

LEARNING FROM THE ENEMY: CONNECTING CONFLICT AND INTER-ORGANIZATIONAL LEARNING THROUGH IDENTITY

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ABSTRACT

This paper raises the importance of the relationship between identity and organizational learning in the context of conflict. Building on prior research and using illustrative data from a longitudinal case study of the BC salmon farming industry, this study suggests that certain conditions may allow organizations to behave differently around a conflict laden issue without changing their beliefs. If prolonged and promoted this change in behaviour may facilitate the integration of new information and transition to cognitive change. We propose that in conflict situations how an individual or organization enacts or practices its identity is as important to its ability to learn from other organizations as the meanings that it attaches to its identity labels.

1.0 INTRODUCTION

Increasing globalization, the growing use of partnering and the rise of activism by shareholders and stakeholders have all increased the need for firms to consider and integrate disparate perspectives (Hart & Sharma, 2004; Rothman & Friedman, 2001). More than ever it is critical that firms “anticipate and respond to impending threats, conduct experiments, engage in continuing innovation” (Argyris & Schon, 1996: xvii). Nevertheless few firms readily embrace the learning opportunities inherent in the diverse and sometimes adversarial perspectives that confront them and managers appear to be sceptical about the power of conflict to invigorate problem solving in order to take advantage of opportunities or to deal with threats (Eisenhardt, Kahwajy, & Bourgeois, 1997; Tjosvold, 2008). The role of conflict in learning has been given scant attention in research as well, despite Argyris and Schon’s (1978) early recognition of the importance of conflict to the learning process. We consider the following research question: What are the conditions under which conflict enables an organization to learn from other organizations?

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This paper connects the theoretical worlds of conflict, inter-organizational learning and identity and explores the conceptual ideas using data from a field study of the salmon farming industry in western Canada. Building on previous research this study proposes that under certain conditions, individuals reach a state readiness that allows them to experiment with new behaviours. Depending on their “repertoire” of identities, individuals may be able to tap into common communities of practice to bridge across conflict laden issues. If they persist in this changed behaviour these individuals may be able to suspend their belief systems and explore new interpretations. This shift facilitates the integration of new information. Depending on the congruence of this new information with their current identities they may then be prompted to examine and/or reconstruct their individual or organizational identity. The integration of new information may shift organizational identity and enable inter-organizational learning. We first position our study in the literature. Next, using data from the longitudinal case study we provide evidence that learning has occurred between organizations in conflict and chronicle the dynamic interplay between identity, learning processes and learning outcomes in that situation. We then discuss our findings and insights. We close with implications for research and suggestions for future research.

2.0 CONFLICT, INTER-ORGANIZATIONAL LEARNING AND IDENTITY

Conflict provides an opportunity to learn (Argyris & Shon, 1978). Transformative or double loop learning can be considered a response to conflict in which individuals explore the reasoning behind their positions and the meaning these positions have for them (Argyris & Shon, 1978; Bush & Folger, 1994; Rothman & Friedman, 2001). Conflict is also a key part of team learning and creating shared understandings, as a mechanism through which learning occurs (Senge, 1990). However, conflict also works against learning. Often individuals’ ability to learn is blocked by defensive reasoning (Brown & Starkey, 2000; Argyris, 1991). In addition, individuals’ social or role identity and the identities that they attribute to their organizations can inhibit their learning (Nag, Corley, & Gioia, 2007). Individuals will support activities that are consistent with their organization’s identity, they will stereotype themselves and others, and they will work to maintain coherence between their activities and the organization’s identity (Ashforth & Mael, 1989; Dutton & Dukerich, 1991). These theories do not explain how individuals and firms overcome those constraints and learn from each other, even while conflict persists. To address our research question we briefly review the relevant research on conflict, inter-organizational learning and identity.

2.1 Conflict Laden Issues Activate Identity and Provide Fuel for Learning

Conflict is different from competition because organizations with compatible or aligned goals often have conflict. We define conflict as incompatible activities; one party’s actions, interfere, obstruct, or in some way get in the way of another’s action (Deustch, 1973). Organizations respond to their environments by interpreting and acting on issues (Daft and Weick, 1984). Conflict laden issues raise the possibility for learning but also bring questions of social and organizational identity to the surface (Dutton & Dukerich, 1991; Whetten, 2006). Conflict tends to activate tensions between exploiting existing capabilities and exploring new responses. It is in the context of conflict laden issues between organizations that we will consider identity activation and inter-organizational learning.

2.2 Individual Learning is Key to Organizational Learning

There is general agreement that organizations learn through individuals and that individual learning is a fundamental building block of organizational learning. However an organization's learning may be more or less than the sum of individual learning (Argyris & Schon, 1978; Crossan, Lane & White, 1999; Fiol & Lyles, 1985; Huber, 1991; Starbuck & Whalen, 2008). Learning generally refers to both the process of learning and the products of the process which include changes in beliefs (cognition) and changes in behaviours (actions) (Crossan et al, 1999). Inkpen and Crossan (1995) suggest that organizational learning contains related processes that occur over three levels: individual, group and organization. Beliefs and actions are thus both an input to and a product of the process of organizational learning at the individual, group and organizational level. While researchers have accepted that learning encompasses both cognitive and behavioural development, studies of organizational learning have tended to rely on cognitive theories, emphasizing attention and interpretation (Easterby-Smith, Crossan, & Nicolini, 2000; Starbuck & Whalen, 2008). The implications of behaviour for learning and the linkages between behavioural and cognitive change in the presence of conflict are less understood.

There is a broad assumption in the extant research that increased inter-organizational learning contributes to an organization's performance and/or innovativeness, and that if firms understand the inter-organizational learning process and the factors that affect it, a firm's capabilities can be enhanced (Bapuji & Crossan, 2004; Easterby-Smith, Lyles, & Tsang, 2008). Empirical studies are dominated by the assumption that inter-organizational learning is positive and that it manifests as changes in knowledge bases (i.e. patent counts) or in the performance of the organizations (e.g. Kale, Singh, & Perlmutter, 2000; Zollo, Reuer, & Singh, 2002). The full range of learning outcomes, behavioural as well as cognitive, has not been sufficiently addressed, nor has the processes by which this learning occurs.

2.3 Identity Underpins Conflict and Impacts Behaviour and Cognition

"Identity is a self-referential description that provides contextually appropriate answers to the question "Who am I?" or "Who are we?" (Ashforth, Harrison & Corley, 2008: 327). Theories of individual cognition tell us that people interpret the world through a process of sensemaking that is supported by their individual interpretations and strongly influenced by their past experience, social and role identities, and organizational context (Weick, Sutcliffe & Obstfeld, 2005). Social, role and organizational identity theories provide both a rationale for the conflict between organizations and for the way that individuals make sense of, and respond to, the stimuli they encounter. Yet relatively few researchers have considered the relationship between identity, conflict and learning (see Rothman & Friedman, 2001 for an exception).

Social identity is understood to be an individual's self-categorization as a member of a group as well as the value and emotional significance that the individual places on that membership (Tajfel & Turner, 1985). This categorization provides a way to classify oneself, as well as others, in the social environment and it lies at the root of inter-personal and inter-group conflict (Brickson & Brewer, 2001; Brewer, 2001; Deutsch, 2000; Fisher, 2000). Individuals will evaluate their own group by comparing it to other groups and will always try to maintain a positive self-concept and social identity. It is this underlying dynamic of inter-group comparison

that shapes the relationship between individuals from different organizations and provides insight into their cognitive structures. It also suggests that a certain amount of conflict is inevitable. Identity theory defines identity as “the meanings that persons attach to the multiple roles they typically play” (Stryker & Burke, 2000: 284). While social identities are characteristic of collectives such as groups, teams or organizations, role identities as described by identity theory are components of roles such as occupations, careers, professions etc. (Ashforth et al: 327). Social identity theory provides insight into group processes and inter-group dynamics, whereas identity theory seeks to explain the role related behaviour of individuals (Stryker & Burke, 2000).

Organizational identity was originally defined as that which is central, distinctive and enduring about an organization (Albert & Whetten, 1985). Recently Whetten (2006; 220) has specified the concept as “the central and enduring attributes of an organization that distinguish it from other organizations.” More simply put, organizational identity involves meaning at the collective level. These meanings may be tacit or explicit, taken for granted or conscious and deliberate (Corley & Gioia, 2003). Some identity beliefs are central while others are peripheral. Many authors have argued that organizations can have multiple identities (Fiol, 1991; Golden-Biddle & Rao, 1997; Pratt & Foreman, 2000). As at the individual level, organizational identity is contextual/relational and comparative, assigning the organization to a broader social group.

Extant research typically depicts organizational identity as existing in the minds of organization members with limited attention given to its behavioural expressions (Bartunek, 1984; Gioia & Chittipeddi, 1991). Organizational resources, especially knowledge, skills, and expertise, are likely to be influenced by the basic assumptions that organization members use to define “who we are” as an organization (Kogut & Zander, 1996). For instance, Dutton and Dukerich (1991) found that members’ sense of the organization’s identity was associated with a set of routines or standard procedures which when activated were identified as “typical” of the organization. Corley and Gioia (2004) found that changes in organizational identity corresponded with behavioural changes among the organization’s members, especially those in leadership positions. Although some previous evidence of a relationship between identity and behaviour exists (Nag et al, 2007; Stryker, 1968) the behavioural aspect of organizational identity is not well understood.

2.4 Interaction between Conflict, Inter-organizational Learning and Identity

Conflict provides an opportunity to learn. Conflict also activates identity and dysfunctional learning processes that protect identity (Brown & Starkey, 2000). However, neither the learning nor the identity literatures provide an explanation for how some organizations overcome that challenge. Studies assessing learning and identity support the notion that action/behaviour and thinking/cognition are critically connected. Relatively little research has considered that connection and it is contradictory, suggesting either a negative (Brown & Starkey, 2000) or a positive (Corley & Gioia, 2003) relationship between identity and organizational learning. This paper speaks to that connection and extends recent work on the influence of identity on organizational learning to focus on inter-organizational learning (Nag et al, 2007).

3.0 THE CASE STUDY

To explore inter-organizational learning in the context of conflict laden issues this study draws on empirical research involving a qualitative, longitudinal case study of the salmon farming industry in British Columbia (BC), Canada, an industry that has been ridden by conflict since its inception. Despite the protracted nature of the conflict there have been a number of joint problem solving initiatives. Exploring the range of conditions surrounding these initiatives provides an ideal opportunity for unpacking how learning occurs between organizations in conflict using a multi-level, multi-theoretic approach (Yin, 1984).

We focus on the creation and implementation of a joint research agreement between the largest salmon farming company in BC and a coalition of its most strident critics, the Coastal Alliance for Aquaculture Reform (CAAR). Almost from its inception in the 1970's the salmon farming industry in BC has been widely criticized for its salmon growing practices. The waterways of BC are highly politicized natural resources because of their impact on a host of social and economic phenomena including the habitat of the culturally iconic wild salmon and the rights of First Nations. As a result the industry came to represent an extreme case of organizations confronting conflict laden issues, suggesting it as a good context for case study research (Eisenhardt, 1989). Prior to the joint research agreement the industry had consistently responded to its critics with denial and defensiveness. Since the implementation of the agreement there have been observable changes in both organizational and individual behaviours across the industry. Therefore, this is an excellent context for studying conflict and inter-organizational learning.

3.1 Data Gathering and Analysis

We gathered information on the perspectives of all of the key firms and stakeholder groups. Data consisted of interviews, organizational documents, and government and media reports. Prior to entering the field we used secondary sources to develop an understanding of the setting and to create an initial narrative. We conducted 23 interviews averaging 90 minutes with: executives of salmon farming companies (12 people); managers and members of environmental organizations and First Nations (7); government officials (3); industry associations (3); and scientists/academics (2). Interviews, which were taped and transcribed, were conducted in 2006 and 2007. In all cases, we asked respondents open ended questions that allowed them to relate their stories of how particular situations had evolved. In addition, we analyzed company and stakeholder documents, web sites, press releases, and more than 1000 newspaper articles published between 1985 and 2007.

Consistent with Langley's (1999) recommendations for process research, we took multiple approaches to the analysis, which we conducted in three stages. In the first stage, we constructed chronological lists of key events, activities and interpretations of them, composed of ordered, raw data (quotes from interviews, media reports, documents and field notes). Using NVivo, we sorted these data into meaningful categories (industry, environmentalists etc.). From this we composed a narrative as the first level of abstraction from the data. In particular, we identified occasions where organizations in conflict had attempted a joint initiative. The narrative identified relationships and highlighted the importance of relatively recent events to our research question, in particular the dominance of one conflict laden issue.

Focusing on the period between 2000 and 2007, we then identified the factors connected to learning between organizations in conflict. We used two indicators to identify learning outcomes: (1) evidence of changes to participant’s existing knowledge about the situation or about the other parties; and (2) evidence of changes to participants’ patterns of relating to each other and to other industry participants. Iterating between data and theory (Manning, 1982) we developed insights regarding how identity and behaviour might influence the cognitive structures of the individuals involved (Dutton & Dukerich, 1991; Nag et al, 2007). We identified behavioural change and social, role and organizational identities as key pre-conditions to learning outcomes. Next we returned to the data to refine the pre-conditions. Using the learning and identity literatures as guides, learning processes were identified as activities that supported changes to either knowledge or behaviour. We used self referential statements to categorize identity at both the individual and organizational levels (see Figure 1). Focussing on the two largest salmon farming companies and a consortium of NGOs and First Nations we sorted these data into meaningful categories (for example, learning processes, learning outcomes) using Nvivo. Figure 2 presents a summary of the learning processes undertaken by the key organizations and the resulting learning outcomes.

Figure 1: Identities in the Salmon Farming Industry in BC

Company Level	Identity Description	Representative Quotations
Marine Harvest Individual	Open Facilitator Broadly knowledgeable on salmon farming Community member	“I started out as a fish biologist... then worked in research and production ...production support... environmental management... I had an affinity to work with people so I just kind of naturally started to gravitate towards that” “I build bridges” “I was always very big on just open up your books, we’ve got nothing to hide, let’s show people ... show constant improvement” “... my son goes to school with the son of the councillor who had opposed fish farming but when we see each other on the soccer field we can actually talk about it because we’re there on the soccer field together.”
Marine Harvest Organization	Transparent Collaborative Innovative Issue raiser for industry Issue promoter Socially responsible Industry leader in collaboration	“... you can only find a solution when you put different people with different backgrounds and different views of the world together... not the different disciplines within one company, but now the NGOs and the government representatives and the scientists” “Dialogue is important to build trust ... transparency builds trust ... we are a very open company” “... we were very out there, we were very transparent and I made sure our story got told a lot ... I really broadcast our successes in order to shore up the ability to do more work” “this is a dynamic industry with lots of innovation and every year we get better” “... big on social accountability, big on environmental accountability, even though they didn’t have First Nations issues, they took leadership roles – Marine Harvest did internationally.”
Stolt Individual	Scientist Data driven Facilitator Knowledgeable on salmon issues (wild and farmed)	“I am a marine biologist ... a scientist that supports the scientific process” “I am just someone who has spent their lives working with salmon habitat and conservation issues” “I ... focus on doing and helping” “I am a facilitator”

Stolt <i>Organization</i> <i>(pre-merger)</i>	Private Accountable Ethical Industry leader size and profitability	“we undertake cooperative research and development on ecosystem principles that were put under stress through various impacts” “Stolt was quieter ... were also working on a very high level of compliance, a very high level of accountability. Very good ethics. And very profitable ... but no so out there and not so much into the ... social issues ... kind of stayed back a bit ... not as transparent” “... the number of lobbyists and activists with positions on aquaculture is startling ... there is nothing we can say or do to satisfy all of these interested parties. What we can do is adhere rigorously to all regulations ... and to follow our own conscience and set our own high standard” “... it is our responsibility and commitment to meet high standards of husbandry and care for the environment”
Cermaq <i>Individual</i>	Business person Rational Knowledgeable on business issues (running a salmon farming operation)	“ I don’t necessarily believe we are the best at what we do but I’d say we do it definitely better than the rest of the group ... we run our business better” “... make sure that you educate yourself as to what sustainability means. It’s a tough one to quantify.” “if you don’t make money you are not sustainable” “... we have more revenue than the largest company” in Canada “You’ve got to be continually looking for innovation and development” “I believe it is the future ...we’re going to focus ... on the bigger picture ... it’s just not one little industry causing an issue”
Cermaq <i>Organization</i>	Sustainable Rational Innovative Risk balancer Focused on the business of salmon farming Industry leader in husbandry and operations	“we ... have set a goal for ISO ... we will be able to hold our heads up high and say we are sustainable” “We had to emphasise the financial sustainability of everything we did. We had to regain our financial freedom by focusing on operations, cautious stewardship of our assets ...” “We take the long-term view and act responsibly with respect to nature and society. We place great emphasis on environmental sustainability ... However, sustainability also means running a profitable business, where we balance risks and opportunities based on our recognized strengths” Cermaq “has established a strong international network both within and outside the industry.... the company participates in various research projects with public and industrial research establishments around the world” “As an industrial R and D institution we have a highly commercial focus. Our slogan “Knowledge makes the difference” ... result in actual competitive advantages for our customers... we are increasingly collaborating on the basis of the licensing of exclusive rights, which enables unique product advantages”
CAAR <i>Individual</i>	Scientist Data driven Logical Strategic Knowledgeable on environmental and social issues Community member	“I’m an ecologist. We have a fisheries biologist on staff, we have another staff member who has an oceanography degree, so we have a strong science background” “There’s piece after piece after piece that builds your case, and your case has to be solid and it has to be based on science and it has to be rational and you can use a million different tactics to deliver that message, some people use irrational tactics but the message can still be rational. “ “my husband ... was a salmon fisherman and it just became an issue that we couldn’t not look at”
CAAR <i>Organization</i>	Cooperative Logical Strategic	“We got together into a group and said, “you know what we have to make the sum greater than the individual part,” that we had to work together to try to deal with it because the salmon farming companies

	<p>Focussed Issue raiser Issue promoter Leader in coordinating inter-organizational activity</p>	<p>are multi- national corporations ... we can't outspend them so we have to outthink them ... It was by having everybody pool all their information and work collaboratively we're able to take it ... to being one of the most prominent environmental issues in BC" "... when we started the question was - are we trying to stop salmon farming altogether, or are we trying to reform it. That was a huge question, and I think one of the successes around our coalition is that we actually took the time to answer that question, and to build consensus around it" "The science is pretty clear on this, but science alone is not a driver in social change. It's just the underpinning ... You have to get the public really behind all this stuff." "CAAR is the best coalition I've ever worked with in my life. It's phenomenal. We've met every two months for going on seven years, and always consensus, it's a phenomenal group of people. I always say it's an honour to work with that group."</p>
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Figure 2: Identity, Learning Process and Learning Outcomes

Company, Attitude to learning	Organizational Identity	Learning Processes	Learning Outcomes (post-merger)
<p>Marine Harvest Learning is collaborative process. We can all learn from each other. Knowledge must be shared so everyone can benefit.</p>	<p>Transparent Collaborative Innovative Issue raiser for industry Issue promoter Socially responsible Industry leader in collaboration</p>	<p>Internal consultation ISO certification External consultation with customers, supply chain members, regional governments, financial community, NGOs, other stakeholders International, Regional and National Conferences Research consortiums with supply chain participants Collaborative research with universities, NGOs, independent and/or private research institutes Public-private partnerships with governments</p>	<p>Articles in peer reviewed science and ecology journals Awareness of issues Programs to manage social, environmental, and animal welfare issues Other niche conferences (i.e. salmon farming jurisdictions) Revised operational practices Approaches to stakeholder management and engagement</p>
<p>Stolt Learning and knowledge support achieving and maintaining our high operating standards.</p>	<p>Private Accountable Ethical Industry leader in size, profitability</p>	<p>Internal research and development Internal consultation Collaborative research with universities and independent private research institutes Collaborative research with CAAR</p>	<p>Cooperation and collaboration with suppliers, customers, stakeholders</p>
<p>CAAR Learning and knowledge support our advocacy work.</p>	<p>Cooperative Logical Strategic Focussed Issue raiser Issue promoter</p>	<p>Partnering on research with experts on specific issues Partnering with international environmental groups on campaigns and research Partnering with corporations Funding graduate students Attending International industry conferences</p>	<p>Position on aquaculture in general and open net farming in particular Articles in peer reviewed science and ecology journals Approaches to target firm engagement</p>

		Accessing information via the Freedom of Information Act Participating in international government sponsored research symposiums Workshops in conjunction with universities Community science outreach through brochures and speaking engagements	Access to proprietary corporate data
Cermaq Learning supports us achieving a competitive advantage. Knowledge is an asset to be developed and exploited.	Sustainable Rational Innovative Risk balancer Focused on the business of salmon farming Industry leader in husbandry and operations	Internal research and development ISO certification Internal consultation with senior managers Local community consultation Collaborative research projects with public and industrial research establishments around the world Participate in international networks within and outside the fish feed and fish farming industry	Revised operational practices – greater efficiency, reduction in violations Revised management practices Mechanisms for monitoring performance Lower costs Employee training requirements Employment standards and expectations

3.2 The Salmon Farming Industry in BC

By 2000 the salmon farming industry in British Columbia was dominated by larger firms and mostly foreign owned firms, Stolt Sea Farms (Stolt), Pan Fish, Cermaq ASA (Cermaq) and Marine Harvest. Marine Harvest, in contrast to the low profile adopted by the other major firms, had begun to refer to itself as a socially responsible company and had publicized the extent of its investment in BC, particularly a pilot closed containment farm, and its successful farming arrangements with several First Nations. This was consistent with the collaborative and environmentally and socially responsible identity of its Dutch parent company, Nutreco. As a feed supplier to the industry, Nutreco had begun sponsoring a bi-annual aquaculture industry conference in the 1980's (years prior to acquiring salmon farms).

In 2002, as a seven year old moratorium on new farm licenses was lifted, the industry was dealing with a number of conflict laden issues. CAAR had initiated a boycott in the industry's major export market, the US. The government charged Pan Fish and Cermaq for multiple environmental violations, apparently in response to repeated accusations from environmentalists. In addition, an independent federal government research body blamed salmon farms, operated primarily by Stolt, for a sea lice outbreak which led to a collapse of the pink salmon run.

In June 2004 a senior Stolt manager, who had trained as a biologist and had been spent his entire career in the salmon industry in BC, took action and contacted the main spokesperson for the key organization on the other side of the sea lice issue, CAAR. As the largest operator in BC, Stolt was the most vulnerable to the impacts of conflict laden issues. The firm actively participated in collaborative research and development projects with universities and research institutes and was motivated to ensure forthcoming regulation was fair and supported by good research. The Stolt manager described the intent of the initial contact:

“So we need to have a time out before all that policy gets articulated in which the rest of the research can be done to determine ... the significance of the effect of the sea lice... So let’s learn together, let’s share information, let’s be as transparent as we can be within the context of business and let’s let the science complete its work so that we’re basing any policy decision on good solid science.”

The response from CAAR to the initial contact from Stolt was cautiously positive. CAAR trusted Stolt’s motives because they believed that their market campaigns had negatively affected the demand for BC salmon and the morale of salmon farm employees. A CAAR representative described the situation:

“They were tired of being targeted in the media all the time. They said it affected their morale. And so the media was extremely important in getting them to the table.”

Stolt’s offer of greater transparency gave CAAR access to information hitherto unavailable to environmentalists in any salmon farming jurisdiction. While CAAR acknowledged Stolt’s self interest in approaching them, they also recognized an opportunity to gain access to proprietary knowledge of salmon farming that might be used to advance their agenda. A CAAR member describes:

“Because a lot of the data that the farms have about their operations was seen to be confidential, so we had to try to create a forum and an agreement that would open up the analysis, hopefully pinpoint some common understandings around lack of information and embark on some increased level of analysis and some pure science work that would inform the debate.”

With negotiation proceeding in private, Stolt began posting sea-lice and water quality data on its web-site as “an educational opportunity for both researchers and the general public” and to “demonstrate we are serious about our commitment to having sustainable salmon farm operations” (Simpson, 2004: 3). The common identity of “scientist” appeared to offer enough ambiguity to allow the individuals and organizations to agree on actions and enough specificity to provide some guidance to the conduct of those actions i.e. protocols. When Marine Harvest purchased Stolt in 2005, the private talks continued, culminating in the “Framework for Dialogue” agreement in January 2006.

According to Marine Harvest, which now included Stolt, the agreement opened the door for data sharing and collaborative work so that “together we can have an improved, more positive outlook for the salmon farming industry in BC” (Simpson, 2006a:G1). The 17 page agreement gave CAAR access to previously confidential data and allowed independent researchers access to Marine Harvest’s farms to study sea lice. Marine Harvest also agreed to work with CAAR on an economic analysis of closed containment systems. Managers from Marine Harvest and CAAR, respectively, said:

“It’s about intention to replace some of the rhetoric with actual fact, it’s about industry doing some positive change and on the other side, the environmental groups also changing the way they talk about industry and agreeing that there can be some other end points beside wholesale removal of the industry from BC.”

“The rationale for us, I’d say, was to construct a series of research proposals that were done jointly so that there could no longer be this sort of ‘he said, she said’ around the issues. Two areas, sea lice and closed containment economic viability, are the main areas of research.”

While the Framework for Dialogue allowed CAAR to continue to campaign against salmon farming, CAAR committed to warning Marine Harvest. Similarly, Marine Harvest continued to farm salmon. A CAAR member said:

“We are in the business of campaigning and they’re in the business of raising fish. There has to be a compromise in there somewhere so we are continuing with the markets campaign, but we don’t name Marine Harvest at all as it says that they can’t be named. That’s fine, they’ve done something, they’ve done more than anyone else, so they’ve gotten something from us...”

The Marine Harvest personnel that negotiated the Framework for Dialogue continued to be directly involved in its implementation, organizing frequent meetings to review progress. The CAAR negotiating committee continued to monitor the overall implementation of the agreement while two science committees worked on the sea lice issue and the closed containment issue. After 14 months, the level of trust and the nature of the interaction between the individuals involved and the organizations had changed as a result of the Framework for Dialogue. The following comment by a CAAR member is illustrative:

“I say we’ve learned to mutually respect each other for the work. My understanding of the complexity of managing salmon farms has gone way up... it is way harder than anyone would think.”

A peer reviewed article on sea lice incorporating Marine Harvest data was published in 2007. Knowledge about sea lice appeared to have advanced due to the willingness of CAAR and Marine Harvest to work together. As the head of the CAAR science committee said:

“... Marine Harvest’s commitment to providing its “source data” is an “important breakthrough” for scientific researchers looking to accurately gauge the impact of farms on wild salmon populations... in the long run, wild salmon will emerge as the winners in the accord.”

The organizations continued to identify areas for collaboration while pursuing individual goals. While acknowledging the initial impact of the agreement, a member of the negotiating committee for CAAR summed up hopes for future dialogue and collaboration;

“... if we follow through on it, it has some real potential to shift the discussion and get us out of this place... We’re stuck in terms of what the environmentalists want and what the fish farmers want ... No one is quote “leading or losing” right now... I think that this dialogue has the potential to do that if both parties will live up to it and implement it to the full intent of what it was supposed to do.”

The government’s Cabinet Minister for aquaculture described the agreement as a “breakthrough” and stated that he was “very, very pleased” that the salmon farming industry and the environmentalists had agreed “to work together and develop a plan to allow for ... sustainable aquaculture” (Simpson, 2006a:G1). Although not formally part of the agreement, the provincial government provided both financial and administrative support to it on specific licensing and regulatory issues, and in supporting some of the research.

Pan Fish acquired Marine Harvest in February 2006, becoming the world’s largest salmon farming company. The company publicly declared its continued support of the Framework for Dialogue and subsequently consolidated all of its aquaculture operations under

the name Marine Harvest promising to continue the practice of “leading the way with innovation and responsibility”.

In April 2006, Grieg Seafood was granted a new farm license in the Broughton Archipelago and voluntarily agreed “to conform with Marine Harvest's ... plans” which had been developed according to the agreement. Government regulators enthusiastically endorsed Grieg’s announcement and reiterated their support of the agreement between Marine Harvest and CAAR.

The early success of the agreement appears to have sparked a wave of collaboration. Other First Nations have engaged with CAAR for advice on how to negotiate their own “frameworks for dialogue.” Marine Harvest has agreed to do collaborative research on the impact of salmon farming on clam beds with two other First Nations. In addition, members of CAAR have signed agreements with other First Nations to collaborate and consult on salmon farming issues. Furthermore, two federal government organizations and several community and charitable foundations are participating in, or providing, funding for collaborative research. As the comments by participants in the Framework for Dialogue illustrate:

“Marine Harvest and CAAR and the Forum(a federal government organization) have been trying to integrate our research and the research program in the Broughton being sponsored by the Forum... to both leverage as much money as possible into the situation and to create the greatest amount of buy-in to the outcomes of the research

“People are jumping on board now because there’s so much science that has been done in the last two or three years ... But people are jumping at the bit to come in to help to do this work. I think it was 2001 or 2002 – I was on a committee ... and nobody wanted to be involved because they didn’t want to be near such a hot topic”

While government, environmentalists, First Nations and others saw the agreement as a breakthrough, other industry leaders were less enthused, viewing it as either disloyal behaviour by Marine Harvest or as a relatively focused response to a specific issue. Despite this response, the Framework for Dialogue seems to have increased inter-organizational collaboration in the salmon farming industry in BC. And perhaps most surprisingly, and not coincidentally, media coverage of the salmon farming industry in BC dropped precipitously in 2006 and 2007 after the Framework for Dialogue was announced and implemented.

As a postscript, in 2008 Marine Harvest, CAAR, and an aquaculture equipment supplier, with funding from two levels of government, created a joint venture organization to pilot closed containment salmon farming. Also in 2008 Cermaq held its annual general meeting in BC and used the opportunity to meet with local stakeholders.

4.0 DISCUSSION AND INSIGHTS

The learning experience of the organizations involved in the issues surrounding salmon farming reveals some important similarities and differences. The organizations that appear to have learned from those with which they are in conflict engaged in joint initiatives that used behaviour change as a beachhead to organizational learning. Individuals acting in response to different triggers seized an opportunity to begin to interact directly, eventually negotiating a joint research agreement. The agreement focused on scientific discovery and as such was consistent with the practice and the role identities of the individuals involved as well as with critical aspects

of their organizations' identities. The resulting new behaviours were reinforced and rewarded by the institutional environment such that the aspects of organizational identity supportive of inter-organizational learning survived and diffused through subsequent mergers in the industry. Other organizations not party to the agreement appear to have learned vicariously and have begun to change their behaviour. We will discuss five clusters of insights that we draw from this case study.

4.1 Readiness Prompts Behavioural Change

In the case of the salmon farming industry the conflict around the sea lice issue had reached a point of readiness in 2004 where Stolt was ready to at least experiment with a change in its behaviour from denial and defensiveness to a "more cooperative coexistence with potential for mutual gain" (Coleman, 2000: 302). Inkpen and Crossan (1995) suggest that a change in behaviour without a corresponding change in cognition creates a transitional state characterized by a tension between an individual's beliefs and their actions. This tension is a cognitive tension between the individual's interpretation of their actions and their other beliefs, similar to the concept of cognitive dissonance (Festinger, 1957). These are transitional states because as Festinger suggests "the reduction of dissonance is a basic process in humans" (4). If a behavioural change is forced, as in the case of complying with regulations or succumbing to media or government pressure to "consult," it will likely result in no learning because individuals will continue to interpret stimuli through their existing cognitive structures, reinforcing those structures (Inkpen & Crossan, 1995). On the other hand if a behavioural change is regarded as experimental learning, then individuals may suspend their current belief systems and try new behaviours that eventually result in cognitive change. Individuals must be "willing to suspend their belief systems to try a new behaviour, and in doing so are open to new and different interpretations of the results of the behaviour" (Inkpen & Crossan, 1995: 600).

In the case of the Framework for Dialogue the offer to negotiate an agreement was seen by the initiating individual, as well as the organization, as a way to "buy time." The individual recognized the significant threat of restrictive legislation and the state of the knowledge around the sea lice issue. This activated his role identities of corporate manager and scientist and prompted him to take action (i.e. collaborating with CAAR) that would allow "science to do its work." As a scientist he was able to understand the significance of direct access to fish farming data to the scientists within CAAR's member organizations. They would be the first environmental group in the world to have this access. His identity as a scientist enabled him to understand the interests of the other party and make an offer that would be considered credible and intriguing. This action was also consistent with his role identity as a company manager protecting the interests of his firm. Sincere experimentation and exploration is likely when there is belief that the other party is ready to consider a change in approach (Zartman, 2005; Zartman & Rubin, 2000). The key individual in CAAR believed that Stolt had been harmed by their (CAAR's) aggressive anti-farmed salmon campaign. She believed that they were ready to consider a new approach and that made her interpret their offer as a sincere request to explore possibilities. Individual and organizational identities act as filters on information processing and as such different individuals and organizations will assess the same environmental cues differently. Both of the key individuals involved thought the other party had much to gain from the interaction and used what they interpreted as an opportunity to potentially advance their own

agenda. Their change in behaviours created the opportunity for experimental learning as they entered into the interaction with openness to behavioural change.

A negotiated solution may result in behavioural change with no change to the underlying cognitive structures of the organizations involved. However it does offer the possibility for the discrepancies to be identified and considered and as a result for learning to occur (Bush & Folger, 1994). The readiness of the individuals and organizations to experiment with new behaviours in pursuit of significant mutual, but unique, gains may be the first step toward transformation of cognitive structures around conflict laden issues.

4.2 Common Identities Bridge Conflict

In situations of conflict, organizational learning may depend on individuals' ability to tap into a range of less salient identities and particularly communities of practice. Some identities have more importance and prominence than others. Individuals inhabit many roles and the value that individuals place on the relationships attached to a particular identity "increases their likelihood of being activated and performed" (Ashforth et al: 327). The "self" is thought to be composed of a number of discrete identities, often with one identity emerging as salient (Burke & Reitzes, 1991; Stryker, 1968). The more an individual values the relationships attached to an identity, the more salient that identity becomes and the more likely an individual will affirm that identity through their actions (Burke, 1980; Burke & Reitzes, 1991). Therefore, an individual's behaviour is, usually, an expression of their more salient identities. However, when opportunities to express their salient identity are unavailable individuals will construct new identities, often reordering the importance of existing identities (Serpe, 1987). Consequently, identity links individual actions with social structures such as roles, expectations, and positions.

The individuals involved in the salmon farming industry had a range of relevant social and role identities including, biologists predominantly, coastal community residents, parents, lifelong salmon industry participants (See Figure 1). Each possessed a "repertoire of selves" making it more likely they could explore new information that surfaced in their interaction (Rothman & Friedman, 2001). Most importantly they could coalesce around the identity of "scientist" interested in protecting the marine habitat for salmon in BC. By emphasizing this relatively neutral identity in their interactions individuals could experiment with new cooperative behaviour without changing their beliefs. In addition, the private development of the "Framework for Dialogue" gave the individuals the safety, the support and the time to experiment with new behaviours, as opposed to merely complying with forced behavioural change. In the case of conflict laden issues individuals are more likely to be able to explore possibilities, perhaps based on some less salient aspect of their own or their organization's identity, when they do not feel threatened.

Communities of practice, such as the community of scientists, provide common behavioural protocols as well as common social and professional role identities. Essentially, they provide individuals with common "vocabulary and practice" (Brown & Duguid, 1991). While role identities may entrench conflicts around behaviour and cognitions (as is often the case in healthcare organizations) the situation is qualitatively different when two organizations come together. In a relatively new inter-organizational relationship behaviours are not entrenched. Consider how gender roles are enacted when a couple is dating as opposed to when they have

been married for many years. Also, as in this case, a role identity may connect individuals, whereas within an organization it is the role identity that differentiates them. When dealing with conflict laden issues the extent to which the individuals perceive a mutual gain in cooperating (i.e. their readiness) influences the likelihood they will enact identities that connect them to each other.

Once the Framework for Dialogue had been developed the individuals and organizations could suspend their other social and role identities and “behave” according to the agreement, which was built around five scientific investigations and well established scientific (and conflict management) protocols. They had moved from using the end products of science as a weapon against each other to using the scientific process as the mechanism through which they could cooperate. Science continued to provide a neutral and honourable identity with which all parties (individuals and organizations) could identify. It also provided sufficient ambiguity to allow the group to agree on action while retaining whatever individual beliefs that were needed to reach consensus (Eisenberg, 1984). This shared action and experience has the potential to create shared understanding (Crossan, Lane, White, & Djurfeldt, 1995).

Inter-organizational learning is an unusual case where individual to individual learning from different organizations can ultimately influence the learning that occurs in their respective organizations. Individuals from each organization become associated with a conflict laden issue, which acts as the stimulus. These individuals, within the context of their unique social, role and organizational identities, are all interpreting the stimulus for themselves. Their interpretation and therefore their responses are enormously affected by their individual and respective organizational identities. This variation in interpretation and response explains in part both the escalation of the conflict around the issue as well as variations in organizational learning. It is the individuals in an organization and the social processes through which they interact, that either facilitates or constrains organizational learning (Crossan et al, 1999).

4.3 Identity Begets Process

Similar to institutionalized learning, organizational identity is like a "cognitive map" that filters and molds an organization's interpretation of stimuli and its action in response to stimuli (Albert & Whetten, 1985; Ashforth & Mael, 1989; Dutton & Dukerich, 1991). However, it does more than activate a set of familiar routines. Organizational identity constrains what are considered acceptable or legitimate solutions (Dutton & Dukerich, 1991; Meyer & Rowan, 1977) and it is one of the vehicles through which "preconceptions determine appropriate action" (Weick, 1988: 306). As a result, the interpretations shaped by the organization's identity can shift individuals' behaviour in particular directions and thereby direct and shape organizational actions (Dutton & Dukerich, 1991). While social and role identities will influence the learning processes of individuals, organizational identity (akin to institutionalized learning) constrains some behaviour and supports others. Organizations are challenged to manage the tension between institutionalized learning and new sources of learning and an organization's identity can add to that tension.

Once learning is institutionalized it usually endures for some time and it provides a context in the form of systems, structures and procedures for feedback on events and experiences (Crossan et al, 1999; Fiol & Lyles, 1985). This context may facilitate or impair the

organization's ability to respond to its environment. Organizational identity as manifested in the institutionalized practices of an organization may present an opportunity for the introduction of new ideas. In the case just described, Stolt viewed itself as a collaborative, cooperative organization particularly within the aquaculture research and development community. However, Stolt was private and focused in their approach to consultation. They were more like Cermaq in that regard. They consulted directly and privately with organizations with recognized expertise, until the sea lice issue. Stolt, and subsequently Marine Harvest did not attempt public discussion until an agreement had been reached. Marine Harvest also viewed itself as a collaborative, cooperative organization. However, they consistently enacted their identity as an open transparent facilitator of dialogue in every salmon farming jurisdiction, especially when confronted with a new situation or a problem. They interacted widely and publically in the industry, with government and with stakeholder groups. As a result they had established themselves as the industry leader despite the fact that they were not the largest or the most profitable or the most operationally advanced. CAAR, in a similar vein, sees itself as a collaborative organization that is able to navigate/negotiate difficult relationships and to coordinate research "virtually." While Stolt and later Marine Harvest may have started discussions with CAAR to "buy time" for scientific research to be conducted, the alignment between key behavioural aspects of their organizational identity supported and sustained experimental learning. Over time the organizations appear to have integrated some of their learning, at least with regard to this method of knowledge creation (peer reviewed articles, new joint venture pursuing further research). What started out as experimental learning i.e. behavioural change that was undertaken without cognitive change, appears to have prompted some cognitive change (Inkpen & Crossan, 1995).

Situations of inter-organizational conflict will activate identity issues and are likely to trigger responses that counteract the threat or defend what the individual or organization stands for (Albert & Whetten, 1985). The presence of multiple identities at the individual level increases the likelihood that individuals' will explore new behaviour by engaging in different learning processes. The way that their respective organizations enact or practice their identities may support that behavioural change and increase the likelihood that individuals will persist in the new behaviour. Cognitions are more likely to change as individuals continue to engage in different learning processes that over time produce shifts and alterations in their interpretations.

4.4 Positive Feedback Institutionalizes Behavioural Change

Some descriptions of organizational identity build on institutional foundations (Selznick, 1957) emphasizing its comparative aspects. Identity is thought of in terms of the organizations position within an established set of categories that define an industry or social network, for example "we are a salmon farmer" or "we are an environmental organization." Identity change occurs in the context of a social movement that rejects the dominant institutional logic and role identities such as "salmon farmers and environmentalists are adversaries" and drive change by creating identity discrepant cues like, "salmon farmers and environmentalists collaborate" and generating a sense of identity amongst movement participants, as in "salmon farmers and environmentalists are scientists".

The collaboration process between Marine Harvest and CAAR sparked what might be described as a serendipitous social movement. Their collaboration was enthusiastically supported

by local institutions, in particular government. The behavioural change was so strongly supported that Marine Harvest and CAAR came to share an identity as leaders in resource company/environmentalist collaboration. In a sense the feedback from the environment put them in the “iron cage” together to use the institutional metaphor. Given that they could not alter their new behaviour they likely experienced increased pressure to alter their cognitions in order to relieve the cognitive dissonance, thus promoting integrated and inter-organizational learning.

The recurring positive feedback from the institutional environment had an immediate impact on the behaviour of other individuals and organizations in the BC industry (Crossan et al, 1999). Much new collaboration was created within a year of the public announcement of the Framework for Dialogue. Several apparently collaborative companies received positive feedback from the provincial government in the form of new salmon farming site licenses. Other companies appear to have learned vicariously from Marine Harvest’s success; Greig by simply following the stipulations of the Framework for Dialogue and Cermaq by holding its 2008 annual general meeting on Vancouver Island. While there is no evidence of cognitive change, clearly Greig and Cermaq’s behaviour had changed.

In situations of inter-organizational conflict when experimental behaviours are reinforced and rewarded by the institutional environment, they will persist and diffuse. Other organizations not party to the agreement and with quite different identities may learn vicariously and begin to change their behaviour. To the extent that the positive feedback continues, and the new behaviours continue, individuals and organizations will feel increased pressure to change their beliefs to match their new behaviour.

4.5 Integrated Learning Shifts Identity

Extant research has shown that the interaction between external stimuli and internal feedback and feed forward processes drive organizational dynamics. Researchers have suggested that feedback from the external environment “destabilizes” organizational members’ self-perceptions (e.g. Gioia, Schultz, & Corle , 2000; Hatch & Schultz, 2002). Although minor inconsistencies between external perceptions and internal beliefs regarding their organization’s identity are likely to trigger defensiveness, a serious discrepancy may induce organizational members to reevaluate their understandings (Gioia et al., 2000; Whetten & Mackey, 2002). With the “filter and mold” of an organization’s interpretations in flux individuals and organizations may be able to suspend their belief systems and thus be open to new interpretations and cognitive change (Inkpen & Crossan, 1995)

Marine Harvest’s organizational identity as an open, transparent and collaborative organization allowed what was begun as a private focused relationship, between CAAR and Stolt, to be diffused throughout the region quickly. The new approach was further legitimized when only a year later Marine Harvest was purchased by Pan Fish and contrary to predictions by industry insiders, the Framework for Dialogue was continued. Pan Fish subsequently consolidated all of its aquaculture and fish processing operations under the Marine Harvest name. Today the company describes itself as open and transparent, innovative and responsible. Identity ambiguity implies multiple possible interpretations about which core features should define the organization (Corley & Gioia, 2004). The ambiguity introduced by merger activity may have increased the opportunities to ask the question “who are we” and the positive feedback

from the environment may have provided guidance as to a desired future identity and the behaviours associated with that identity for the newly created organization (Corley & Gioia, 2004).

When there is ambiguity around an organization's identity, as in the case of mergers and divestitures, individuals within the organization may be open to new interpretations of what is "central, distinctive and enduring" (Albert & Whetten, 1985; Corley & Gioia, 2004). Cues may come not just from the organization's leadership (Corley & Gioia, 2004) but also from the external environment. Integrated inter-organizational learning supports a shift in organizational identity.

5.0 IMPLICATIONS FOR RESEARCH AND LIMITATIONS

This work highlights the importance of the relationship between conflict, identity and learning. Both organizational identity and organizational learning are built on a foundation of individual attention, interpretation and integration. Both concepts have behavioural as well as cognitive components and in both cases their behavioural aspects have received limited attention from researchers to date. The presence of conflict brings action/behaviour to the foreground in learning theories, while at the same time emphasizing the processes of identity protection and maintenance. This work elevates the importance of behaviour and suggests that how organizations and individuals enact or practice their identity is as important as the meanings they attach to it. Unless we understand how individual and organizational identity manifests in practice it is hard to understand their impact on learning. In addition, in the case of conflict laden issues learning may depend on the ability of individuals to come together in external communities of practice. The common practice prescribed by these communities may hold the key to sustained behavioural change which may in turn be a pre-condition of cognitive change.

We realize that focusing on one situation, in this case a protracted resource conflict, might limit the generalizability of our conclusions. We believe that connections that we have highlighted are relevant to a range of situations where inter-organizational learning is fraught with conflict, such as research consortiums and cross national joint ventures. We also believe that our findings have some utility for organizations more broadly as they come to grips with increased partnering, especially with stakeholders. Further research is required to identify the magnitude of "mutual gain" that is required to initiate a change in behaviour. For instance, is a threat of significant loss more likely to promote readiness than the prospect of increased gains? Are there professional practices that are more conducive to inter-organizational learning than others? Testing the validity of our conclusions requires longitudinal mapping of interactions and inter-organizational learning between firms and adversarial stakeholder groups. This could involve multiple case studies of firms in industries and situations with a history of conflict laden issues.

6.0 CONCLUSION

Current theory predicts that a firm's ability to explore new perspectives is constrained externally by societal and industry expectations and internally by social and role identities as well as by organizational identity. In a similar vein, research on conflict escalation, predicts that

in the face of real or perceived threats members become more identified with their groups and more distrustful of the group on the other side of the conflict laden issue. Yet we see evidence of organizations overcoming these constraints and learning from diverse organizations. This research examined the processes of inter-organizational learning around conflict laden issues and the role of identity for such learning. We put forward that in conflict situations how an individual or organization enacts or practices its identity can be as important to inter-organizational learning as the meanings that it attaches to its identity labels. The insights in this paper are an important step in understanding ways in which organizations can consider and integrate disparate perspectives.

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