conjunction of these two networks that produces the social of ANT. The inscriber of the history of an organization participates in a network of historians and a network of those sources of information (informants) from within the organization. The network of informants includes the actors and inscriptions of the past, and the NCAs accepted by those actors and enrolled in the network. In order to source data for their history, the chroniclers must participate in this network and, as such, will be enrolled into an actor-network that includes the NCAs of the group. In order to have their work accepted as history, the chroniclers must also participate in a network of historians, which enrolls NCAs related to form and content of *legitimate history*. In the development of the theory of ANTi-History, Durepos and Mills provided a plausible understanding of the role of narrative forms and acceptable traces which constrain the choices of the chronicler (Durepos & Mills, 2009, 2012b).

Publication is constrained by understandings of demand and marketability, which act as NCAs in the network of any publication. The network of publication (those involved in the research, printing and marketing of the history) produces a collection of accepted norms. These norms include both the network of informant's NCAs and those of the network of historians. A history that does not follow accepted form and style will be decried by historians and likely be unsuccessful. Similarly, the primary market for the history of an organization is the stakeholders of that organization. If their understanding of the NCAs of the organization is not portrayed in the publication, they are unlikely to

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accept it as legitimate or accurate. The informants serve as proxies for the stakeholders in the research of the history. Therefore, the history must plausibly reflect their understanding of the events as constrained by their sensemaking within the network. The book won't sell unless both networks are satisfied that it is legitimate and, while sales are not usually the only objective of publication, sales are one means of demonstrating legitimacy.

7. Clamping three networks in interaction

Much of these insights in this work were made possible through the focus on three networks: managers, employees and government. Employing an ANT technique in a unique manner by clamping three networks in interaction demonstrates that the ANT concept of a punctualized actant. The three examined networks appeared to be punctualized actors in each of the other networks, sharing members, including a few NCAs. For example, all three wanted Air Canada to continue. But in the work very different NCAs in each network also were surfaced. This achievement might not have been possible without using three separate, yet related, networks. Each is part of an organization as well as part of a shared organization, but the members of each network demonstrate enrollment through actions which disclose their acceptance of the NCAs unique to that network.

8. Focus on one event from three perspectives as methodological strategy

The empirical aspect of my thesis takes a "three perspective approach". I have demonstrated that differing perspectives produced multiple histories from the same event. By employing this methodological strategy I produce something akin, but nearly opposite

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in effect, to the positivist use of triangulation. In many ways this surfaces the strength of qualitative method. In this work I have used the method to demonstrate the importance of NCAs. This concept (NCA) could be employed in other forms of research. And, this strategy could be used in other types of qualitative work. The effort to demonstrate difference is complex and nuanced. The multiple perspective approach appears to have surfaced difference in the empirical analysis. If (as shown) histories can co-exist without controversy as long as the actor-networks surrounding the histories are generally separate, a researcher employing different methodological techniques could demonstrate difference by taking this three perspective approach.

Contributions from the Empirical Studies of Air Canada

1. Understanding a period at Air Canada through three views

The context surrounding the operation of Air Canada (AC) appears to contain sub-nets; multiple actor-networks, which punctualize in the occurrence as unitary actors but perform as actor-networks in other activities surrounding the event. The demonstration of three very different views of the period in the time at Air Canada produces an understanding of the contestation of the period. From the perspective of the network, where individuals fill the role of representative, their word is the word of the punctualized network.

It is clear from the archival materials of Minister Hellyer that his actions as the representative of the network of the Government were guided by his sensemaking of the choices. That sensemaking appears to have been influenced by the NCAs of the networks

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in which he participated. Key networks influencing Hellyer at the time of the choice were the Liberal Party of Canada and the Government of Pierre Trudeau. The management of AC and the employees of AC have different perspectives and priorities from that of the network of the Government. In both their prospective and retrospective sensemaking of the decision, these sub-nets reflect their separateness and different NCAs.

The management as represented by the Board of Directors selected a successor to McGregor as CEO of AC, years before the events in 1968. They based their decision on an NCA taken from what they believed the Government's priorities for the firm were and a series of NCAs they had enrolled as the values of the firm. The firm was a product of the Liberal Party as Government of Canada in 1937. Over the time from 1937 to 1968, the Liberal Party, the Government and the opposition party (who for a period in the early 1960s formed the Government) produced surrounding understandings that became crystallized as NCAs within the firm. C.D. Howe's direction that Air Canada should keep their hands out of the pocket of the Government (McGregor, 1980), became the genesis of NCAs of *effective business practice* and *independence* within the firm. The network of the management of the airline was produced by the network of the Government, but it no longer consisted of NCAs congruent with those of the Government.

2. Unions and employees Pratte period as time of antagonism with AC

The employee network at the time of the occurrence was very complex. Several unions were representing different groups within the employee populations and each of these groups was heterogeneous on the basis of different experience. Once again the

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groups were punctualized by their leadership, the inscriptions of the time and subsequent inscriptions, histories, memoirs, websites, and accounts.

The common idea of *air service to Canadians* became different in its form as an NCA in each network. The expression of that understanding as a power factor in the sensemaking of individuals was significantly different depending on which network they were part of and their identity within that network. In the same way, the identity of the individuals is shaped by their participation in groups and organizations (Helms Mills et al., 2010), the identity and expression of the meaning of an NCA is shaped by the other enrolled understandings, actors and actants in each of the networks it inhabits.

The unions celebrated their service to customers of Air Canada but did not appear to give similar value to the work of management. Even when a manager was from the ranks of the union he or she was considered an outsider – even an enemy. An interesting aspect of the Seagrim story is his presence as a pilot hero, but his facelessness as a manager in the negotiation with the union.

3. High government involvement demonstrated in Air Canada operations

Canada currently has many crown corporations and has had many others in the past. Other countries also use this form of “arms-length” management of government-controlled operations. The empirical research in this thesis points to a need for more work on the manner of decision making and government influence in these other government-controlled organizations. Government has promoted crown corporations as independent and separate. In many cases they are not (or have not been) subject to the

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same level of scrutiny as government departments by entities such as the Auditor General. Government has tried to describe crown corporations as separate, but it appears in the empirical material, that inside the Government (and their political party) the crown corporations are not so separate. The memos related to the Air Canada advertising contracts demonstrate this proposition. Perhaps it is this government interference that led the unions of the time to view crown entities differently from private corporations.

4. Union attitudes toward Air Canada and Canadian Airlines differ

As mentioned at the conclusion of the previous point, the unions seemed to treat Air Canada differently from the other airlines (non-government controlled). The flight attendants' history in particular, named the persons they negotiated with at Canadian Airlines, WardAir, and other private companies, but did not name anyone from Air Canada. This indicates a different view of crown corporations by unions as compared to a private organization. It is unclear as to whether this was produced by the actions of the union officers or the managers of the crown corporation. This narrative continues to be played out in 2013 with significant union unrest at Air Canada, coupled with government intervention in labour disputes, even though Air Canada is now a private company.

5. Pilots showed disdain for the managers of the Pratte period

Managers frequently come from within the ranks of workers in organizations. Herb Seagrim was a pilot. He figured heroically in the memoirs of a pilot and was a remarked upon figure in the history of the pilots' union. Yet the appointment of a non-pilot to the position of CEO, when it had been expected that Seagrim would get the job, did not warrant mention. The publication of the Sardonyx piece showed a distinct lack of

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respect for the management of Air Canada at the time, especially their ability to plan. It was particularly disdainful of the CEO. This implied unrest among the members, perhaps unspoken discontent over Seagrim's departure. But, even though Herb Seagrim was a founding member of the union, the appointment of an outsider over him was not mentioned in the history. It appears that union NCAs were even stronger than the personal alliances among pilots.

Summary

In this thesis I have laid out the theoretical development of the NCA, explaining its role in the linking of actor-networks to the sensemaking of individuals. The individuals who I chose to study were the chroniclers of the histories relating to AC, its executives, its political masters and its employees. By surfacing traces, themes and narratives relating to the selection of a CEO for AC in 1968, I have attempted to generate a plausible role for NCAs in the sensemaking of individuals when retelling events. It is postulated that this sensemaking has been shown to be linked to the actor-networks surrounding chroniclers, informants and publishing. It seems clear that these networks are sources of power and influence in the CSM of choices. The NCA appears to be a plausible mechanism by which individuals enact the influence of networks.

Since the networks studied appear to persist even when all of the human actors have left, and in many cases died, the question of the reproduction of the narratives is puzzling. By demonstrating the persistence of specific NCAs in the three networks I surface the possibility that it is the NCAs that maintain the network. It may be possible

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that human actors and non-human (corporeal) actants are non-essential in the ongoing existence of an actor-network. NCAs may be able to attract new human actors, who in turn enroll non-human actants. This does not deny the key role of these actors and actants in the creation of the network or new networks, but presents as a hypothetical, the persistence of the actor-network simply because of the attractiveness of the ideas represented by the network. Intuitively, I suggest that there are ideas (NCAs) that seem to be able to regenerate networks of support many years after they seem to have been discredited, discounted and dismissed. For example: the link between vaccines and autism.

Limitations

1. This work has been limited empirically to the narrowness of the slice of history studied. Further study will need to be undertaken to demonstrate the usefulness of the NCA.
2. The NCA may be a factor in some choices and not others. The nature of the NCA as a describer of other sources of power, or its possible role in the power of individuals and their role, has not been discussed.
3. By employing archival research and published tomes, the research is limited to the interpretation of the writings of others. It may be argued that interviews with informants could have provided a more complete understanding of the motivations for the choices made in the histories and the understandings of the events. It has been argued herein that such interviews are less likely to be without motivation or bias than the traces from the period; however, the retrospection of

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informants might have provided alternate narratives that could be valuable in a broader analysis. This is particularly true for the union narratives, which did not mention the transition of power during the Pratte period.

4. The archive itself produces some potential limitations, as it is subject to the *manicuring* of the archivist, as well as limits created by the choices of those who have donated the materials. An attempt to reduce this issue was made by searching more than one archive, as well as completing Internet searches, and culling other academic work on Air Canada for potential traces. Undoubtedly some traces, which would have produced further alternate narratives for this research, have been lost or were not collected. If found, new traces would enhance the analysis and reinforce the theoretical assertions.

Future Research

1. Continuing the study of AC to determine the ongoing sensemaking relative to the apparent NCAs described in this work may provide insight into the persistence of these actants as well as the changes that may occur (relating to meme theory for example) (Dawkins, 1978).
2. Beyond AC, it would be useful to reinvestigate some sensemaking or ANT work to inquire as to whether use of the NCA approach and the seven moves provides for the surfacing of new plausible explanations for the empirical situations. Models of leadership comparing NCA based leadership as opposed to charismatic leadership would be useful in the development of understanding of situational

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success. Why are some leaders successful in some situations, but not others? It is plausible that congruency or discord with NCAs contributes to leader outcomes.

3. It has been observed by one reader of a draft of this thesis that the concept of the NCA could be useful in other fields, such as the considering of eye-witness testimony in legal proceedings: why such testimony degrades over time? And, how such testimony is influenced from the beginning? The possibility of witnesses' sensemaking of the events they see and forming memories influenced by actor-networks is intriguing. This sort of inquiry could lead to application of the NCA theory to many varied forms of understanding, meaning and action.

Concluding Thoughts

In many ways this thesis makes assertions that may imply certainty. The premise of this work is inclusive, and as such, I have accepted the facticity of all truth claims and deny that contrarian facts revoke any other claim. If truth is positional, then falseness is also constructed. It may be controversial to accept that something can be both true and false at the same time, but that is the conclusion I am left with... so, please accept any apparent certainty as constructed rather than *real*.

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