Making Sense of Strategic Change at a University:
How Faculty Understood Their Implementation of a Cluster-Hiring Initiative

by

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DEDICATION

To all the family, friends, and teachers who inspired this research.

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ABSTRACT

Over the past half-century, American universities have come under increasing scrutiny by their stakeholders, and numerous interdisciplinary initiatives have been launched in response to this trend. However, little is known about how faculty members understand their implementation of these initiatives. It is critical that the experiences of such faculty be better understood because the outcomes of interdisciplinary initiatives can be diminished by a lack faculty support. A qualitative case study was conducted of faculty members' implementation of the Interdisciplinary Faculty Initiative at the University of Michigan between 2007 and 2012. Over two years, 49 interviews were conducted and analyzed along with hundreds of collected documents.

Guided by the theory of sensemaking, I find that faculty largely understood that the contributions of the initiative were realized through their cultivation of expertise. Essentially, faculty implemented the initiative in ways that they believed allowed their scholarly activities to reflect some distinctive aspect of their expertise. But rather than doing this by equipping specific subject matter they had mastered or by collaborating with other recognized experts, they also used a specific form of communication – reflective sensegiving – to do this work. They engaged in reflective sensegiving by asking a series of general and exploratory questions to a wide range of colleagues over

time. Doing so surfaced discrepant cues that they incorporated into their ongoing sensemaking which allowed them to better understand exactly how they could cultivate their expertise through the initiative they implemented.

These findings make a needed contribution to the literature by investigating the conceptual relationships that exist between sensegiving and the sensemaking process. By showing how faculty search out ways to cultivate their expertise, this work also provides a contrast to many existing depictions of faculty work as being essentially competitive, paradigmatic, or pedagogical in nature. Finally, the findings of this study have implications for the use of interdisciplinary initiatives to facilitate organizational change in large American research universities. They suggest that without ensuring that the expectations of the participating faculty are aligned with each other over time in complementary ways, the intended outcomes of interdisciplinary initiatives may be unrealized, diverted, or delayed.

Chapter 1

Strategic Organizational Change in Higher Education in the Case of an Interdisciplinary Cluster-Hiring Initiative

American research universities are being called upon to be more responsive to their environments and many faculty and administrators have implemented strategic initiatives that are intended to promote interdisciplinary teaching and research in response. Evidence suggests that the implementation of such strategic initiatives within these complex institutions has often depended on sustained faculty participation and support. While a great deal of research examines the immediate effects of these kinds of initiatives, the ways in which university faculty make sense of their participation in them have received less attention. It is as if in a rush to identify strategic responses to contemporary challenges, scholars of higher education have often neglected to ask, "Why do faculty believe that participating in these types of interdisciplinary initiatives is worthwhile?" The continued promotion of interdisciplinary teaching and research within America's largest universities may depend on the ability of scholars and practitioners of higher education to better understand how faculty go about answering this very question for themselves.

For well over 60 years, America's research universities have been ever more likely to accommodate the political and economic interests of government agencies and private industries (Rhoades & Slaughter, 1997; Slaughter & Leslie, 1997; Slaughter & Rhodes, 2004). Recent surveys of university presidents and provosts show that many have seen the promotion of interdisciplinary teaching and research as a strategic response to this trend (Brint, 2005; Brint, Turk-Bicakci, Proctor & Murphy, 2011). There is evidence that universities' successes in implementing these types of initiatives can depend on the robust participation and support of their faculty (Fumasoli & Lepori, 2011; Kotler & Murphy, 1981; Louval, 2013; Sa, 2008). In light of these facts, scholars of higher education call for more research that explores how faculty affect the way such organizational change occurs within colleges and universities (Kezar, 2013; Kezar & Eckel, 2002). Thankfully, research that examines how the work of employees can affect organizational change is well suited to "the analysis of a major sector of society – higher education – in which a diffuse profession-led specialization and integration are so clearly the main alternative to bureaucratic allocation and linkage" (Clark, 1993, p. 279).

There is an unfortunate lack of research on how university faculty make sense of the strategic interdisciplinary initiatives in which they participate. Instead, the immediate effects of these strategic initiatives have received the lion's share of scholars' attention, and this type of organizational change is more often conceptualized as the outcome of rational action aimed at competitive differentiation, or of evolutionary adaptation, than as the result of the interpretive social processes that occur within organizations (Chaffee, 1985; Porter, 1996). Given the critical role faculty play in the implementation of these initiatives, more attention needs to be paid to understanding how they see their

organizations changing as a result of their participation. This case study explores how faculty made sense of a strategic initiative they played a part in implementing.

Background

Before outlining specific research questions, it is necessary to situate this study within the literature on interdisciplinarity. On one hand, the literature emphasizes that higher education organizations are becoming more interdisciplinary, and indeed, universities are increasingly promoting interdisciplinary teaching and research as a way of strategically differentiating themselves from competing schools and, more generally, as a way of responding to contemporary change in their environments (Etzkowitz & Kemelgor, 1998; Brint, 2005; Brint, et al., 2009; Sa, 2008). For example, the interdisciplinary field of Cognitive Science arguably owes its growth in large part to the financial and material support provided by the Universities of Pennsylvania and Michigan, both of which promoted the field for strategic purposes (Thagard, 2005). Additionally, there is ample empirical research showing how various strategic initiatives have been demonstrably effective in promoting interdisciplinary scholarship on college and university campuses (e.g., Anzai, Kusama, Kodama & Sengoku, 2012; Baumwol, Mortimer, Huerta, Norman & Buchan, 2011; Bozeman & Corley, 2004; Bordons, Zulueta, Romero & Barrigon, 1999; Borrego & Newswander, 2008; Carayol & Thi, 2005; Corley, Boardman & Bozeman, 2006; Lyall & Meagher, 2012).

Despite its optimistic current, this body of literature highlights the many barriers that have persistently discouraged faculty members' production of interdisciplinary scholarship. Strong arguments have been made that the disciplinary cultures of university faculty are often isolated from each other and slow to change (Becher, 1994; Becher &

Trowler, 2001; Abbott, 2001, 2002), and empirical research suggests that engaging in interdisciplinary scholarship often carries professional costs, particularly for untenured faculty (Gumport, 1990; Lattuca, 2001; Leahey, 2007; Mars, 2007; McNair, Newswander, Boden & Borrego, 2011). Surveys of faculty indicated that many feel that engaging in interdisciplinary research and teaching was disadvantageous to their chances of receiving tenure (Feller, 2002; Rhoten & Parker, 2004). Additionally, relevant to this case study is the research that suggests that interdisciplinary initiatives are less effective due to a lack of sustained faculty participation and support (Baumwol et al., 2011; Small, 2009; Swenk, 1999).

When considering the literature on interdisciplinary scholarship in higher education as a whole, there is a need for more research that focuses on how faculty understand their roles in promoting interdisciplinary scholarship within their colleges and universities. The evidence suggests that many universities have implemented interdisciplinary initiatives but also that their faculty may well feel reticent to participate in it. Thus, we need to better understand how those faculty who do participate in these types of initiatives make sense of their contribution to organizational change on campus.

In addition, many scholars have called for more research that examines how the sensemaking process affects organizational change, particularly in regards to colleges and universities (Kezar, 2013; Maitlis, 2005; Maitlis & Lawrence, 2007; Weick, Sutcliffe & Obstfeld, 2005). This study responds to this need by exploring how faculty members at one university made sense of a strategic initiative designed to promote interdisciplinary teaching and research. The findings of this study show that the way faculty made sense of a strategic initiative was directly connected to the organizational change that

accompanied their implementation of that initiative. More specifically these results show that faculty members gradually developed an understanding of their role in that initiative that caused them to enact some of it's intended objectives but not others. By enriching and extending our understanding of the sensemaking process this study can make important contributions to theory. It does so by showing how sensemaking and organizational change can be connected to each other by virtue of an example of a specific case. This study also makes a practical contribution to the field by showing how the implementation of such a strategic initiative can affect organizational change at a university. Before moving on to describe the interdisciplinary initiative that is the focus of this case study the two research questions guiding this study must be articulated.

Research Questions

The primary aim of this study is to understand better how university faculty made sense of their implementation of a strategic initiative. This goal is supported by research questions that concern the perceptions of the participating faculty, and the primary research question considers the sensemaking process overall. A secondary question regards how sensegiving, which is a specific activity in which sensemakers often engage, affects the sensemaking of others.

The first research question of this study is, 'How do participating faculty make sense of the contributions of strategic initiatives that are intended to promote interdisciplinary teaching and research?' This question addresses faculty's sensemaking processes, or the interplay between their understanding of salient ambiguities and their relevant actions. Answering this question requires ascertaining how participating faculty retrospectively made sense of the ways a strategic initiative has contributed to the

production of interdisciplinary teaching and research on their campus. Accordingly, it is necessary to determine how they conceive of the ambiguous outcomes of the initiative and how their perceptions of these outcomes informed, and were informed by, the role they played changing their institution. By ascertaining this, it will be possible to articulate how these faculty made sense of the strategic initiative.

The secondary question of the study is, 'What are the effects of the participating faculty's sensegiving on the sensemaking of their peers?' While the primary research question concerns the sensemaking process considered overall, this secondary question focuses in on an activity – sensegiving – which can occur in conjunction with this process, and particularly on how sensegiving can affect sensemaking. Answering this question requires investigating how individuals' communications about the relevant changes that have or have not occurred at their institution affects the sensemaking of all participating faculty. As will be shown, addressing both research questions allows for a connection to be made between the sensemaking and sensegiving of the participating faculty.

Although sensemaking accommodates the cognition of individuals in particular ways it describes a social process. The unit of analysis of this study is the social group and not individual. Therefore, this study is guided by research questions that regard the understanding of a particular social group, specifically a group of university faculty charged with implementing a strategic initiative on their campus. While the evidence presented by this work is derived from interviews with individuals, the content of those interviews, and the focus of this work, was the experience of the social groups that constituted this set of individuals. The chapters that follow avoid speaking too explicitly

to the experiences of particular individuals and rather aim to accurately portray the experiences of the common social groups they inhabited.

Consequently, this work aims to provide a fine-grained understanding of how one set of faculty made sense of a strategic initiative they implemented, yet the implications of this study extend beyond the particular case in their suggestion of how the potential for organizational change in higher education can be affected by the way faculty form an understanding about it. Higher education is often perceived as being highly resistant to change, and existing research suggests that the promotion of interdisciplinary scholarship is often not possible without the sustained support of the faculty involved. By exploring how faculty make sense of strategic initiatives aimed at promoting interdisciplinary scholarship, the findings of this study can inform generalizable conclusions about potential challenges to and opportunities for such organizational change in the future. With research questions having been articulated, the remainder of this chapter turns to the case at the heart of this study.

The Interdisciplinary Faculty Initiative

This case study concerns a specific strategic initiative: the Interdisciplinary Faculty Initiative at the University of Michigan. This initiative was designed to subsidize the hiring of new faculty in clusters of academic positions. The university's schools and colleges were invited to collaboratively submit proposals for clusters of new, untenured, tenure-track faculty positions that would be partially funded by the Office of the Provost. Considered broadly, this cluster-hiring initiative was intended to promote interdisciplinary teaching and research within the university through intracluster collaboration. More specifically, this intracluster collaboration was described by leaders

as affecting positively the quality of undergraduate education, faculty mentoring, tenure evaluation, and prominent research programs. University President Coleman (2007) introduced the initiative in a speech at the start of her second five-year term:

> "Over the next five years, we will fund 100 tenure-track faculty positions to expand interdisciplinary work and to increase faculty connections with undergraduates. These 100 junior faculty positions will be centrally funded, meaning they will complement the regular faculty hiring in the schools and colleges, and will be awarded through competitive proposals to the provost. Priority will be given to faculty positions that support our major initiatives, such as energy and environmental sustainability. I want to encourage cluster hiring, with groups of faculty focused on emerging areas of scholarship and creativity. New hires require resources, so in addition to committing $10 million for salaries and benefits, we will designate $20 million for start-up costs. This is a major commitment—financially and philosophically. And it requires a major commitment from our deans and department chairs to be truly effective. As faculty evaluate scholarship, they must challenge each other to think differently about work that crosses boundaries. We have several deans with us today, and I encourage them to experiment with this new hiring program, to mentor and support these new hires, and to push the University in entirely new directions. Our new professors will be a strong addition to the undergraduate experience."

As President Coleman introduced it, clusters of faculty working on similar topics were to be hired into different departments and academic units with the explicit aim of fostering their intracluster collaboration, and the implementation of the initiative began shortly after it was announced. Faculty already established at the university were encouraged to form groups and create proposals for specific clusters that could be formed. The deans of the schools and colleges of the university were responsible for submitting these proposals to the Office of the Provost. A review committee of faculty assembled by the Office of the Provost was responsible for reviewing the submitted proposals and recommending the best to the leadership. Cluster proposals were approved in batches on an annual basis for a handful of years. Once a given cluster proposal was

approved, the relevant schools and departments were responsible for conducting a faculty search accordingly. A faculty lead for each cluster was responsible for coordinating the formation of the necessary hiring committees across the academic units involved. As a result of this initiative, a total of 25 clusters were formed and approximately 100 faculty members were hired into them between 2007 and 2012. While most of these new faculty were hired into a single department, a small number were hired into multiple departments or held a general faculty position within a single school. The vast majority of positions associated with the initiative have been filled, although a few remain open due to attrition or delays in filling the open positions.

These facts give a sense of how the initiative was implemented at the university over a certain number of years. The initiative also represents a rather specific type of organizational change in higher education because it drew upon substantial bureaucratic and financial resources over an extended period of time; this is important because such extreme organizational change impacts the generalizability and scope of any case study like this one (Stake, 2006). The boundaries of this case study will be addressed shortly. First, however, it is important to note that this case study may only be generalizable to higher education institutions similar in size to the University of Michigan.

Despite some limits to its generalizability, this study has value when and where it can be applied because of the considerable resources and risks involved in strategic initiatives. Jacobs (2013) notes that the risks involved with similar strategic investments in higher education are considerable. Such initiatives are extremely expensive and may prove to be (a) unsuccessful in achieving their intended outcomes; (b) a poor fit to the educational missions of the university; (c) beneficial in the short term but detrimental in

the long term; (d) perceived as best practices and thus be implemented in types of higher education organizations that are inhospitable to such change. Because many large American research universities have implemented very expensive interdisciplinary initiatives without adequately addressing these risks, it is critical that they be explored further. Ideally, as a result of this study, scholars and administrators in higher education will be more aware of how the sensemaking of university faculty can affect their organizations, how they may be exposed to these very risks, and therefore have the potential to mitigate them.

The Boundaries of the Case

The boundaries of all case studies must be clearly delimited and identified in a way that reinforces or compliments the justification of the study (Flyvbjerg, 2006). This case largely concerns faculty's recollections about their experiences working at the University of Michigan between 2007 and 2012. The study was designed to yield rich, thick, descriptive data about the experiences of individuals (Rubin & Rubin, 2012; Yin, 2006), but not for the purposes of extending their experiences (Stake, 2000) or for serving as a halfway house between their personal experiences and propositional thought (Donomyer, 2000). Rather, the goal of the case study is to learn about the "deeper causes behind a given problem" (Flyvbjerg, 2006, p. 229), namely the connections between the sensemaking processes of some faculty and their implementation of a strategic initiative. Limiting the boundaries of this case study to faculty's experiences over a certain period of time enables a detailed examination of how interpretive social processes affect a type of organizational change that is all too often conceptualized as merely being the outcome of rational action aimed at competitive differentiation or of evolutionary adaptation

(Chaffee, 1985; Porter, 1996). Case studies with these boundaries are needed because they enable practical recommendations to be made about how to mitigate important risks with potentially large and public costs.

While the boundaries of this case study have been strictly circumscribed and justified by practical concerns relevant to a limited number of organizations, this study has a broader theoretical and topical scope. The theoretical foundations and implications of this study will be outlined in the following chapter, which argues that the sensemaking process provides a good conceptual framework for examining the strategic initiative at the heart of this case study. Beforehand, however, it is critical that the topical scope of this case study be described in greater detail. The topical scope of this study was determined by the sets of discrepant cues that faculty identified during their interviews as being relevant to the way they understood how their implementation of this initiative.

Discrepant cues animate the sensemaking processes of individuals. Although the sensemaking process will be described in great detail later on, it can be said that the process is anchored by *discrepant cues*. Weick (2003) describes discrepant cues as interruptions that motivate someone to ask, 'What's the story here?' During the sensemaking process, people link discrepant cues to past and future situations as they decide what they will do next about any given situation (Weick, 1995), and as Maitlis and Sonenshein (2010) make a point of noting, people link discrepant cues with other cues they identify as being relevant to their current experience through the sensemaking process itself. After identifying a discrepant cue from among a set of events or situations, people frame and interpret this and further discrepant cues while coming to an understanding of what action(s) to take (Maitlis & Sonenshein, 2010). Weick also

describes these cues as "something in the form of a surprise" and as "something that does not fit" (1995, p. 2). In other words, while any given discrepant cue may anchor the sensemaking process, people continually incorporate new ones into the process as well.

Chapter 2 of this work describes how discrepant cues can arise from rare events such as an organizational founding, crisis, or transformation, and also from more commonplace events such as the implementation of a strategic initiative or the hiring of new personnel (Christianson, Farkas, Sutcliffe & Weick, 2009; Gioia & Chittipeddi, 1991; Gioia, Price, Hamilton & Thomas, 2010; Gioia & Thomas, 1996; Louis, 1980, 1990; Mills, 2003; Rouleau, 2005; Rouleau & Balogun, 2010; Smerek, 2013; Weick, 1993, 2010). Here, however, it is only important to reemphasize that the Interdisciplinary Faculty Initiative was designed to subsidize the hiring of clusters of new faculty between 2007 and 2012. The hiring of new faculty through the initiative represents an anchoring discrepant cue that was noticed by all of the faculty members who participated in this study, but it was never the only cue implicated in their sensemaking. In general, these faculty made sense of their implementation of the initiative by trying to understand what it meant for all those it affected over a long period of time.

Most of the other discrepant cues that faculty incorporated into their sensemaking process regarded their changing expectations of the initiative. And indeed, Weick (1995) points to a change in expectations as a type of discrepant cue that is frequently involved in the sensemaking process. Moreover, empirical research on sensemaking supports the notion that the expectations people have about their future experiences can have a direct effect on their subsequent experience and behavior, particularly when their expectations are publicly shared or well known by others (Cialdini, 1998; Maitlis & Sonenshein, 2010;

Nickerson, 1998; Salancik, 1977; Salancik & Pfeffer, 1978; Weick & Sutcliffe, 2003). The type of cues the faculty in this study most frequently identified as being relevant to their sensemaking regarded their changing expectations about the initiative.

In describing how they implemented the initiative, faculty often related the hiring of new colleagues to changes in their expectations about their own work in the future, and they typically referenced at least one of three types of changing expectations. First, many talked of adjusting their expectations about the role that intracluster collaboration would play in their implementation of the initiative. Then, in the course of implementing the initiative, some came to believe that it did not involve any organizational change beyond the hiring of new faculty; in other words, some faculty came to see the initiative as merely being "business as usual." Finally, several faculty were also surprised when the parameters of the initiative were adjusted to allow the hiring of tenured faculty as opposed to only untenured tenure-track faculty as had been originally intended.

This chapter provides examples of each of these changes in faculty expectations about the initiative and then turns to address how discrepant cues were linked together during the sensemaking process. This second point focuses on evidence suggesting that the faculty in this study understood their implementation of the initiative as being meaningful largely by virtue of it having long-term consequences for their colleagues and their own academic careers. Before describing how cues were linked, this chapter will address how the faculty's expectations of the initiative changed as they implemented it.

Faculty's Changing Expectations of the Initiative

In describing how they implemented the initiative, faculty frequently talked about how their expectations of the initiative changed over time. In the process of making sense

of the strategic hiring initiative, faculty described having to change their own expectations about their future work and that of their colleagues. Most notably, many adjusted the expectations they had about the role that intracluster collaboration would play in their implementation of the initiative. Much of the evidence presented in the remainder of this work concerns this very issue.

Generally, university faculty came to see the initiative as either fulfilling, or as failing to fulfill, various expectations. For example, a small number of faculty described how they expected that academic departments would become more or less diverse as a result of the initiative. One established faculty member, Amy, described liking "this idea in central administration that this was going to partly be a way of diversifying the faculty," but Amy also expressed disappointment that the initiative "was singularly unsuccessful at doing that." Although she noted that the initiative increased the proportion of female faculty in some departments, she ultimately concluded, "As a whole [the Interdisciplinary Faculty Initiative] certainly did not result in increased diversity in general." Another faculty member, Rob, described wrestling with the prediction some of his colleagues made that the initiative "was a way to pull back the hiring process and say, 'Let's identify 25 hot areas of research and let's hire in those areas' instead of kind of feeding departments or programs that are kind of tired." Regardless of what they had previously envisioned and what exactly they came to believe, most of the faculty members who participated in this study described how their expectations for the initiative were changed in the course of their implementing it.

Many of those who participated in this study initially expected that the faculty who were newly hired into a cluster would actively collaborate with each other as a part

of their jobs. In the process of implementing the initiative over a course of years, however, many of these individuals came to believe that rather than being an expectation, intracluster collaboration was merely "encouraged but not expected" or simply "was a hope." For example, established faculty member Tom, who was involved in the hiring of new faculty into a cluster, described how he came to feel:

> "On the one hand, the cluster has a purpose and you want to get the cluster together. You want the cluster to function as an interdisciplinary cluster, but the focus of the individual people really needs to be on their getting their tenure in their unit. … So it's not at all clear that they should be engaged in the activities of these clusters. So, that's a problem. That's a huge problem, I think."

Gary, another established faculty member who was involved in the hiring of new faculty into a different cluster, had a similar change in expectations but did not view the change as negative. In fact, by changing his expectations about the prospects of intracluster collaboration, he described how his desire to see more interdisciplinary scholarship in his unit was partially fulfilled:

> "The hope was that the cluster hire, the focus of the cluster research, and our unit's faculty member – well, our faculty member's contribution to the cluster – would also align with our department. That was the hope. But it seems that it has aligned less with the cluster hire and more with the unit. … The specific individual we've hired [has] found more alignment with [other units], so it's expanded our reach into [another department] and [another school]. It's a happy… it's really great the way it has turned out for [them] and for our department. It doesn't really fulfill the intentions of the cluster hire, but it's interdisciplinary. It's very interdisciplinary."

Similarly, some faculty described how they came to believe that the Interdisciplinary Faculty Initiative was an initiative in name only and that their related work was to be "business as usual" when it came to faculty hiring. For example, one established faculty member became more convinced of this when another administrator

in the unit advised her that, "You should get some of these positions for [the unit] because I don't know how else you're going to be able to get faculty lines." Similarly, another established faculty member described the initiative as the "way that business was being done at the university at this time." This faculty member noted how he quickly came to realize, "if you want to hire new faculty – new colleagues – then you have to play the game. And the game is to come up with these interdisciplinary clusters across departments." In fact, a large proportion of the faculty in this study described how their expectations of the initiative changed in this way as they implemented it.

Finally, a small number of the faculty also mentioned being surprised when the hiring of tenured faculty through the initiative was allowed. Their surprise is understandable, given the fact that the President of the University introduced the initiative as being exclusively for the hiring of junior faculty, and its original RFP referred to the program as the Interdisciplinary Junior Faculty Initiative. Several faculty members explicitly stated that the hiring of tenured faculty through the initiative changed the expectations that they had of it. Many other faculty, however, were unaware of this policy change and some of those who were aware of the change noted that it did not affect their expectations because the faculty in their cluster had already been hired. Still, several faculty described themselves as being surprised by the change. After calling his cluster "a disaster," one such faculty member described being surprised:

> For some reason [another unit] was allowed to make an offer at the senior level, which is completely at odds with the expectations of the search. If we could have had five senior positions, I could have put Michigan on the map in that field. I knew five people in these different areas, five senior people I think we could have brought to Michigan. It would have been fantastic.

The purpose of highlighting these faculty members' changing expectations is two-fold. First and foremost, it serves to show that many of the faculty in this study incorporated sets of discrepant cues into their sensemaking processes. In describing how they made sense of the initiative, faculty typically referenced many relevant discrepant cues, most often those associated with their changing expectations regarding intracluster collaboration, alternative methods of faculty hiring, or the hires' tenure statuses. The second purpose of highlighting these changing expectations is to suggest how discrepant cues are linked together over time through the sensemaking process. The linking of cues evident in the participating faculty's sensemaking effectively broadened the topical scope of this study far beyond the strict boundaries of the case being examined.

Linking Discrepant Cues to Long-Term Implications

Most of the faculty who participated in this study emphasized that the implications the hiring of a new professor into an academic unit might only become apparent after a long period of time. For example, one newly hired faculty member, Will, noted, "I've only been here [several] months so it is really too soon to know, I think, in my case exactly what the outcome of that will be." Another newly hired faculty member, Adam, argued, "Ten years from now is when it's going to look more apparent as to how well this worked." And Amy, who mentored a newly hired faculty member in her unit for approximately one year, noted that in comparison to the amount of time it would take a new faculty member to settle in, "A year is almost nothing." In general, newly hired and established faculty alike understood their implementation of the initiative as becoming evident gradually over a period of several years.

A number of faculty also understood their implementation of the initiative as being gradual and extended over long periods of time because the field of higher education itself can be very slow to change. These faculty typically insisted, "Change is slow in academia," or that "universities tend to be resistant to change." Pam, an established faculty member, recounted a conversation she had with a colleague pointed out that some of the disciplines represented in her cluster did not exist 30 years ago. This stood out in her memory because it supported her belief "that these things do actually change over time, [even] maybe if it's slower than we'd like." One established faculty member even quipped that the outcome of the Interdisciplinary Faculty Initiative might be most accurately understood by "historians 500 years from now."

Still, the fact that faculty described their implementation of the initiative as extending over several years has to do with more than the time it takes to acclimate oneself to a new organization or the seemingly glacial pace of academic change. Faculty claimed that the process of making sense of the introduction of a new member to an academic unit occurred gradually, in part, by design. Many described wanting to acclimate to new colleagues slowly, as if to feel out how they would influence each other's scholarship. Barb, a newly hired faculty member, described how her colleagues helped her discern her new role gradually by talking with them about problems and issues as they arose:

> So I've been trying to learn more from those that have been here for maybe eight years or ten or twelve years. They've just gotten past tenure in the last few years and have been here long enough to kind of learn the ropes and… but it's funny, a lot of them are really slow to…they don't want to corrupt me and corrupt my opinion of the dean or different people. And they're very thoughtful and careful, but they slowly let things out as I have specific challenges or issues that come up. And they'll slowly kind of give me advice if I seek them out.

Considered together, these findings suggest that the faculty in this study understood their participation in the initiative as stretching over a period of years. By way of explanation, most of these faculty testified to the great amount of time and energy needed to establish an academic career at a large research university. There is reason to believe that faculty also sought to make sense of their growing departments and schools gradually. The gradual character of faculty's sensemaking, as well as their concern with intracluster collaboration and changing expectations of the initiative, is well reflected in the remainder of this work. This particular chapter has endeavored to show how university faculty incorporated sets of discrepant cues into their understanding of the initiative over long periods of time. In short, faculty linked discrepant cues together in ways that enabled them to better understand the short- and long-term impacts of their participation in the initiative. This finding broadly supports the notion that changes to the expectations people have about their future experiences can have a direct effect on the way their sensemaking processes develop over time (Maitlis & Sonenshein, 2010; Weick, 1995; Weick & Sutcliffe, 2003).

In conclusion, this chapter began by presenting the background and structure of the Interdisciplinary Faculty Initiative. It has also described how the boundaries of the initiative at the heart of this case study determine the boundaries and generalizability of the case study itself. Additionally, it was argued that faculty made sense of this initiative by trying to understand the complex impact that hiring new colleagues into the university would have; they also sought to understand how their expectations of the initiative were changing as they were in the process of implementing it. Moreover, the understanding that faculty developed about the initiative had long-term implications for their

colleagues' and their own careers. In contrast to case studies of sensemaking processes that developed in response to crises that unfolded over hours or days, (e.g., Weick, 1988, 1990, 1993), this work examines sensemaking processes which developed in response to an initiative that was implemented over many years and incorporated fine-grained understandings of its many long-term implications.

The following two chapters present the conceptual framework and analytical methods of this case study. The subsequent four chapters present the findings of this research. A concluding chapter summarizes the sensemaking process of the participating faculty and outlines the theoretical and practical implications of this work. It is hoped that scholars and administrators in higher education will use this work to mitigate the risks associated with implementing costly interdisciplinary strategic initiatives at large American research universities. The findings of this work provide a strong foundation for articulating some recommendations that can enable such future initiatives from resulting in unintended outcomes both in the short and long term.

Chapter 2

Sensemaking as a Conceptual Framework

The conceptual framework for this study is the *sensemaking* process (Weick, 1995). In very general terms, sensemaking is "the interplay of action and interpretation" (Weick, Sutliffe, & Obstfeld, 2005, p. 409). This study is largely designed to explore how faculty's understanding of the contributions of a strategic initiative to interdisciplinary scholarship affects, and is affected by, the ways in which they participate in the initiative. The bulk of this chapter reviews their sensemaking process.

The strategic initiative at the center of this study, the Interdisciplinary Faculty Initiative, was designed to facilitate the hiring of new faculty into established academic departments and units. A detailed examination the implementation of this initiative necessitates exploring the experience of these newly hired faculty as well as those established faculty who played a role in hiring new faculty into their units. This study includes both established and newly hired faculty members and is designed to address their collaboration and communication with each other. Focusing on these faculty members' communication with each other necessitates accommodating the exploration of sensegiving in the design of this study. Sensegiving is commonly thought of as a corollary of the sensemaking process and is partially constituted by interpersonal

communication (Gioia & Chittipeddi, 1991). So, this chapter concludes with a review of the concept of sensegiving and its relationship to the sensemaking process.

The Elements and Properties of Sensemaking

The sensemaking process has been described as a "modified evolutionary process of ecological change" (Weick, 2003, p. 185) because it regards how an individual's efforts to adapt to environmental change can also cause further environmental change to occur (Weick, 1995). More formally, sensemaking can be defined as, "the process of social construction that occurs when discrepant cues interrupt individuals' ongoing activity, and involves the retrospective development of plausible meanings that rationalize what people are doing" (Maitlis & Sonenshein, 2010, p. 551). Sensemaking is a process of social construction because it describes how people develop new understandings in conjunction with their actions, and further, how this process induces subsequent change to the environment. Using this conceptual framework to study faculty participation in a strategic initiative focuses attention on their relevant actions and their interpretation of those actions, and it also directs attention towards the effects of this interplay of action and interpretation on the implementation of the strategic initiative itself. Indeed, the findings of this study show that the contributions of an initiative can be fundamentally intertwined with the way that the participants understand it.

The sensemaking process is comprised of three interwoven elements: enactment, selection, and retention. The term *enactment* describes "an organism's adjustment to its environment by directly acting upon the environment to change it (Nicholson, 1995, p. 155). Similarly, enactment reflects "the stubborn insistence that people act in order to develop a sense of what they should do next" (Weick, 2003, p. 186). *Selection* refers to

people's examination of the past in order to discriminate among the resultant data for salient information. And finally, *retention* regards people's adoption of a sufficient account of reality, "coincident with presenting some self to others and trying to decide which self is appropriate" (Weick, 1995, p. 20). The elements of enactment, selection, and retention are linked and constitute a reciprocal relationship people can have with their environment, which is a relationship characterized by a mutual kind of change.

The sensemaking process is characterized by seven distinct properties (Weick, 1995). It is a process that is (a) grounded in identity construction; (b) retrospective; (c) enactive of sensible environments; (d) social; (e) ongoing; (f) focused on and by discrepant cues; (g) driven by plausibility rather than accuracy. Jennings and Greenwood (2003) arranged each of these properties and the three relevant elements of sensemaking into a three-stage model of the process that is often used to provide a graphical depiction of this conceptual framework (Fig. 1).

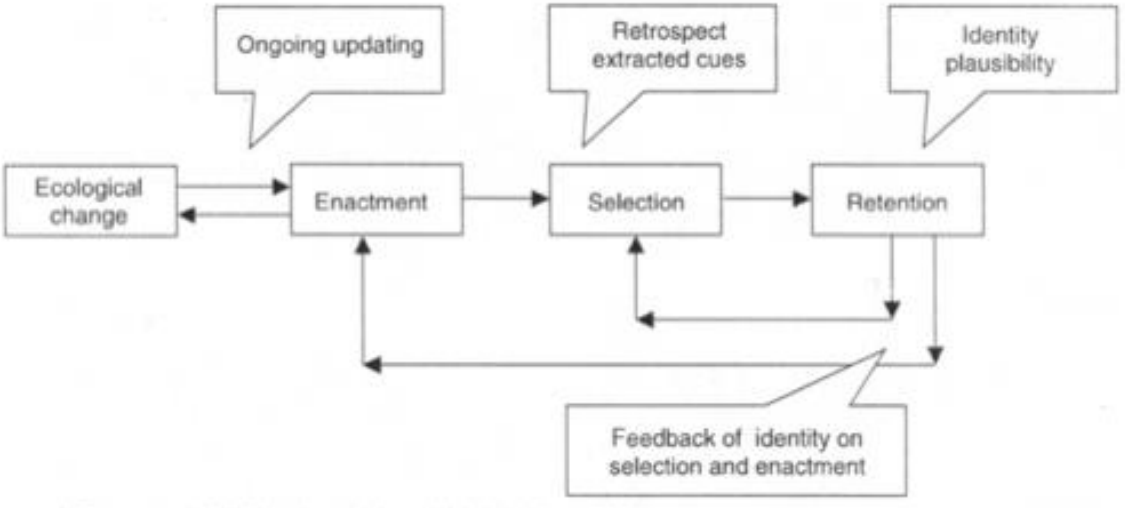
Jennings and Greenwood's (2003) model is useful for elaborating and sequencing the relationship between the various properties and elements of sensemaking, but it is critical to note that the three elements of sensemaking do not always occur in the same sequence and are not always equally consequential to the sensemaking process considered overall (Weick, 2001). Moreover, the properties of sensemaking overlap onto and feedback into each other. Still, many examples of sensemaking do happen to follow an intuitive sequence. Consider Weick's (1995) description of the sensemaking process (with associated processes in parentheses) in relation to strategic planning:

> Strategic plans are a lot like maps. They animate and orient people. Once people begin to act (enactment), they generate tangible outcomes (cues) in some context (social), and this helps them discover (retrospect) what is

> occurring (ongoing), what needs to be explained (plausibility), and what should be done next (identity, enhancement). (p. 55)

In this intuitive sequence, sensemaking is heightened when discrepant cues caused by some environmental change induce perceptions of troubling ambiguity that compel some immediate reaction from a person. These perceptions and reactions lead a person to ask, 'What is the story here?' and further, 'Now what?' In the course of answering the first of these questions, a person retrospectively extracts bits of available information for further consideration, effectively selecting the information with explanatory potential. Having selected out this information, a person retains that which simultaneously seems likely to be valid and accords with their identity. Using the retained information to explain their situation, the person can try and adapt to their circumstances once again.

Figure 1. The elements and properties of the sensemaking process



Source: Reproduced from Jennings and Greenwood (2003).

While many of the faculty who were interviewed for this study described their sensemaking as occurring in an intuitive sequence, all were allowed to freely describe their sensemaking processes as occurring in any kind of sequence. The interview protocol used for this study (found in Appendix B) accomplished this by asking questions relative to each of the three elements of sensemaking that did not imply an invariable, or even strict, sequencing of the elements. However, before the design of this study can be discussed, it is necessary to describe each of the three elements of the sensemaking process in turn.

Enactment. To understand enactment, it can be helpful to reflect on the origins of sensemaking itself. In the field of Organizational Studies, this conceptual framework is largely credited to Karl Weick (1979, 1995). Weick (2003) acknowledges that sensemaking builds on several different intellectual foundations, such as Garfinkle's (1967) scholarship on the social construction of reality and Abelson's (1968) work on the psychological consistency of people's attitudes and behaviors. Notably, Weick (2003) also claims the sensemaking framework was born of the zeitgeist of the Vietnam War, which witnessed the U.S. government grimly double-down on its military commitments and justify its actions to Americans with messages of nostalgia and patriotism. In this way, Weick's framework "made sense in and of the 1960s and 1970s when it first appeared" and it rearticulated the idea that "people create their own fate" (p. 186). Yet sensemaking remains a compelling framework for studying contemporary organizations because it illustrates how people struggle to draw meaningful inferences from sources of troubling ambiguity and their consequences for the future. This idea is relevant to understanding how university faculty adapt to contemporary environmental change as well as what the implications of their actions may be for the future of their schools.

Enactment is characterized by two properties: the enactment of sensible environments and the ongoing quality of the sensemaking process. The concept of enactment was already introduced by way of an anecdote about the origins of the conceptual framework. By saying that the sensemaking process has an ongoing quality, Weick (1995) is asserting that sensemaking never actually starts or stops. Instead, sensemaking is continually a part of an individual's lived experience.

Yet while sensemaking is ongoing, it can become more or less pronounced in a person's experience depending on whether or not his normal routines are interrupted. For example, sensemaking could become more pronounced in a person's experience if it coincides with troubling anxiety about sudden or unforeseen uncertainties. By identifying a point in time when his routine was interrupted or when his expectations were not met, an individual brackets past experience into discrete events or a discrete series of events. When a person brackets past experience in this way, it becomes possible for certain events to be labeled as what Maitlis and Sonenshein (2010) term *discrepant cues*. Weick (2003) makes the point that the sensemaking processes largely concerns how people who notice discrepant cues go about answering two questions: 'What is the story here?' and 'Now what?' For example, when discrepant cues induce perceptions of troubling ambiguity among people within organizations, they usually feel uncertain of the situation and unsure of what to do in response.

It is no surprise, then, that a great deal of the research on sensemaking within organizations regards crises as "low probability/high consequence events that threaten the most fundamental goals of an organization" (Weick, 1988, p. 305). The study of organizational crises is likely to be fruitful because crises are a reliable source of the type of discrepant cues that so often emphasize the experience of sensemaking. One seminal example of a crisis studied in this literature is the 1984 Bhopal disaster in which thousands of people were killed by a gas leak at an industrial plant in Mahya Pradesh, India. Weick's (1988, 2010) well-known studies of this disaster show how the sensemaking of the management and workers at the Union Carbide India Limited pesticide plant contributed to the steady unfolding and horrifying cost of this tragedy.

Because they threaten organizations and typically surface discrepant cues, cases of crisis have proved valuable in understanding sensemaking in organizations of a wide variety of sizes and types.

Because they produce discrepant cues almost invariably, organizational crises can be expected to heighten peoples' experience of the sensemaking process. But discrepant cues can also arise from more common types of organizational change, such as the implementation of strategic initiatives or plans for broad reorganization. Indeed, a growing body of research also examines the sensemaking processes associated with more typical forms of organizational change, such as the introduction of a 'balanced scorecard' strategic plan at Nova Scotia Power in the late 1990s (Mills, 2003). Just as "social context, identities and [discrepant] cues change as small failures become linked and amplified during a crisis, so too do these same elements during an organizational change" (Maitlis & Sonenshein, 2010, p. 558). In other words, common types of organizational change can generate the same sort of feelings of anxiety and uncertainty that characterize people's perceptions of discrepant cues during an organizational crisis.

This study focuses on the way faculty made sense of the contributions of a strategic initiative that they played a critical part in implementing. In this case, the strategic initiative concerns the promotion of interdisciplinary research and teaching across a university's academic departments and units. The organizational changes associated with the implementation of this strategic initiative proved to be a common source of discrepant cues because the initiative involved bringing new employees into an unfamiliar environment. As Louis (1980) argues, the hiring of new employees into an organization is a highly notable and reliable source of discrepant cues capable of

heightening people's experience of sensemaking. As will be shown, the introduction of newly hired faculty into the university produced discrepant cues that anchored the sensemaking processes of the faculty who participated in this study.

The relevant enactments they described during their interviews were largely concerned with making sense of this particular discrepant cue. To address the role of enactment in sensemaking more comprehensively, the interview questions asked during these interviews focused on the actions that participating faculty took throughout the initiative's implementation between 2007 and 2012. In addition, the participating faculty were asked to describe what, if anything, they found ambiguous or troubling about their implementation of the initiative. Asking both of these types of questions proved necessary in articulating what the participating faculty actually did relevant to the initiative's implementation and what they were trying to make sense of throughout.

Selection. In Jennings and Greenwood's (2003) model of the sensemaking process, *selection* refers to people's examination of the past and the ways they discriminate among the many cues they extract from their social context. Sensemaking is retrospective; people necessarily make sense of present situations by examining past actions and experiences (Weick, 1995). It is important to note, however, that the extent to which sensemakers recall past actions and experiences will vary.

People can go through the sensemaking processes while some crisis or organizational change actually unfolds (Weick, 1988, 1990, 1993; Wicks, 2001), and they can also do so long after the actual event occurred (Brown, 2000, 2003, 2005; Christianson, Farkas, Sutcliffe, & Weick, 2009; Mills & O'Connell, 2003; Seeger & Ulmer, 2002). Variation in the retrospective horizon of individuals' experiences during

sensemaking can have a powerful effect on the sensemaking process itself. Indeed, "When people perform an organized action sequence and are interrupted, they try to make sense of it. The longer they search, the higher the arousal, and the stronger the emotion" (Weick, 2005, p. 48). Had the interview protocol used in this study asked faculty to explain their participation in the initiative using a standard starting date, the study would have artificially constrained the topical scope of their sensemaking processes. Instead, this study accommodated the retrospective property of sensemaking by inviting faculty to describe their experiences of participating in the Interdisciplinary Faculty Initiative beginning at whatever point in time seemed relevant.

Again, the element of selection refers to people's examination of the past and the ways they discriminate among the many cues they extract from their context. The fact that this context is an inherently social one has been strongly emphasized by scholars studying the sensemaking process (Jennings & Greenwood, 2003; Weick, 1995, 2003). Social contexts are important to the sensemaking process for two reasons. First, social contexts invariably inform standards of appropriateness that constrain a sensemaker's range of future actions. Second, social contexts inform the way sensemakers interpret past actions and experiences (Weick, 1995). These two points will be addressed in turn.

During sensemaking, relevant cues are extracted from a social context, or what Goffman terms a *social framework*. Goffman (1995) argues that the way individuals construct their understandings of things relies on a variety of indivisible assumptions, or *primary frameworks*. There are two types of primary frameworks: *natural frameworks*, which consist of purely physical properties of things and their mechanistic relationships with each other, and *social frameworks*, which consist of the deeds of others, specifically

"guided doings" that "incorporate the will, aim, and controlling effort of an intelligence" (p. 22). The cues that people extract from their social frameworks enable two types of understanding. Namely, it allows people to understand the "patent manipulation of the national world in accordance with the special constraints that natural occurrings impose" as well as the "special worlds in which the actor can become involved" (p. 23). To sum, sensemaking is an inherently social process because the deeds and perceptions of others invariably enter into people's efforts to make sense of their own past actions and experiences. As a result, social frameworks simultaneously influence individuals' standards of appropriate action and inform the way they interpret the actions they actually take.

Weick (1995) notes that the sensemaking process is focused on and by extracted cues. He also notes that, unfortunately, "Sensemaking tends to be swift, which means we are more likely to see products than process" (p. 49). Gathering data about how faculty retrospectively selected out information from social contexts during the sensemaking process therefore required actively prompting faculty to recall the way they thought about issues in the past. In accordance with this approach, the interview protocol used in this study included questions requiring participants to recall the ways in which they framed the issues that they described as being relevant to their understanding of their participation in the initiative. Asking such questions made it possible to identify the social contexts the faculty found relevant to their sensemaking as well as the cues they extracted from those contexts.

Retention. Retention is the final element in Jennings and Greenwood's (2003) model of the sensemaking process. This element regards an individual's adoption of a sufficient account of reality "coincident with presenting some self to others and trying to decide which self is appropriate" (Weick, 1995, p. 20). There are two properties of retention that need to be described: plausibility and identity. The role of plausibility in sensemaking can seem relatively straightforward; during the sensemaking processes, the sensemaker is focused on articulating an explanation of their situation that is satisfying in terms of its plausibility, regardless of whether or not it is accurate (March, 1994). During the sensemaking process, individuals ask themselves, 'What is the story here?' with the aim of articulating an explanation that is plausible enough to enable the person to take meaningful subsequent action (Weick, 2008).

Here, the point is that sensemakers need to come up with an explanation of their circumstances that is plausible enough to allow them to act, and not an explanation that is accurate per se (Weick, Sutcliffe & Obstfeld, 2005). Indeed, "sensemaking is about accounts that are socially acceptable and credible" (Weick, 1995, p. 61). The evidence presented through this work suggests that it took a considerable amount of time for them to determine how plausible competing understandings of their situation really were. Regardless, this and other studies also show that retention is profoundly affected by the influence of the sensemaker's identity as well as that of those of individuals within his or her social context or group. Given its centrality to the proposed study, the topic of identity needs to be addressed in considerable detail.

The importance of identity to the sensemaking process has been consistently emphasized (Weick, 1993, 1995, 2003), but before it is possible to describe how identity

affects the sensemaking process, it is necessary to first explain identity as an idea. Conceptually, identity requires making an important distinction between the actor and the social contexts or groups of which the actor is a part (Albert & Whetten, 1985; Cooley, 1902). When conceiving of their own identities, individuals often imagine how they appear to others and then consider how others might judge this appearance. The resultant knowledge is then incorporated into their conception of themselves, if not by virtue of some rational decision to articulate their identities in a certain way then by virtue of the emotional response or "self-feeling" that the consideration of such knowledge tends to invoke (Cooley, 1902, p. 172). Essentially, the identity of an actor depends not only on that actor's claim to potentially distinct or unique qualities but also the "actor's subjective sense of uniqueness" as well (Whetten, 2006, p. 221). Getting a subjective sense of uniqueness requires individuals to imagine their appearance, or image, in the eyes of others. As a property of sensemaking, identity should be understood to include an actor's understanding of his own distinctive qualities as well as his imagined image in the eyes of others who seem to belong to relevant social groups.

Because the concept of identity includes actors' considerations of their image as well as their consideration of their identities in respect to their image, identity can be described as having multiple components. In other words, multiple forms of identity will figure into any single individual's maintenance of his own identity. So, unsurprisingly, sensemakers will invoke different identities as being relevant to them depending on the circumstances in which their sensemaking occurs. For example, Wicks (2001) found that miners who identify as the breadwinners and providers for their families were more tolerant of risky conditions in their work site. Similarly, Weick (1993) found that sudden

changes to the professional roles of the fire-jumpers involved in the Mann Gulch disaster made it more difficult for them to make sense their situation. For example, when an informal source of authority ordered the endangered fire-jumpers to drop their tools:

> They are also told to discard the very things that are their reason for being there in the first place, [and] then the moment turns existential. If I am not longer a firefighter, then who am I? With the fire bearing down, the only possible answer becomes, an endangered person in a world where it is every man for himself (p. 637).

In sum, during sensemaking, individuals can invoke multiple identities and images depending on which they see as being relevant to their circumstances. Indeed, identity is constructed as a result of individuals' "process of interaction. [Because] to shift among interactions is to shift among definitions of the self" (Weick, 1995, p. 20).

This point is particularly relevant because this study is designed to explore, in part, the role that organizational identity plays in the sensemaking of university faculty. Organizational identity and individual identity are different, but the concepts share a key similarity: both involve a continual renegotiation of an actor's sense of self with an actor's image, regardless of whether the actor is an individual or an organization (Dutton & Dukerich, 1991). However, organizational identity differs from individual identity in an important way: organizational identity can be conceived of as being constitutive of all the identities of members of the organization or as being reflective of the distinctive qualities of the organization considered overall (Albert & Whetten, 1985). In the first conceptualization, an organization's identity is completely constituted of its members' own identity constructions. In the second conceptualization, the identity of the organization is made out of whole cloth, being entirely based on the attributes of the organization considered as a discrete entity (Whetten, 2006). Unlike individual identity,

organizational identity describes the distinctive qualities of a collectivity of actors, regardless of whether they are conceptualized as a cohesive whole or as a set of different individuals.

Yet it is also the case that organizational identity can be a very relevant to the identity of individuals. Organizational identity can be ascribed solely to organizations but it has also been defined as the perception of an individual whose membership in a given organization defines himself and his beliefs (Ashforth, 1998, 2001, 2007; Ashforth & Mael, 1989, 1998, 1996; Ashforth & Kreiner, 1999; Fanelli & Misangyi, 2006). In other words, "Organizational identification occurs when an individual's beliefs about his or her organization become self-referential or self-defining" (Pratt, 1998, p. 172). Under this definition, organizational identity can be understood to play a potential role in individuals' sensemaking processes. Certainly, empirical research strongly supports the potential relevance of organizational identity to individuals' sensemaking. For example, in their study of the alumni of religious colleges, Mael and Ashforth (1992) found that the alumni's organizational identities corresponded to their willingness to make financial contributions to their alma mater as well as to recommend attendance to their offspring. Indeed, organizational identity has not only been found to affect the way an organization's employees interpret and behave towards issues (Steiner, Sundstrom, Sammalisto, 2013), but also how the leadership conceives of and carries out its roles (Dutton & Dukerich, 1991; Gioia & Thomas, 1996; Golden-Biddle & Rao, 1997; Ogawa, 2002). For example, organizational identity has influenced how the leaders of colleges and universities went about creating new academic programs (Gioia, Price, Hamilton, & Thomas, 2010) and negotiating emotionally charged conflict on their campuses (Harris &

Hartley, 2011). Thus far, the concept of identity has been described as involving an actor's maintenance of multiple identities and the fact that organizational identities can also be relevant to an actor's identity. However, the way in which identity actually affects the sensemaking process remains to be outlined.

Sensemaking involves individuals' interpretations of their own situations, and so it is reasonable to assume that differences in the identities of individuals have the potential to affect the outcomes of their sensemaking processes. Identity affects the sensemaking process in four notable ways. First, identity can dictate, a priori, the ways an individual understands the actions he or she is able to take. Second, identity can affect the way individuals interpret the information they obtained as a result of retrospectively extracting cues from their social context or group. Third, since the identity of an individual is partially dependent on an imagined image in the eyes of others, an individual's enactments can affect his or her identity (e.g., changing or reinforcing it) by virtue of how the individual's actions affect his or her imagined image. And finally, because an individual's identity can affect his enactments and because those enactments can affect his identity, identity also serves to make the process of sensemaking continual. This is why Jennings and Greenwood (2003) note that the inclusion of identity in the sensemaking process makes the associated model of human behavior "truly" social and ongoing (p. 202).

The centrality of identity to the sensemaking process explains why Weick (1995) so strongly emphasizes that sensemaking invariably "begins with a sensemaker" (p. 18). Indeed, although identity figures in at the tail end of Jennings and Greenwood's (2003) model of sensemaking, Weick (1995) positions identity first in his list of the seven

properties of sensemaking to emphasize its centrality to the process. He notes, "The direction of causality flows just as often from the situation to a definition of self as it does the other way. And this is why the establishment and maintenance of identity is first on our list" (p. 20). Indeed, Weick, Sutcliffe, and Obstfeld (2005) note that, "who we think we are (identity) as organizational actors shapes what we enact and how we interpret, which affects what outsiders think we are (image) and how they treat us, which stabilizes or destabilizes our identity" (p. 416).

Because identity plays such a critical role in the sensemaking process, this study necessarily treats identity as a major point of focus; multiple questions in the interview protocol referenced issues of identity explicitly or indirectly. For example, one question obliquely invited comments about the identity of the participating faculty, and another invited their comments about the effect of the strategic initiative on identity of the academic departments and units to which other faculty were appointed. Overall, much of the interview protocol was designed to foster a discussion about the changing identity of the participating faculty as well as the changing identity of relevant academic units and social groups within the university.

Sensegiving. A growing body of scholarship ties the sensemaking process to the closely associated activity of sensegiving. Whereas sensemaking regards the way that individuals create an understanding of their circumstances in conjunction with their actions, sensegiving is concerned with an individual's attempts to influence the sensemaking of others. Because sensegiving is constituted of actions taken by an individual to influence the sensemaking of others, sensegiving should be thought of as a form of enactment. However, sensegiving can be intended to influence any part of the sensemaking processes. For example, it can be used to prompt the enactment of others (e.g., a plea for action on an emergent problem), to highlight social frameworks with the goal of encouraging others to view them as a relevant source of information (e.g., an argument to pay attention to disenfranchised stakeholders), or to call forth certain identities (e.g., a claim to speak for the defenders of a faith). In each of these examples, an individual takes a sensegiving action which targets different a part of the sensemaking processes of others.

Sensemaking and sensegiving are part of the same conceptual framework because both regard the way individuals develop an understanding in conjunction with action, and because in practice, people have been found to use both in support of one another (Kezar, 2013; Kezar & Eckle, 2002; Gioia & Chittipeddi, 1991; Gioia et al., 1994; Gioia, & Thomas, 1996; Gioia, Schultz, & Corley, 2000; Gioia, Price, Hamilton, & Thomas, 2010). Indeed, Rouleau (2005) argues that sensemaking and sensegiving are connected to one another inherently:

> Although [the sensemaking and sensegiving] processes appear to be conceptually different, the boundaries of each are permeated by the other. As discourse and action, sensemaking and sensegiving are less distinct

> domains (Hopkinson, 2001) than two sides of the same coin – one implies the other and cannot exist without it. (p. 1415)

For example, Gioia and Chittipeddi (1991) found the incoming president of one university first worked to envision a future identity for the school (sensemaking), then sent signals to stakeholders about the strategic change that the university would undergo (sensegiving), and went about revising his vision based on his interactions with university stakeholders (sensemaking), and finally used various forms of communication to energize stakeholders to participate in implementing a strategic initiative (sensegiving). This example highlights that sensemaking and sensegiving are not just processes that run in parallel; rather, the outcomes of both processes can be codependent of other. The findings of this study support this conception of the relationship between sensemaking and sensegiving.

The work of Gioia and his colleagues has produced another important insight about sensegiving that needs to be emphasized: sensegiving is often concerned with issues of identity. For example, in their case study of a top-management team of a university, Gioia and Thomas (1996) found that the leadership sought to implement a strategic initiative by contrasting a future image of their university with its present image in order to motivate faculty to participate in making the types of changes the leaders saw as being necessary. Similarly, Corley and Gioia (2004) found that leaders seeking to start-up a new company focused their sensegiving attempts on developing an identity for the organization. Finally, Gioia, Price, Hamilton, and Thomas (2010) found that during the establishment of a new college within a university, faculty members relied equally on sensemaking and sensegiving processes to develop the identity of the college as well as to understand their roles within it. They conclude, "Identity understandings and identity

claims not only inform each other, they help constitute each other because of their recursive, reciprocal relationships" (p. 35). While sensegiving can target any part of the sensemaking process, there is good reason to expect that sensegiving activities will often regard issues of individual and organizational identity during periods of organizational change. Indeed, one of the major contributions of this work to our understanding of sensemaking as a conceptual framework regards the way that faculty used sensegiving activities to cultivate a distinct identity relative to the social groups to which they belonged.

It is also critical to note that the majority of the research on sensegiving concerns the leaders of organizations and their communications with their subordinates (e.g., Gioia & Thomas, 1996). However, there is a growing body of research that regards the sensemaking and sensegiving experiences of middle managers (e.g., Kezar, 2013; Rouleau, 2005) and there is a need for more research on this population. This study responds to this need by examining the experiences of faculty members who were not the leaders of the university in which they worked but who were charged with actually implementing a strategic initiative designed by their leaders. The theoretical and practical contributions of this study that resulted from this exclusive point of focus are outlined at the end of this work.

Finally, it is necessary to point out how this study sought to accommodate the role of sensegiving in the sensemaking process. First, because an individual's attempts at sensegiving are intended to affect the sensemaking of others, it proved necessary to ask faculty if other people helped them to make sense of their own situation. Second, because sensegiving can be a part of the way an individual makes sense of his or her own

situation, it was necessary to ask faculty how, if at all, they went about trying to influence the sensemaking of others. Asking these questions enabled data to be collected about how sensemaking and sensegiving are related in the context of this particular study. More importantly, asking these questions during the participating faculty members' interviews allowed the content of individual's sensegiving activities to be identified. Data on both these issues had to be connected in order for this work to articulate how faculty made sense of the contributions of the strategic initiative that they endeavored to implement.

Differences in Sensemaking Processes Across Faculty Groups

Before describing the research methods of this study, it is necessary to distinguish between the many groups of academics that are referenced throughout this work. The first of these distinctions regards organizational identity, an identity type that has been already been discussed in some detail. The findings of this study suggest that organizational identity can play a consequential role in the sensemaking processes of the participating faculty participating. A large body of literature argues that faculty identity, and their organizational identity in particular, varies considerably across a variety of academic cultures (see Smerek (2010) for a review).

This body of literature includes work that distinguishes between faculty members who have organizational identities that are strongly oriented towards their schools and those who are more oriented towards the interests of external social groups such as professional and academic associations. The latter group of faculty largely identifies themselves with skills associated with highly specialized roles and by their identification with external groups, and they claim comparatively low levels of attachment to their school. These 'cosmopolitan' faculty are distinguished from 'local' ones whose

organizational identity with their school of employment are fairly strong (Gouldner, 1957, 1958; Merton, 1968). However, empirical research has found that academics frequently describe themselves as having a blend of cosmopolitan and local identities (Rhoads & Szelenyi, 2013). For example, young scholars have described themselves as carrying both cosmopolitan and local characteristics, and African American professors have sought engagement with local communities to counter the cosmopolitan focus of their position (Baez, 2000; Rhoades, Kiyama, McCormick, & Quiroz, 2008). This suggests that the participating faculty may reference overlapping sets of organizational identities that may be more or less cosmopolitan or local in character.

This study regards faculty's implementation of a strategic initiative that was intended to promote interdisciplinary teaching and research within their university. It is reasonable expect that participating faculty with strong organizational identities will be more supportive of the intended purpose of the initiative than faculty with comparatively weak organizational identities. This is due to the fact that people who strongly identify with a higher education organization have been found to be more likely to directly support their organization and to recommend it to others, even years after their connection to that organization has officially ceased (Ashforth & Mael, 1989; Ashforth, & Johnson, 2001; Mael & Ashforth, 1992). At this point it is critical to note that there is difference between organizational identity and organizational commitment, both of which are positively associated with a local identity (Becker & Billings, 1993; Corwall & Grimes, 1987; Tuma & Grimes, 1981). Organizational identity overlaps with organizational commitment in some respects but the two are measurably distinct (Riketta, 2005). The results of this study summarized in Chapter 8 touches briefly on some

differences between the sensemaking processes of the cosmopolitan and local faculty participating in this study.

Clark (1963) expanded on the cosmopolitan-local dichotomy by distinguishing between different types of academic fields, namely between the humanistic and scientific fields and between the pure and applied felids. Pursuing a similar line of investigation, Becher (1989, 1990, 1994, 2001) found that that scholars' work in the disciplines could not only be differentiated by virtue of their adherence to distinct epistemologies, but by their different cultures of investigation as well, including the use of particular theories and research methods. His categorization scheme (hard applied vs. soft pure, urban vs. rural, and convergent vs. divergent) has been widely used (Lattuca, 2001). Similarly, Lodahl and Gordon (1972) distinguish between high-paradigm fields, where there is a high level of agreement about the proper epistemologies and cultures of investigation among its members, and low-paradigm fields where the level of agreement among its members is comparatively weak.

Finally, Toma (1997) distinguishes among faculty groups by the paradigm of inquiry that their scholarship advances (i.e., realist, critical, or interpretive) noting that it can affect their choice of research topics, methods of analysis, academic standards, reward systems, and perception of their access to power, as well as their "personal rewards attendant to advancing causes" (Toma, 1997, p. 690). Categorizing the participating faculty in these various ways can highlight systematic differences in the sensemaking processes of different social groups. These categorical schemes are relevant to this study because they reference beliefs and practices that are implicated in way that faculty maintain their organizational and personal identities.

This study regards a strategic initiative that was implemented by faculty members who represent a wide array of highly specialized academic fields, practices, and beliefs. Because identity plays such a critical role in the sensemaking process, it could be expected that faculty who have been trained, are teaching in, or are conducting research in different academic fields may proceed through the sensemaking process in different ways, and indeed the results of this study do suggest that there were some patterned differences in the sensemaking processes of faculty according to their academic fields and paradigms of inquiry. Chapter 8 reviews these findings and articulates a few relevant conclusions.

The strategic initiative on which this study focuses subsidized the hiring of roughly 100 new faculty members into several schools and colleges within the university, and this cluster-hiring initiative intended to promote the existence of expertise at the university on a number of different interdisciplinary topics across a number of different academic units. As has already been outlined, this study includes both the faculty who were newly hired as well their established colleagues who helped to hire them through the initiative. While both groups of faculty arguably played a part in implementing this initiative, their differences are of central interest to the research, too.

There is good reason to expect that there will be meaningful differences between the sensemaking processes of these newly hired faculty and their peers who sat on the committees that helped to hire them. First and foremost, the experience of actually being hired into a new organization is likely to intensify the sensemaking process in a distinctive way (Louis, 1980). In addition, faculty's academic tenure status has been found to affect their ability to work in teams, even when accounting for other relevant

aspects of their organizational and personal identity (Haas, 2005). Moreover, it has been argued that interdisciplinary change is largely driven by the succession of new generations of faculty, which occurs when the neophytes "storm the ramparts, take the citadel, and settle down to the fruits of victory" (Abbott, 2001, p. 24). But while it is reasonable to propose that newly hired faculty will be wary of interdisciplinary research in general, it is also the case that the faculty hired through the initiative have a track record of producing interdisciplinary scholarship. The results outlined in the fourth chapter of this work suggest that there were patterned differences in the sensemaking processes of tenured faculty and their untenured colleagues implementing the initiative.

Finally, a distinction needs to be made between the faculty who engaged in different types of sensegiving. The preceding review of this study's conceptual framework ended with a discussion of the role that sensegiving plays in the sensemaking process. And the secondary research question of this study directly regards the effects of faculty sensegiving on the sensemaking of their colleagues. By seeking to answer this secondary research question, evidence was found suggesting that the effects of sensegiving on sensemaking can be pronounced depending on the type of sensegiving engaged in by the participating faculty. The relevant results of this study are presented in Chapters 7 and 8. These results regard the way that sensegiving occurs across different faculty groups, including the ones already identified in this chapter. The fact that sensegiving was found to span different faculty groups complicates our understanding of the conditions necessary for theorization, a mechanism that has been referenced to account for why some ideas diffuse across social groups while others do not.

Theorization is "the self-conscious development and specification of abstract categories and the formulation of patterned relationships" (Strang & Meyer, 1993, p. 492); it is a cognitive process by which theoretical models arise through individuals' understanding. Theorization operates at the level of the individual actor, meaning that its function is specific to the person or persons it involves. Like Strang and Meyer's work, this study focuses on academics. Strang and Meyer describe academics as "culturally legitimated theorists" and argue that because their work is "informed by theories at higher levels of complexity and abstraction," it may be more sensitive to the effects of theorization (p. 493). It is important to note that theorization can function as a social mechanism when its operation affects how understandings diffuse within and across social groups. Specifically, theorization can diminish the threshold for the transmission of ideas or practices between people of the same cultural system. For example, some research practices might diffuse more quickly between sociologists than between sociologists and geneticists because the two groups do not share "common understandings about the nature of the actors they study" (p. 491).

The interview protocol used for this study was designed to accommodate how theorization functions as a social mechanism. As a theory, theorization predicts that the transference of an idea between people is facilitated when the relevant actors share a common understanding about the underlying qualities of the constructs on which the idea is based. Applied to this study, theorization suggests that the transference of ideas about the contributions of the strategic initiative are, or should be, between faculty members is eased when the relevant faculty share common assumptions regarding their identities and the products of interdisciplinary scholarship. Specifically, this study produced evidence

regarding the success of faculty's attempts at sensegiving about the initiative across groups of colleagues having similar organizational identifications, academic fields, paradigms of inquiry, or academic ranks.

How the Conceptual Framework Informs the Research Design

The preceding review of sensemaking as a conceptual framework includes brief notes regarding how the framework accommodates the design of the study. Before moving on to describe the research methods of this study, it is important to review the specific ways the interview protocol accommodates this framework. First and foremost, because the sensemaking process does not always occur in a standard sequence, the protocol did not require faculty to explain their enactments, selection of information, and retention of explanations as occurring in that order. Rather, the interview questions asked faculty to reflect on and describe these three elements of sensemaking irrespective of the order in which they were experienced.

To accommodate the three elements of sensemaking, the interview protocol focused on several specific points and issues. In regards to enactment, the interview questions were designed to address the actions that faculty took as they implemented the strategic initiative as well as what they found ambiguous or troubling about its implementation. In regards to selection, the questions avoided prompting faculty to begin the story of their participation in the initiative at a standard point in time. In addition, in order to identify the cues individuals extracted during sensemaking as well as the social contexts the cues were extracted from, faculty were asked to describe how they framed the issues that seemed relevant to their understanding of the initiative itself. Finally, to accommodate the role of retention in sensemaking, the interview questions were designed

to invoke the identity of a faculty member, the identity of the academic units in which they were appointed, and the way that each may have changed as a result of the initiative being implemented.

Finally, the interview protocol used in this study was designed to accommodate the role of sensegiving in the sensemaking process. To address the effects of sensegiving on sensemaking, faculty members were asked how, if at all, their colleagues attempted to influence the way they understood the initiative's implementation. These faculty members were also asked to describe any attempts they made to influence the understanding of other participating faculty members in this regard. In sum, all of these modifications were made to better enable the clear and efficient articulation of answers to the two research questions animating this study.

Chapter 3

Methods

This study mainly belongs to an interpretive paradigm of research; consequently, it is predisposed to approach, evaluate, and draw conclusions about its topic in particular ways (Kuhn, 1960). Asserting that this research belongs to an interpretive paradigm is to draw a distinction between two dominant cultures of organizational research on higher education: an interpretive culture of research and a functional, or positivistic, culture of research (Peterson, 1985). The interpretive paradigm emphasizes the subjective elements of reality rather than objective ones; its goal is to diagnose causal relationships more than to predict them, it focuses more on emergent processes than on structures and patterns, and it tends to employ qualitative measurements of reality. Further, this research is not purely causal, and it accommodates the strategic choices of individuals, a complex understanding of social structure, and temporal effects of many sizes (Abbott, 1998). Specifically, individuals' descriptions of past events and perceptions comprise the primary focus of this research, "For it is usually later events that define what were the salient casual aspects of a prior situation, [and] that tell us what part of the description was important" (p. 172).

As a result of approaching organizational change in higher education from an interpretive paradigm, this study can help to rebalance the field of higher education research, which has been largely produced within a functionalist paradigm (Miliam, 1991). While this research belongs to an interpretive paradigm, it does not wholly rejects the assumptions of other paradigms; instead, this study responds to the need to conduct more research that draws inspiration from more than one paradigm (Gioia & Pitre, 1990; Kezar & Dee, 2011; Weaver & Gioia, 1994). It does so by investigating differences in the sensemaking processes of particular faculty groups and by examining the relationships between sensemaking and organizational change. Still, characterizing this study as belonging to an interpretive paradigm of research draws attention to the way data was collected and understood. In this study, data are drawn from individuals' experiences and are understood to reflect reality as it appears to them.

Describing this study as belonging largely to an interpretive paradigm also highlights the issue of subjectivity. Given this, it is particularly important to reflect on the subjective influence of the researcher (Lather, 1986; Peshkin, 1988). Indeed, it is the analytical approach and the interests of the researcher, rather than qualitative methodology, which so often distinguish research in the interpretive paradigm from research in other paradigms (Roth & Mehta, 2002). For example, research in the functionalist paradigm often presents the researcher as being objective and focused on establishing external reliability and validity (Guba & Lincoln, 1994; Lincoln & Guba, 2000). But when qualitative methods are used, the influence of the researcher on data collection and analysis can be especially pronounced because "Interpretations of reality are accessed directly through their observations and interviews" (Merriam, 2009, p. 214).

As the principal investigator of this study, I strove to be constantly vigilant as to the influence of my interests, beliefs, and experience on the way that data were collected and analyzed. The goal was not to reduce my influence on the course of the research but to sensitize myself to it, reflect my influence in plain and honest language, and to design methods of data collection and analysis that accommodated it appropriately (Suddaby, 2006). But before discussing how this was accomplished, it is necessary to reflect on my subjective influence with regards to the natural history of this inquiry (Eisenhart, 2006). The natural history of this research begins with a pilot study that was conducted in preparation for the case study that is the core focus of this work.

Pilot Study

The pilot study conducted in preparation for the formal research investigation sought to answer the question, 'How do faculty evaluate a strategic initiative in which they participated?' The purpose of conducting this pilot study was two-fold: the primary aim of this study was to familiarize the principal investigator with the way faculty discussed their participation in a strategic initiative in light of its interdisciplinary purpose, and the second aim of the pilot study was to explore how faculty described the role that identity played in their implementation of a strategic initiative. In a broad sense, by achieving these two goals, it was hoped that a more focused research study could be designed. More specifically, however, the results of the pilot study informed the use of sensemaking as a conceptual framework for the formal case study. Although the concept of identity was central to the design of this pilot study, the sensemaking process was not. As will be shown, the results of the pilot study highlighted the benefits of adopting

sensemaking as a conceptual framework in order to better understand how faculty experienced implementing an interdisciplinary strategic initiative at their university.

The focus of the pilot study was faculty's experience in the Third Century Initiative, which was also intended to promote interdisciplinary research and teaching at the University of Michigan. Conducting the pilot study largely consisted of collecting qualitative data about faculty experiences through face-to-face interviews. Interview requests were sent to all faculty who were members of the steering committees connected to the initiative. Members of these steering committees were responsible for reviewing research proposals written by university faculty and granting funds on a competitive basis. Out of 31 requests for interviews, 19 were accepted, and 14 one-hour interviews were successfully scheduled and conducted (one interview was conducted with two committee members). The interview protocol used in the pilot study can be found in Appendix A. Each interview was recorded and transcribed and the resultant data were analyzed using NVivo software. The methods of analysis used for the pilot study mirror those used for the formal case study.

The resultant data revealed that the participating faculty described their engagement with the initiative as developing along somewhat different paths. There were similarities across all of the interviews, however. Namely, upon being appointed by the Office of the Provost, all faculty members interviewed for the pilot study described participating in regular meetings and collectively crafting plans to solicit and review proposals for interdisciplinary scholarship. After accomplishing this, they described working collaboratively with other members of their committees to award grants to teams of researchers, and they also sought to follow-up with the awardees to ascertain the

impact of these grants on the university and relevant academic fields. Still, their descriptions of how their respective committees were formed diverged in an important respect.

While the interviewees told similar stories about their participation in the initiative, there was variation in their understanding of how the committees in charge of implementing the initiative were formed. Many faculty described being involved in particular scholarly activities that led to their invitation to serve on committees charged with reviewing grant proposals on similar topics. In contrast, others described being invited to serve on their committee as a representative of their respective academic departments or units. First, a sizable proportion of the faculty who were interviewed ascribed the formation of the committees to individuals' desire to form productive collaborations with those who had similar interests. One such example stands out:

> The reason [the Provost] wanted me on that committee because I was new. And I said, 'What do you want me for, I'm new.' And he said 'That's why I want you, and [the President] told me that you were here and would be helpful,' ... And so he said to me, and it's still in my head and it's almost exactly a quote, he says, 'This is the way this place operates. If you find two or three people who have a good idea here, you can find the resources to make it happen'. And I think that explains what happened here.

While this individual described the formation of the committees associated with the initiative as resulting from faculty members' desire to work with like-minded colleagues, others described the formation of these committees as being the result of an intentional and disciplined effort to have diverse representation on the committees, typically in respect to the different types of schools and colleges of the university. For example, one faculty member described how the members of their committee were

purposefully drawn from a range of schools and colleges at the university rather than being drawn from groups of faculty who shared similar interests:

> It's also very important to represent, I don't want to say the small schools, but the schools that might not be [the College of Literature, Science and Arts], or Engineering, or Medicine. These are very big schools on our campus. And, you know, the [members of the committee] really wanted this to be a representative committee. The Executive Committee is highly diverse. The members come from very different schools and colleges. They wanted that because they wanted it to be a truly interdisciplinary endeavor.

Contrasting these two understandings of the committees' formation highlights an important difference in how faculty perceived an initiative that was designed to promote interdisciplinary scholarship at the university. The first quotation depicts the university as a place where the mutual interests of faculty could be harnessed to form productive interdisciplinary collaborations. In contrast, the second depicts the university as a place where representation from different academic units was important to forming these interdisciplinary collaborations. These two different perspectives suggest that some faculty held divergent perceptions about the types of relationships between social groups and organizational units within the university that could most effectively promote faculty members' production of interdisciplinary scholarship. Notably, these results also suggest that the ways faculty understood their implementation of the Third Century Initiative may have effected the way they worked together to have an impact on the organization through the initiative. This particular result encouraged the use of sensemaking as the conceptual framework for the formal study because the framework focuses on the connection between interpretive social processes and organizational change.

But a second result of the pilot study also motivated the adoption of sensemaking as a conceptual framework: to explore how faculty described ways in which identity

factored into their implementation of a strategic initiative. During the interviews, several questions were asked that cued interviewees to reflect on their identity and that of the university. The responses faculty provided did indeed touch on these issues, but in somewhat unexpected ways. First, they contextualized their description of relevant identities in terms of their participation in the strategic initiative itself. Second, they not only referenced currently held identities but potentially held ones as well. For example, when one interviewee was asked why she participated in a committee associated with the initiative, she referenced an organizational identity that could be realized in the future and did so within the context of her own distinctive reasons for participating in the initiative:

> So it is sort of a nice confluence of intellectual interests [and] research interests rising out of my own scholarly work. I love teaching, and with tenure I can admit it. It really matters a lot to me because I want to be teaching better. And then for a long time I have been involved in those kinds of activities at the university that make this a better place for everybody ideally. So many people hate service and I just feel that service is a way of making the place where we all work better. And then the issue right now is that I have the luxury of deciding what I want to do. So [this committee], thinking about teaching in general, thinking about this as an institution [and] how it can be better, that is why I care about it and why I am involved in this and not some other things. I also think we have a great opportunity to make a big difference, both locally and also nationally. You know the University of Michigan could easily become a leader [in the topic of this committee].

Responses such as these emphasize that identity had the potential be central to the way that faculty understood their involvement in this strategic initiative as well as to the way they understood its effects on the university as a whole. This result also motivated the formal study's use of the sensemaking process because this conceptual framework positions identity as connecting individuals' understanding of their past behavior with their future actions. Adopting this framework necessitated a critical change in the point of focus of the formal case study. Rather than asking how participating faculty evaluated an

initiative as the pilot study did, the formal study sought to explore how participating faculty made sense of the contributions of such an initiative instead.

In sum, the results of this pilot study help to justify the use of sensemaking as a conceptual framework. More generally, however, pilot studies such as this one help to focus formal research investigations on the most salient aspects of participants' experience and provide a clear point of reference against which final results can be compared (Yin, 2006). Equally important, conducting this pilot study provided an opportunity to reflect on the subjective influence the principal investigator had on the natural history of this inquiry (Eisenhart, 2006). The steady focus on identity across both the pilot and formal case study is a reflection of this influence.

Sampling

This case study explores the sensemaking and sensegiving of 34 faculty members who helped to implement the Interdisciplinary Faculty Initiative at the University of Michigan. These participants constitute only a small proportion of the hundreds of faculty who were associated with initiative, however, the design of this study ensured that its participants represented a diverse set of academic disciplines and professional occupations. This is partially due to the fact that the selection criteria used to identify the sample of potential participants amplified two types of variation that appeared in the data derived from faculty's interviews. The first of these criteria regards the role of identity in the sensemaking process. The second regards the rate at which the university was able to fill the faculty positions associated with the clusters formed by the initiative.

To ensure that the data collected through this study reflected considerable variation in the types of identities known to affect the sensemaking process, individuals

with different disciplinary affiliations and professional training had to be recruited as participants. Consequently, the clusters selected for inclusion in this study had to include schools and colleges of different size, age, and disciplinary orientations when considered overall. This selection criterion helped to ensure that there were diverse identities among the participating faculty. The clusters selected according to this criterion represented 14 of the total 19 schools and colleges that constitute the university.

The second criterion regards the rate at which faculty positions associated with the clusters were filled over time. While the vast majority of the faculty positions funded through the Interdisciplinary Faculty Initiative were filled by the time the study was conducted, a number of positions remained open. The fact that a given cluster had yet to hire faculty for all its open positions could reasonably be assumed to affect the participating faculty members' perceptions of the contributions of the initiative to interdisciplinary teaching and research at the university. Consequently, the set of selected clusters included ones that had open faculty positions remaining. Complicating this criterion, however, was the fact that the Office of the Provost approved clusters annually, meaning some had more time to fill open positions than others. To accommodate this, the set of clusters selected for inclusion in this study included ones with open positions that were approved in both the early and latter years of the initiative.

Finally, the number of clusters selected had to allow for a sufficient number of interviews to be conducted, so it was decided that a total of eight clusters were to be selected according to the two criteria outlined above. Interviews were conducted with three distinct groups of faculty who participated in these clusters. These groups were the faculty leads for the clusters, the members of the hiring committees for the clusters, and

the faculty who were ultimately hired. Each cluster had one faculty lead and about a dozen faculty members who sat on all of the associated hiring committees; the faculty leads of the clusters occasionally served on the hiring committees as well. In many cases, the number of people serving on the hiring committees for each of the clusters was unknown because it was not divulged after being requested from the faculty leads of the clusters or from departmental relevant administrators who were asked to identify the membership of these committees. Some department administrators and faculty leads only identified faculty who sat on the hiring committees if they previously agreed to their being identified. In most cases, the faculty leads or departmental administrators simply denied requests to identify colleagues who had served on the hiring committees. Regardless, based on the number of individuals who were successfully identified through this method of sampling, it is estimated that an average of four individuals constituted each hiring committee. An average of four individual faculty members were also hired into each cluster selected for inclusion in this study. As a result, invitations for interviews were sent to a total of 67 individuals and 34 interviews were successfully conducted. The response rate for the pilot study (47%) and the formal case study (51%) were roughly similar considering the small estimated size of the sample involved.

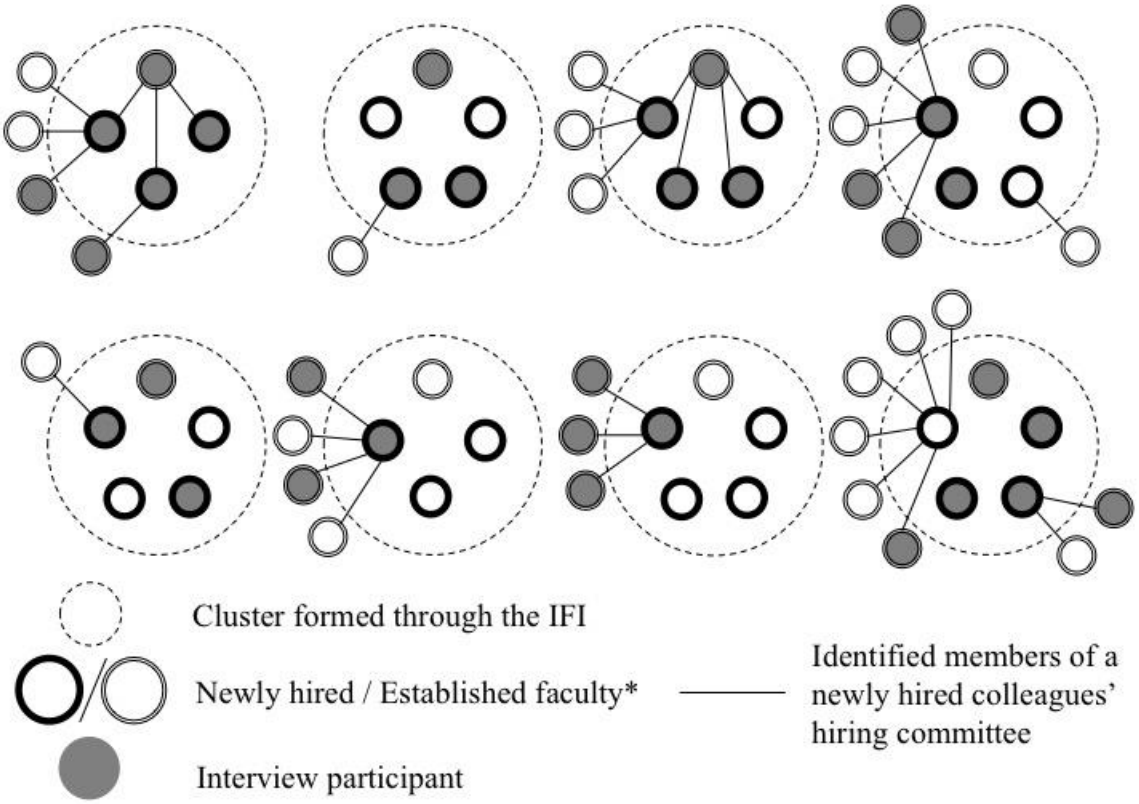
Interview requests were sent out to these three groups of participating faculty in stages. The first round of interview requests were sent to the faculty leads for two reasons. First, because these individuals were privy to the creation and work of their clusters, they were likely to have a keener perception of the contributions of the strategic initiative. Also, because they were not responsible for the initiative as a whole, they were often be more willing to engage in frank and unguarded conversations about its overall

impact. The ability of individuals to engage in frank and open conversations about their experience is often critical to the success of qualitative case studies like this one (Hammer & Wildavsky, 1993). In addition, securing the participation of the faculty leads often encouraged the faculty on the hiring committees to participate as well. Once the faculty leads were contacted, invitations were sent to each of the faculty on the hiring committees. Similarly, securing the participation of this second group of faculty encouraged the newly hired faculty to participate. Newly hired faculty were sent the third and final round of invitations; all of these invitations were personalized and as many as two reminders were sent to non-responders. The text of the invitations can be found in the interview protocol for this study. This form of snowball sampling was used because it can produce a robust response rate and recruit participants who are likely to be familiar with each other's relevant experiences (Biernacki & Waldorf, 1981).

The three different groups of faculty who were represented by the participants in this study can be hard to mentally visualize. Figure 2 provides a graphic depiction of each of these groups. The figure identifies newly hired faculty, the lead faculty members of the clusters as well as the faculty who were officially identified as being members of the related hiring committees. This figure also illustrates the distinction between newly hired and established faculty members. Tenured faculty and the faculty groups associated with different clusters are also shown in in Table 1, but the individuals shown in Figure 2 provides the clearest sense of the scope of the study's sample and response rate.

Because a few of the faculty that were hired through the Interdisciplinary Faculty Initiative had tenure, and because others gained tenure by the time they were interviewed, grouping faculty by their tenure status does not provide quite as straightforward of a way

Figure 2. The clusters and faculty members represented in the study sample.



* Established faculty within each cluster represent the Lead faculty member designated for each cluster.

to distinguish between the faculty groups participating in this study. But as will be shown, the tenure statuses of the participating faculty affected how they understood themselves as implementing the initiative. For this reason, it is important to identify the participants' tenure statuses in a way that does not compromise their anonymity. The participants in this study shown in Table 1 are identified by commonplace pseudonyms. This table also shows newly hired faculty members, their tenure status and their associated clusters.

Table 1. The faculty members who participated in this study

Pseudonym	Tenure Status	Newly Hired	Faculty Lead	Cluster
Frank	Tenured	No	Faculty Lead	
Ian	Untenured	Yes		
Lynn	Untenured	Yes		1
Ray	Untenured	Yes		
Mark	Tenured	No		
Tracy	Tenured	No		
Tom	Tenured	No	Faculty Lead	
Pam	Untenured	Yes		2
Barb	Untenured	Yes		
Pat	Untenured	Yes		
Adam	Tenured	No	Faculty Lead	
Jess	Untenured	Yes		3
Kate	Untenured	Yes		
Sam	Untenured	Yes		
Meg	Tenured	No		
Sandy	Tenured	Yes		4
Cole	Tenured	No		
Gary	Tenured	No		
Amy	Tenured	No	Faculty Lead	
Will	Untenured	Yes		5
Jake	Untenured	Yes		
Ann	Tenured	No		
Art	Untenured	Yes		6
Pete	Tenured	No		
Jerry	Tenured	No		
Noah	Untenured	Yes		7
Deb	Tenured	No		
Abby	Tenured	No	Faculty Lead	
Rob	Tenured	Yes		
Luke	Untenured	Yes		
Dan	Untenured	Yes		8
Lisa	Tenured	No		
Hans	Tenured	No		
Nick	Tenured	No		

Study Participants as Implementers of the Initiative

This case study included three groups of participants, including established faculty members designated as the lead of the clusters that were funded by the university, other established faculty members who served on the associated hiring committees, and the newly hired faculty whose positions were created through the initiative. Throughout

this work, the members of all three of these groups are described as being implementers of the Interdisciplinary Faculty Initiative. Of course, these individuals were not charged with implementing the initiative considered overall; they were, however, tasked with helping to form the hiring clusters and, in the case of the lead and newly hired faculty, with sustaining its work in a way that fulfilled the aim of the initiative. These faculty members were uniquely responsible for manifesting the types of scholarly activities and academic products that the initiative was described as promoting by the president of the university.

All of the faculty members who participated in this study did in fact play a part implementing the Interdisciplinary Faculty Initiative. The established faculty helped to form the clusters by creating the position proposals that were used to recruit new faculty members to the university, and as will be shown, some of the established faculty even collaborated directly with the newly hired faculty on various scholarly activities, including research projects. More notably, the newly hired faculty sought to engage in the types of scholarly activities that the initiative was intended to promote. Certainly, both established and newly hired faculty alike described themselves as working to realize the intended outcomes of the initiative. The many quotations taken from their interviews attest to the conviction held by many of these individuals that they were partially responsible for bringing about the change at the University of Michigan that the initiative promised.

The argument that these faculty helped to implement the Interdisciplinary Faculty Initiative also underpins the claim that this study focuses on how sensemaking plays out among the lower levels of organizational hierarchies. The top-management teams of

higher education organizations have often been described as the creators and implementers of strategic initiatives (Brint, 2005; Gioia & Chittipeddi, 1991; Gioia, Price, Hamilton, & Thomas, 2010; Gioia & Thomas, 1996; Smerek, 2011). This body of research predominantly concerns the presidents and academic leaders of these organizations and often focuses on their work and communications with subordinates around specific strategic plans. However, there is also considerable research that regards the sensemaking and sensegiving experiences of these subordinates, or what some scholars describe as the "middle managers" of organizations (Balagun & Johnson, 2005; Maitlis, 2005; Maitlis & Lawrence, 2007; Rouleau, 2005; Rouleau & Balogun, 2010). Some of the research in this vein regards organizations of higher education and explores the experience of faculty members engaged in strategic planning processes (e.g., Kezar, 2013; Kezar, & Eckel, 2002). Therefore, there is some precedent for describing university faculty members as the implementers of strategic initiatives, and there is a growing body of research that incorporates this perspective into a broad research agenda regarding how sensemaking plays out across organizational hierarchies undergoing change.

Data Collection

Interviews were intended to provide the bulk of the data collected for this study since they are well suited to capturing the meaning that people make of their experiences (Merriam, 2009). Specifically, the primary source of data for this study was derived from open-ended, semistructured interviews. Semistructured interviews require thoughtful preparation and execution (Hammer & Wildavsky, 1993; Wolcott, 1990) and, in this case, a particularly sharp focus on the perspectives and cognitive processes of the interviewees (Maxwell, 2004). Although an interview protocol was created as a guide

during the interview process, the protocol was also revised in minor ways during data collection. In particular, some questions that proved to be less informative were increasingly asked at the end of the interviews to allow for a richer and more detailed conversation beforehand. These revisions were made as the need to do so became apparent to the principal investigator and were aimed at ensuring that the focus of the interviews remained squarely on the perspectives and experiences of the participating faculty. The most substantial of these revisions are discussed in greater detail in Chapter 5 of this work.

Semistructured interviews were used because they provide the flexibility to explore issues and ideas as they arise in the flow of conversation and because they imbue conversations with commonalities that allow for comparisons to be made across multiple interviews (Merriam, 2009). As expected, the questions asked by the principal investigator varied slightly across interviews. For example, some different follow-up questions were asked depending on the need to clarify, probe, or comment on the interviewees' answers to the interview questions listed in the protocol (Hammer & Wildavsky, 1993; Snow, Zurcher, & Sjoberg, 1982). Potential probes have been included in the interview protocol, but they were not used in every interview because they proved not to be germane to some interviewees' responses. The interview protocol can be found in Appendix B.

At the soonest available opportunity following each interview, the principal investigator also composed a memo about each interview experience. These memos elaborated on points of interest, filled in prominent gaps of the conversation with the interviewee, and commented on the general experience of the interview itself (Emerson,

Fretz, & Shaw, 2011). These memos constitute an important part of the case record and proved useful as keystones throughout the analysis of the resultant data (Hammer & Wildavsky, 1993; Patton, 1990). It is also important to note that these memos were a form of preliminary data analysis that overlapped with the data collection (Corbin & Strauss, 2008). Indeed, these memos provided an opportunity to reflect on alternative explanations of the results and to engage in the kind of speculation that served as topics of debate for all the subsequent analysis (Lee, 1999).

Each interview was recorded using VC Audio Pro, an application stored on an iPhone. This application can record several hours of audio at any one time, and it ably maintained the clarity of people's voices at a distance. This application was also used to transfer audio files onto university computers. Each interview recording was saved in multiple spaces on university storage systems including IFS space and MBox. Each of the systems used to save these data are password protected. Full transcriptions of each of the interviews were produced using Microsoft Word, which were also saved on these systems.

The formal case record also includes a collection of available reports, internal communications, and documents that were made available from the university and from the relevant academic departments and units. These data were compared to those collected through the interview and memo process. These comparisons constituted a form of triangulation that ultimately served to support the validity of this study (Mathison, 1988). Specifically, this triangulation highlighted notable points of convergence and divergence that shed light on the various ways faculty described and understood their relevant experience (Patton, 2002; Stake, 2006). The value of this triangulation will

become increasingly clear as this work presents evidence suggesting specific ways in which the case study's participants' experiences implementing the Interdisciplinary Faculty Initiative diverged from each other.

Data Analysis

In accordance with Grounded Theory, analysis of interview data overlapped with the collection of these data (Glaser & Strauss, 1967; Corbin & Strauss, 2008). While the memos represent a preliminary form of data analysis, the formal data analysis consisted of three stages: open coding, axial coding, and selective coding. These codes were produced through an iterative process of comparison in which existing data was compared to new data as it was collected. During this process, the three stages of coding were also compared with each other. In general, the goal of this constant comparison is to yield new insights about the phenomena being studied and to do so in a way that ensures that a given researcher does not lose contact with that phenomena or become prematurely committed to one particular way of interpreting it (Wasserman, Clair, & Wilson, 2009). This particular method proved distinctly helpful to keeping the investigation focused on the most salient and common aspects of faculty members' relevant experiences implementing the initiative. For example, by comparing the resultant codes at each stage of their production, the heightened emotions that a few faculty members imbued their experiences with did not serve to characterize the frame with all the participants' experiences were broken down and categorized. The emotional dynamics of faculty work certainly deserve closer inspection (Neumann, 2005b), but the research questions of this study necessitate broader examination of faculty experience.

This method of open coding began as soon as the recorded interviews were transcribed. More specifically, this coding method was used to identify emic, or first-order, concepts that emerged from the interviews. During open coding, the interview transcripts were reviewed in a thorough and intensive manner such that the codes were capable of representing concepts even if they appeared only fleetingly (Wasserman, Clair, & Wilson, 2009). As more transcripts were produced, the open-coding scheme also began to change, requiring the re-coding of pre-existing transcripts. And, as described earlier, these codes were also compared to those produced through the pilot study. Comparing the codes of the pilot study and the formal case study resulted in some minor changes being made to the formal coding scheme. Considered overall, the process of transcribing the interviews and coding them developed gradually over time.

Once several interview transcripts were coded, and the researcher felt warranted in doing so, axial coding began. Axial codes were used to highlight crosscutting relationships between the open codes. In general, these axial codes drew connections between the relevant actions, social contexts, and causal conditions represented by open codes. For example, the axial codes that were created corresponded to a pattern of sensemaking that is characteristic of faculty with a strong organizational identification. Some of the axial codes that were used also represented the various elements and properties of the sensemaking and sensegiving processes. Overall, these axial codes represented etic concepts derived from the conceptual framework and from second-order concepts that emerged in the course of the research (Hahn, 2008; Van Maanen, 1979).

Finally, once the axial-coding scheme proved itself to be consistently applicable across multiple interviews, selective coding began. Selective coding was used to draw the

axial codes together into a more coherent depiction of the phenomenon being studied. In other words, the selective codes came to represent how participating faculty actually made sense of the contributions of a strategic initiative and how faculty's sensegiving activities affected the sensemaking processes of their peers. Similarly, this selective coding was used to identify systematic differences in sensemaking processes of participating faculty belonging to different clusters and of different tenure statuses. Overall, these selective codes were used to directly support the main conclusions that are drawn from the results. The validity of this analytical approach and the resultant conclusions were further supported through triangulation using the remaining data in the case record as has been described.

Validity

The validity of this study was an issue of constant concern, not only during the design of the research but throughout the period when the research was conducted and when the resultant conclusions were articulated. This chapter has detailed and emphasized a constellation of activities and guidelines that were intended to keep the research tightly targeted on the phenomenon of interest. These activities and guidelines were also intended to enable the researcher to convey the results of the research to others in ways that avoided communicating misconceptions about them (Wolcott, 1990). For example, the validity of the research is supported by the use of a priori theory to inform the interview protocol, the use of triangulation to compare all of the data in the case record, and by communicating how the subjectivity of the researcher influenced the history of the inquiry (Eisenhart, 2006; Lather, 1986; Mathison, 1988). It is hoped that the validity of this study is bolstered still further by the arguments offered in the

proceeding chapters of this work being articulated and ably supported by a thorough analysis of the collected data. As Phillips (1987) notes:

> [When] truth-claims are made, to be taken seriously, they must be supportable with appropriate arguments and evidence. It is, indeed, the strength of the warranting argument or evidence that allows a truth to be recognized and labeled as such (p. 11).

Significance

This study can make two scholarly and two practical contributions to the field of higher education. As to the scholarly contributions, the findings of this study have the potential to enrich and extend our understanding of the sensemaking process. Although a very large body of published research focuses on sensemaking, our understanding of the conceptual framework is still poor in some important respects. First and foremost, far more is known about the sensemaking of the top-management teams of organizations than that of people who are positioned lower in organizational hierarchies. The need to study how sensemaking and sensegiving function among the lower levels of organizations is well recognized (Rouleau, 2005). Indeed, there is a growing strain of research that examines how the sensemaking of middle managers affects organizational change (Balagun & Johnson, 2005; Maitlis, 2005; Maitlis & Lawrence, 2007; Rouleau & Balogun, 2010). This study adds to this body of research by examining the sensemaking of faculty who managed the hiring of new members into their departments and schools as well as that of the newly hired faculty themselves. In a sense, these individuals occupied the very front lines of the Interdisciplinary Faculty Initiative.

This study also has the potential to enrich our understanding of sensemaking in a second way. Although it is clear that sensemaking and sensegiving can be intimately intertwined (Gioia & Chittipeddi, 1996), much more work needs to be done to deepen our

understanding of how the two are related. In particular, there is a need to understand how the sensemaking of individuals is affected by the sensegiving of others (Weick, Sutcliffe, & Obstfeld, 2005). This study speaks to this need by investigating how the sensegiving of the participating faculty affected the sensemaking of some of their colleagues. As will be outlined in the following chapters, the findings of this study also show how individuals' sensegiving and subsequent sensemaking can be linked by a causal relationship. In sum, by examining how the sensemaking process unfolds at lower levels of an organizational hierarchy and how the sensegiving of university faculty can affect the way they make sense of the contributions of a strategic initiative, this study can enrich our understanding of how sensemaking functions as a conceptual framework.

This study also extends the sensemaking framework in an important way, specifically by investigating how faculty members' sensemaking affected their implementation of a strategic initiative. This study can shed much needed light on the relationship between sensemaking and organizational change (Weick, Sutcliffe, & Obstfeld, 2005). Although the way faculty use covering laws, narratives, and inspiring ideas to interpret facts often serves to reinforce the boundaries between disciplinary cultures (Abbott, 2002; Becher, 1994; Becher & Trowler, 2001; DiMaggio, 1995; Tierney, 1997), strategic initiatives have been described as providing a way to break this cycle and spark interdisciplinary change on university campuses (Brint, 2005; Sa, 2008, 2011). At the same time, the ways in which faculty members' sensemaking affects their production and promotion of interdisciplinary scholarship, particularly over extended periods of time, are very poorly understood. In fact, the findings of this study do clarify some of ways in which the sensemaking processes of faculty members can affect the

short and long-term prospects for interdisciplinary change within universities. These findings have important practical implications, not only for scholars and administrators at the University of Michigan but for all those working at similarly active universities across the country.

The findings of this study have two practical implications regarding the administrative and academic practices of higher education institutions. Both of these implications regard ways that university faculty members' sensemaking is likely to affect the prospects for organizational change at particular types of institutions. More specifically, they regard the promotion of faculty collaboration and the implementation of similar or complimentary interdisciplinary initiatives in the future. These implications are used to advance several recommendations aimed at achieving the type of robust and sustained participation among faculty, the lack of which has been proven to undermine the effectiveness of many similar interdisciplinary initiatives (Fumasoli & Lepori, 2011; Kotler & Murphy, 1981; Louval, 2013; Sa, 2008). These recommendations are worthy of practitioners' careful consideration, given that the findings of this study show how influential the sensemaking processes of participating faculty were on both the short- and long-term outcomes of the Interdisciplinary Faculty Initiative.

Finally, it is vital to note that the practical recommendations outlined by this work could help better align the expectations of university faculty and administrators regarding the capacity for and consequences of implementing interdisciplinary initiatives on their campuses. It is critical that the expectations of these professionals be better aligned since engagement in interdisciplinary scholarship is perceived by many faculty members, particularly by untenured faculty, as carrying unacceptably high costs for their careers

(Gumport, 1990; Lattuca, 2001; Leahey, 2007; Mars, 2007; McNair, Newswander, Boden, & Borrego, 2011). If the expectations of participating faculty and administrators are not well aligned, the immense costs associated with efforts like the Interdisciplinary Faculty Initiative could well prove to be a complete waste. The remainder of this work endeavors to show how this risk is very real and how it may be mitigated in the future.

Chapter 4

Scholarly Activities Constituting Relevant Enactments

The following three chapters focus on the three elements of the sensemaking process. By strict definition, *sensemaking* is comprised of three elements: enactment, selection, and retention, and broadly characterized by several distinct properties, all of which have been detailed. The core research question addressed through this study is how faculty made sense of their implementation of the initiative; answering this question requires establishing that faculty did in fact engage in sensemaking. To this end, the following chapters describe, respectively, faculty's enactments, selection of social groups in which to participate, and their retention of an understanding of the initiative.

Enactment is different from action. Although enactments are constituted by the actions that people take, enactment itself has to be guided by cognition that is informed by an understanding of one's social circumstances. Weick (1995) argues that enactment is retrospective in that reflects "the stubborn insistence that people act in order to develop a sense of what they should do next" (Weick, 2003, p. 186), but it is nevertheless an adjustment made by individuals who become cognizant of the need to act to affect their social circumstances (Nicholson, 1995). Enactments are retrospective in that they enable people to understand what to do next, but they are not made blindly or absent of thought.

Instead, enactments are constituted by actions that incorporate "the will, aim, and controlling effort of an intelligence" (Goffman, 1995, p. 22). Enactments precede the development of an understanding about one's social circumstances, but they are imbued with meaning when individuals act out of a desire to affect the circumstances of their social lives.

Enactments are actions born out of a desire to affect one's social life. This chapter describes four types of scholarly activities that faculty considered relevant to their implementation of the initiative: service, teaching, research, and collaboration. Faculty's service, teaching, research, and collaboration activities are not enactments in of themselves; these actions constituted enactments because faculty took them in order to affect the social context in which they did their work. Indeed, as will be shown, isolating these activities from the human motivations that brought them about would fail to effectively illustrate how faculty understood themselves as implementing the Interdisciplinary Faculty Initiative. This chapter lays a very basic foundation for this study by demarcating the common types of scholarly activities that factulty were motivated to engage in as they implemented the Interdisciplinary Faculty Initiative between 2007 and 2012.

Chronological Range of Relevant Enactments

The process of sensemaking never starts or stops, and the process consists of updating one's past actions or understandings with new ones (Weick, 1995). Discrepant cues compel people to update their past with new enactments (Maitlis & Sonenshein, 2010), which largely involves their exploration of 'what the story is' and 'what is next' (Weick, 2003). The faculty who participated in this study were making sense of the

introduction of new colleagues into academic departments and units within their university over time. Describing the scholarly activities that faculty found relevant to their implementation of the initiative first requires highlighting the temporal range of their activities.

The fact that faculty often invoked experiences as relevant, despite having occurred months and even many years in the past, emphasizes the gradual character of their sensemaking. For example, many of the established faculty who assisted in the hiring of new colleagues drew connections between the way they were involved in the cluster-hiring initiative and their own reasons for their accepting a job at the university. For example, Frank described how he was hesitant to take on additional administrative responsibilities associated with the initiative because, in part, it would run counter to the reasons he had to come to the University of Michigan many years before:

> I jumped at the chance [to] come here because I just really wanted to continue the research. And now, at my age now, that was [15+] years ago, now I've got to the state now where people want me to give up research and go back into administration and I'm fighting like crazy not to do that. But we'll see whether that happens.

While they were explaining how they understood their implementation of the initiative, the faculty participating in this study invoked past experiences they had as faculty members, practicing professionals, graduate students, undergraduate students, and even as secondary school students. For example, one established faculty member attributed his current research interests, in part, to an experience with a medical problem he had in high school. Another newly hired faculty member described how she wanted to be involved with the development of a certain type of technology since being a teenager, noting, "Weirdly, I wanted to build [this technology] since, like, tenth grade." Indeed,

most faculty members made sense of their implementation of the cluster-hiring initiative in part by identifying scholarly activities that occurred far in the past. Here, the point is that the enactment that faculty engaged in was not only understood to be gradual but also incorporated long-passed activities in ways that imbued them with contemporary relevance. This gradual and deeply retrospective quality of sensemaking characterized how most faculty understood their service, teaching, research, and collaborative activities as being relevant to their implementation of the initiative.

Service

The vast majority of faculty interviewed for this study described their service activities for the university as being relevant or instrumental to their implementation of the Interdisciplinary Faculty Initiative, but most also endorsed the well-established viewpoint (Blackburn & Lawrence, 1995; Neumann, & Terosky, 2007) that their service activities were less meaningful to their work at the university than their teaching and research. As one faculty member argued, "What's valued are grants and publications and good teaching, and so anything administrative seems to detract from my ability to focus on those areas that are most important and most valued here." However, a few faculty members also endorsed the notion, championed by scholars such as Baez (2000) and Szelényi and Rhoades (2013) that their service activities could help to bring about meaningful change to the university and field of higher education. Most notably, though, established faculty either tended to describe their involvement with the initiative as their way of being of service to their department, school, or to the university, or they noted that their service activities overlapped with their other scholarly activities. In contrast, newly hired faculty generally perceived their relevant service activities as being a distraction

from those other types of activities that were more closely related to their implementation of the initiative.

Most established faculty's involvement with the initiative began with an agreement to be of service to an organization. Some described becoming involved by virtue of a pre-existing service activity, including serving as the director of a research center, or serving as an administrator in their own or in another academic unit. Others were merely asked to join a cluster by a colleague, such as Tracy, who also described her participation in a search committee for the cluster hires as being "part of my service role." Her department colleague invited her to join the committee in part because, from her point of view, "I like service and I'm good at it." In short, many established faculty saw their implementation of the initiative as part of their service to an academic unit.

More notable, however, is the fact that several established faculty members described their implementation of the initiative as incorporating activities that could be simultaneously characterized as service, research, or collaboration. For example, Hans, who had initially described his participation on a hiring committees as "service" later rejected this characterization, noting that, "To me this wasn't service, this was … it overlapped so heavily with what my life was going to be about that I wanted to be a part of it." Other established faculty, like Cole, described their participating on hiring committees as serving their need to "stamp the service thing" on their tenure review, but also as simultaneously being an extension of their collaborative scholarly activity.

The newly hired faculty who participated in this study also described their service activities as meaningful to their implementation of the initiative. But in contrast to the view of many established faculty members, most newly hired faculty saw these activities

as something that they tried to limit in favor of other related work, particularly their teaching and research. For example, Nick, reflecting on how he was adapting to being a professor, noted that he was "surprised to find out how much time is taken up by these other things like service and committees – administrative work." He went on to lament how little time he had left to engage in teaching and research.

Some newly hired faculty also expressed appreciation for efforts taken by colleagues in their academic units to help them limit their service commitments. Dan, for example, noted, "Fortunately, the way [my school] is structured is they give junior faculty very little service." Although many newly hired faculty described enjoying the service activities they saw as being relevant to their implementation of the initiative, many were also glad that they could limit their efforts in this regard in favor of their other scholarly work. In contrast, many established faculty perceived some degree of overlap between their related service commitments and other types of scholarly activities, particularly their research and scholarly collaborations.

Teaching

Most of the faculty who participated in this study described their teaching activities as overlapping with their service, research, and collaborative activities, and some even described their teaching activities in greater depth than most of these other things. A few of these individuals also endorsed the theory that most college and university faculty perpetuate the isolation of different disciplines from each other through their teaching, not only by teaching according to different disciplinary standards, but also by producing scholarship in ways that reflect the epistemological differences of the disciplines. Indeed, this point of view is supported by empirical research (Donald, 1983,

1990; Guetzkow, Lamont, & Mallard, 2004; Jones, 2007, 2009). But more notably, a number of participating faculty described feeling disquieted by how difficult it was to teach collaboratively with other colleagues in their cluster as they had envisioned. For some of these individuals, this source of disappointment even diminished their opinion of the initiative itself. Regardless, the faculty who participated in this study tended to describe teaching as being inherent to their work, and the vast majority reported that their teaching was a source of great personal enjoyment. Most importantly, these participating faculty members generally understood their teaching activities as being highly meaningful, if not of central concern, to their implementation of the initiative.

Although not every faculty member interviewed was actively teaching university courses, the vast majority described teaching as being inherent to their job. Teaching was depicted alternatively as an "expectation" as well as an activity that was a faculty member's "bread and butter." Though some faculty noted, "Some [of their colleagues] are more research-oriented and maybe not as interested in teaching as others are," most faculty also reported that good teaching was highly valued at the university. It is also important that the vast majority of faculty expressed that they enjoied teaching very much. This finding is important because it justifies the practical recommendations advanced by this work to incentivize faculty's teaching activities. Because the vast majority of participating faculty testified to greatly enjoying teaching, it follows that strategic initiatives that more actively promote teaching would help sustain the efforts and engagement of the faculty involved.

Aside from being understood as an inherent part of their jobs and a source of personal enjoyment, teaching was also central to the way many faculty members made

sense of the Interdisciplinary Faculty Initiative. While describing their implementation of the initiative, many faculty members discussed the university courses they needed and wanted to teach. For established faculty, the teaching needs of their academic departments and units affected how they were searching for faculty candidates. For example, Adam noted, "So in [my school], for instance, we have had a shortage of [science] faculty to teach the undergrad courses and the graduate courses that we need to teach. So [my school] was very interested in getting a new [science] faculty member because we have the need to teach those classes." Some established faculty had relatively specific conceptions of the teaching load the newly hired faculty would assume. Jerry described how despite not having "a very clear idea of the kind of person we wanted," it was still clear to his colleagues working on the cluster-hire that that it had to be someone who "had sufficient background in [the profession] to be able to teach classes because whoever was going to be hired would be teaching the [professional] class."[1]

Many of the newly hired faculty also described their teaching activities as being central to the way they made sense of their own hiring through the Interdisciplinary Faculty Initiative. For Barb, her experience teaching for a community service organization "really solidified" her decision to seek a faculty job because it made her realize that teaching "is where my passion is." In fact, a few of the individuals who were

[1] The next chapter of this work addresses the ways that university faculty identified different social groups of scholars, including groups of scholars working in different academic disciplines and fields. The labels "science" and "profession" are used throughout this work to obscure the actual departments and fields that the participating faculty members talked about for the purposes of protecting their anonymity. The following chapters do refer to the disciplines of Engineering and Biology by name, but so many of the participating faculty discussed these particular disciplines that showcasing their related quotations does not endanger the guarantee of anonymity that was extended to this study's participants.

hired through the initiative as first-time faculty members testified that they applied for the positions very shortly after realizing how important teaching was to them on a personal and professional level. Arriving at this realization motivated these few individuals to consider applying for the open positions at the university.

And for most of the newly hired faculty participating in this study, getting a sense of what they would be teaching was critical to the way they envisioned their work when they accepted the job. For example, Dan described how getting a sense of the courses he would be teaching helped him "really envision myself working with [other faculty in the department] or being their colleague." Many of these faculty members also described how their teaching activities supported their success as a professor; the teaching opportunities had enabled them to contribute to the mission of the university or of their particular academic departments or units. Some even described how their teaching activities were vital to their status in their departments. In fact, Noah noted explicitly that his teaching activity "kind of really worked well for me in terms of my status in the department." In general, most newly hired faculty saw their teaching activities as a highly meaningful aspect of their implementation of the initiative.

However, a substantial proportion of participating faculty also expressed being surprised by the difficulty they had in establishing courses that could be co-taught by newly hired faculty in their clusters. Newly hired faculty members in a few of the clusters felt that their co-teaching was stymied by the financial structure of the university, which apportions funds to its schools and colleges according to both the number of students they enroll and the number of students they instruct in the courses their respective faculty teach (See Courant & Knepp (2002) for a description of the University's budget model).

This financial structure was perceived by some as incentivizing the newly hired faculty within clusters to abandon any plans they had made to teach collaboratively with each other. For example, Rob, a newly hired faculty member, commented, "It's impossible, or just practically impossible, for junior people to pull this off because how do we split up tuition dollars across four colleges?"

Beyond this financial barrier, newly hired faculty also stopped pursuing co-taught courses because they came to believe that it might compromise their ability to gain recognition within their department. Lynn noted that in talking about the issue with other new faculty in her cluster, "Each of them, they're like, 'Well, my department expects me to teach in my department. If this course goes through your department then it's not doing me any good,' which is totally valid." Barb, another newly hired faculty member, shared Lynn and Rob's desire to engage in co-teaching but described how doing so would directly compromise the credit she received for her scholarship in her academic unit:

> The teaching, for instance, is also going to be kind of problematic because my chair wants it to be really three different courses listed three different ways, so I'll only get credit for the students that sign up for mine. But it's really a co-taught course with [scores of] students. But it will look like I'm only teaching [a smaller number of] students because of the way [the chair] wants to do it. [The chair] wants disciplinary – we want it to be interdisciplinary – but [the chair] is arguing that it has to have some disciplinary-specific topics just for those students.

Considered overall, faculty's teaching activities proved to be central to the way they implemented the initiative. Beyond seeing teaching as an inherent and enjoyable part of their job, faculty envisioned themselves and others teaching specific courses as a way of figuring out how they would implement the initiative. However, a number of faculty members also expressed frustration and disappointment in their inability to teach in the ways that they had envisioned. Several described struggling to establish co-taught courses

with other faculty in their cluster. One faculty member even asserted that impending changes to a co-taught course meant that the cluster would be unable to "[do] the job that we initially designed it to do." In sum, not only were teaching activities central to the way that faculty made sense of their implementation of the initiative, a few faculty reported feeling disillusioned because they were unable to be engaged with teaching in the way that they envisioned.

Research

All faculty members described their research as being more meaningful and relevant to their implementation of the Interdisciplinary Faculty Initiative than any other type of scholarly activity. Not only did the most of the faculty who were interviewed spend the majority of the time discussing their research activities, most also emphasized that research production was the predominant focus of their job. Interestingly, however, the findings of this study also suggest that faculty characterized their research activities as being interdisciplinary for multiple and sometimes conflicting reasons. In effect, faculty defined interdisciplinary scholarship loosely, and further, they used the term to characterize both the process and products of their scholarly work. Only some faculty endorsed the idea that interdepartmental scholarship was inherently interdisciplinary, as has been advanced by scholars like Jacobs (2013). However, many voiced the perception that the pressures of achieving tenure discouraged interdisciplinary collaboration in general, and evidence does suggest that this point of view is widespread among today's faculty (Feller, 2002).

First and foremost, this study found that faculty understood their research activity as having the most direct relationship with the way that they implemented the

Interdisciplinary Faculty Initiative. Across the 34 interviews that comprise the main body of the study's case file, research activity was the most common topic of discussion. Only a few of the questions in the interview protocol explicitly prompted faculty to discuss their research, and the vast majority of the questions asked faculty to describe their involvement with the initiative more generally. Given this, the fact that faculty discussed research activity in such depth and so frequently is notable. When asked to describe how they implemented the initiative, faculty's accounts most frequently included references to their own or their colleagues' research activity.

Beyond being the most common topic of conversation, research production was often described by interviewed faculty members as central to their self-image. While discussing his passion for research, one established faculty member, Frank, noted, "That's what drives me." Another, Ian, recalled, "The first time I published, it became like an addiction." Of those who did not describe their research activity in such personal terms, most still described their work at the university as being focused primarily on research. As will be discussed in greater detail later on, many also described being particularly focused on obtaining research grants, with one even asserting, "Especially at Michigan, the most important thing is to get big grants." Although it is widely recognized as being self-evident to all college and university faculty (Abbott, 2001, 2002), the evidence produced through this study confirm that research activity was faculty's primary focus as they implemented the Interdisciplinary Faculty Initiative.

More specifically, however, the faculty who participated in this study were most intently focused on producing research publications and grant proposals. Most were particularly focused on producing publications "in high impact journals that would be

more focused on [their] discipline." Art, a newly hired faculty member, empahiszed the necessity of prioritizing publishing in noting, "I need to publish more and more so that I get a profile." Similarly, Will explained, "As a [scientist], especially as a junior [scientist], you write papers and you try to write papers that get into the best journals. So that's what I'll do; I'll write papers." Not only did faculty perceive their research activity as the defining aspect of their work at the university, but most also frequently pointed to collaborative research activities when explaining how they understood their engagement in the Interdisciplinary Faculty Initiative.

The fact that faculty understood research activity as being highly relevant to their implementation of the initiative is hardly surprising, given the centrality of faculty's research to the strategic behavior of large public research universities in American higher education (Slaughter & Leslie, 1997; Stark & Lattuca, 1997; Rhoades, 2000, 2001). More interesting, however, is the fickle way in which faculty characterized their research activity as being interdisciplinary. Scholars of higher education have often distinguished between disciplinary, multidisciplinary, interdisciplinary, and transdisciplinary scholarship (Abbott, 2001; Jacobs, 2014; Klein, 1990, 2006, 2010; Lattuca, 2001; Mansilla, 2006; Newell, 2001; Porter, Roessner, Cohen, & Perreault, 2006). But while the participating faculty made all of these distinctions themselves, they applied the terms inconsistently and frequently glossed over these distinctions in favor of describing research simply as being disciplinary or interdisciplinary. Faculty variously described their research activity as being interdisciplinary by virtue of the fact that their research activity involved: (a) referencing scholarship drawn from multiple disciplines; (b) synthesizing scholarship drawn from multiple disciplines; (c) effecting change outside of

of higher education; (d) working in teams with different disciplinary certifications; (e) working in teams with different departmental appointments; (f) working in ways that are at odds with the interests of more senior or highly credentialed scholars within an academic field. While faculty did describe their implementation of the initiative as involving and resulting in interdisciplinary research activity, no clear or consistent pattern emerged from the interviews as to a singular defining characteristics of that "interdisciplinary" work. This finding dovetails with other empirical research on interdisciplinary scholarship among college and university (e.g., Lattuca, 2001).

Considered all together, the faculty in this study often described specific academic fields as being inherently interdisciplinary, and they also simultaneously characterized interdisciplinary research as synthesizing knowledge drawn from separate disciplines or organizational units. Some also asserted that interdiscplinarity required effecting change outside of colleges and universities. In a prototypical example, Nick described his field of study as being inherently interdisciplinary because it requires thinking that "encompasses, or expands, or transcends disciplines." In contrast, another newly hired faculty member described the core questions that inspired research in her field as "highly interdisciplinary" because the questions require knowledge taken from a set of specific disciplines such as Sociology and Mathematics. Similarly, Pam described herself as an "interdisciplinary [scientist]" but also noted, "There's actually a lot of… I would say both confusion and debate over how interdisciplinary [this field] is in and of itself." An associated perspective was held by some faculty who saw their particular field of study as being interdisciplinary by virtue of the fact that it synthesizes, as opposed to merely combining, knowledge from a set of disciplines. Pete, an established faculty member,

described himself as working within a "synthetic discipline," and Hans described his field as being "inherently interdisciplinary" in both cases because their fields of study required, respectively, "distilling and refining", and "synchronizing" knowledge from a specific set of disciplines. In all of these cases, faculty characterized their research activity as being interdisciplinary because it either combined or synthesized knowledge from a set of academic fields constituted by courses of study, which are commonly identified as disciplines. Indeed, well-known scholars of higher education have long advanced these characteristics as defining interdisciplinary scholarship (Abbott, 2001; Becher, 1981, 1989, 1990, 1994; Becher & Trowler, 2001).

Faculty also characterized their research as being interdisciplinary because it was intended to have a practicable impact outside of academia. Although essentially the faculty who participated in this study described a hope that their research activity would have an influence outside of higher education, some also felt that this intention is what characterized their research activity as being interdisciplinary. For these faculty, their research was interdisciplinary precisely because, in the words of Lisa, "It's very practicable and you get to apply all different types of tools so that you're not tied to one particular thing" or because, in the words of Sandy, the research was focused on solving "the problems in front of you. Like building [a technology] and making it useable." Similarly, Jerry, an established faculty member, described his field of study as "a transformative field of scholarship" and labeled it as interdisciplinary because of its close relationship with communities outside of higher education. He noted, "It's not politics, but it owes its existence to a larger social transformation that was affected by people who are not academics. And a lot of the time we get our best inspiration from things that are…

from cultural ferment that's taken place outside the University." Considered overall, faculty described their research as being interdisciplinary not only because it involved combining or synthesizing knowledge derived from different disciplines, but also because it prioritized relationships with higher education institutions' external stakeholders.

In addition to defining related research activity as being interdisciplinary by virtue of the varied knowledge being cited or interpreted, faculty also characterized research as interdisciplinary by virtue of the scholars involved. Notably, this depiction of interdisciplinary scholarship has been recently advanced by empirical research on science and engineering faculty (Borrego & Newswander, 2008). Specifically, faculty characterized research as being interdisciplinary when it involved teams of experts representing different disciplines, departments, or academic movements. For example, Meg, an established faculty member, described research that could not be carried out by a "singular scholar" as being "truly interdisciplinary." Similarly, Will noted that in contrast to a hypothetical collaboration with a scholar credentialed in his own discipline, a collaboration with a scholar trained in a different discipline "would clearly be interdisciplinary, even if we were both in the [same academic unit]."

On rare occasions, faculty indirectly referred to the notion that interdisciplinary research also includes scholarly collaborations between individuals representing different departments or academic units. For example, Amy described the interdisciplinary identity of the university as being characterized by "the very low boundaries between units." While this understanding of interdisciplinary scholarship was uncommon, a few faculty members working in different clusters advanced it.

Some faculty also characterized interdisciplinary research as that which originated from nascent academic movements. When searching for an example of an interdisciplinary field of study, one individual referenced a field of study "that was interdisciplinary and now [is] a field in its own right." Deb, an established faculty member, described the initiative as interdisciplinary because its purpose was "synergistic in that it would create a critical mass of people on campus that would then reproduce, or be generative, so that post-docs would be involved." Sandy, a newly hired faculty member, articulated one particularly memorable understanding of interdisciplinary research. She distinguished between interdisciplinary research and interdisciplinary learning by making the point that collaborations between disciplinary experts can be a particularly effective means of conducting interdisciplinary research:

> Interdisciplinary boundaries produce interesting results because, like any boundary, there is always friction. And that creates the possibility for new ideas, new thoughts to emerge, but then it's always a balance. There's always a balance to be struck. So there's a difference between interdisciplinary learning and interdisciplinary research, and I actually don't agree with undergraduate interdisciplinary programs because I think people don't have the skill set when they leave that gives them sufficient depth to really engage in interdisciplinary research later on. I know that sounds like a contradiction, but I like this model where you have people coming into interdisciplinary projects that have a deep skill somewhere and then breadth of interests, and that, I think, makes for a more satisfying experience for the individual and probably a more productive experience for the team.

In sum, faculty characterized their relevant research activities as being interdisciplinary for a wide variety of reasons. The definitions of interdisciplinary scholarship that they advanced were not all equally insightful or valid. The point of showing the various ways that faculty defined work as being interdisciplinary is, first and foremost, to suggest that a wide variety of definitions coexisted in the minds of these

faculty members. In general, they characterized research activity as interdisciplinary by virtue of the varied knowledge being cited or interpreted and by the varied disciplinary expertise of the scholars involved.

However, it is critical to note that while faculty characterized research activity as being interdisciplinary for many reasons, their attribution of the term was often highly inconsistent. One faculty member variably described the same academic unit as being "multidisciplinary" and "interdisciplinary" throughout an interview, and another described the field in which he works as "interdisciplinary" as well as "the kind of discipline [that has] the constant necessity of synthesizing multiple interdisciplinary perspectives into singular work." A third established faculty member simultaneously attributed the success of one newly hired faculty member to the fact that this person worked in "an interdisciplinary department" but also rejected the characterization of the initiative as being interdisciplinary, saying, "This is just a bunch of people in departments that may or may not ever meet. They just happen to study [the same phenomena], and that's not interdisciplinary." While faculty did describe research activity as being interdisciplinary for many distinct reasons, they were often inconsistent, and occasionally contradictory, in their application of the term. Aside from functioning as a catchall for whatever type of scholarly work the faculty envisioned the initiative as promoting, there was little common or coherent use of the term 'interdisciplinary' evident in the case file.

Collaboration

As much as they emphasized the importance of their research activities, faculty also saw their collaborations with colleagues as highly relevant to their implementation of the initiative. Indeed, during their interviews, faculty spoke of various collaborations

between colleagues almost as often as they described their research activities. Of the faculty who were interviewed, the vast majority described their work as necessarily involving collaboration with colleagues and with students. Most of them described their collaborations as complimenting, and often leading to, their other scholarly activities, but many also described their collaborations as being an end in of itself. For example, faculty commonly described their mentoring relationships as very relevant to how they implemented the initiative but also as being enjoyable and meaningful in their own right. However, while many faculty decided to be involved with the initiative in part due to the opportunity to collaborate with colleagues in the clusters, most described multiple ways in which they were discouraged from engaging in intracluster collaboration.

Regardless, every faculty member who was interviewed described their collaborations with colleagues as meaningful to the ways in which they went about actually implementing the Interdisciplinary Faculty Initiative. They frequently described their collaborations as supporting, or being a necessary component of, research activities that were also related to their involvement with the initiative. Many depicted collaboration as being the first step in the pursuit of other relevant scholarly activities.

Many newly hired faculty members were quick to depict their collaborations in this way. For example, Kate described how she met frequently with other newly hired faculty in her cluster to ask them about how they capitalized on their collaborations to conduct research or receive grants. The questions she remembered them asking each other included, “How do you find collaborators? How do you talk to this person? How did you find this grant coordinator? How did you see this specific notice for a grant?” Another newly hired faculty member, Jess, described her collaborations with students

from another faculty member's lab as "sort of an opportunistic thing I've gotten into since being here" because it allowed her to work with an interesting new technology her students had been using.

Established faculty members also described valuing collaborations by virtue of the research activity that it led to. Ann described enjoying her collaborations with faculty in different disciplines because the breadth of expertise represented by the group potentially "has impact more broadly" than collaborations with scholars working in the same discipline. She cited one such collaboration, noting, "For example, the study that I did with [another academic unit], I mean, there were many papers that came out of it." In contrast, Tracy hypothesized that she would be more productive as an academic if she were able to form collaborations with colleagues with similar expertise, adding, "It's not that people don't care about [this topic] in [this field]. Our [academic unit] has a smaller focus on [this topic] than others." In both of these cases, established faculty members understood collaboration as an important catalyst for further scholarly activities, and this is particularly true for further research activities. Mark most clearly articulated this understanding of collaboration as he described how he might give advice to a newly hired faculty member in the cluster:

> If you and I collaborate, we've both got to bring something to the table. We've got to have some sort of shared interest. We've got to have some sort of shared goal among a project that we're going to collaborate around. And so if the paper you want to write is really irrelevant to setting myself up for the next grant or something else, I don't see that much value in the collaborative relationship. So it's really up to that individual to make that assessment. With this individual's work, could we work on something where there's going to be mutual benefits? … It's a very practical issue because you want to be engaged in relationships that are going to be productive to your area that's going to ultimately going to get tenure. And if [a newly hired faculty member] had told me that he's working with

> somebody that has nothing to do with his primary line of research, I'm going to raise the question of, 'Is this the best way to use your time?'

Some faculty valued collaboration regardless of the other scholarly activity it did or did not lead to and instead described collaboration as personally fulfilling all on its own. For example, Barb, a newly hired faculty member, noted that her regular meetings with established faculty associated with her cluster "made me feel like I was part of something that was kind of brewing." Another newly hired faculty member, Lynn, described her collaborations with newly hired faculty in her cluster similarly by highlighting its worth, regardless of the outcome:

> Even if we can't come up with actual papers we could write or studies we could do or grants we could write, I still think that there's definitely the potential to be a core of a group that does discuss these issues. So even if we can't write a paper about it, we can have cross-disciplinary talk that can inform us, even if there's no concrete outcome.

In sum, these faculty members understood their collaborations as being relevant to their implementation of the initiative because of the innate value of scholarly collaboration and by virtue of the other scholarly activities that their collaboration enabled. The way that faculty described their relationships with their mentors and advisees best characterizes the dual relevance they attributed to their collaborative activities. Almost all of the faculty who participated in this study described building a wide variety of "mentoring" relationships with other faculty members as part of their implementation of the Interdisciplinary Faculty Initiative.

As a matter of policy, every newly hired tenure-track faculty member at the University of Michigan is connected with mentors within and outside of their academic unit, but the faculty who were interviewed also described building many informal mentoring relationships with their colleagues as well. These mentoring relationships

spanned academic units, often connected newly hired faculty with established faculty in the same academic unit, and were typically focused on promoting faculty's pursuit of tenure. Tom described developing an informal mentoring relationship with one of the newly hired faculty members in his cluster, noting, "We talk about collaborations all of the time," and he went on to characterize such relationships as being "advanced, old full professors trying to help an assistant professor to do what he or she is supposed to do in order to get tenure." Similarly, Dan, a newly hired faculty member, felt good about the mentoring relationships he built with professors in his department, claiming, "I feel like they have a plan and make a concerted effort to mentor young faculty and do everything they can to make sure we have success."

But faculty also valued their mentoring relationships apart from its direct effects on academic success. For example, Dan also described valuing these relationships because his mentors "made me excited about the topic" he was studying. Additionally, several newly hired faculty members, such as Barb, described creating informal mentoring relationships on the basis of pre-existing "friendships" or with colleagues that "end up coming [by my office] more often." Faculty's mentoring relationships are highlighted here because they ably characterize the practicable and innate value faculty attributed to their relevant collaborative activities. More accurately, faculty understood their mentoring relationships as relevant to their implantation of the initiative even when the outcomes of these collaborations were uncertain or only able to be realized in the distant future. Tracy, an established faculty member, best articulated this type of understanding as she reflected on how her role as a scholar affected her involvement with the initiative:

> I guess the short story is my self-perception of a scholar has evolved to include not just research and contributions through research but rather through motivating others by shaping the curriculum – by changing and improving processes for mentorship – for our doctoral students, for example. So it's bigger and broader and has less to do with me than with scholarship in general and scholarship for others.

It is notable that faculty described their collaborative activities, such as building mentoring relationships, as relevant to their implementation of the initiative because collaboration could bring about other desirable things, such as achieving tenure, and also because collaboration itself was valued. Far more important, however, is the fact that the faculty who were interviewed often described divergent expectations regarding how their collaborative activities were relevant to the initiative. While some faculty understood the implementation of the initiative as expressly involving newly hired faculty in intracluster collaborations, others clearly did not.

Established faculty, like Jerry, understood their implementation of the initiative as necessarily involving the collaboration of the newly hired faculty in a cluster. For example, he described the purpose of the initiative as enabling "Michigan [to] enter the forefront of research in an area which had not been represented at the University. In order to do that, clearly this group of new, young people had to be able to work together." Similarly, Adam worked with other established faculty to draft position postings for the cluster "that increased [candidates'] interest because they realized they wouldn't just be coming in as an individual person and not part of a group." In contrast, some faculty, like Amy, understood collaborations between newly hired faculty within a cluster to be a secondary, if not incidental, goal of the initiative:

> I honestly never thought of the cluster nature of it as being the core of what the presidential initiative was supposed to be about. It was about hiring 100 faculty building on the interdisciplinary goals of the… that

> President Coleman had. If you go back and look at where that was and so when this proposal was crafted, sure, you're taking advantage of the cluster to build a stronger and broader group of people with interests in [this topic] that would hopefully overlap. But at least from my perspective, the cluster piece was a creative way to get around a challenge that we were told is that these should be junior, have to be interdisciplinary, [and] can't be split, as opposed to that the cluster itself was what the key goal was.

Newly hired faculty exhibited a similar divergence of expectations on this matter. Some newly hired faculty remembered finding the position to be, in the words of one individual, "very attractive" in large part because they expected to collaborate with other faculty in their cluster. For example, Pat noted, "The cluster-hire was appealing in a lot of ways, like being able to know that there's sort of this embedded group that I could immediately start collaborating with if I wanted to." She even described these collaborative opportunities as "actully one of my main deciding factors in coming here." Similarly, Barb noted that she "loved the idea that it would kind of be this instant community for thinking through how to teach together or how to do research together or how to do service in the community together."

But several of the newly hired faculty members also accepted their positions at the university without even being aware they were part of a cluster. For example, one faculty member discovered this fact more than a year after being hired when he received email from another newly hired faculty member in his cluster asking to meet. Similarly, another faculty member recalled talking to a colleague hired into a different cluster who "was like, 'I have no idea I'm part of a cluster. We've never met. We've never done anything together.'" The most surprising anecdote of this type came from Noah, who recounted finding out about the whole cluster-hiring initiative from his mother, whom "had read about it in the paper, about this initiative to hire 100 new faculty." Considered

as a set, the faculty who were interviewed held different expectations about the importance of forming collaborations within the cluster; some understood it as inherent to the initiative's implantation while others understood it as a secondary or incidental outcome of the initiative considered overall. However, most faculty members understood the purpose of the initiative as the promotion of intracluster collaboration.

Unsurprisingly, several faculty members described the divergence of their and their colleagues' expectations about intracluster collaboration as problematic. One established faculty member even noted that it would be "unethical for me to encourage them [to collaborate] for the sake of interdisciplinary collaboration. It's like, look. It might not help you get tenured at all. You can't have those conversations with an assistant professor." Indeed, many newly hired faculty members reported feeling no such encouragement to collaborate with other newly hired individuals in their cluster. As Tracy noted, "The person we hired told me that he did not feel any additional pressure to collaborate with people from the IFI than if he had been hired as a regular hire."

In some cases, newly hired faculty described feeling a sense of disquiet as they came to understand that there was little encouragement for them to collaborate with other faculty in their cluster. Dan, for example, pointed out, "What I really figured out quickly is I needed to do what I needed to do to get tenure in [my department] and become an independent scholar and worry less about making the cluster successful." He went on to add, "I feel like there was this vision for the clusters and that may not fit with what the vision is with members of the department, with what they expect." Regardless of how actively they pursued or promoted collaborations with other faculty in their cluster, the vast majority of the university faculty who were interviewed for this study understood

intracluster collaboration as directly relevant to their implementation of the initiative. Still, there is clear evidence that these participating faculty members experienced dissonance between what they expected from their collaborations and what resulted.

This section closes by highlighting the experience of one individual. Before presenting one person's understanding, however, it is critical to note that many faculty members understood intracluster collaboration to be highly relevant to the initiative, and further that most came to realize that collaborating with others in their clusters was not in their professional interests. Pat, a newly hired faculty member, expressed both of these points of view when reflecting on her career at the university:

> When I came here, I realized that that was actually a minor part of what I would be doing. So, the cluster was a real draw for me, and knowing that I am going to work with [another individual in the cluster] was also a real draw. But then I started to realize that I actually, I need to be a little bit more… I will be doing most of my work for my school, for my department, so I think that was a little bit of a change in expectation for me. But yeah, I think that... I think generally it was knowing that I would get a chance to work with colleagues who I already had an established relationship with and some trust.

In sum, the faculty who participated in this study described four types of actions that they understood as relevant to their implementation of the Interdisciplinary Faculty Initiative. The way faculty described understanding their implementation of the initiative generally built upon service, teaching, research, and collaborative activities, and while these attributes are not enactments in and of themselves, the motivations that brought them about hint at how faculty understood themselves as implementing the Interdisciplinary Faculty Initiative with their colleagues. The evidence presented in this chapter speaks to these foundational motivations.

Analysis of these types of activities supports several findings about faculty's relevant enactments. First, established faculty more frequently described their service activities as overlapping with their teaching, research, or scholarly collaborations. This finding might suggest that they viewed their service activities as more relevant to their other scholarly pursuits than most newly hired faculty did, but it may also simply reflect the well-documented increase in service activities found among recently tenured and mid-career faculty (Baldwin & Blackburn, 1981; Baldwin, Lunceford, & Vanderlinden, 2005; Neumann & Terisky, 2007).

Regardless, although newly hired faculty discussed engaging in service activities as related to their implementation of the initiative, they more frequently understood these activities as separate from the others. So while some established faculty were motivated to implement the initiative in ways they saw as serving the interests of the university, newly hired faculty described themselves as being unable to do so similarly. Second, while many faculty sought to establish co-taught courses and viewed teaching as highly meaningful on a personal level, many reported being unable to teach in ways they wanted as a result of being involved in the initiative. In addition, while most faculty members still understood their teaching activities as more relevant to their implementation of the initiative than their service activities, they also understood teaching to be less relevant than their research agendas or scholarly collaborations.

It is also interesting to note that while many faculty members described their research as "interdisciplinary," most did not apply the term in a consistent manner. This suggests that most found the meaning of the term to be broadly relevant and not so meaningful to the way they actually implemented the Interdisciplinary Faculty Initiative.

Faculty also found their collaborative activities, such as their building of mentoring relationships, to be highly relevant to the way that they implemented the initiative. However, considered as a set, the faculty who participated in this study held divergent expectations regarding the relevance of collaboration within and across the clusters to their implementation of the initiative. It is telling that most faculty eventually came to understand that collaborations between the newly hired faculty within clusters might well be detrimental to their chances of receiving tenure at the university.

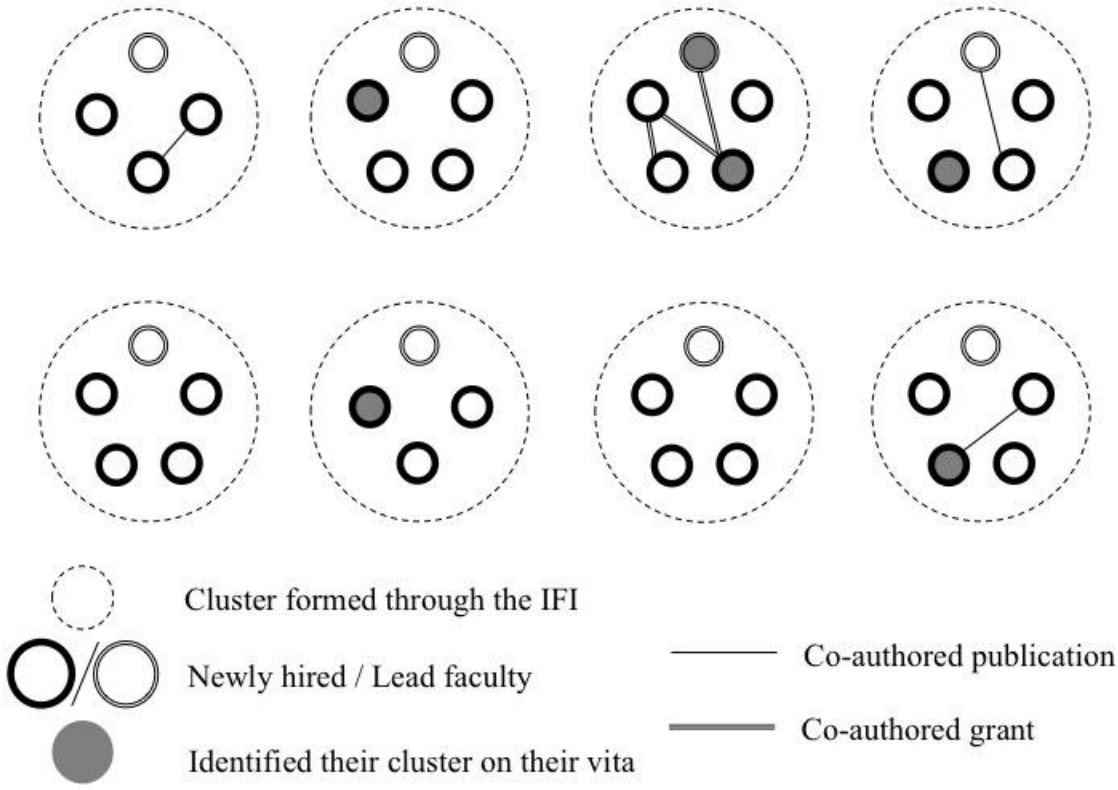
Scope of Collaborative Activities Taken to Implement the Initiative

This chapter made the assertion that enactments are actions born out of a desire to affect one's place in society. This chapter lays the foundation for the rest of this study by detailing the motivations that faculty had to implement the Interdisciplinary Faculty Initiative through common types of scholarly activities. While the scope of scholarly activities faculty engaged in was limited, the varied motivations faculty attached to their activities helped them to develop an understanding of how they were working with their colleagues to implement the initiative.

Focusing solely on faculty's service, teaching, research, and collaborative activities would have blunted the ability of this chapter to convey how faculty members' enactments were relevant to their implementation of the initiative. Indeed, narrowly focusing on the activities in isolation of the desires that motivated them might give the false impression that the participating faculty viewed the initiative as relatively unrelated to their scholarly activity. For example, Figure 3 displays the co-authored research publications and grants that the newly hired and lead faculty within each cluster publically identified themselves as collaborators on. This figure only includes those

publications and grants that faculty listed on their curriculum vitae or that were included in the University's Michigan Experts database (http://experts.umich.edu/default.asp). This database was used for those few participating faculty for whom vitae were not publically available or provided upon request. The figure shows that even seven years after the Interdisciplinary Faculty Initiative was implemented, few of the participating faculty listed any resultant co-authored publications or grants on their vitae. Moreover, even fewer identified their cluster on their vitae. Considered in isolation from the other evidence provided in this chapter, this figure could give the impression that the participating faculty probably felt their implementation of the initiative was only incidental to their scholarship at best.

Figure 3. Intracluster collaboration on research publications and grants



This figure provides a clear example of the scope of the participating faculty members' research activities, but it fails to convey their motivations for implementing the Interdisciplinary Faculty Initiative in the way that they did. Even if the one successfully co-taught course and several lasting mentoring relationships that this study documented were added to this figure, most readers who saw it in isolation would conclude that it was evident of the participating faculty's disengagement with the initiative. In contrast, this chapter provides evidence showing that faculty engaged in various scholarly activities because they were motivated to implement the initiative in ways that made sense to them and their colleagues. Understanding how faculty made sense of their and their colleagues' work on the initiative is the core purpose of this study. The many enactments presented in this chapter provided the foundation upon which faculty developed a meaningful understanding of the initiative itself. The following chapters of this dissertation will show how faculty engaged in the initiative in ways that served to cultivate their expertise.

Faculty pointed to their service, teaching, research, and collaborative activities as all being relevant to their implementation of the initiative, albeit in different ways and to different degrees. Documenting how these activities were relevant to faculty's enactments is critical to establishing how they made sense of their implementation of the initiative, but it is equally important to document how faculty retrospectively extracted cues from their experience in ways that informed their scholarly identity. The following chapter proceeds along these lines by showing how faculty understood their past actions as indicative of their participation in various social groups.

Chapter 5

Selecting Collaborators Across Social Groups

This chapter focuses on the way that faculty identified the various social groups they considered themselves members of. The way that people identify themselves as participating in some social groups but not others constitute the element of the sensemaking process that Weick (1995) terms *selection*. The findings of this study suggest that faculty reframed their participation in relevant social groups while they went about implementing the initiative. Second, these faculty extracted cues from changing social frameworks by differentiating, combining, and harmonizing different social groups. These three ways of extracting cues from changing social frameworks were reflected in ways faculty described understanding their implementation of the initiative.

Although Weick (2001) argues that the three elements of the sensemaking process do not always occur in sequence, popular models of the process depict the element of selection as a middleman connecting peoples' enactments with their retention of whatever meaning they use to inform their following actions (Jennings & Greenwood, 2003). Fundamentally, the element of selection enables people's recognition of the many social groups in which they have been active. In other words, through selection, people consider the social context of their past enactments, and by doing so, recognize social

groups and experiences in which they can become involved. This recognition is enabled by the extraction of cues from social frameworks that consist of the deeds of others, and specifically of "guided doings" that "incorporate the will, aim, and controlling effort of an intelligence" (Goffman, 1995, p. 22). In this way, selection limits the range of future enactments to those that are commonly understood as appropriate in the context of those social worlds (Weick, 1995). In presenting the evidence of faculty engaging in sensemaking, this study details two types of understanding associated with the element of selection. First, there is clear evidence that faculty reflected on the social context of their past enactments. In addition, this chapter also explains how faculty extracted cues from their past which helped them recognize opportunities for further involvement in various social groups.

Deriving Evidence of Selection Through Interviews

As Weick (1995) points out, "Sensemaking tends to be swift, which means we are more likely to see products than process" (p. 49). Unsurprisingly, it proved challenging to gather data about how people extracted cues from the social frameworks they found relevant to past behavior. During the interview process, faculty members rarely volunteered precisely how they saw their past behaviors as simultaneously implicating and limiting their involvement in various social groups. Even when prompted to discuss this, some faculty members occasionally failed to describe their understanding in any meaningful detail. For example, some were hesitant to describe their experience of being introduced into new social groups in meaningful ways. When asked to describe how they first talked with brand new colleagues about their job expectations, one newly hired faculty member deflected the question, noting, "I mean, everyone knows what it meant to

take a job like this and what you're supposed to do. That's all known. There's nothing to discuss." Similarly, another newly hired faculty insisted that their introduction into the university was exactly as they had expected it to be:

> I chose this line of work because I knew that it's something that I enjoyed and so I believe I went into the process having made an informed decision being very aware of what would be the demands and what my work life would be. And so I… early in the process I think I had a good understanding of that and it's been consistent with the reality that I've experienced thus far.

Later on in their interviews, both of these faculty members did feel comfortable elaborating on their views in more meaningful detail, but during the initial stages of this study it became increasingly clear that prompting faculty to discuss how relevant social groups were changing over time was a more effective way to reveal how they extracted cues from social frameworks. As a result, more probes were used in subsequent interviews to encourage faculty to expand on answers regarding changes in relevant social groups. Along with the original protocol, these additional probes helped to surface evidence of faculty's selection processes.

Reframing Social Groups

When faculty described the social frameworks they relevant to their implementation of the initiative, they frequently described how their social groups were growing or expanding by design. This was not unexpected given the probes that were added to the interview protocol and given that the strategic initiative subsidized the hiring of new people into university units. However, a few faculty members understood their implementation of the initiative as ultimately leading to the intentional dissipation of some of the relevant social groups they considered themselves members of.

Incorporating new group members. The vast majority of the faculty members who were interviewed for this study described becoming acquainted with new people or academic units in the course of implementing the initiative. Many established faculty, like Cole, saw their involvement with the initiative as providing not only new faculty lines but also as "a chance to meet some other people and see what they are up to as well." Others described learning new things about how scholars in other fields of study carried out their work. For example, one newly hired faculty member described how since arriving at the university, "I'm constantly talking to other scholars ahead of me and thinking through how they've kind of approached their work." Myriad examples of social groups adding new members to their ranks were evident in the interview transcripts.

While most faculty members referenced the expansion of their relevant social groups, a large proportion also characterized this growth as amplifying, rather than altering, the existing qualities of these groups. For example, several established faculty members described the hiring of new faculty as resulting in the expansion of scholarly activities that were already occurring. One faculty member described the hiring as a "plus" and as an "extra" for their academic unit; others saw the initiative as having a negligible impact for precisely this reason. For example, Hans noted that the cluster-hire in his unit "hasn't made a difference in [this unit] because we were already there. … For us [the initiative] was like a validation." As these quotations suggest, while most faculty described the expansion of their social groups as occurring in tandem with their implementation of the initiative, many also viewed the expansion of the membership of their existing social groups as primarily amplifying, and not necessarily changing, their groups' characteristics. The best example of how faculty understood their implementation

of the initiative as expanding their social groups by amplifying its existing qualities was provided by Adam's description of the genesis of his involvement in the initiative as an established faculty member:

> Every week we meet and our students present to each other. And we have really entertaining discussions that are enlivening and provide good perspective to me from… on research topics I care about. And that core group was part of the impetus to say, 'Well, if we had a few more people that filled these little niches that would be helpful to us because then we'd have a critical mass.' And so that's sort of what led me to propose we hire four new faculty in these areas.

Excluding current group members. In stark contrast to this point view, a small number of the faculty members who were interviewed described how some of their social groups were ultimately diminished as a result of their involvement in implementing the initiative. However infrequently expressed, the fact that a few faculty understood their experience in this way is interesting. First, two established faculty members described the cluster-hiring initiative as ultimately constraining the diversity of their candidate pools. Amy described how the consensual process of drafting position descriptions with faculty in different academic units effectively limited the pool of acceptable candidates. She noted, "Everybody in [this] cluster had to sign on to the language, [and it] ended up getting the narrow intersects that everybody agreed to." As a result, Amy's unit ended up conducting "actually much narrower searches than we would typically do." And Abby felt similarly about the search she played a part in:

> We do most of our hires as [Macro science]. Okay? [Social systems] or [environmental change] or [data manipulation], those are the themes. Those are the kinds of themes that tie together different disciplines. Those are much narrower. They're very broad when you think of them across disciplines but when you say [data manipulation] and [Macro science], that's a hell of a lot narrower than [Science]. I mean, just by definition what somebody… it sounds broad interdisciplinarily but when you're going to actually put somebody in a department it's relatively narrow. We

> would get 30 or 40 applications instead of 250. And that's a less diverse pool. I think it's hard to design something that sounds really cool across units and that ties together very different disciplinary units, necessarily it's narrower in the context of given departments.

Amy and Abby both suspected that as a result of their implementation of the initiative, the social groups in which they worked might have become more narrowly focused even as it gained new members. Their perspective stands in contrast to that of many other faculty members who participated in this study; most faculty described the initiative as involving the expansion of the social groups in which they were involved.

Although also infrequent, a few faculty members described how their experience implementing the initiative involved their own or other's rejection of belonging to a relevant social group. For example, Art, a newly hired faculty member, described feeling out of place in his academic unit "because I am an [Scientist] in the [professional school]. He went on to describe feeling, "I am the alien here, and I'm feeling like the alien, actually." While these few individuals described feeling discouraged from claiming membership in a certain group, other faculty members insisted that they themselves would now reject membership in a certain group as a direct result of their implementation of the initiative. In one particular case, an established faculty member was so disappointed by the failure of her colleagues to support the aims of the cluster-hire that she refused opportunities to collaborate with them on similar work. Another noted, "We protested what happened in [another academic unit participating in this cluster]. It was bullshit. It was a real violation of intent, but no body cared; people just did it." Their negative experience implementing the initiative caused them to reject opportunities to collaborate with other groups of colleagues on a range of related enterprises. In this sense, a few other faculty members saw their involvement with the implementation of the

Interdisciplinary Faculty Initiative as diminishing their engagement in existing social groups they had once considered themselves members of.

Extracting Cues by Reframing Social Groups

Faculty members described how their social groups changed as they implemented the initiative, and they also derived information from these changes that they used to inform their subsequent behaviors. In order to illustrate how faculty proceeded through the selection processes, it is necessary to show how faculty reframed their past enactments as implicating their involvement in relevant social groups and how they extracted information from the social frameworks they recognized as relevant to their experience. Faculty extracted cues from social frameworks in three ways that are characterized by different methods of conceptualizing social groups: differentiating, combining, and harmonizing.

Differentiating Social Frameworks

Faculty extracted cues from the social frameworks they saw as relevant to their implementation of the initiative by differentiating between social groups, by drawing connections between social groups, and by harmonizing social groups. Regardless of which of these means they used and how, by doing so, faculty identified cues that proved meaningful to their implementation of the initiative. More often than not, faculty drew meaningful information relevant to the initiative from the differences they described seeing between different social groups. Specifically, faculty extracted cues from social frameworks by identifying differences between scholars across and within academic units, and most notably, within the clusters created through the initiative.

Every faculty member who was interviewed about his or her implementation of the initiative described his or her colleagues as being divisible across myriad dimensions. Faculty generally relished "[letting] go of the ideas of community and unified culture, and instead [focusing] on the array of disciplinary subcultures that today split the faculty" (Clark as cited in Becher, 1981, p. 121). The types of differences described in the interviews were variously glaring and subtle, commonplace and esoteric, critical and tongue-in-cheek; most importantly, no single categorization scheme predominated, not even that of the traditional disciplines.

Differentiating colleagues by discipline. In the process of explaining their involvement with the initiative, faculty members made many broad generalizations about scholars in different disciplines. For example, one established faculty member explained her motivation for pursuing a specific scientific discipline in part because she had been raised to believe that when scholars from different disciplines worked together, "No one understood the [scientists] that wasn't a [scientist], so they often won the argument. So my view was I wanted to win the arguments." More generally, however, faculty frequently invoked some variation of Clark (1963) and Becher's (1989, 1990, 1994, 2001) distinction between pure and applied scientific fields. For example, one newly hired faculty member described herself as "what people would call a classic scientist as opposed to applied [scientist] which is more [a field of] practice." While this distinction between pure and applied fields was hardly the only one the faculty invoked, it was by far the most predominant.

The faculty who participated in this study distinguished between the social and natural sciences, between the humanities and hard sciences, and between basic and social

scientists to name just a few distinctions. The most common distinction they made regarded various differences between pure and applied sciences. The variations they invoked included distinctions between fundamental and applied science, classical and professional orientations, and scientific and clinical scholarship. All of these various distinctions shared a conception of applied science as being, in the words on one newly hired faculty member, "focused on very concrete interventions and measuring their effectiveness and … gathering data that [has] a really kind of pragmatic goal." The frequent distinctions faculty made between colleagues working in pure and applied disciplines is featured prominently throughout this chapter.

Of course, faculty distinguished between themselves and their colleagues on the basis of specific disciplines as well. One newly hired faculty member described a broad and ample job market as being a distinguishing and attractive feature of his discipline, noting, "It's unusual that you literally have hundreds of [scientists] working [for external organizations] doing purely, essentially academic jobs but not at universities. There's nothing equivalent like that for political scientists or historians." And many faculty members, like Adam, simply highlighted the fact that there were meaningful differences between themselves and scholars in different fields:

> Every time I think I understand the humanities and social sciences, I talk to somebody in the field and I'm totally, I'm totally wrong. … And every time I've made proposals to people in the Humanities and I think, "Wouldn't this be great for you?" And they're like, "No." And then they give me the rationale and I'm like, "Oh. Okay, I buy it now." But I wouldn't have predicted it.

While faculty often differentiated between scholars in different fields or areas of study, they differentiated between scholars working within the same field just as frequently. For example, Abby described her field of study as being split between

scholars who were concerned with applying statistical models and those who were interested in exploring the topic more holistically. The former method, she claimed, would not "get us very far anymore. I think we have to combine that with the synthesis, with the bigger picture. But you can't lose that [science]. We're [scientists], not statisticians." Another faculty described feeling "odd" within his discipline because his area of study was underrepresented among scholars working in his field.

The distinctions faculty made between pure and applied fields of study were relevant to their explanations of how they implemented the Interdisciplinary Faculty Initiative. This was particularly the case among the newly hired faculty and their aborted attempts to engage in intracluster collaboration. For example, one newly hired faculty member asserted that her attempts to collaborate with another colleague in her cluster had been stymied by their disciplinary differences. Her colleague, "a natural scientist," had the tendency to assume that this newly hired individual would merely figure out how her own existing research was applicable to policy. This assumption was perceived as being reflective of "kind of the typical natural-science attempt to bridge social science and natural science."

Differentiating colleagues by occupation. Newly hired faculty also differentiated themselves from colleagues in their field by virtue of the routine work incident to their profession. Barb, for example, differentiated herself from her colleagues on the basis of the speed with which they attempted to acclimatize themselves to their new job. She described herself as being different from the newly hired colleagues in her unit, especially those who have "been in another institution for awhile and … think [they] know how things work," and also from those that "kind of have their head in the sand and

don't really care or don't… they're really kind of naïve and have no sense of what's going on." Barb felt these colleagues were pursing their academic careers at the university in narrow-minded ways; specifically, they did not dedicate time to carefully gauge how others' knowledge could be relevant to their professional practice. Like Barb, many newly hired faculty members differentiated themselves from their colleagues in their field by the ways in which they were pursuing their academic career.

Most importantly, however, the newly hired faculty who participated in this study often differentiated themselves from other faculty working in their cluster in order to explain why they had or had not collaborated on any scholarly work. Art, for example, described how he had been unable to form research collaborations with faculty in another unit and suspected that it was because they saw him and his research partner as "just [professionals]," and felt that from their point of view, they "were not real researchers." Art attributed the fact that he had collaborated with some colleagues in his cluster but not others due to differences in training and research techniques. Dan also made similar differentiations in order to account for whom he collaborated with; he noted that his cluster was created to study a topic so diverse that collaboration between the associated faculty could in no way be assumed.

> So it's just easier to [collaborate with some members of my cluster and not others] and that is just because the research interests are more similar. So to say the term [Science] is a very, very broad term and it can mean vastly different things to different people. So just because we are all [Scientists] doesn't mean it is super easy to be like, "Oh, I'm working on this; we should collaborate."

Most of the faculty who participated in this study differentiated between relevant groups of their colleagues by explaining how they understood their implementation of the Interdisciplinary Faculty Initiative. Frequently, they differentiated between themselves

and their colleagues by virtue of their study of pure or applied disciplines, and they differentiated between social groups by virtue of many things, including individuals' use of different research techniques and past certifications. This way of understanding their relationship to social groups was reflected in the cues that they extracted from the changing social frameworks they claimed were relevant to their implementation of the initiative. This is not only evident in the tenor of the quotations above but also in the claims faculty made as to why they sought to collaborate with some colleagues involved in their cluster but not with others.

Combining Social Frameworks

In contrast to the way they extracted cues from social frameworks by differentiating between social groups, faculty also described ways that relevant social groups overlapped or shared characteristics. During their interviews, the participating faculty certainly discussed these commonalities less frequently than they discussed the differences between groups they saw as relevant to the initiative. Nevertheless, faculty often understood the characteristics they shared with other colleagues as just as meaningful to the way the initiative was implemented. Considered overall, they clearly identified relevant commonalities between groups of scholars both within and across the clusters created through the Interdisciplinary Faculty Initiative.

At some point in their interviews, most of faculty members who participated in this study described their colleagues as sharing several relevant characteristics. The many commonalities that academics share with each other have been variously described as "common ground" (Kockelmans, 1979) or "trading zones" (Thagard, 2005), and have been described as being grounded in shared organizational memberships, occupations,

epistemologies, and on occasion, around "common understandings about the nature of the actors [under] study" (Strang & Meyer, 1993, p. 491). Indeed, the faculty participating in this study combined different social groups of scholars on the basis of many of these standards. However, the points of commonality that most faculty members identified often "[appeared] more closely related to counterparts in the heartlands of other disciplines than to the other sub-units in their own" (Becher, 1990, p. 335). Because one of the main concerns of this work regards organizational change, this section begins by addressing the commonalities faculty identified as being based on shared organizational memberships, and particularly to the University of Michigan.

A number of faculty members often described their and their colleagues' memberships in particular organizations as being meaningful to their implementation of the Interdisciplinary Faculty Initiative. However, the types of organizations that were referenced were quite diverse and included shared memberships to specific academic units, to the university, to public systems of education, and to many social groups that were largely external to higher education. First and foremost, many faculty members highlighted their and their colleagues' membership to a specific department or to the university as having direct bearing on how they implemented the initiative. For example, Hans noted that participating in the initiative was "a piece of cake for us" because his colleagues in his department had already created a climate that was "inherently interdisciplinary." Faculty members like Hans described their colleagues' membership to the university's units as providing the common ground necessary to enable their collaboration within and across the clusters in which both participated.

Combining colleagues across organizational groups. In contrast to identifying meaningful points of overlap within and across academic units, a few faculty members also referenced their common membership to the University of Michigan as being meaningful to how they implemented the initiative. For example, Nick described how his participation on a search committee for one of the clusters allowed him "to influence who comes to our university, which is a very important decision, and which ultimately affects our environment." (Faculty members' connection to the university and its other associated departments and units will be discussed in more detail in the Chapter 8.) Regardless, each of these faculty members described their shared membership to the university or its affiliated departments and centers as having affected how they understood the ways they might go about implementing the initiative collaboratively.

In contrast, a few faculty referenced shared memberships to groups that extended beyond the organizational boundaries of the university and claimed that they found these memberships to be relevant to their involvement with the initiative. For example, while reflecting on "the purpose of what I'm doing here and why this work is so important to me," one newly hired faculty member emphasized how critical it was that he had mentors whose ethnic identities were similar to his own. He went on to note how meaningful it was to his work that there were "so many people of color on the faculty" in his academic unit. He insisted that the fact that he shared an ethnic identity with colleagues in his unit had an impact on his ability to conduct the type of scholarship that he understood himself as being hired to produce.

Combining colleagues across disciplines. The faculty members who participated in this study also extracted cues from social frameworks by aligning themselves with

colleagues according to their shared disciplinary affiliation, although less frequently than might be expected. For a few newly hired faculty members, their disciplinary affiliation was more relevant to the way they went about producing scholarship than any other social framework they mentioned. For example, one newly hired faculty member described how his understanding of the type of scholarship he was hired to produce was almost wholly informed by common disciplinary standards that pervaded all institutions of higher education, noting, "[Scientists] are fairly cohesive in terms of what it means to be a [Scientist.] [For example], the name of the school where you work is not typically something people think about very much in the profession as a whole."

Most of the faculty who described how combining their colleagues according to their disciplinary affiliation did so by highlighting their commonalities as scholars of applied disciplines of study. For some newly hired faculty, their shared affiliation to applied fields of study provided enough common ground for them to forge the types of intracluster collaboration the initiative was intended to promote. Noah, for example, noted that with the exception of one other individual, he was "the least kind of applied [scientist] of the people in our cluster-hire." Regardless, he hypothesized, "For people who are more interested in the applied [science], it may be easier to have the cluster work on the research side because there's a culture of collaborating." Like a few of his colleagues who participated in this study, Noah assumed that faculty working in applied fields were more predisposed to collaborate by virtue of their shared cultural norms and values than were those working in pure scientific fields.

Combining colleagues across occupations. Because there were clear limits to the meaning participating faculty attached to their shared organizational and disciplinary

affiliations, it is equally important to point out that faculty also highlighted commonalities in the routine occupations of their colleagues as relevant to their implementation the initiative. In contrast to those who understood their shared membership in organizations as the basis for articulating the meaning of their involvement, those faculty who emphasized commonalities of occupation often described how their relevant research collaborations were formed on the basis of common work routines or skills. For example, while one established faculty member saw the newly hired faculty in a particular cluster as including "basic scientists" and "social scientists," he also described faculty in the former group as all "looking at brains" and the latter as "doing survey questions."

Another established faculty member asserted that two groups of faculty in another cluster were all engaged in producing very similar types of scholarship, despite the fact that they studied two different areas of the human body. As proof of their ready potential for collaboration, he pointed to a medical research center that treated two of the areas of the body that the faculty in the cluster happened to be studying; he observed that the medical center "[does] both... because a lot of the technology and skills are very similar. And it's not that different for research as well." Both of these established faculty members described similarities in the routine work of newly hired faculty because they saw these commonalities as creating opportunities for research collaborations that were relevant to the way they believed that the Interdisciplinary Faculty Initiative should be implemented. Taken together, the points of view of all these faculty emphasize that the memberships they shared with their colleagues not only spanned legally incorporated

institutions and their associated units but also a range of other external social groups, including ones formed on the basis shared ethnic identifications and occupational roles.

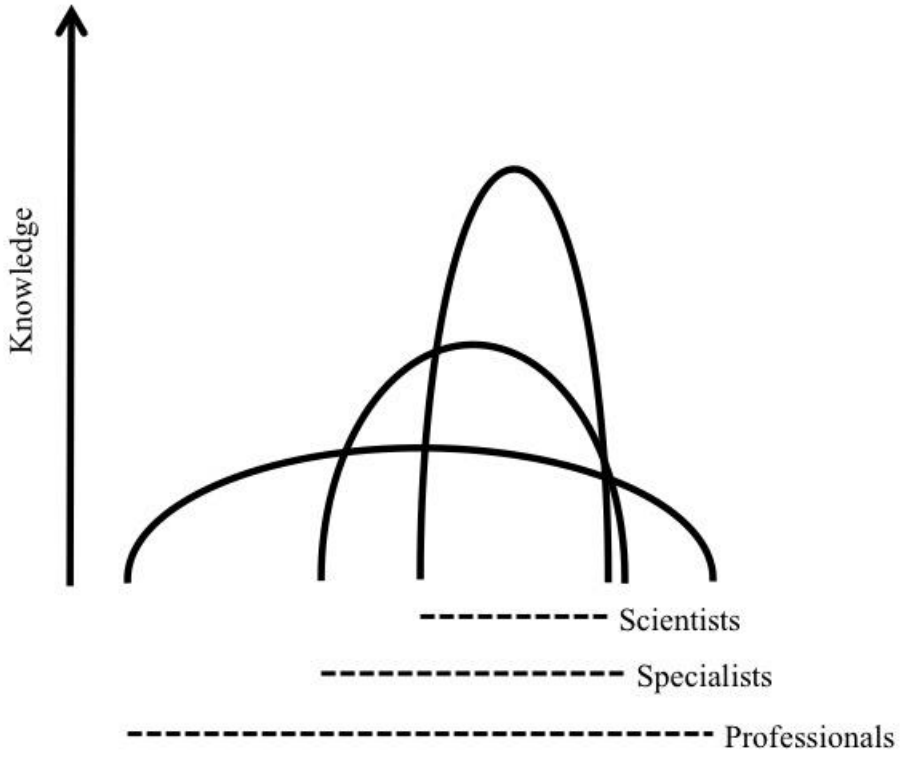
Combining colleagues across epistemologies. A small number of faculty also described epistemological commonalities between themselves and their colleagues as being meaningful to their implementation of the initiative. The perspective of one newly hired faculty member regarding the likelihood of collaboration within one cluster provides the best example of this particular type of selected understanding of different social groups:

> I think [this cluster] is going to be successful, but I don't know as a whole if they will be because we are committed enough and we really believe in interdisciplinary work. And we worry a little bit about how that's going to really measure up in the end, but I think all of us, [*names omitted*], never really thought we would be in academia and so we push back against some of the conventions a little bit, too. So I think we will make it work often because of that, and as well because we want to make it work even if sometimes some of the administrative institutional systems are not yet set up fully to support really interdisciplinary work. … So there are all these things that bring our interests together, [such as] kind of having a certain agreement and perspective and epistemology.

In all of these examples, faculty described connections between themselves and different social groups in the process of accounting for how they were implementing the initiative, and particularly for how they were identifying potential collaborators. Most of the connections between the social groups that faculty found relevant were drawn on the basis of common membership to organizations or organizational units, or on the basis of having similar occupational roles or similar epistemologies. Overall, it is clear that faculty saw themselves as being similar to their colleagues in myriad respects. It is also clear that the information faculty extracted from these social frameworks affected how they understood the Interdisciplinary Faculty Initiative as being implemented.

One further example underlines this point. At one point during his interview a newly hired tenure track faculty member drew a diagram showing the characteristics he, a self-described "specialist" shared with a 'professional' in a department whom he had managed to collaborate with. He went on to compare these shared characteristics to those of 'scientist' in a different discipline who had spurned his invitation to conduct research together. A reproduction of the figure that was drawn can be found below (Fig. 4).

Figure 4. Overlapping knowledge of a newly hired professor and their colleagues.



What follows is that individual's description of what he was drawing while he was drawing it; the transcript has been redacted in order to protect anonymity.

> I have a diagram. These are different disciplines right here. This is discipline one, two, three, ... This is knowledge, right? So a [Scientist] for

> example, [has] big knowledge right here in this specific field. … [Professionals], my colleagues around here, … they are the masters of half the knowledge. … [But] they have a little bit of knowledge about this, a little bit knowledge about [that], a little bit of knowledge about [another thing], a little bit of knowledge about [the profession's] history, and so on. … And my [professional specialization] is something between. It is a little bit like this. … But I will never be as good in [this thing] as my colleague in [science]. And [professionals] are more generalists. Also, in my case even a little bit more specific, but we are still generalists. … This is how I see the different professions right here. And this [scientist] here would say [professionals] are stupid because they do not know about my field, but it is not true. … If you compare [their knowledge], they are the same. [The professionals'] is much more dissipated. That's the difference.

This diagram illustrates how one newly hired faculty member understood that his scholarship overlapped with his colleagues'. This faculty member's description of the diagram also reflects how he understood these points of overlap to affect his opportunity to collaborate with various colleagues. Just as faculty differentiated between relevant social groups, they also described numerous commonalities with their colleagues, and the meanings they extracted from these social frameworks informed the way the Interdisciplinary Faculty Initiative was implemented.

Harmonizing Social Frameworks

Before discussing how faculty understood their implementation of the Interdisciplinary Faculty Initiative through their harmonizing of social frameworks, it is important to draw a distinction between this type of understanding and the notion that interdisciplinary scholarship necessitates the integration or synthesis of disciplinary knowledge or structures. When harmonizing social frameworks, faculty broadly described the integration of relevant social groups as opposed to the strict integration of knowledge and culture (Klein, 1990, 2005), academic departments (Jacobs, 2014), generations of scholars (Abbott, 2001, 2002), or even of scholars working in different

paradigms (Kuhn, 1960). When faculty described harmonizing relevant social frameworks, they invoked myriad distinctions between identifiable groups by articulating the ways in which particular groups worked together.

In short, faculty extracted meaningful cues about their implementation of the initiative by harmonizing identifiably distinct social groups. Faculty not only distinguished between groups and generalized across them, they also identified sets of social groups that had some collective meaning by virtue of the very characteristics that distinguished them from one another. Identifying ways in which different social groups were harmonious was critical to the way some faculty made sense of how they were going to be involved with the initiative's implementation.

Representing colleagues by organizational groups. Just as they extracted cues from social frameworks by differentiating and combining relevant social groups, faculty also did so by identifying harmonies between scholars across and within academic units as well as within the clusters created through the initiative. First, several faculty members described meaningful harmonies between different social groups that existed within and across academic units. For example, Jake described how his colleagues frequently emphasized their shared membership to an academic unit despite the fact that he had been credentialed in a markedly different discipline and, moreover, was expected by them to continue producing the type of scholarship he had been trained to produce. Jake suspected that his colleagues emphasized their shared organizational membership because they "didn't want me to feel like a second-class citizen." It was as if his colleagues wanted to communicate to him, "We want you to be here because of you, not because you kind of fit this other mold." As a result, Jake noted that the fact that his

position was associated with a cluster-hire "was pitched to me as this is kind of a convenience thing: 'It just so happens that we want to hire you anyway and you fit into this category.'" Rather than differentiating faculty within his unit by the discipline in which they were trained or combining them by virtue of their membership to the unit, Jake understood both as relevant. He understood his role as a full and equal member of his unit who was valued in part because of, and not in spite of, the different type of scholarship he produced relative to his peers.

Faculty also harmonized different social groups that extended beyond the boundaries of their academic units and of the university. For example, Gary described how he had established relevant relationships with colleagues in different units "after gaining some competence in the new area that I entered [and] being able to integrate that, the [professional] side and [the science]." Gary described how his competencies informed the way he implemented the initiative in collaboration with faculty in other units, but he also went on to highlight how colleagues in other units perceived him differently:

> If you go over to the [Science building] and you talk to someone over there they would say, 'Oh yeah, he's a [professional].' And you go over to someone in this building and ask them and they would say, 'Oh yea, he's a [scientist].' It's kind of a relative thing. ... So I'm more of a [scientist] than most of the people in this building, but I'm less of a [scientist] than most of the people in the [science building].

In the preceding example, Gary differentiated between social groups by virtue of their membership in different academic units, and he simultaneously understood these differences as being a meaningful reflection of how he was able to play a part in brining faculty together around the type of scholarship the cluster-hires were focused on. In a similar way, Nick, an established faculty member, noted that his understanding of the initiative was strongly influenced by his relationship with two newly hired faculty

members in his cluster, both of whom he said "faced steep learning curves and some disciplinary biases in their departments." After he had used the same term to identify his area of expertise, Nick also noted of these newly hired faculty:

> [Scientists] think about certain processes that… involve different questions, different worldviews than the departments that they are now housed in. So I think there were cultural barriers in some of these departments accepting these hires as colleagues. So I think that my views have been shaped in part by some of my conversations with these hires.

Nick's understanding of his role in implementing the Interdisciplinary Faculty Initiative was strongly informed by the similar difficulties two of his colleagues described experiencing as they tried to acclimate to their jobs in separate academic units. Specifically, he described feeling some trepidation about the outcome of the initiative, in part because these two faculty could be similarly differentiated from colleagues in different academic units. In these examples, Jake's, Nick's, and Gary's understanding of how they implemented the initiative was informed in part by their identification of sets of social groups that had some collective meaning by virtue of the characteristics that distinguished them from one another.

Representing colleagues by disciplines. Just as faculty members harmonized social frameworks by virtue of their colleagues' representation of specific organizational groups, they also did so by virtue of their representation of specific disciplines. Interestingly, however, some of the clearest examples of this form of selection regarded the representation of different disciplinary orientations within the same field of study or within their own academic background. In either case, faculty described harmonizing social frameworks in ways that explained why they produced scholarship the way they did while the Interdisciplinary Faculty Initiative was being implemented.

Typically, these examples focused on historical changes within a discipline that lead to it becoming more or less applied over time. A few established and newly hired faculty described how this type of historical change led to younger faculty becoming "more and more applied" over time. For example, Abby mentioned how faculty in her discipline usually eschewed applied science 40 years ago but also, "That's, thank goodness, changed drastically in our field." "There's certainly a range from basic research to applied research," she continued, "but it's a much more blurred line and many people I know, including me, work along that continuum." The fact that her field has changed over time was just as important to Abby as the representation of pure and applied scientists among its affiliated faculty in the present-day. Like Abby, several individuals described finding the diverse representation of faculty within their discipline as meaningful to the way they sought to directly or indirectly produce scholarship via their implementation of the initiative.

Similarly, some colleagues sought to harmonize social frameworks by preserving the diverse representation of disciplinary affiliations within their own academic background. Most often, the disciplinary affiliations they sought to represent included a pure and applied orientation to their scientific work. For example, one newly hired faculty member described how his graduate work had been "really clinically focused" and further how, "I still have as part of my identity… I still have that clinical aspect." He argued that this explained why he diligently sought to place particular emphasis on the practical implications of his research in his publications. However, despite this, the longer he spent working in his field, the more he "really started to be passionate about research and just trying to answer difficult questions and just language. I really liked that

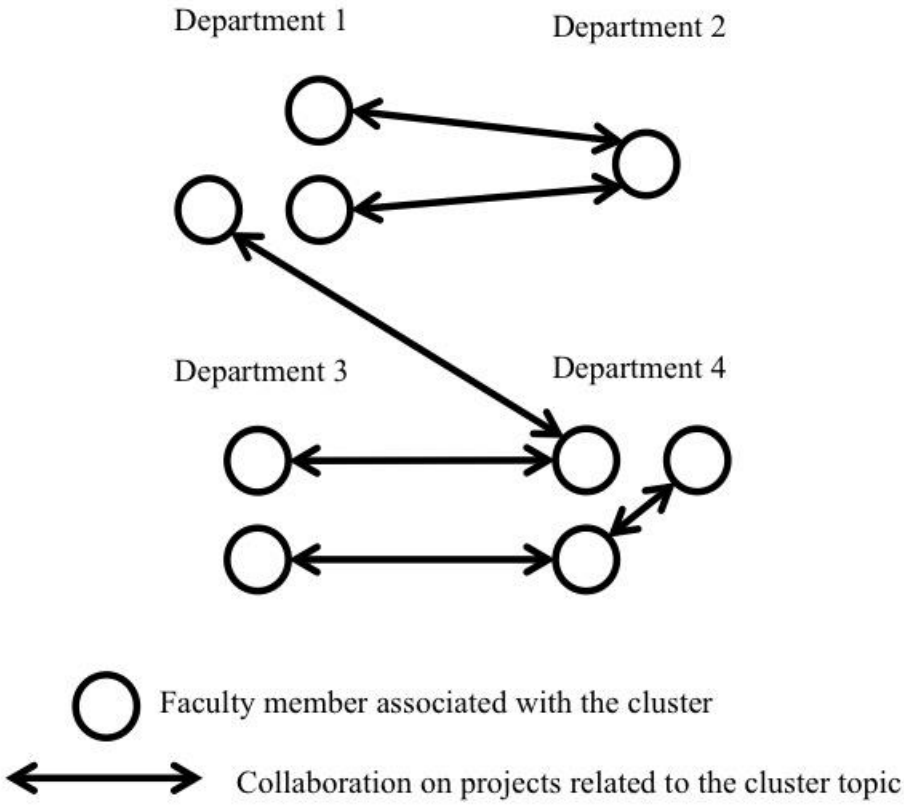
challenge." Over the course of his interview, it became increasingly clear that he felt challenged by the prospect of producing pure research in large part because his academic background had been more applied. This faculty member sought to represent two distinct disciplinary orientations in his own scholarship as a way to explain his motivation for pursuing specific types of research immediately after being hired through the initiative.

Representing colleagues by occupations. Some faculty described harmonizing different social frameworks by virtue of the routine work that members of the different social groups performed. Several of the newly hired faculty members described opportunities to collaborate with other faculty in their cluster by applying different skills to different aspects of the same topic or problem. For example, Dan noted that he collaborated with a colleague who was doing research on a specific animal, even though, "We work on [another animal], so it's different organisms." He went on to describe how his experience using "tools that allows us to manipulate the system, or study the system" enabled their collaboration because his collaborator was "working with [an animal] and he wanted to [analyze] it, and I had expertise on how to [do the analysis], and so we did some [analysis] and he was able to use it on his [animal] of interest." The fact that he collaborated with a colleague in order to take advantage of their different occupational routines informed how Dan understood his role in implementing the initiative.

Perhaps the best example of a faculty member identifying ways in which different social groups were harmonious as part of his understanding of the initiative's implementation comes from Adam, an established faculty member who helped to propose the creation of a cluster. In describing "what my vision was" for the cluster, Adam noted that he did not envision all of the newly hired faculty collaborating together but rather

assumed that they would pair up to address different aspects of the cluster's specific topic. In the process of describing the successful realization of his vision, Adam drew a diagram showing the collaborations that had been formed between and among the newly hired and established faculty members associated with the cluster. A reproduction of the figure that was drawn can be found below (Fig. 5).

Figure 5. Intracluster collaborations envisioned by an established faculty member.



What follows is Adam's description of what he drew while he was drawing it. Both the transcript and the figure have been edited in order to protect the anonymity and number of faculty members he referenced.

> Of those [associated faculty], there is not a single project that has all of us involved. But what we do have, project one, project two, has those people involved. You see what I'm saying? Of those [involved], every person has at least one joint project. But we don't have a single project yet, a grant or research project that involves all [of us]. But there are many of them that

> are working that are subgroups of the [cluster], and it depends on what the project is and what the needs are. … So I know of one project that these two are working on, for instance. I know a project that these two are working on. And then I know projects where some of these are fitting in with some of the other [projects]. … I think it would be very hard to do this at some other universities where everybody is primarily concerned with getting the type of person they want and they don't really care about the cluster. … And there were no surprises. Everybody knew what they wanted, and it all melded together very nicely.

Each of the faculty who participated in this study described their social groups as changing while they went about implementing the Interdisciplinary Faculty Initiative. Moreover, they derived cues or information from these changes that informed their understanding initiative itself. The examples highlighted above show how faculty proceeded through selection during their relevant sensemaking processes. Considered overall, faculty members extracted cues from social frameworks in three ways characterized by three types of understanding: differentiating, combining, and harmonizing social groups. These three ways of extracting cues from changing social frameworks were reflected in ways faculty described their implementation of the initiative. It is notable that faculty identified differences between scholars across and within academic units and within the clusters created through the initiative. It is equally important to point out that faculty extracted cues from relevant social frameworks on the basis of their occupational routines compared to those of their colleagues.

Engineering as an applied field of study. Before concluding this chapter, it is necessary to highlight one notable limitation of this study and how it affected the collection of evidence regarding faculty's extraction of cues from social frameworks. One notable limitation prevents more conclusions from being made about the existence of patterned differences in sensemaking across academic fields or paradigms of inquiry and

it regards the anonymity of the participating faculty. First, this study was limited by the small number of distinct combinations of academic fields and paradigms of inquiry that were consistently highlighted by the participating faculty. Identifying distinct combinations of academic fields, such as Cultural Anthropology, to pick a random example, would not only serve to reduce the number of faculty who described their experience implementing the initiative in relevant ways, it would also endanger their anonymity. Fortunately, a large proportion of the faculty who participated in this study made a general distinction between pure and applied fields of study, as was described.

However this very generalizable disciplinary schema invites speculation that the ways in which faculty extracted cues from changing social frameworks might differ when applied to their more exacting disciplinary distinctions. This study is limited in its ability to address this concern due to its guarantee of the participants' complete anonymity. Yet an exception can be made in regards to the participants' description of one particular discipline, Engineering, that most of them found applicable to their own work.

Many faculty described Engineering as an applied discipline they found relevant to their own scholarship as well as to their implementation of the initiative. Although Engineering is a vast field with components that have been described as both pure and applied (Becher, 1989; Clark, 1963), many participating faculty described it as an applied field of study. For example, while describing the distinction between scientific fields that engaged in *fundamental* discovery and those engaged in *applied* discovery, Pete held up Engineering as an example of the latter. Fundamental discovery, he noted, would describe his work "if I was a chemist working to synthesize a new molecule with particular characteristics… versus say applied discovery or applied science which is more

of a term familiar, I think, within strains of, let's say, engineering disciplines." However accurate, the common perception of Engineering as an applied field may be, its very commonality among the faculty who participated in this study allows an exception to be made when identifying particular disciplines by name. Indeed, so many participating faculty spoke at length about Engineering that highlighting their descriptions of the field does not substantially increase the likelihood of their anonymity being compromised.

Highlighting how faculty sought to differentiate, combine, and harmonize social frameworks that regarded Engineering disciplines and groups by name would not serve to bolster the argument made by this chapter that faculty did engage in these processes of selection; it is hoped that the previous sections of this chapter are sufficient to prove this assertion. Rather, faculty's harmonization of social frameworks relevant to Engineering is presented here to make the argument that the methods of selection previously outlined can also be applicable when frameworks relevant to specific disciplines are invoked.

Indeed, faculty harmonized social groups by describing the distinct characteristics of Engineering and how they complimented those of other disciplines in which they worked. As has been argued, a number of these faculty members found these harmonies to be directly relevant to their implementation of the initiative. For example, one newly hired faculty member, Lisa, described how a class she recently taught was relevant to the expertise she was supposed to represent within her cluster. Although she was unable to engage in co-teaching with other members of her cluster, she did feel that her teaching was serving to fulfill the purpose of the initiative because it enrolled students from different disciplines, including Engineering students. During her interview, she described

believing that the initiative was intended to bring together scholars by representing a diverse array of academic disciplines, including students:

> It's interesting to be able to interact with engineers that think very quantitatively about problems [and] might also be much more able to come out at, 'Here's a problem, let's try to find a way to solve it,' versus more like, 'There's something intriguing.' So I guess they're so different. In general, we all try to put our research in the context of some issue that is relevant, but there might be different degrees of separation, I guess. While an engineer really wants their foot directly in the reality: 'Here's the waste water treatment plant, it doesn't run well.' So then they can interact with people that think more theoretically. Because typically an engineer, what they do is turn the knobs and if it works, fine, good. If it stops working, clean it out, start it up again. … So it's like okay, it generally works fine. But sometimes the system crashes. So they typically wouldn't take these theoretical ideas out of [my field] and try to apply them. So that's also again where there's a merge in the class I teach. Several students from Engineering [in my class] try to take some of those ideas out of [my field] and try to look and say, 'Can we take some of these elements and better understand how the system works and basically help us basically design studies to try to get to why does this system not work, but with a direct desire to figure out how to make it work. So with engineers we'll generally come more directly out of, 'Here's the problem. Let's find a way to solve it.'

This particular example supports two important findings. First, it suggests that faculty members extracted cues from selected social frameworks by differentiating, combining, and harmonizing social groups that can be applied to their conception of distinct disciplines beyond their broad aggregation into pure and applied fields of study. Lisa connected her approach towards Engineering faculty and students to her ability to ask new questions about her own field. Seeking to engage Engineering students in a way they were more familiar with created opportunities for her and her students to study their native fields in uniquely meaningful ways. Second, this example shows how some faculty described Engineering as a discipline they found relevant to their own scholarship as well

as to their implementation of the initiative. Lisa held up her course as an example of how she felt relevant to the outcomes of the Interdisciplinary Faculty Initiative.

In conclusion, the participating faculty extracted cues from relevant social frameworks in a variety of ways. They did not understand their implementation of the initiative as being meaningful, for example, merely in so far as faculty's mutual or divergent characteristics served as the basis for their relevant collaborations. They also understood their implementation of the initiative as being meaningful by virtue of the different but complimentary characteristics that characterized groups of faculty who were also participating in the initiative. These results show that faculty retrospectively extracted cues from relevant social frameworks and in ways that informed their implementation of the initiative itself. These particular findings all regard the element of selection and its important function in the sensemaking process. Specifically, selection surfaced distinctions between social groups among faculty and reinforced their understanding of how some groups were relevant to individuals' implementation of the initiative and how some were not. The practical implications of this process are discussed in the final chapter of this work. The next chapter turns to the last element of sensemaking: retention.

Chapter 6

Envisioning Plausible Outcomes of Implementation

The three elements that constitute the sensemaking process – enactment, selection and retention – are not necessarily exhibited in strict sequence or even independently of each other (Weick, 2001). However, the process is often depicted as occurring in a sequence that starts with some reaction to a discrepant cue and ends with a person retaining an understanding of what he or she is likely to do next (Jennings & Greenwood, 2003). This chapter regards retention, which according to Weick (1995) is the aspect of the sensemaking process that "holds disparate elements together long enough to energize and guide action, [and] plausibly enough to allow people to make retrospective sense of whatever happens" (p. 61). In short, retention provides a way for people to decide what to do next in order to bring about some desired future identity.

More specifically, this chapter presents results that regard the twin properties of the element of retention: plausibility and identity. These two properties characterize people's retention of meaning, or the way they come to understand "what's the story here" (Weick, 2008). To retain an understanding of their situation, people consider what future situations are probable as well as what someone in similar circumstances would do. Indeed, the faculty who participated in this study envisioned their roles as professors

at the university in ways that affected to how they implemented the Interdisciplinary Faculty Initiative. Before showing how faculty used identity to connect the elements of sensemaking to guide action, it is important to describe how they perceived different courses of action as being more or less probable to pursue. Evidence suggests that faculty felt the necessity to obtain grants and tenure diminished the likelihood of their participating in intracluster collaborations.

Considering the Plausibility of Potential Outcomes

This chapter begins by exploring faculty's descriptions of how they compared the likelihood of various courses of action related to their implementation of the initiative. The notion that people consider the plausibility of their reactions to discrepant cues is a hallmark of the sensemaking process (Wick, 2008; Weick, Sutcliffe, & Obstfeld, 2005). The emphasis they place on plausibility enables them to incorporate "functionally deployable" information into their explanation of their circumstances (Chia, 2000, p. 517). Through this process, the number of possible meanings they could attribute to their circumstances is greatly reduced, and a set of more plausible, although perhaps no more accurate, meanings can be identified (March, 1994). As a result, provisional stories are generated through the retention process and become ever more salient the more individuals identify with them (Brown, Stacey, & Nandhakumar, 2008).

The clearest example of the faculty's consideration of the plausibility of engaging in various scholarly activities is their focus on securing financial support for their work through research grants and on achieving tenure. Faculty members' consideration of financial support provides a good example of their consideration of their likelihood of taking different courses of action because, as this section shows, it animated functionally

deployable explanations of how they planned to implement the Interdisciplinary Faculty Initiative.

The close attention faculty paid to the likelihood of obtaining grant funding is perhaps the most common manifestation of their emphasis on taking plausible actions. There is clear evidence suggesting that over the course of the initiative, many faculty members increasingly saw their participation in, or promotion of, intracluster collaboration as being impractical, given their need to pursue external grant funding. In addition, a substantial proportion of the newly hired faculty described how they were becoming increasingly wary of engaging in intracluster collaborations because doing so would diminish their prospects of receiving tenure. Together, these findings suggest that the participating faculty were deeply concerned with weighing the likelihood of different outcomes of their implementation of the initiative and incorporating that information into their explanations of how they implemented the initiative in the way that they did.

Almost all of the faculty who were interviewed for this study made a point to mention how particular scholarly activities were financially incentivized, meaning they were more likely to engage in those compared to others. Some faculty described such financial incentives in very general terms, stating as Pat did, for example, that, "If there is money behind it, you will find researchers who are interested in examining those questions, for sure." Others were more specific about the power of finical incentives to make certain types of scholarship more likely to be pursued. Lisa was of the opinion that, "The best way to increase cross-disciplinary teaching is to have funding for students who are funded specifically for cross-disciplinary training." Lisa continued by expressing optimism about her chances of being awarded a related training grant; getting one's

scholarship funded through a grant she noted, "That's always the trick." Like the vast majority of those who participated in this study, each of these faculty felt more compelled to engage in particular scholarly activities because they were incentivized to do so financially.

Assuredly, the notion that scholarly activities are differentially incentivized financially is self-evident to university faculty everywhere. Yet the fact that so many of the faculty in this study voiced this very notion in the process of explaining how they implemented the initiative deserves emphasizing because it hints at why their expectation of intracluster collaboration changed over time. Stated plainly, many faculty memberscame to see intracluster collaboration, specifically among newly hired faculty, as being unlikely for them to engage in because it was not in their long-term financial or professional interests to do so. For example, in explaining their choice to avoid this type of collaboration, one newly hired faculty member made the point that the type of research publications that might result from it would not be as financially rewarding as ones they might produce apart. Having a publication in the type of journals that might publish such collaborative research would not be worth the effort, whereas from this persons' point of view:

> Others are worth publishing [in]. [There are] five journals where… people literally count publications in them. The crude calculation as to one publication in one of these top five journals is worth like, [a lot of money]. It's hugely important. That's just a crude way of saying it's incredibly important. When you survey [scientists] they'll say things like they'd give up a thumb for a publication in one of those journals.

However crudely stated, most of the faculty in this study also described financial incentives as being directly relevant to their implementation of the initiative. The most common example faculty cited when discussing how they assessed relevant financial

incentives regarded their pursuit of external grants, particularly those awarded by the National Institutes of Health and the National Science Foundation. One newly hired faculty member noted that he was researching a particular topic because "it's a really important human [function] and that fits well with getting NIH funding." Another felt discouraged from collaborating with others in his cluster because doing so would mean, "It would be hard to apply in the National Institutes of Health to get funding for projects that involved [the cluster's topic], but I'm being incentivized to go after money from the NIH." Established and newly hired faculty both described grant funding as affecting their choice of scholarly activities, including their intracluster collaborations.

The views of one newly hired faculty member help to show how his concerns about the likelihood of engaging in different types of scholarly activity could inform the way the Interdisciplinary Faculty Initiative was actually implemented. While answering questions about what he had been surprised by in his work, Rob relayed how the financial incentive of potential grant funding caused him to alter the way he described his scholarship. After one of his research projects lost a grant that had previously supported it, Rob called the program officer at the granting agency to discuss why the funding had not been renewed. Describing the call, Rob noted:

> I said, "So, I mean, this is for [the research tool I created]. Everyone uses this thing. Why didn't I get funded?" And they didn't think it was innovative. I was like, "I mean it's like… there's nothing innovative in [my field]. It's all the same kind of tools, just applied differently." She said, "Well you just need to say the stuff's innovative even if you don't think it's innovative. You say it's innovative and they'll think it's innovative." And so it's kind of that like… it's all salesmanship, right? When you write a paper, when you give a talk, when you write a grant proposal it's all [about] knowing your audience and what are the buzzwords that they're going to value. And so much of it's kind of selling out there. It is still kind of something to… well do you want the money or not? Are you going to jump through this hoop to get it or not? And so there's this balance

> between making things seem hard and special and unique or just saying this is all… No one's going to give you money if you tell them everything's pedestrian because why would we want to invest in that? So I think, yeah, the advice is good and it's something I constantly grapple with.

After this call, Rob mentioned that he altered the way he described his work in grant proposals in some, but not all, of the ways the program officer had recommended. He found this interaction meaningful because the decreasing likelihood of gaining grant funding in the way he had done previously affected the way he produced and described his research since. This in turn affected the way that he sought to engage in research activities he felt that he had been hired to pursue through Interdisciplinary Faculty Initiative. Specifically, it made him start to focus more intently on how he promoted his research to his colleagues at the university in the same way he felt he had to promote it to external grant agencies. However, faculty's recognition of the financial incentives affecting their scholarship was not the only way they accounted for the comparative likelihood of their taking different potential actions as they implemented the initiative.

The faculty who were interviewed for this study all described the necessity of achieving tenure as matter of great concern to themselves and their colleagues. However, most newly hired faculty without tenure described their pursuit of it as effectively rendering some types scholarly activities unlikely for them to engage in. Certainly, there is a large body of research suggesting that the pursuit of tenure has consistently discouraged junior faculty from engaging in what they identify as interdisciplinary research (Baumwol, et al., 2011; Boardman & Ponomariov, 2007; Bozeman & Corley, 2004; Brinbaum, 1981, 1983; Carayol & Thi, 2005; Caruso & Rhoten, 2001; Gumport, 1990; Feller, 2002, 2006; Hart & Mars, 2009; Hattery, 1986; Ikenberry & Friedman, 1972; Jurse, 2011; Kuratko, 2005; Lyall & Meagher, 2012; Mallon, 2006; Mars, 2007;

Nilles, 1976; Rhoten & Parker, 2004; Stockton, 1972; Szostak, 2007; Teich, 1986; Van Rijnsoever, & Hessels, 2011). Some untenured faculty members are convinced that engaging in interdisciplinary research would hurt the odds of receiving tenure. For example, in Lattuca's (2001) study, one untenured faculty member reported feeling, "That's always a concern with interdisciplinary scholarship in that junior faculty also have to think about their careers – promotion and tenure, that kind of thing" (p. 177). The evidence produced by this study confirms the prevalence of this view among faculty.

Indeed, the findings of this study confirm what many scholars have already described so well, which is namely that the necessary pursuit of tenure tends to discourage faculty from engaging in what they describe as interdisciplinary research. Two of these findings are particularly worthy of close examination. First, many faculty felt their pursuit of tenure was a matter of practicable concern – specifically, a concern for preserving the source of their livelihood. Second, it is notable that both the newly hired and established faculty who participated in this study described this particular concern similarly. These findings are reflective of the experience of most of the faculty in this study, but showcasing the perspectives of four particular faculty members makes more vivid the notion that faculty's concerns about the plausibility of their receiving tenure often discouraged their engagement in intracluster collaboration.

The first of these examples concerns Will, who was hired into a cluster that was still in the process of being formed during the course of this study. Although he had fewer newly hired colleagues in his cluster with whom he could collaborate, he did acknowledge that there were at least a few opportunities for him to do so. Regardless, he described the two "powerful incentives" that discouraged him from engaging in this type

of collaboration as "what will get you tenure at the institution where're you're at and then there's what will get you hired if you don't get tenure at the institution where you're at." Describing the receipt of tenure as a "requirement," Will argued that promoting intracluster collaborations was "actually very hard" and "pretty challenging" because it would diminish the likelihood of his receiving tenure at the University of Michigan or at another institution. He noted:

> Even if you told junior [scientists] coming in that we're actually going to evaluate you based on whether you've co-authored things with people who aren't a [scientist] it's going to be really hard to convince them to do that because by trying to do that they're going to be making it very difficult for themselves to get any other job if the University of Michigan decides not to tenure, or if they just decide they want to go somewhere else.

Like Will, Dan also felt that engaging in intracluster collaboration was unlikely given his necessity of pursuing tenure. However, unlike Will's cluster, Dan's was fully formed by the time the study was conducted and there was evidence of ongoing collaboration among the associated faculty, including their organization of regular seminars, co-authored grant proposals, and research publications. While Dan was engaged in intracluster collaboration and was attracted to the job in large part because of the opportunity to do so, he described how he began to realize that this work was unreasonable for him to sustain. Dan's experience is worth relaying in detail because it shows how nascent collaborations with other faculty in a cluster were halted early by a realization that such scholarly activity would be an unlikely way to gain tenure.

> You quickly realize as an assistant professor you have to do… the main motivation is what do I got to do to get tenure because you don't want to lose your job in five years, right? So that becomes the priority. You have to figure out what it takes to get tenure, and that's departmental driven. So if the departments have this vision of this is how we've always done it, it doesn't matter if you're a cluster-hire or not, there's no difference, then you just have to conform to that. … I would like to work with [these

> people], but I'm not quite sure where this might go and I have a finite amount of time until tenure is coming up. I'm not willing to take that risk, this time and effort in developing the collaboration is not going to work out when I have to answer to [my unit] about why I don't have this amount of funding or this amount of papers. So maybe having a… and it's just clear that, in [my unit] anyway, they don't really care about the cluster or my interactions within the cluster. I think that just is what it is. I think that's probably true of most departments. They have their expectations of assistant professors and they don't treat me any different than an assistant professor that comes in not hired in the cluster.

Will and Dan both described how they saw engaging in intracluster collaboration as being impractical given the necessity of pursing tenure as newly hired faculty members. While Will seemed to have held this view from the start, Dan described how he came to the same realization some time after being hired. While both individuals described holding similar beliefs, Dan's experience provides more compelling evidence that consideration of the plausibility of action is central to the sensemaking process.

A related finding of this study regards the fact that established faculty felt similarly about the implausibility of promoting intracluster collaboration, given the necessity of gaining tenure. Very few established faculty described feeling that their own scholarly activities were constrained by their colleagues' need for tenure, however, many felt hesitant to recommend engaging in intracluster collaboration with their newly hired colleagues for this reason. Tom, who voiced this perspective, was involved in the creation of a cluster whose newly hired faculty were more active in collaborating on scholarly activities than those in most of the other clusters selected for inclusion in this study.

Tom described the expectation of intracluster collaboration among newly hired faculty as "a big problem because you're hiring assistant professors, [and] assistant professors have to get tenure." Despite the fact that the newly hired faculty in his cluster had collaborated to create seminars, co-taught courses, grant proposals, and research

publications, he still felt, "There is a tendency to move away from the cluster and move toward the central goal of the position as narrowly defined within the unit." This tendency, he noted, was only exacerbated by "this climate" in which there is great pressure to obtain grant funding and publish research, as well as by the lack of "evidence that participation in activities in the cluster is going to be viewed with a great deal of weight at the time of the tenure decision." Essentially, Tom did not feel that he could expect them to engage in intracluster collaboration as a part of their job.

While few established faculty members described the need for tenure as inhibiting their own intracluster collaborations, some described this need as motivating them to ask tough questions about their newly hired colleagues' choice of scholarly activities. For example, Mark made clear that he had pressed one newly hired faculty member to carefully consider the practicable implications of his choice of collaborators given the necessity of gaining tenure. Mark's description of his mentoring was initiated by his forceful refutation of a guess, voiced by the principal investigator during the interview, that his "expectations for collaboration would be modest."

> No. They're not. The expectations for collaboration are not modest. There's only an expectation… there would only be… it would only be prudent if the individual could advance their research in a way that's going to help them get tenure. It would be unethical for me to encourage them for the sake of interdisciplinary collaboration. It's like… look. It might not help you get tenured at all. … Of course you could have unexpected gains from it. But those are risks that you have to assess and you have to think, "Well, I don't have anything right now but this could." So then the question is, "What's the likelihood that it could produce these unexpected gains? How significant are they? How much time do you have to invest? At what point do you decide that, no, this collaboration isn't worth working out [or] is working out?" So it's not that I don't encourage or discourage it, but it's assessing it. It's assessing what are the real potentials from it because the decisions you make, I mean, there's consequences to them. Sometimes they're good, sometimes they're bad.

The perspectives of Mark, Tom, Dan, and Will represent how most of the faculty who participated in this study accounted for the likelihood of different ways they could have implemented the initiative given the necessity of pursuing tenure. The vast majority of the faculty in this study described their careful consideration of the benefits of engaging in or endorsing intracluster collaboration given the necessity of obtaining external grant funding and tenure status. The experience of the some of faculty members that have been highlighted in this chapter exemplify how many of the individuals who participated in this study were careful to consider the likelihood of engaging in different types of scholarly activities given their necessary pursuit of tenure and grant funding. In sum, this evidence supports the notion that people spend time mulling over the plausibility of envisioned realities when in the process of deciding what they should so in response to discrepant cues (Weick, Sutcliffe, & Obstfeld, 2005).

The fact that faculty weighed the likelihood of the various courses of action outlined above reflects their consideration of the plausibility of explanations they incorporated into their understanding of the initiative. As existing literature predicts, such a consideration of plausibility enabled them to find functionally deployable information, as opposed to perfect information, that they could use to articulate a suitably meaningful explanation of their circumstances (Chia, 2000; March, 1994). More to the point, it allowed the faculty to mediate the uncertainty inherent to their circumstances by articulating likely accounts of the initiative's present state of development. Plausibility implies that when people answer the question, "What's the story here?" they have the motivation to use that explanation to inform their actions. These explications incorporate accounts of the comparative likelihood of various outcomes that have some meaning for

the individual (Weick, 2008). Faculty's concerns about the plausibility of the way that they implemented the initiative given the financial support they had to obtain reflects this property of the sensemaking process.

Identifying Relevant Roles Over Time

This chapter focuses on what are arguably the two most consequential properties of the sensemaking process: plausibility and identity. Although the consideration of plausibility is hallmark of the sensemaking process, so too is one's consideration of identity (Weick, 2003; Weick, Sutcliffe, & Obstfeld, 2005). The second chapter of this work focuses on the concept of identity in greater detail, but several key points about identity merit emphasizing again here.

First and foremost, the concept of identity is built upon a conception of self-image in relation to social groups (Albert & Whetten, 1985; Cooley, 1902). Inherent to this conception of identity is the notion that people entertain more than one sense of their own identity as they make sense of the world around them (Weick, 1993, 1995; Wicks, 2001). Chapter 2 also argues that the concept of identity builds upon the notion that the values shared by the members of social groups or legally chartered institutions can become self-defining (Ashforth & Mael, 1989; Dutton & Dukerich, 1991; Fanelli & Misangyi, 2006; Pratt, 1998). The findings of this study support these ideas and suggest how identity factored into how university faculty actually implemented the Interdisciplinary Faculty Initiative.

Recall that the role identity plays in sensemaking is "chronically consequential" as was discussed in Chapter 2; two ideas are implicated by the use of this phrase. First, identity and people's retention of understanding are directly joined to each other in a

causal relationship such that, "The direction of causality flows just as often from the situation to a definition of self as it does the other way" (Weick, 1995, p. 20). Second, because our identity and retention of an understanding of our environment, or of the circumstances surrounding some troubling predicament, are inexorably linked, sensemaking is extended over time by environmental change or by some new situational awareness (Jennings & Greenwood, 2003). The findings of this study support both conceptions of the role that identity plays in sensemaking.

While they were being interviewed, virtually the entire faculty who participated in this study described themselves using a set of identifiers, and typically the identifiers faculty used were myriad and diverse. Most commonly, faculty members initially described themselves according to the role they were trained in. For example, one faculty member said of herself, "I'm an engineer by training," and later on, "I'm an engineer." However, at a different point in the interview, this faculty member also noted, "I'm definitely a lot more clinical than I used to be." The fact that this individual identified herself as an engineer and a clinical engineer merely suggests people can entertain different ways of thinking about themselves during the sensemaking process.

This idea is further supported by the self-descriptions of other faculty members, such as one who began the interview declaring, "So I'm [a scientist] by training" but spent much of the time reflecting on her understanding of the initiative "with my [administrator]'s hat on." Some faculty, including one who volunteered, "I'm a [scientist] by training, actually," also struggled to describe how she saw herself when she suspected she would not be understood. For example, this faculty member also demurred:

> It's difficult to explain it to people that aren't really deep [micro scientists]. But generally speaking I'm a [micro scientist] with an interest

> in methods of managing [people's health]. I guess that's the simple way to put it.

Of course, faculty members self-identified as scholars, academics, and professionals, too. What is more notable, however, is how readily faculty switched back and forth between these identifiers and between various permutations of any one of them. For example, Pam, a newly hired faculty member, noted, "Broadly, I see myself as a [scientist], but an interdisciplinary [scientist]." She also noted that compared to most people who could be similarly described, she was "perhaps more of like an engaged or activist scholar " and "would definitely put myself in the category of I'm more of an applied scientist." Likewise, Lisa described herself as being variously "a [scientist]," "a classical scientist," "a scholar," and "an academic" throughout the interview. But the ways in which most faculty described their specialty or chosen area of study involved describing themselves using a few permutations of the same basic identifier, or scientific root. For example, in the space of a minute, one faculty member described a biologist he knew as a "biologist," a "micro biologist," a "specialized micro biologist," and the kind of "field biologist" who sits unhappily in her "office during the middle of the summer."

Several faculty members, however, purposefully avoided the types of identifiers that their colleagues typically used: scholar, academic, professional, and scientist. Detailing the ways that faculty members avoided applying self-identifiers that many of their colleagues used serves to highlight the fact that people entertain more than one sense of their own identity as they interpret the social world around them. This was the case for Tracy, who made a point of stating:

> I find some mild discomfort with the question about seeing myself as a scholar… I actually see myself as a person and the scholarship is just one little part of it to me. I think that other people would feel quite differently.

> But you know I'm all about family and things outside of work. So the scholarship and the work come together, but I'm not a scholar when I'm with my kids. So I have a bigger role on the planet, and the scholar part is one piece. And I feel no ill regard for those whom the scholarship is close to the whole thing, but that's not me.

That some people described themselves as 'scholars' or 'scientists' while others insisted they were "not a scholar when I'm with my kids" reinforces the notion that people can entertain multiple self-conceptions during sensemaking (Weick, 1995).

Building on the notion that people can entertain multiple self-conceptions during the sensemaking process, the findings of this study suggest that faculty routinely invoked organizational identities as they described how they made sense of their implementation of the initiative. Faculty invoked organizational identities by claiming that the values that they felt they also shared with the other members of an institution (Ashforth & Mael, 1989; Fanelli & Misangyi, 2006; Pratt, 1998) and by linguistically referring to their organization as being constituted by themselves and fellow members (Albert & Whetten, 1985; Whetten, 2006), most often by using the word "we" when talking about actions taken by the University of Michigan. For example, when discussing the intended achievements of the cluster she was involved in, Deb mentioned hope that as a result of her and her colleagues' work, "We would really become known as a place that is really a creative place of [this] research that is more meaningful and less [scientifically] oriented." Some faculty also self-identified as a member of university by highlighting shared values, such as Jake, who described being enamored with his initial impression of the university as "a place that you really just kind of nerd-out and understand everything about your… what you're doing." Faculty members either invoked their organizational identities by linguistically equating themselves with other members of the university or

by championing the values that they shared with other members. To further cement the notion that faculty deliberately invoked an organizational identity as a part of their sensemaking process, it is helpful to delve more deeply into one particular example.

The ways that Luke, a newly hired faculty member, invoked his organizational identity with the university deserves close examination because he formed this identity both by linguistic construction and by championing the values he shared with its members. He mentioned that he was motivated to accept his faculty position in large part because he was attracted to the way the university was run. He noted that compared to "the different places I saw, this seemed like the most professionally run place, I think, where they sort of try to approach the business side of the university as a business." But while Luke liked the idea that business values were widely shared at the university, he also noted feeling disappointed that a recent administrative initiative had been implemented at the university with scant consultation of faculty and staff. Of this particular initiative, he cautioned, "The University is the people; there's the whole bottom-up approach, and when you start touching on things that might actually affect those people, the staff and the faculty, without actually consulting them… that was a negative." In general, Luke felt that he shared important values with the other faculty and staff at the University of Michigan and championed these values to others as well.

The idea that people entertain multiple self-conceptions during the sensemaking process, including organizational identities, is widely assumed by scholars of the topic. More interesting, however, is the notion that retention "holds disparate elements [of the sensemaking process] together long enough to energize and guide action" (Weick, 1995, p. 61). Indeed, the findings of this study suggest that identity's role in sensemaking is

chronically consequential. Not only do peoples' identities and their retention of plausible understanding of their circumstances have an interactive relationship, the relationship prompts situational awareness that often serves to extend the sensemaking process (Jennings & Greenwood, 2003). The findings of this study strongly support the idea that identity is chronically consequential to the sensemaking process.

The interview protocol used in this study asked faculty to describe the various effects of the Interdisciplinary Faculty Initiative on their and their colleagues' work, and they were also asked if they could foresee themselves helping to implement a similar type of initiative in the future. In the course of answering both of these questions, many faculty members described the plausible scenarios in which they could see themselves contributing. Most faculty expressed some level of satisfaction with the outcomes of the initiative and hoped that they could do something similar in the future. A few described feeling disappointed in the outcomes of the initiative and rejected the notion that they would participate in a similar initiative again. Regardless, in the course of describing how they understood the implementation of the initiative, all of these faculty members described plausible scenarios they envisioned being part of. Most importantly, the faculty who participated in this study envisioned plausible futures that helped them understand what to do about the discrepant cues associated with their ongoing implementation of the initiative.

A few faculty members were clearly disappointed and dismayed by the outcomes of the initiative, and most who were expressed some degree of reticence at the thought of participating in a similar initiative any time in the future. For example, one established faculty member described feeling pessimistic about the prospect of successfully hiring

faculty into the clusters. This faculty member noted, "We got a start on it, and most of the lines never materialized. So the President announced she was creating a hundred new positions, but how many new positions did she create? Not a whole lot." He added, "I think the whole thing was a fiasco, basically." Unsurprisingly, when this faculty member was asked if he could foresee himself participating in something similar again, He responded "No way," and said he "wouldn't dream of it." It is important to note, however, that only a few of the clusters included in this study had any open faculty lines remaining, and most faculty did not feel similarly dour about the initiative itself.

More typically, faculty members described feeling some degree of satisfaction with the initiative and were open to the prospect of implementing a similar initiative at some point in the future. For example, Mark noted that he was motivated to participate in the initiative because he "would have more collaborators in this area because [he wanted] to see a robust body of [scientific] research coming out of this school." When asked about the prospect of joining a similar initiative in the future, he noted, "I would participate in that in the future if I saw that there was a realistic chance that we could get funding for something. Yeah, I'd participate in it." Most of the established faculty members in this study had a similar response to the one above; they were somewhat satisfied with the outcomes of the initiative and could see themselves doing something similar in the future if it continued to be in their self-interest.

Likewise, most newly hired faculty described feeling satisfied with some of the outcomes of the initiative and said that they could envision themselves being involved in a similar initiative in the future as well. For example, Pam mentioned that in a private conversation with a colleague that took place just prior to her interview, she said, "Wow,

the fact that they put effort into creating 25 of these things gives me some hope that at a higher level, things are potentially shifting towards explicitly rewarding people who are outside of the more traditional cookie cutters of the university." Pam also mentioned that if she were to continue working as a scholar at the university that she would "like to have some students who are really excited about research careers and maybe they go on to academic positions and maybe they also become sort of… that they replicate myself." Most newly hired faculty described envisioning their future work in ways that built directly on their experience implementing the Interdisciplinary Faculty Initiative.

Most of the faculty in this study expressed some level of satisfaction with the outcomes of the initiative and hoped that they could do something similar in the future. Few were dissatisfied with the initiative and wanted to be disassociated from it in the future. Even while acknowledging that intracluster collaboration was not as prevalent as they expected, many faculty still expressed genuine optimism about the likelihood of doing it in the future. The best example of this perspective comes from Lynn, a newly hired faculty member who described doubts she had about her ability to engage in intracluster collaborations at the present time but who felt confident that she would pursue it when it became more practicable for her in the future:

> I don't know how successful [the other clusters] will be. I can't totally write it off because we're still trying, and we plan to continue to be a group and think about what we can do together. So I'm kind of talking about in terms of fully realizing a vision that I have it would… It's not really practical for me right now. Maybe it would be more practical… maybe once we all have tenure then we can do whatever we want and we'll stay in touch and continue talking until then. … I would say I would be more eager [to work together in the future] because I think it's a good idea it just needs to be taken a step further.

As all of these examples that regard identity suggest, faculty entertained different self-conceptions throughout the sensemaking process, including ones that invoked their organizational identities. More importantly, however, faculty envisioned themselves in different future scenarios in order to understand the way they were actually implementing the Interdisciplinary Faculty Initiative at the present time. More often than not, faculty described the role they played in the initiative as encouraging them to engage in similar work in the future, even when the existing outcomes of the initiative were less positive than they had initially expected, particularly with regards the newly hired faculty's intracluster collaborations. These findings generally support the notion that identity can play a continually consequential role in the sensemaking process.

How Faculty Envisioned Their Future Relative to the Initiative

This chapter focuses on the two properties of retention: plausibility and identity. So far, the role that each has played in the sensemaking of university faculty has been described, but the element of retention regards the way that people decide on what to do next during the sensemaking, so retention describes a way of understanding that involves considerations of plausibility and identity simultaneously. This is why, according to Weick (1995), retention "holds disparate elements together long enough to energize and guide action, [*and*] plausibly enough to allow people to make retrospective sense of whatever happens" (p. 61). To address the way faculty considered issues of plausibility and identity simultaneously, this chapter concludes by showcasing the experiences of two newly hired faculty members, Rob and Pat.

Rob and Pat were hired into two different clusters at different points in time, but they both made sense of their experience in somewhat similar ways. Since he arrived on

campus, Rob, who had been hired years before Pat, had been successful in obtaining external grant funding for his research, had published several studies, and had formed a robust network of colleagues within and outside of his academic unit. He felt confident that his promotion through the tenure process would proceed apace. By almost any measure, his experience could be presented as evidence of one successful outcome of the Interdisciplinary Faculty Initiative. Rob himself, however, was less inclined to see himself as a success story because he continued to see the work that he wanted to be doing as somewhat less reasonable for him to engage in now that it would be in the future. Specifically, he was genuinely concerned about the prospect of the new technologies he had created having a meaningful impact on other people's lives. And he continued by envisioning himself producing things with greater practical value:

> I guess I look forward and think 100 years from now, will people remember [this technology]? It's like, maybe not, but would they remember if there were technologies that we don't need so many [doctor's visits?] … You know, like something practical? I certainly think the software we've made and what we've done is important and contributes to all this, but I think having a concrete deliverable that is a deliverable to the public is something that I would like to do.

At the same time Rob was envisioning himself producing research with greater practical impact, he also saw himself and his work as perfectly suited to the role he was hired perform, so much so that he was the only faculty member who participated in this study who made a point of mentioning that his was the only job for which he applied at the time. He described how the job posting for his position perfectly matched the way that he saw himself as a scholar, and he realized that applying for the job would be important to his continued success conducting his research:

> The true story is that I was going to review grant proposals at [a National foundation] … And I was a reviewer on these grants, and I'd already been

> developing [this technology] and other tools. And I was on the plane down there thinking, "You know, why aren't I on any of these proposals? I should be on these proposals. I'm… people need what I have to do these proposals." And so that got me thinking about, well, hmm, maybe I'm not in the right place. I don't have any clinical colleagues. I don't really have a lot of people around me thinking about these things. And so I opened up an issue of *Science* I think while I was at [a National foundation] or whatever and there was the ad for… So actually when we were reviewing the proposals the things that we were looking for, the things that made for a good proposal was clinicians involved, [scientists] involved, [micro-scientists] and [professional experts] involved. And so I opened up the *Science* and say, "Oh, Michigan's hiring and, oh, they're looking for a [scientist]. They're looking for a [micro scientist], a [professional expert]." Somebody… I'm like, "Oh, wow." This is where I should be. And so that's… yeah, that was really the reason I applied. This was the only job I applied for.

Rob's experience is interesting because of the particular way that he made sense of his hiring at the University of Michigan. Furthermore, the way he felt his job was precisely how he had seen himself was also connected in his mind to his increasing dissatisfaction with the impact of his work. Although he described the new technology that he had helped to create as being instrumental to his gaining a professorship at the university, it also failed to have the type of impact he envisioned his work having over a longer period of time. In other words, while Rob conceived of himself in a way that largely mirrored the way others identified his position, he felt fundamentally disquieted by the fact that he also envisioned his life's work proceeding in a different way, a way that seemed unlikely given his current circumstances. Rob's retention of understanding was not only informed by his consideration of which outcomes were more likely for him to engage in and which were not but also by his consideration of the way his past and envisioned future selves were linked by a causal chain of events.

In contrast to Rob, Pat had been hired more recently and described feeling more anxiety about the prospect of being awarded tenure than Rob had. Regardless, both Pat

and Rob blended their consideration of the plausible with ways that they conceived of themselves in the process of figuring out how they were going to implement the initiative over time. In this sense, both of their experiences exemplify how retention functions in the sensemaking process. Like many of her colleagues, including Rob, Pat described learning that engaging in too many intracluster collaborations had the potential to diminish the likelihood of her getting tenure, and she was particularly pessimistic about the possibility of securing any large external grants in cooperation with other newly hired members of her cluster. She noted:

> [After being hired] I just started to learn more about the system and how it operated and that if I wanted to be a successful scholar according to the rubric they have, I really have to be very, very proactive in terms of publishing and to try publishing in high impact journals that would be more focused on my discipline. No one has been telling me, "Don't publish in interdisciplinary journals" as such, but I've been told specifically to publish in these venues every year. And so, just in learning about what was expected of me, I began to realize that probably my time would be well spent thinking about the cluster as only a small part of what I do to the extent that I can get a big grant with them and do lots of publishing with them, and I think it could be a larger part, but I don't see us submitting as large grants through the NIH for example, which is really what is expected of me anyway. It's sort of the gold standard.

The way Pat made sense of how she was implementing the initiative extended beyond her practical concerns with obtaining tenure and into how she envisioned herself at future points her scholarly career. In contrast to the incentives that made intracluster collaboration seem more implausible given the necessities of obtaining tenure, Pat also felt, "Other motivations that are personal," which moved her to envision collaborating with other members of her cluster at points in the future. Not only did Pat describe these personal motivations as is evident in the following quotation, she also entertained conceptions of herself that complimented those of her potential collaborators:

> I've been told over and over again to just focus on my grant writing and focus on my publishing; that's what's needed in order to kind of climb the ladder, or as it were, to get tenure. So in terms of how would the cluster… how would my participation in the cluster help me to achieve that? I don't know the answer to that question. I know other incentives, other motivations that are personal that make me continue to collaborate with the cluster. The kinds of questions that we can ask together I think are much more powerful than the questions we can ask separately, because the problems we can potentially contribute to, to helping to confront are much more, I think, relevant. Also, I'm not a [scientist]. If I want to ask questions about [this topic], I have to work with someone who knows about [this issue] and knows about [that issue] and [scientifically] bring that linkage into some of the things that I am doing.

Most notably, Pat continued to articulate a vivid picture of the ways in which she actually foresaw herself collaborating with the other newly hired members of her cluster in the coming years. She understood these types of collaborations as being the most meaningful potential outcome of the Interdisciplinary Faculty Initiative despite the fact that these outcomes were highly uncertain and could only occur in the distant future.

This chapter ends with a related passage from Pat's interview for two reasons. First, the following quotation highlights how one person understood her implementation of the initiative by blending her consideration for the plausibility of the courses of action she took with the types of things that she envisioned herself doing in the future. Second, this passage accurately represents how many faculty members understood their implementation of the Interdisciplinary Faculty Initiative. Specifically, Pat believed that the meaningful outcome of the initiative might best be realized years into the future when changes to her situation rendered intracluster collaborations more plausible to engage in:

> I foresee us doing [a co-taught course] and continuing to write some grants together and seeing if anything hits. It would be nice to publish a little bit with them. We talked about publishing some kind of a pedagogical paper about teaching in an interdisciplinary context and maybe culling this course. That might be an interesting paper to write. And, if we got a grant together, we could so some actual research and publish together in a more

> interdisciplinary journal for a broader audience in some way. I think there could be a lot of interesting options for that. Things that I wouldn't normally publish, things that maybe I wouldn't normally look to. So I think it's going to add some… has the potential to add some real value to the things that I am doing that are more discipline-specific. … These things take time to evolve, but I think depending on what direction those go, this cluster, this initiative could really have some wide-reaching… wider reaching impacts at the university.

Considered overall, this chapter has provided evidence suggesting how the last of the three elements that constitute the sensemaking process, *retention*, plays a critical role in that process. The findings of this study highlight two important characteristics of sensemaking. These findings suggest that to retain an understanding of their situation people consider both what future states could be plausibly enacted and also what someone like himself or herself would do given these circumstances. The evidence presented in this chapter is constituted by testimony faculty gave describing how their understanding of the origins and future of their involvement with the initiative developed while they were implementing it. They testified that practical and personal concerns were central to the way they came to understand how they implemented the initiative in the way that they did. This evidence suggests that the faculty who participated in this study envisioned the roles they would likely play as professors at the University of Michigan in ways that ultimately affected to how they implemented the Interdisciplinary Faculty Initiative. The following chapter of this work regards one additional but equally notable aspect of the sensemaking process, which is *sensegiving*. And indeed, before it is possible to articulate concise answers to the research questions that are guiding this case study it is necessary to address the ways that sensegiving and sensemaking are related to each other.

Chapter 7

Connecting Sensemaking and Reflective Sensegiving

The focus of this work now turns to *sensegiving*, or the ways in which people act intentionally to affect the sensemaking processes of others. Sensegiving is typically thought of as the corollary of sensemaking (Gioia & Chittipeddi, 1991). While sensemaking and sensegiving differ from each other in important respects, the two processes are also linked in ways that this chapter seeks to explain. In short, the findings of this study break new ground by advancing the notion that sensemaking and sensegiving can build on each other and be mutually constitutive of each other as well. Moreover, this study found that the sensegiving of individual faculty members directly affected the way that the Interdisciplinary Faculty Initiative was implemented. These findings also have clear practical implications that will be presented in the final chapter of this work. Before evidence supporting these findings can be detailed, it is necessary to briefly revisit the ways in which sensemaking and sensegiving differ and the ways in which they are connected.

Sensemaking and sensegiving are different from each other, but fundamentally, both describe ways in which people develop an understanding of their social context. Considered independently, sensemaking is an inherently retrospective process because it

is a means by which one accounts for future actions based upon perceptions of their past. In contrast, sensegiving is a prospective process because it accounts for one's future actions based upon an intention to affect that future. Simply put, sensemaking proceeds from someone's perception of something discordant rooted in their past, and sensegiving proceeds from someone's intention to affect his or her future. If sensemaking is more concerned with understanding what the story is (Weick, 1995), then sensegiving is more concerned with trying to foretell what the story will be.

At the same time, these two social processes are also inexorably linked to each other. Sensemaking and sensegiving can be legitimately described as a corollary of one another (Gioia & Chittipeddi, 1991), or as two sides of the same coin (Rouleau, 2005), because, on a conceptual level, sensemaking and sensegiving can bracket peoples' interactions in social contexts. And in fact there is ample evidence to suggest that people engage in cycles of sensemaking and sensegiving, particularly during periods of organizational change (Kezar & Eckle, 2002; Gioia & Chittipeddi, 1991; Gioia, Price, Hamilton, & Thomas, 2010; Weick, 1993). Much of this empirical research focuses on the leaders and top-management teams of organizations and suggests that they engage in distinct periods of sensemaking and sensegiving, particularly when trying to initiate strategic change within their organizations.

For example, Gioia and Thomas (1996) and Smerek (2011) found that new college presidents work to make sense of their organizations first before looking to use sensegiving to communicate their vision for the future to its employees. The case study presented here differs from this body of empirical research in that it addresses the sensemaking and sensegiving of individuals at the lower levels of an organizational

hierarchy. Regardless, like other studies in what is becoming a fast-growing body of research examining how the sensemaking of middle managers affects organizational change (Balagun & Johnson, 2005; Maitlis, 2005; Maitlis & Lawrence, 2007; Rouleau, 2005; Rouleau & Balogun, 2010), this study also found that sensemaking and sensegiving are mutually supporting processes. The ways that sensemaking and sensegiving function in organizational hierarchies will also be addressed in the final chapter of this work.

This study found evidence that strongly supports the notion that sensemaking and sensegiving function in tandem. Specifically, clear and consistent evidence was found suggesting that the faculty who participated in this study engaged in sensegiving not only to influence the sensemaking of others, but also to *effect* their sensemaking at future points in time. In plain language, faculty members were found engaging in sensegiving in ways that surfaced discrepant cues for the express purpose of heightening their sensemaking experience in the future. More generally, engaging in sensemaking and sensegiving enabled the individuals who participated in this study "to make a backward and forward connection between what we do to things and what we enjoy or suffer from things in consequence" (Dewey, 1916, p. 168). Because this chapter focuses on sensegiving, it concerns the ways that university faculty acted intentionally to affect the sensemaking of their colleagues. However, there is also evidence that suggests many of these faculty members engaged in this sensegiving in ways intended to heighten their own experience of sensemaking in the future.

What is this evidence? The faculty who participated in this study described questioning a wide variety of colleagues about the work expectations of newly hired faculty in order to surface relevant discrepancies between their colleagues' expectations.

Equally important is the fact that many of these faculty members intentionally incorporated the discrepant cues resulting from their questioning of these colleagues into their own sensemaking. This chapter concludes by emphasizing how this type of sensegiving ultimately informed individuals' implementation of the Interdisciplinary Faculty Initiative. It is argued that people can intentionally engage in lines of questioning with others in order to surface discrepant cues that can be readily incorporated into their ongoing sensemaking. By engaging in sensegiving in order to simultaneously affect the sensemaking of others, as well as to surface discrepant cues capable of feeding one's ongoing sensemaking, many of the faculty who participated in this study engaged in what will be termed *reflective sensegiving*.

Faculty's use of reflective sensegiving suggests that sensegiving can be equipped by people to simultaneously affect the sensemaking of others and to effect sensemaking within themselves. This type of sensegiving is partially comparable to another type documented through research on higher education, which is namely college presidents' sensegiving in safe harbors (Smerek, 2011). Like reflective sensegiving, sensegiving in safe harbors prompts people to engage in ways that "sustain the various interpretations of those in the social community with competing interests." Specifically, by publicly championing uncontroversial and ambiguous goals, college presidents could prompt others' sensemaking "while they try to understand the organizations they are leading" (Smerek, 2011, p. 84). Sensegiving in safe harbors and reflective sensegiving both serve to sustain divergent expectations among colleagues.

In using reflective sensegiving, the faculty who participated in this study engaged in lines of questioning that exposed their colleagues' competing interpretations of the

way the Interdisciplinary Faculty Initiative was implemented. Evidence suggests that faculty expressly intended this questioning to surface discrepant cues that could inform their own sensemaking. Whereas sensegiving in safe harbors is intended to maintain competing understandings among others in order to buy time for one's own sensemaking to proceed unaffected, reflective sensegiving is intended to maintain competing understandings among others in ways that that are likely to heighten one's own sensemaking experience. The fact that people engage in reflective sensegiving in order to heighten their ongoing sensemaking represents an important contribution of this study to the field of organizational studies and helps to address an existing need to better understand the relationships connecting sensegiving and sensemaking on a conceptual level (Weick, Sutcliffe, & Obstfeld, 2005).

Evidence of sensegiving must be evidence of some action taken with the intention to affect the sensemaking of others. Even if they reinforce and help to constitute each other, the understandings that are the fruit of sensemaking and the claims that characterize sensegiving are different from each other (Gioia, Price, Hamilton, & Thomas, 2010). In this study, some faculty members's verbal claims reflected their attempts to sustain the divergent ways that their colleagues understood their expectations of each other. It is argued here that faculty affected the sensemaking of their colleagues by trying to sustain their competing expectations of each other. Consequently, this chapter largely concerns faculty's testimonials and suggests they sought to reveal and maintain others' differing expectations without altering them in meaningful ways.

However, in contrast to sensegiving in safe harbors, faculty members's descriptions of their use of sensegiving to affect the sensemaking of others also showed

their intent to reveal discrepant cues which they would incorporate into their own sensemaking. Examples of reflective sensegiving found through this study are based on this specific type of claim. This type of claim has three characteristics. Reflective sensegiving is typically (a) enabled by the intention of others to engage in sensegiving of their own; (b) in the form of lines of questioning about others' expectations of their colleagues; (c) directed toward sets of people who are perceived as different from each other in relevant ways.

An example of one faculty member's reflective sensegiving helps to introduce these three characteristics. Many faculty asked questions of their colleagues about how they expected the Interdisciplinary Faculty Initiative to be implemented, and the questions they asked were often intended to surface differences in the expectations that others had about the work of the newly hired faculty members on campus. For example, Ian described how, as he was interviewing for his faculty position, he was deliberate in asking about the expectations of his future role in "subtle ways." Specifically, he asked others, "Why do you think I'm a good fit for this position?" Ian said that he asked this question because "Rather than them asking me, which they did of course, why do I think I'm a good fit, I wanted to hear from them why they thought I was a good fit." The "subtle" way that he asked this question provides a plain example of reflective sensegiving. Ian's prompting deliberately encouraged his colleagues to articulate how they expected him to behave in relation to themselves. This line of questioning was used to elicit the kind of information that could reveal to Ian how different colleagues were making sense of the prospect of working with him into the foreseeable future.

Ian's questioning is notable because it prompted the sensegiving of others and because asking such questions of different faculty members enabled him to surface discrepant perspectives among his colleagues. In his interview, Ian made a point of noting that he questioned different types of colleagues. "When I was researching, when I would meet with individual faculty," Ian described:

> I would say, you know, "Can you tell me a little bit about the research expectations here? Can you tell me a little bit about the teaching expectations?" And the same when I met with the Dean and the Research Dean. And so I made sure to ask that because I just wanted different perspectives.

Ian's reflective sensegiving surfaced differing perspectives within his social group of potential colleagues regarding their perceptions of the part he would play implementing the Interdisciplinary Faculty Initiative as a newly hired faculty member. Surfacing these discrepancies enabled Ian to better understand the plausible ways he could begin implementing the initiative himself. In Ian's specific case, his reflective sensegiving led him to believe that collaborating with the newly hired faculty in his cluster would be more plausible after he received tenure. More generally, his lines of questioning helped him to cultivate an understanding of the appropriateness of various scholarly activities he could pursue at the university. In sum, Ian's reflective sensegiving to his colleagues affected their sensemaking while also intentionally effecting his own.

Characteristics of Reflective Sensegiving

The claims associated with reflective sensegiving have three characteristics. First and foremost, people's reflective sensegiving took advantage of others' intentions to engage in sensegiving themselves. Newly hired faculty equipped reflective sensegiving in ways that encouraged their colleagues who wanted to engage in sensegiving to do so.

Second, the claims constituting people's reflective sensegiving often took the form of lines of questioning about the ambiguous expectations held of each other. Newly hired faculty who engaged in reflective sensegiving typically questioned their colleagues about the expectations they had of faculty members who were hired through the initiative. Finally, these lines of questioning were asked of those whom the sensegiver perceived as representing a diverse set of organizations or roles. Each of these three characteristics will be explored in turn. Reviewing the evidence that embodies the characteristics of reflective sensegiving also enables conclusions to be articulated regarding the effects of faculty's reflective sensegiving on their implementation of the Interdisciplinary Faculty Initiative.

Evidence of the characteristics of reflective sensegiving builds upon two long-standing lines of research on sensemaking. First, evidence that faculty engaged in reflective sensegiving was typically rooted in conversations held during the period of time surrounding the hiring process. This finding supports the notion that changes to organizational membership, in this case through the cluster-hiring of faculty, provides fertile ground for heightened sensemaking among its members (e.g., Louis, 1980, 1990; Smerek, 2011). Second, evidence also suggests that faculty often engaged in reflective sensegiving with multiple colleagues representing a diverse set of organizations and occupational roles. This finding supports the idea that sensegiving about organizational change in higher education often occurs between college administrators and faculty, between faculty in different academic departments or units, and between university employees and key external stakeholders during periods of organizational change (e.g.,

Gioia, Price, Hamilton, & Thomas, 2010; Gioia & Thomas, 1996). In detailing the three characteristics of reflective sensegiving, this chapter bolsters both lines of research.

Enabling others' sensegiving. The first characteristic of reflective sensegiving regards the fact that many newly hired faculty members used it to encourage their colleagues to engage in sensegiving of their own. As has been noted, much of the questioning newly hired faculty engaged in took place during conversations surrounding the hiring process, particularly during candidate interviews. This is to be expected, as integrating a new person into any complex organization typically requires existing members engage in sensegiving in order to orient the new employee toward the role he or she will play there (Louis, 1980, 1990).

The fact that established faculty engaged in sensegiving in candidate interviews is wholly unsurprising. In fact, to Jake, a newly hired faculty member, these types of interactions were epitomized by established faculty members's attempts to affect his sensemaking by addressing issues like, "What do you expect of me? And what can I be, what should I be, what do you want me to be? And how well are those things aligned?" In turn, newly hired faculty like Noah, described how these interviews gave them an opportunity to understand the "messages" that "people on the hiring committee were trying to get across" about their expectations. The vast majority of newly hired faculty described how established faculty used the interviews which took place in the period of time surrounding the hiring process to promote an understanding of the scholarly activities a typical hired faculty member should pursue in his or her first years on campus.

As would be expected, established faculty described using these interviews expressly to communicate such expectations. For example, Lisa described how she and her colleagues formed a committee to oversee all of the hiring committees associated with their cluster. This committee created "a spiel" they could use so that when "the interviewees came, we could tell them about what was happening here at Michigan and how they were going to be involved." It is notable that many of the expectations established faculty members described communicating to their newly hired colleagues reflected their concerns with issues of collaboration. For example, Barb described how she and her colleagues used the candidate interviews expressly to advance the perception that the faculty members in their unit were "very collegial." She recalled saying, "We're in the Midwest, and it's an open-door policy, and we all get along. We never fight. That was word-for-word. That's what was always talked about [in the interviews]." In sum, the vast majority of faculty who participated in this study described how the candidate interviews provided a forum for established faculty to communicate their expectations to newly hired faculty about their collaborative activities at the university.

However, it is critical to note that there is evidence that established faculty, considered together as a group, typically communicated conflicting expectations to the newly hired faculty in this study. In fact, almost all of the clusters selected for inclusion in this study included established faculty who clearly disagreed with their colleagues about the expectations that should be relayed to the incoming faculty. One newly hired faculty member, who actually participated in the candidate interviews for colleagues that were to join his cluster, described publicly disagreeing with an established faculty member over the expectations that were communicated during these interviews. When

noting during an interview that the newly hired faculty members in the cluster usually convened for breakfast on a regular basis, the established faculty member retorted, "The hope is that you do more than get together for breakfast once a semester." He remembers responding, "'Yeah, okay.' Well I mean, like, what am I… what are we going to do?" In general, the evidence suggests that many of the established faculty who engaged in sensegiving to the candidates who were being interviewed disagreed on what they were trying to communicate about their expectations. The established faculty who were able to communicate a more unified set of expectations to candidates worked deliberately to achieve this level of consensus. Established faculty like Adam, for example, engaged in a series of conversations to get a sense of his colleagues' expectations of the initiative that enabled their recognition, "Everybody was on board that, yes, these are our needs."

While some groups of participating faculty within the clusters were unified in communicating their expectations to the candidates, many were not. Regardless, they all used conversations surrounding the hiring process to champion particular expectations about the roles that the newly hired faculty would play, often with regards to issues of collaboration with colleagues. This suggests that in this study, one characteristic of the reflective sensegiving of the newly hired faculty typically occurred when established faculty were already inclined to engage in sensegiving of their own.

Questioning others' expectations. The second characteristic of reflective sensegiving regards its focus on others' mutual expectations. The claims constituting people's reflective sensegiving often took the form of lines of questioning about the ambiguous expectations colleagues had of each other. Through reflective sensegiving, faculty members asked each other to articulate their expectations or to otherwise make their expectations known. This characteristic is critical to the function of reflective sensegiving because, as Weick (1995) argues, changes to people's expectations constitute a discrepant cue frequently involved the sensemaking process. The function of reflective sensegiving is to surface discrepant cues that can be incorporated into the sensemaking process. It is likely that questioning others' expectations has the potential to feed the sensemaking process because people's expectations of each other have been found to directly affect sensemaking, particularly when expectations are well known by others (Cialdini, 1998; Maitlis & Sonenshein, 2010; Nickerson, 1998; Salancik, 1977; Salancik & Pfeffer, 1978; Weick & Sutcliffe, 2003). Indeed, one of the most notable findings of this study regards the fact that newly hired faculty used sensegiving to reveal and incorporate new discrepant cues into their own sensemaking processes.

As with the first characteristic of reflective sensegiving, the questioning of other's expectations often revolved around issues of newly hired faculty members' pursuit of scholarly collaborations. Many newly hired faculty described how they followed similar lines of questions with different colleagues in order to get a sense of what others expected from them specifically in regards to collaboration within their cluster. As has been described, many newly hired faculty felt their colleagues responded to their questioning by discouraging them from pursuing these collaborations too zealously.

For example, Dan described how a colleague told him the fact that his published research was co-authored with other newly hired faculty “suggests to me you’re not an independent scientist.” Dan also recalled that this colleague’s expectations diverged substantially from those of other faculty members he had questioned. By questioning his colleagues about their expectations of the initiative, he increasingly began to “feel like there was this vision for the clusters and that it may not fit with what the vision is with members of the department… what they expect.” Most importantly, after questioning his colleagues, Dan described how he “just kind of got over it and realized I just need to conform and do what it takes [to get tenure].” Similarly, Sam described how upon questioning the faculty in his unit about their expectations of his work, they told him, "We don't want you to become someone who only does [professional science]; that's not what we have in mind.” Sam described feeling discouraged from aggressively pursuing collaborations with the other newly hired faculty members in his cluster and ultimately adopted the point of view of the colleagues in his unit who told him, “You will be able to continue whatever research you wanted to, but [the cluster] will give you additional opportunities." By questioning different colleagues about their expectations of their work, both Dan and Sam came to understand intracluster collaboration as an expectation that was probably only incidental to their regular work in a unit.

The point of these examples is not necessarily that many newly hired faculty members came to understand intracluster collaboration as an incidental expectation of their colleagues, although that is important and will be addressed in the following chapter. Rather, the point of these examples is to show that engaging in reflective sensegiving allowed Dan and Sam to surface discrepant cues that they could incorporate

into their own understanding of their roles in implementing the Interdisciplinary Faculty Initiative. The importance of this finding lies in the fact that faculty used reflective sensegiving to incorporate what they noticed about their colleagues' divergent expectations into their own sensemaking processes.

A further example shows this dynamic more clearly. Jake described asking similar questions of hiring committees at different institutions as he was in the process of deciding which school would be a good fit for him. The reflective sensegiving that Jake engaged in was instrumental to his cultivation of an understanding about the plausible roles he could play at different institutions:

> I think there were even times when I was very explicit in saying, "Look, what are the journals that you would expect that I publish in?" And if they would have rattled off a lot of journals that I couldn't see myself publishing in, then it's not going to be a good professional fit for me. At Michigan, I think they were pro-active in making sure that I knew that they weren't expecting me to conform to what is a stereotypical [science] scholar. They knew I wasn't exactly an obvious fit in the department but that I was being hired somewhat because of that. Because they wanted to diversify a little bit, have a bit more of a heterogeneous group.

The fact that newly hired faculty's reflective sensegiving typically consisted of lines of questioning about their colleagues expectations of each other is of critical importance. By questioning others' expectations, newly hired faculty effectively primed their own sensemaking by purposefully surfacing discrepant cues that could inform their understanding of their roles in implementing a strategic initiative. Indeed, divergent expectations often constitute the discrepant cues that heighten people's experience of the sensemaking process (Maitlis & Sonenshein, 2010; Weick, 1995). The results of this study suggest that people can cause discrepant cues to be noticeable through reflective sensegiving. Although sensemaking is often characterized as a largely retrospective or

even unconscious process, there is reason to believe that people purposefully use reflective sensegiving to create conditions likely to stimulate their ongoing sensemaking. This finding speaks to the need to better understand the effects of sensegiving on sensemaking (Weick, Sutcliffe, & Obstfeld, 2005).

Questioning across organizational boundaries and occupational roles. The final characteristic of reflective sensegiving regards people's questioning of colleagues who they identify as representing a diverse set of organizations and roles. Most of the newly hired faculty who participated in this study engaged in reflective sensegiving through a series of conversations with a seemingly diverse set of colleagues. Specifically, these individuals typically questioned the expectations of various colleagues and relied upon these conversations to inform their understanding of their relationship to the Interdisciplinary Faculty Initiative. This finding supports the idea that identity is central to the sensemaking and sensegiving processes (Jennings & Greenwood, 2003; Maitlis & Sonenshein, 2010; Weick, 1995, 2003).

Several propositions could be made about how the effects of sensegiving on the sensemaking of others are more or less \ pronounced between faculty that share common organizational identifications, academic fields, paradigms of inquiry, academic ranks, or definitions of interdisciplinary scholarship. Rather that touching on each of these social divisions, this chapter focuses only on two general types regarding people's identification with organizations or roles. Although general, these two types of identification remain highly relevant. Indeed, individuals in modern societies typically attach self-derived understandings to the various organizational memberships and roles they maintain (Stryker & Burke, 2000).

Organizational Studies scholars who focus on identification distinguish between organizational identification, which includes identifying as a member of organizations or teams, and roles which include identifying with one's occupation or place within a network (Ashforth, Harrison, & Corley, 2008). However, in both cases, identification itself is constituted by "the perception of oneness or belongingness to some human aggregate" (Ashforth & Mael, 1989, p. 21), which is activated by some relevant discrepant cue (Ashforth, 2001). The notion that individuals identify with various organizations and roles is central to the sensemaking process, particularly when the relevant discrepant cues arise from ambiguous changes in organizational membership (Louis, 1980, 1990; Schön, 1983; Smerek, 2011; Van Maanen & Schein, 1979; Weick, 1995).

Much of the remainder of this chapter focuses on faculty's identification with different organizations and roles, and the findings presented here suggest that the effects of sensegiving on the sensemaking of others is not invariably more pronounced between faculty who share common forms of identification. For many newly hired faculty members, reflective sensegiving had a direct impact on their involvement with the Interdisciplinary Faculty Initiative precisely because they communicated with sets of colleagues with differing forms of identification. In fact, these faculty consistently described the conversations they pursued with colleagues in different organizational units, clusters, and stages of their careers as being highly relevant to they way they came to see themselves as implementing this initiative. For this reason, it is argued that an important characteristic of reflective sensegiving is the involvement of multiple individuals representing a diverse set of organizational identities and occupational roles.

Reflective sensegiving was found to typically involve individuals communicating with a diverse set of colleagues across organizational boundaries and role classifications. Many of the individuals who participated in this study described questioning the expectations of such a set of colleagues in order to develop an understanding of how they would implement the initiative. For example, one established faculty member, Adam, related his vision for a cluster-hire to his colleagues in different departments in order to see if his assumptions about the needs for different kinds of personnel in their units were accurate. He described questioning each of his colleagues in a similar way:

> "This is my vision, and I am pretty sure you need the type of person that does this, and I am pretty sure you need this type of person, and I'm pretty sure you need this type of person." And in every case I was spot on. It was exactly what they needed.

Adam described his vision for a cluster-hiring process in order to question his colleagues' expectations about the needs they perceived existing in their respective units. By engaging in reflective sensegiving with colleagues representing different academic units, he was able develop a coherent understanding of how he would go about the process of creating his cluster. This provides a clear example of how reflective sensegiving crossed organizational boundaries, in this case constituted by the distinctions between academic departments and units within the university. Unlike Adam's case, however, most of the faculty members who described engaging in reflective sensegiving were newly hired faculty members.

Many of the newly hired faculty who engaged in reflective sensegiving made a point in their interviews of highlighting those conversations they had with colleagues outside of their academic unit and outside of their cluster as being particularly meaningful to their understanding of the initiative. Although some of these conversations

occurred with colleagues who had been assigned to them as mentors by the university, many took place without the benefit of such a formalized relationship. In one case, a newly hired faculty member, Rob, formed an "informal" mentoring relationship with an established colleague because of her insightful perceptions of a mutual acquaintance. Rob described how, in response to asking this colleague what she thought about the acquaintance, "She just nailed all the important points that I didn't think anyone saw or would see." Another newly hired faculty member, Barb, also formed informal mentoring relationships with those colleagues outside of her cluster:

> [They were] willing to kind of divulge their perceptions and break down the barriers and don't seem to have this kind of stilted approach to telling me what they think about the department. … It's the ones that are the most interested in really trying to give me the inside knowledge of, this is really the strategy you need to convince so and so in order to get them to do this. And those are the ones that I think I tend to trust more and seek out more – if they really seem savvy about how to get things done around here.

As a part of their reflective sensegiving, newly hired faculty like Rob and Barb compared the conversations that they had with colleagues within and outside of their academic units and clusters. By doing so, they were able to identify sources of information that they trusted most, and they incorporated the advice into an understanding of their own scholarly activities. Before highlighting a case where reflective sensegiving had a clear and direct impact on the way a newly hired faculty member described implementing the Interdisciplinary Faculty Initiative, it is necessary to describe how this form of sensegiving spanned occupational roles in addition to organizational boundaries.

Just as reflective sensegiving typically spanned organizational boundaries, it tended to span different occupational roles as well. The faculty who participated in this

study frequently described engaging in reflective sensegiving with colleagues of different academic ranks. These individuals used reflective sensegiving to surface the divergent viewpoints of untenured and tenured faculty alike. However, it is critical to emphasize an important caveat here; this reflective sensegiving was not merely characterized by the inclusion of faculty with different academic ranks but of different academic experiences and occupations more generally. This supports the notion that reflective sensegiving not only crosses organizational boundaries but occupational roles as well.

An example of Amy's experience implementing the initiative serves to highlight this caveat. During her interview, Amy described conducting numerous conversations with other tenured faculty in various departments in order to get a sense of their opinions about the design and topic of the cluster she ultimately proposed forming. The tenured faculty she reached out to included individuals whom she perceived as potentially adopting different roles in relation to the cluster. By engaging in reflective sensegiving with tenured colleagues who might play different roles implementing the initiative, she ultimately reevaluated her own understanding of her role in this regard. Despite the fact that "everyone" she talked to said, "Yeah, that's a great idea," she came to realize, "Part of the problem, though, was that they didn't necessarily have the senior people who would really be the leads, because my initial goal was to plant the seed and then task it to other folks who would then take the thing and run with it." In short, Amy sought out the opinions of a set of tenured colleagues who had the potential to play different roles implementing the initiative, and this reflective sensegiving led her to reevaluate her own view of how her cluster might develop.

Just as Amy's reflective sensegiving across faculty roles allowed her to understand how she would implement the Interdisciplinary Faculty Initiative, many newly hired faculty members did likewise. However, most of these newly hired faculty member's description of their reflective sensegiving differed from Amy's in that they frequently involved faculty of different academic ranks and administrative roles. Indeed, most of the newly hired faculty who engaged in reflective sensegiving did so with untenured and tenured faculty and with those holding different administrative appointments within their academic units. Several newly hired faculty members described seeking out conversations with untenured colleagues who were a range of years away from their tenure review. For example, Dan described reaching out to colleagues who have recently gone through the tenure process because they could help him verify "what's worked and what hasn't." In sum, all of the faculty members who described themselves as engaging in reflective sensegiving communicated with a set of colleagues whom they viewed as playing different roles from each other, including as the representatives of different departments and of faculty advancing through academic ranks in different ways.

Many newly hired faculty also described receiving critiques from some colleagues about each other's advice to engage in some scholarly activities and not others. For example, Pam described engaging in a series of conversations with close colleagues about the initiative that were animated by questions including, "What were you told?" and "What are you actually doing?" Pam described "getting conflicting signals" about what was rewarded in her school through an ongoing series of conversations she had been having with colleagues including a Dean, an Assistant Dean, and a group of assistant

professors both within and outside of her cluster. While one colleague advised, "Do it all," another disputed the value of this advice and encouraged her to publish two or three papers in good journals each year and to develop two or three good courses before her tenure review. By engaging different colleagues representing a variety of roles within and outside of her cluster, Pam was able to notice divergent expectations that affected the way she decided to pursue collaborations with other newly hired faculty in her cluster.

Asking these types of questions helped newly hired faculty like Pam understand the differences in their colleagues' perceptions of each other. Equally important is the fact that it also helped her gauge the likelihood of participating in various collaborations with different sets of her colleagues. Engaging in reflective sensegiving better enabled her to identify surprising and discrepant cues that could affect her choice of collaborators and scholarly activities. "You never know, there are random things that I might be able to ask that would be helpful," Pam said about the outcomes of her conversations. "You never know what kind of surprising thing… maybe it does make sense to tap into a person later on." Pam's experience pursuing similar lines of questions with sets of colleagues playing seemingly diverse roles exemplifies the third and final characteristic of reflective sensegiving.

Practical Implications of Reflective Sensegiving

While the bulk of this chapter concerns the characteristics of reflective sensegiving, it is critical to emphasize its practical implications. One conceptual implication already hinted at is the effect that reflective sensegiving has on the sensemaking of others. Those engaging in reflective sensegiving do so to surface discrepant cues that enable their ongoing sensemaking. As to the recipients of reflective

sensegiving, by engaging in sensegiving of their own they publicly situate themselves in relation to mutual colleagues. When this dynamic yields noticeable discrepancies in colleagues' understandings of each other, reflective sensegiving typically serves to heighten individuals' ongoing sensemaking. This finding constitutes a small but important contribution to our need to understand the effects of sensegiving on sensemaking (Weick, Sutcliffe, & Obstfeld, 2005). Simply put, reflective sensegiving can form two-way connections between people making sense of common ambiguities across organizational boundaries and occupational roles.

While this finding has implications for our understanding of the sensemaking process on a conceptual level, this study also found that faculty's reflective sensegiving had important practical implications for the implementation of the Interdisciplinary Faculty Initiative. Specifically, engaging in reflective sensegiving resulted in some newly hired faculty pursuing scholarly activities that delayed and diverted the outcomes of the initiative. Reflective sensegiving takes time, and some newly hired faculty members spent many months pursuing meaningful conversations with a wide variety of colleagues. Moreover, as a result of their reflective sensegiving, some newly hired faculty members disassociated from their cluster and in a few cases increasingly withdrew from the academic units into which they had been hired.

The single best example of this is Sandy's description of her experience being hired into a cluster. She described being surprised by the lack of some types of resources and equipment that had facilitated her prior research. More importantly, she did not have a clear understanding of how involved she was supposed to be in collaborating with other newly hired faculty from the cluster. Motivated to better understand these troubling

ambiguities and make progress in her academic career, Sandy engaged in a series of conversations with colleagues within and outside of her academic unit and cluster. Some of these colleagues were previously established at the university, and some were "at a similar stage in their career." Some held administrative appointments, and some had appointments in multiple units at the university. Sandy described pursing a line of questioning with all of these types of faculty that was focused on ascertaining how closely her view of her own situation matched that of her colleagues. After describing her situation to others, she often found herself asking them, "Is this typical?"

> I consulted with [two established colleagues] who had been very involved in the whole planning process for this particular IFI, because when I came I had no [equipment] so I was sort of saying, "Is this typical?" And they were saying, "No, it's not. You really need to do this. This should have been what was done because that was the intention." So at that stage it was very useful to figure out what the expectations of the original plan were and how it had or hadn't been implemented in various contexts. … [One colleague] was surprised at the way the implementation had happened, so that was the disconnect, and we were trying to figure out how to address this issue. Oh, yeah, he actually checked in with me, and said, "How are you doing?" I didn't realize that I was the only person having this issue, and he said, "That is not exactly how it was supposed to happen." So he was the one who said, "You should do this and this and this." … I've gone to senior colleagues and sort of said, "Look, this is what's happening. Is this what's supposed to happen in the University? Is this the kind of thing? And they were like, "No, actually that's not supposed to happen."

As a direct result of her reflective sensegiving, Sandy increasingly sought out collaborations with colleagues who were outside of her unit and her cluster. Not only did she describe a better alignment between her research interests and those of her new collaborators, she also felt that the scholarly activities she was pursuing would better enable her to cultivate her expertise than would engaging in collaborations with the faculty in her unit or cluster. Sandy also described herself working to increasingly disassociate herself from her unit and her cluster in official and informal ways. Although

she was committed to pursuing her career at the university and did not foresee herself obtaining the same resources and research equipment she had previously used, she ultimately decided that it would be best for her to forego implementing the Interdisciplinary Faculty Initiative in the way she sensed had been intended. Her reflective sensegiving motivated her to strike out in other directions instead.

It is important to point out that the conversations Sandy described initiating were not myopically focused on evaluating how typical the situation she found herself in actually was. These conversations may have been animated by this ambiguity, but they incorporated a variety of relevant questions and topics. The questions she remembered addressing all ultimately yielded information that helped Sandy better understand where and how she could thrive at the university. These conversations were all part of Sandy's reflective sensegiving because they informed her sense of how she could go about cultivating her expertise in the years to come. In her conversations with other untenured faculty within and outside of her unit she remembered asking:

> "Okay, so what is required in your department for X? What do you require to do each year to be considered successful? What do you require to do to advance?" And those are very useful conversations because they sort of give you a path, I suppose, or at least some sense of it. And then I've had conversations with very senior colleagues who themselves work across disciplines and sort of said, "Look, how would this be perceived if I did this? How would this be perceived as being? Appropriate, innovative, crazy? At what level would this plan work or be perceived?" But I've been very lucky in that the University on the larger scale has really supported everything that I have tried to do. And so even people who I didn't know when I came here have come to me and said, "Look, we really think this would be a great thing to do with this, you should apply for this." Or, "We really like what you are doing. Would you do this?" And I think that helps in orienting you within the larger research community.

Many newly hired faculty members gravitated away from pursuing intracluster collaborations in the years following their hiring. All of them described coming to the

understanding that it would be implausible to cultivate their expertise while implementing the Interdisciplinary Faculty Initiative in the way they felt it had been intended. Sandy and a few other of these faculty members also gradually disassociated from their clusters because they came to see their ability to become a recognized expert as better served by collaborating with others instead.

The finding that this behavior was greatly facilitated, if not directly caused, by faculty engaging in reflective sensegiving about the Interdisciplinary Faculty Initiative is noteworthy. It suggests that while the initiative was ostensibly intended to recruit new faculty in ways that encouraged them to pursue collaborative scholarly activities together, the newly hired faculty themselves ultimately intended the initiative to help them cultivate expertise that could be attributed to them on an individual basis. The results of this study indicate that newly hired faculty were making sense of where and how they might fit in at the university, and surfacing their colleagues' conflicting expectations about the initiative helped them to do so. The findings suggest that, considered as a group, faculty's reflective sensegiving often served to delay and divert the intended outcomes of the initiative. The following chapter of this work builds upon this finding by articulating some practical advice regarding the design and implementation of this initiative and others like it.

Reflective Sensegiving as Motivating Faculty Members' Cultivation of Expertise

A few points need to be emphasized about reflective sensegiving in conclusion. First and foremost, while sensegiving is typically thought of as the corollary of sensemaking (Gioia & Chittipeddi, 1991), reflective sensegiving has the potential to functionally join individuals' sensegiving to their ongoing sensemaking. Further

exploring people's reflective sensegiving provides scholars a way to build on our understanding of how sensegiving and sensemaking can be joined by causal relationships (Jennings & Greenwood, 2003; Weick, Sutcliffe, & Obstfeld, 2005).

The relevant contribution made by this study supports the argument that individuals engage in this type of sensegiving in a willful attempt to effect their ongoing sensemaking. Whereas some forms of sensegiving, such as communicating in safe harbors (Smerek, 2011), are intended to maintain competing understandings among others in order to allow one's own sensemaking to proceed unaffected, reflective sensegiving is intended to maintain competing understandings among others expressly to reignite one's own sensemaking experience. This is made possible by sensegiving in ways that surface others' divergent expectations, especially those that constitute the discrepant cues capable of heightening the sensemaking process itself (Maitlis & Sonenshein, 2010; Weick, 1995). While there was certainly evidence of faculty engaging in sensegiving to intentionally align with their colleagues' expectations, most faculty members and almost all of the newly hired faculty engaged in reflective sensegiving more consistently. Indeed, reflective sensegiving featured more prominently in the case file evidence than any other forms of sensegiving.

A second point of emphasis regards the fact that reflective sensegiving is characteristically constituted by a series of conversations with colleagues who are perceived by the sensegiver as representing a diverse set of organizational memberships and occupational roles. This characteristic builds on the notion that people identify with various organizations and roles directly through the process of sensemaking (Ashforth, 2001; Ashforth, Harrison, & Corley, 2008; Weick, 1995). Finding evidence that

sensegiving can be characterized as being reflective in this way was unexpected. Indeed, the protocol for this study was designed to look for evidence indicating if that the effects of sensegiving on the sensemaking of others might be pronounced when enabled by theorization between the faculty members involved. It was initially supposed that theorization might functionally facilitate the communication of ideas within, rather than across, the various groups of faculty identified in this study. Essentially, it was hypothesized that understandings of the initiative might diffuse more easily between, say, sociologists than between sociologists and geneticists because the two groups do not share "common understandings about the nature of the actors they study" (Strang & Meyer, 1993, p. 491).

This study was designed to document evidence suggesting how particular understandings of the initiative's implementation were adopted within identifiable groups of faculty, and it was proposed that these understandings would diffuse more readily within different social groups than between them. Instead, the faculty who participated in this study described the conversations they had with colleagues who had apparently divergent understandings about the nature of the actors being studied as being highly consequential to their own sensemaking about the initiative. The characteristics of reflective sensegiving suggest why this might be the case. When engaged in reflective sensegiving, faculty members thought that surfacing the divergent expectations of others would better enable them to make sense of their personal situation. It was as if in response to being confronted by the need to understand 'what the story is' (Weick, 1995) with the ambiguous aspects of the initiative, faculty decided, 'I had better ask around.'

Using reflective sensegiving to 'ask around' gave people the opportunity to guide their own understanding of what their story was actually going to be.

Finally, the practical implications of this study's findings regarding reflective sensegiving need to be reemphasized. Faculty's reflective sensegiving largely served to delay and divert the intended outcomes of the Interdisciplinary Faculty Initiative. As many newly hired faculty engaged in reflective sensegiving, they increasingly avoided collaborating with the colleagues in their cluster. Instead, this form of sensegiving motivated them to pursue collaborations or scholarly activities that they understood as better enabling them to cultivate a distinct area of expertise in relation to their colleagues. This tended to divert the intended outcomes of the Interdisciplinary Faculty Initiative, which most understood as the promotion of intracluster collaboration. However, it is also the case that the majority of newly hired faculty described their reflective sensegiving as simply delaying or putting off the realization of this outcome. Most of the newly hired faculty who engaged in reflective sensegiving understood intracluster collaborations as something they could foresee themselves pursuing once they had successfully established their area of expertise at the university.

Chapter 8

Faculty Sensemaking as the Cultivation of Expertise

This study has been guided by two research questions regarding the sensemaking and sensegiving of university faculty. Guided by these questions, this case study explores the experiences of faculty members who implemented a cluster-hiring initiative between 2007 and 2012. The findings derived form this study concern how these faculty members understood their implementation of the initiative and how they communicated with each other about it. This chapter summarizes the study's findings, answers its research questions, and outlines its theoretical and practical implications.

The faculty who participated in this study largely understood their implementation of the Interdisciplinary Faculty Initiative as being directly relevant to their cultivation of expertise. Although this describes the understanding of these participants considered overall, there were certainly differences in the patterns of sensemaking exhibited by different groups of faculty. Regardless, the findings of this study generally suggest that in this case, university faculty engaged in reflective sensegiving in an attempt to cultivate their expertise. The fact that reflective sensegiving acts as a mechanism of the cultivation of expertise has theoretical and practical implications. It suggests how sensegiving and sensemaking can be causally related on a conceptual level. Further, faculty's use of

reflective sensegiving served to delay and divert their intracluster collaboration, the intended outcomes of the initiative. Despite the limitations of this research, these conclusions provide a solid foundation for pursuing future research on sensemaking and organizational change in higher education. This chapter ends by discussing these limitations and directions for future research.

Defining Expertise

The participants in this study tended to make sense of their implementation of the Interdisciplinary Faculty Initiative in terms of their own cultivation of expertise. The way they described understanding their implementation of the initiative often reflected their desire to evoke distinctive perceptions of themselves in the minds of their colleagues. This cultivation of expertise took the form of an ongoing negotiation of divergent expectations about how colleagues were distinguishing themselves from one another. Before moving on to describe how faculty understood the cultivation of expertise, it is necessary to clearly define *expertise* itself.

A well-established body of academic research regards professionals' expertise in the work place (see Ericsson, 2006; Holyoak, 1991, and Walsh, 1995 for detailed reviews). This body of research defines *expertise* in different ways, many of which do not apply to the study presented here. Most commonly, *expertise* is understood to be a measure of an individual's considerable ability or knowledge specific to their professional station or work. For example, Salas, Rosen, and DiazGandados (2010) define expertise as being generally constituted by "high levels of skill or knowledge within a given domain" (p. 946). This conceptualization of expertise as the ability to

exercise considerable skill and knowledge predominates in this body of literature and it represents a conceptualization of expertise as a particular type of cognitive schema.

There is an extensive body of research that explores expertise as it is represented by cognitive schemas. This body of research argues that there are cognitive differences between experts and novices that affect their ability to carry out professional work (Ericsson, 2004; Ericsson & Smith, 1991). Empirical research in this vein has shown that experts are better able to categorize problems, information, and ways of thinking than are novices (Day & Lord, 1992; Lurigio & Carroll, 1985; Rentsch, Heffner, & Duffy, 1994). Experts have also been found to exercise their intuition and professional skills more effectively in the workplace compared to novices (Baylor, 2001; Hayes, 1989; Newell & Simon, 1972). This body of research also argues that experts are better able to apply their knowledge and skills in ways that are sensitive and responsive to their environmental contexts (Dorner & Scholkopf, 1991; Schunn, McGregor, & Saner, 2005). Studies show that experts tend to assess their environments more readily and often to better effect than novices do (Flin, Stewart, & Slaven, 1996; Randel, Pugh, & Reed, 1996).

Scholars researching the topic of expertise have also defined it as an attribution made of individuals that display the ability to marshal considerable knowledge or skill. Here, expertise reflects the perception of social groups or organizations that a given member has distinctive skill or knowledge within a relevant domain. The result of this perception is their attribution of expertise to that member. As Treem (2012) puts it, experts communicate "their expertise by behaving in ways that seeded the attributions others made of them" (p. 41). This conceptualization depicts experts' ability to equip these talents as being at least partially reliant upon their knowledge of the professional

groups and organizations with which they work (Gasson, 2005). It suggests that experts are not only defined by having a distinctively high level of skill or ability relative to others, it also suggests that experts tend to the perceptions of others in ways that encourage others to identify experts as such.

A growing body of research argues that expertise is fundamentally an attribution that is made of people by others. This scholarship views expertise as arising out of attributions such as credentialing, recognition policies, and personal claims (Abbott, 1988; Evetts, Mieg, & Felt, 2006). These forms of recognition have ‘‘the quality of institutionalizing expertise in people’’ such that they are understood by others to be masters of some distinctive level of skill or knowledge (Abbott, 1988, p. 323). This recognition is a form of “relational attribution” (Evans, 2008, p. 282) because it incorporates people’s relative sense of the abilities and knowledge of all relevant individuals (Collins & Evans, 2008; Yearly, 1999). Empirical research does suggest that attributions of expertise cannot be separated from the organizational and social groups in which individuals’ professional knowledge and skills are exercised (Blackler, 1995; Johnson, Lorenz, & Lundvall, 2002; Treem, 2012; Zack, 1999). This is even evidence suggesting individuals’ abilities relative to that of their professional colleagues can be more strongly related to attributions of expertise than their actual skills and knowledge considered in isolation (Faraj & Sproull, 2000).

Importantly, the attribution of expertise often depends on experts’ seeking feedback and sustained communication with others in their professional groups and organizations of employment. Indeed, there is consistent evidence suggesting the seeking of feedback from professional colleagues is a mechanism by which individuals gain and

maintain their expertise (Cornford & Athanasou, 1995; Peiperl, 2001; Shanteau, 1987, 1992; Shanteau & Stewart, 1992; Sonnentag, 2000). The previous chapter advanced the argument that reflective sensegiving acts as an important mechanism that faculty used to cultivate their expertise. As such, this argument builds on the body of scholarship that conceptualizes expertise as an attribution of distinctive skills and abilities. Similarly, this chapter advances the notion that the participating faculty sought to cultivate their expertise relative to that of colleagues with whom they worked and communicated. In a sense, these individuals were seeking to communicate and reinforce a perception of themselves as the resident expert on areas of study that were relevant to the initiative.

Faculty's Cultivation of Expertise

The first research question posed by this study regarded how faculty made sense of their implementation of the Interdisciplinary Faculty Initiative. It was found that they generally understood this work reflecting their cultivation of expertise. The cultivation of expertise was found to be an ongoing negotiation of divergent expectations about how professional colleagues distinguish themselves from each other. Sensemaking is a process of social construction that is animated by people's understanding of how they are manifesting a socially meaningful identity through their behavior (Maitlis & Sonenshein, 2010; Weick, 1995; Weick, Sutcliffe, & Obstfeld, 2005). The theory of sensemaking accommodates the idea that faculty's cultivation of expertise could be a plausible outcome of their implementation of similar types of initiatives in higher education organizations, and this study found evidence supporting this notion.

This evidence shows that a great many of the participating faculty understood their implementation of the initiative as being reflective of their cultivation of expertise.

They described how they contextualized their scholarly activities according to the divergent expectations of their colleagues; doing so allowed them to identify the kinds of scholarly collaborations it was plausible and desirable for them to pursue. As illustrated in the previous chapter, faculty engaged in an extended exploration of the divergent expectations of their colleagues, and many used the experience to enable them to better understand how to distinguish themselves in ways that would be beneficial to their personal and professional interests over time. As has been shown, this sensemaking process typically served to discourage newly hired faculty from engaging in intracluster collaboration with their colleagues as was intended by the initiative's design.

Two aspects of this sensemaking process merit emphasis. First and foremost, faculty's cultivation of expertise occurred within, and not apart from, social groups. As one newly hired faculty member described, "You kind of have to build your own world, [but] you can't get away from being evaluated." In other words, the varied ways those colleagues perceived each other's work was important to how individuals understood themselves as cultivating their professional expertise through that work. The meaning faculty made of their work with the initiative was often contingent on how their colleagues perceived it as a meaningful manifestation of some relative expertise.

Also notable is the fact that faculty's cultivation of expertise served to forge connections between their past and future work in ways that were conceived of being distinctive to their colleagues. For example, one established faculty member described the need for newly hired faculty within the cluster to do work that was "cumulative." He continued, "In order to have expertise in something, you have to have coherence. … Just

because you write a paper on [a topic] does not make you an expert, so part of success in academia is establishing yourself as an expert on a particular topic."

This cultivation of expertise stands in contrast to many well-known depictions of scholarly work. The cultivation of expertise has not been presented as the result of faculty members' "political investment strategy, directed, objectively at least, towards maximization of strictly scientific profit, i.e. the potential recognition by the agent's competitor-peers" (Bourdieu, 1981, p. 23). Although faculty did cultivate their expertise to gain recognition of the ways that their scholarship was distinct in the eyes of their peers, the reflective sensegiving they engaged in was equipped to more experimental than strategic effect. The cultivation of expertise is predominantly a process of self-guided inquiry, not of shrewdly calculating competition. Similarly, the interdisciplinary scholarship pursued by the faculty who participated in this study did not seem reflective of their efforts to "storm the ramparts [of established academe], take the citadel, and settle down to the fruits of victory" (Abbott, 2001, p. 24). They imagined their scholarly pursuits taking them in far too many divergent directions to be depicted as a force well focused primarily on occupying their elders' offices. Indeed, the varied content of the scholarship they believed they had been hired to produce created differences in they ways they understood themselves as pursuing it through the Interdisciplinary Faculty Initiative. Several differences were found to exist between the experiences of faculty working on each side of Becher's foundational distinction between pure and applied sciences (1989, 1990, 1994, 2001). That the content of faculty's scholarship affected their experience of producing it puts this study's depiction of faculty work more closely in line with Neumann's (2014, 2011, 2005a, 2005b) depiction of scholarly learning than with

Bourdieu (1981) or Abbott's (2001) depictions of a Machiavellian or paradigmatic competition in academe.

Like Neumann (2014, 2011), this work describes faculty engaging in an educational process that is affected by the content of their scholarship as well as the social context in which it is produced. Just as she observes of the faculty who participated in her research, "The what of what this professor is learning is not a static thing, with no vision or voice of its own, but a live practice, a knowledge construction that is made and remade and reflects back on its maker through the minds of others who participate in its making" (Neumann, 2005a, p. 72). Similarly, faculty's cultivation of expertise is inherently social, has deeply personal implications, and is critically focused on teaching and learning, and although it was not rigorously documented in this work, it is often the subject of intense emotion (Neumann, 2005b). At the same time, faculty members' cultivation of expertise is also very different from Neumann's depiction of scholarly learning.

In fact, the cultivation of expertise and scholarly learning differ in a crucial respect. Faculty members cultivated expertise, in part, through reflective sensegiving that served to surface discrepancies in the way that their colleagues perceived their mutual work. Knowing how their colleagues' perceptions and work differed helped newly hired faculty better understand how they could come to be seen as having a distinctive area of expertise. They did not necessarily equip their expertise when engaged in reflective sensegiving, and sometimes they even avoided showcasing it, but they always kept it at the forefront of their minds. In contrast, scholarly learning requires that expertise actually be equipped in order for learning to occur. To contribute to scholarly learning, and "to the

knowledge production, dissemination, and application mission of the university, their fields, and academe broadly," faculty must "activate expertise, intellectual commitment, and motivation to learn" (Neumann, 2011, p. 192). Just as Neumann (2005) notes, "Talk and thought about learning is vague and insubstantial without taking into account what is being learned" (p. 64). However, this is exactly what reflective sensegiving often appeared to be: vague and insubstantial talk about colleagues' work. It would not be accurate to depict faculty members' cultivation of expertise as a form of scholarly learning because their experience did not necessitate that learning actually occur, only that learning something relevant to their future work became increasingly likely through their collaborative experiences. In a sense, their cultivation of expertise does not represent their learning experiences so much as it represents their studying experiences. Faculty's cultivation of expertise differs from their scholarly learning because it likely precedes it, just as disciplined study precedes any mastery of knowledge. This notion is supported by the fact that while Neumann's work (2005a, 2011) largely examines the experiences of recently tenured and mid-career faculty, this study largely examines the experience of untenured faculty who were newly hired into a university.

In sum, faculty cultivated areas of expertise that could be perceived as being distinctive within their particular social context and that could connect their past and future scholarship in coherent ways. These two aspects of faculty's cultivation of expertise show that the way they understood their implementation of the initiative was indicative of a self-modified "evolutionary process of ecological change" (Weick, 2003, p. 185) that enabled them to draw distinctions between the relevant actors and the social

groups of which were are a part (Albert & Whetten, 1985; Ashforth, Harrison, & Corley, 2008; Ashforth & Mael, 1989; Dutton & Dukerich, 1991).

Patterned Differences in the Sensemaking of Faculty Groups

This study argues that, considered as a group, the participating faculty made sense of their implementation of the Interdisciplinary Faculty Initiative by connecting it to the ways that they cultivated their expertise. This study also revealed patterned differences in the ways that different groups of faculty engaged in the sensemaking process. Outlining these differences serves to contextualize the notion that these faculty sought to cultivate their expertise through their involvement with the initiative; it also informs the practical implications and recommendations advanced in this chapter.

The first important difference among faculty groups that is important to highlight is the well-known work about cosmopolitan and local faculty, the latter being distinguished by their strong identification with their local, or employing, organization (Gouldner, 1957, 1958; Merton, 1968). The evidence presented in previous chapters supports the notion that local faculty were more likely to have envisioned themselves implementing the initiative in ways that they saw as supporting its intended purpose, which was generally construed as enabling or engaging in intracluster collaboration. It is certainly the case that the faculty who participated in this study claimed various blends of cosmopolitan and local identities, as recent empirical research suggests they might well do (Baez, 2000; Rhoades, Kiyama, McCormick, & Quiroz, 2008; Rhoads & Szelenyi, 2013). However, the more that faculty talked about how meaningful being a member of the University of Michigan was to them and their work, the more they tended to support

the ostensible purpose of the initiative and tried to bring about intracluster collaboration themselves.

The purpose of the initiative was, in the words of President Coleman, "to encourage cluster hiring, with groups of faculty focused on emerging areas of scholarship and creativity." And this cluster hiring was expected, "to expand interdisciplinary work and to increase faculty connections with undergraduates" (Coleman, 2007). Of the faculty who participated in this study, those who claimed a stronger identification to the university were more inclined to understand the initiative as failing to promote intracluster collaboration or the associated connections with undergraduate education. More often than not, these local faculty members described the role they played in the initiative as encouraging them to engage in similar work in the distant rather than immediate future.

Many local faculty felt the outcomes of the initiative were less positive than they had initially expected, particularly as regards the newly hired faculty's intra-cluster collaborations. Moreover, while the vast majority of the faculty participating in this study asserted that their teaching and mentoring activities proved to be central to the way that they implemented the initiative, those with stronger local identifications often expressed greater frustration with their inability to teach in the ways that they had envisioned, particularly in cooperation with colleagues in their cluster. It is possible that local faculty were more disappointed with the outcomes of the initiative because they had been more enamored of its purpose from the outset. For some, their disappointment largely came from their inability to affect how their colleagues' interests were aligned with their own.

This study also found evidence of patterned differences in faculty sensemaking across academic fields and paradigms of inquiry. The interview protocol and other data collection activities were designed to search for differences between faculty working in different cultures of investigation (e.g., hard-applied and soft-pure cultures), different paradigms of scholarship (i.e., realist, critical, or interpretive paradigms), as well as those working in humanistic and scientific fields, pure and applied feilds, and high- and low-paradigm fields (Becher, 1989, 1990, 1994, 2001; Clark, 1963; Lodahl & Gordon, 1972; Toma, 1997). An important limitation of this study prevents conclusions from being drawn about the differences in the sensemaking processes of so many overlapping and crosscutting social groups. However, before addressing this limitation, it is important to emphasize what the evidence derived from this study does support. During interviews, faculty routinely identified a variety of disciplinary differences that they found relevant to their own and others' intracluster collaboration. The distinction referenced most often by the greatest number of faculty regarded the difference between pure and applied fields of study. A substantial proportion of these faculty depicted Engineering disciplines as being prototypical of an applied field, and many described how their implementation of the initiative was directly affected by the many cultural differences between it and their own fields of study. Of the faculty with more local identities, a few who claimed to use a radical paradigm of inquiry tended to feel the outcomes of the initiative were less positive than they had initially expected, particularly with regards to the newly hired faculty's intracluster collaborations. More importantly, they saw themselves as being different from their colleagues precisely because their expectations had been so disabused. These patterned differences reflect the fact that faculty members often, as Clark (as cited in

Becher, 1981) put it, “Let go of the ideas of community and unified culture, and instead [focus] on the array of disciplinary subcultures that today split the faculty” (p. 121).

Although they identified disciplinary differences between themselves and their colleagues as being relevant to how the initiative was ultimately implemented, faculty defined *interdisciplinarity* in ways that were generally inconsistent. Faculty members were asked questions that prompted them to address differences in the way that scholars have defined the term over time (see Jacobs, 2013 and Lattuca, 2003 for authoritative reviews of these differences). In response, they defined *interdisciplinarity* in shifting and contradictory ways. This finding aligns with that of empirical research suggesting that faculty maintain various and abstract understandings of what scholarship characterizes interdisciplinary work (Adams et al., 2007; Aram, 2004; Carp, 2001; Holley, 2009; Lattuca, 2001; Lattuca & Knight, 2010). Interestingly, one additional finding, regarding faculty’s occasional harmonization of disciplinary differences, overlaps with an interpretation of *interdisciplinarity* that characterizes it by its synthesis of different disciplines (Collin, 2009; Kockelmans, 1979; Klein, 1990, 1996, 2005, 2010). But faculty harmonized many types of social groups aside from disciplinary ones. So despite this point of overlap, the evidence yielded by this study does not suggest the existence of patterned differences in faculty sensemaking according to differences in the way they define interdisciplinary scholarship per se.

There is clear evidence suggesting that faculty often framed their ongoing participation in the initiative as implicating their involvement in different social groups. And critically, they extracted cues from their social frameworks by conceptually differentiating, combining, and harmonizing the groups they recognized. Indeed, one

finding of note concerns faculty who routinely harmonized different social groups when describing their understanding of the way the Interdisciplinary Faculty Initiative was implemented. These faculty identified new social groups by characterizing a set of colleagues as having some collective meaning by virtue of the very characteristics that distinguished them from one another. For some faculty members identifying ways in which different social groups were harmonious was critical to their helping to achieve the intended purpose of the initiative, which was most broadly construed to enable intercluster collaboration. Faculty who routinely described the necessity of harmonizing relevant social groups to achieving the intended purpose of the initiative were often able to clearly articulate how their involvement in the initiative was related to their cultivation of expertise. The practical implications of this finding will be detailed later.

As was expected, this study found evidence of patterned differences in the sensemaking of newly hired and established faculty. Specifically, newly hired faculty without tenure were marginally less inclined to endorse the purpose of the strategic initiative. This finding builds upon a few intertwined explanations. Because new hires may be likely to experience heightened sensemaking, particularly around issues relating to their academic identity (Haas, 2005; Louis, 1980), and because interdisciplinary change was construed as being driven by the succession of new generations of tenured faculty within academic organizations and fields (Abbott, 2001; Kuhn, 1960), it was expected that these newly hired faculty would be more pessimistic about the chances of the initiative achieving its intended purpose. Evidence presented in Chapter 4 of this work suggests that newly hired faculty were in fact less inclined than established faculty to understand their service activities as being largely if not entirely unrelated to their

implementation of the initiative. Some of this may be due to the fact that untenured faculty engage in service less frequently than recently tenured and mid-career faculty (Baldwin & Blackburn, 1981; Baldwin, Lunceford, & Vanderlinden, 2005; Neumann & Terisky, 2007). Regardless, thoe newly hired faculty who described their service activity as being a critical or prominent aspect of their scholarship were indeed more pessimistic about the initiative's success. Apart from this difference, however, newly hired faculty were not substantially less supportive of the purpose of the initiative than were established faculty. The practical implications of these findings will also be detailed later.

Reflective Sensegiving as a Mechanism of the Cultivation of Expertise

The second research question of this study regards the communication that took place between the participating faculty, and specifically how their sensegiving effected each other's understanding of the Interdisciplinary Faculty Initiative. The most notable findings of this study regard faculty's use of reflective sensegiving. Faculty's reflective sensegiving was found to (a) be enabled by the intention of others to engage in sensegiving of their own; (b) take the form of lines of questioning about others' expectations of each other; (c) be directed towards sets of people who were perceived to be different from each other in relevant ways. Since the faculty who participated in this study used it to surface discrepant cues, reflective sensegiving provides a new way of looking at sensegiving aside from seeing it simply as the corollary of sensemaking (Gioia & Chittipeddi, 1991). Instead, evidence suggests that sensegiving and sensemaking can be mutually constitutive (Jennings & Greenwood, 2003; Weick, Sutcliffe, & Obstfeld, 2005).

Reflective sensegiving is constituted by a series of conversations with colleagues who are perceived by the sensegiver as representing a diverse set of organizational memberships and occupational roles. This characteristic supports existing research suggesting that people identify with various organizations and roles through the sensemaking process itself (Ashforth, 2001; Ashforth, Harrison, & Corley, 2008; Weick, 1995). Strang and Meyer (1993) argue that the threshold for the transmission of ideas or practices between people who share "common understandings about the nature of the actors they study" (p. 491) is lower than among colleagues with divergent understandings of these things. Indeed, it is possible that the effects of sensegiving on the sensemaking of others were more pronounced between faculty that shared common organizational identifications, academic fields, paradigms of inquiry, academic ranks, or definitions of interdisciplinary scholarship. However, the findings of this study illustrate the importance of reflective sensegiving to faculty's understanding and implementation of the initiative and provides an example of one way in which theorization is unable to facilitate the diffusion of ideas and practices.

Faculty's sensegiving affected the sensemaking of their colleagues through reflective sensegiving, as was detailed in the prior chapter. Specifically, it was found that the faculty in this study engaged in lines of questioning that exposed their colleagues' competing interpretations of the initiative's implementation. The evidence suggests that faculty intended this questioning to surface discrepant cues that would be used expressly inform their own sensemaking. The fact that people engaged in this particular form of sensegiving in order to inform their ongoing sensemaking contributes to what is already known about the effects of sensegiving on sensemaking at a conceptual level (Weick,

Sutcliffe, & Obstfeld, 2005). This builds on existing research which indicates that sensegiving is a common corollary of the sensemaking process, particularly during periods of organizational change (Kezar & Eckle, 2002; Gioia & Chittipeddi, 1991; Gioia, Price, Hamilton, & Thomas, 2010; Rouleau, 2005; Weick, 1993).

Reflective sensegiving shares some similarities with sensegiving in safe harbors, which is a specific form of sensegiving found through recent research on higher education organizations (Smerek, 2011). Like sensegiving in safe harbors, reflective sensegiving prompts people to engage in sensemaking in ways that functionally sustain the divergent understandings of those in a social group about some context or situation they have in common. But whereas sensegiving in safe harbors is intended to maintain competing understandings among others in order to buy time for one's own sensemaking to proceed unaffected, reflective sensegiving is intended to maintain competing understandings among others in ways that are intended to lead to a heightened experience of the sensemaking process. By engaging in reflective sensegiving, faculty surfaced divergent understandings among their colleagues not to alter those understandings but to incorporate their differences into their own sensemaking about their academic trajectory.

The exact characteristics of reflective sensegiving have already been presented in detail. From a bird's-eye view, reflective sensegiving consists of series of conversations about others' expectations that are initiated to reveal inconsistencies in understandings within and across social groups. As has already been described, these conversations are sustained and subtle in the sense that they are intended to surface differences between people over time. One newly hired faculty member, Barb, described these conversations:

> It's always funny to have those conversations, though, because I feel like I have multiple conversations and all this discussion is, like, about someone

> else. But then they have these… everyone seems to think they have these conversations that are… I mean, they're all confidential but at the same time, we're often talking about each other and how it's so funny.

Reflective sensegiving is one way in which the sensegiving of faculty affected their colleagues' understanding of the Interdisciplinary Faculty Initiative. It prompted them to engage in sensegiving in ways that sustained and surfaced the divergent perceptions among social groups with competing interests. It also served to heighten the sensemaking of those faculty members who initiated it. This finding addresses the secondary research question of this study. It also colors this study's interpretation of the evidence, suggesting that faculty understood their implementation of the Interdisciplinary Faculty Initiative as being meaningful to their cultivation of expertise.

Finally, this study found consistent evidence suggesting that faculty's reflective sensegiving largely served to divert the intended outcomes of the Interdisciplinary Faculty Initiative. As many newly hired faculty members engaged in reflective sensegiving, they increasingly avoided collaborating with colleagues in their cluster in favor of pursuing collaborations or scholarly activities that they understood as better enabling them to cultivate a perception of distinctive expertise. However, this evidence also suggests that for most newly hired faculty members, reflective sensegiving simultaneously served to delay their intracluster collaborations. These newly hired faculty members often understood intracluster collaborations as something they could foresee themselves pursuing once they had established their area of expertise at the university.

This chronic quality of reflective sensegiving also characterized how most of the participating faculty understood their scholarly activities as relevant to their

implementation of the initiative. Indeed, in order to discuss their participation in the initiative, faculty members regularly felt compelled to refer to meaningful events in the distant past as well as the future. The fact that reflective sensegiving proved instrumental to faculty's cultivation of expertise through the Interdisciplinary Faculty Initiative provides the core observation capable of answering both of the research questions advanced by this study. Faculty often felt that the contributions of this strategic initiative were best realized through their own cultivation of expertise, and they used reflective sensegiving as a mechanism that enabled them to better cultivate their expertise.

Reflective sensegiving can be thought of as an action-formation mechanism that links individual cognition to social behavior (Anderson, et al., 2006; Hedstrom & Swedberg, 1998). As a mechanism, it describes how relations among specific observable events or elements are altered in similar ways over a variety of situations (DiMaggio & Powell, 1983; McAdam, Tarrow, & Tilly, 2001). Mechanisms are useful to the social sciences because they shed light on causal processes that can all too easily be treated as a black box; it is not enough to assert that there is a significant relationship between A and B, research has show how A could plausibly and reliably lead to B. Different types of mechanisms link macro- and micro-phenomenon, and action-formation mechanisms form causal links between, for example, the way faculty members made sense of an initiative and how they actually went about implementing it together.

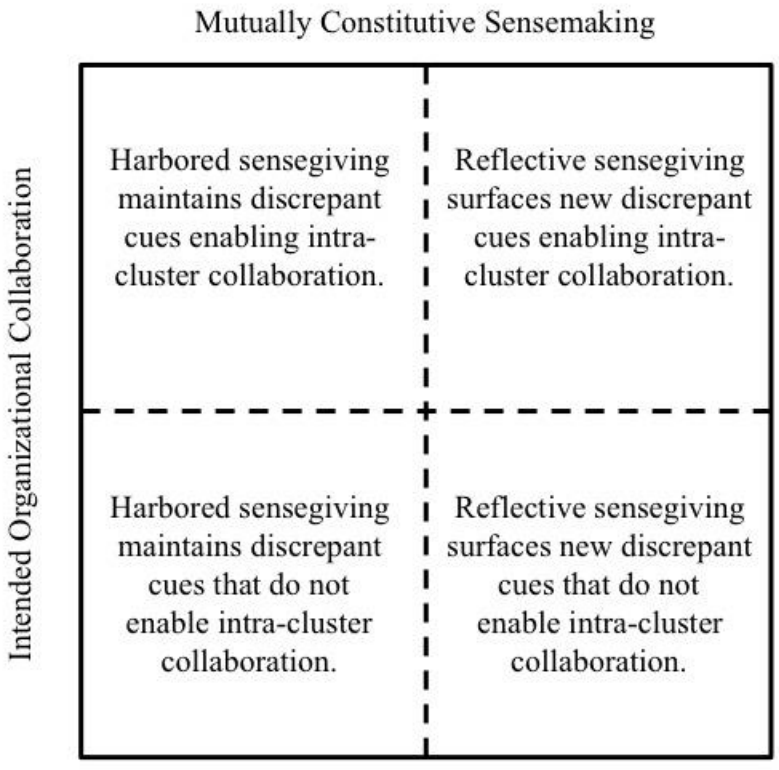
Implications

The key finding of this study is that faculty engaged in reflective sensegiving in order to cultivate their expertise, and this served to delay and divert the their intracluster collaboration, which was what the Interdisciplinary Faculty Initiative intended to

promote. This observation connects the theoretical arguments advanced by this work with practical implications for the implementation of strategic initiatives in universities. In other words, this observation provides a way to link the theoretical and practical dimensions of this study. Figure 6 depicts four conditions linking these dimensions.

Sensegiving can be casually linked to one's own sensemaking, as was found to be the case with reflective sensegiving. Sensegiving and sensemaking are not always mutually constitutive, however. For example, harbored sensegiving allows one's own sensemaking to proceed unaffected (Smerek, 2011). The distinction between sensegiving that is and is not mutually constitutive of sensemaking is displayed as the horizontal dimension in Figure 6. The practical purpose of the initiative was the promotion of

Figure 6. Dimensions of the theoretical and practical implications of this study



certain kinds of faculty collaboration. The Interdisciplinary Faculty Initiative should be considered effective if it resulted in some minimally sufficient degree of intracluster collaboration; although President Coleman (2007) had more expansive goals for the initiative, the creation of intracluster collaboration was widely understood to be the fundamental purpose of the effort. The fact that many newly hired faculty felt that intracluster collaboration would be more plausible for them to pursue after receiving tenure suggests that the initiative was in a form of gestation. After this dormant period, the newly hired faculty expected that they would be able to produce the type of scholarship they envisioned the initiative as enabling. Just as organizational fields can be locked into periods of gestation and show a potential for growth that fails to materialize (Marcus, Anderson, Cohen, & Sutcliffe, 2011; Marcus, Sutcliffe, & McEvily, 1994), so too can organizational initiatives constituted by clusters of members formed into teams.

This figure provides four conditions arrayed along key theoretical and practical dimensions of this study. In the upper right quadrant, reflective sensegiving serves to surface discrepant cues that better enable a faculty member to form collaborations that also make sense of his or her cultivation of expertise. This study also showed that many faculty members engaged in reflective sensegiving in ways that cultivated their expertise but that also served to delay or divert their efforts at intracluster collaboration. This condition is represented in the lower right quadrant of the figure. Harbored sensegiving, which cannot be mutually constitutive of sensemaking, might or might not enable intracluster collaboration, but it seemed unlikely to have caused participants to understand how promoting intracluster collaboration has advanced their scholarly interests over time.

Barb's experience in the Interdisciplinary Faculty Initiative can once again exemplify the notion that the practical and theoretical dimensions of this study can overlap. Barb was hired into a cluster that boasted comparatively more collaborations than others in the study, and she was glad hers was not like many that "kind of fell apart and really aren't that active." At many points in her interview, she described how meaningful her ongoing intracluster collaborations were, but she also described how soon after being hired she came to understand that the expectations of her colleagues regarding her engagement in intracluster collaborations were markedly divergent.

> I think the challenge, the part that I think I'm a little concerned… or maybe didn't quite expect was, in my department especially, there's certain people who have power who really push this idea of having a clear and coherent kind of research agenda so that everything is constantly building on everything else. And it makes it feel like it is a little bit constraining because I had always been told in my Ph.D. that what you do in your Ph.D. doesn't have to define you for the rest of your life. But if you define your contribution and your writing as being entirely coherent, then I have to really build from my past work and in a way that I think it is coherent. But I don't… I think what's challenging to me is that I have… There is a lot of kind of framing things, and learning how to frame things and sell yourself, more than I expected.

Her concern with these divergent expectations was manifested in the way she sought to cultivate her expertise, which was namely by extending various images of herself as meeting certain of her colleagues' expectations but not others. The challenge of this process lay in necessity of envisioning plausible ways she could project an image that others desired but which was also in accord with her own evolving career expectations. Her focus on cultivating her own expertise prevented her from incorporating the intended outcomes of the initiative into her own vision of what her future scholarship might look like. Beyond being notable for the total absence of anything related to the intended outcomes of the initative, Barb's experience shows how the theoretical and practical

implications of this study are connected. Nevertheless, these theoretical and practical implications deserve to be articulated independently as well.

The theoretical implications of this study. Considered overall, faculty's cultivation of expertise proved highly meaningful to the way the faculty who participated in this study understood their implementation of the initiative. Most notably, it served to divert and delay the realization of the types of organizational change that this initiative was intended to promote. This finding is notable because it affirms the central importance of plausibility and identity to the sensemaking process (Jennings & Greenwood, 2003; Maitlis & Sonenshein, 2010; Weick, 1995; Weick, Sutcliffe, & Obstfeld, 2005). By determining how faculty made sense of their implementation of the Interdisciplinary Faculty Initiative, this study contributes to the body of research using sensemaking and other identity constructs to better understand the drivers of organizational change.

This study also makes a contribution to this literature by illustrating one way in which sensemaking and sensegiving can be causally linked. Although prior research has clearly established that sensemaking and sensegiving can be intimately intertwined, comparatively little is known about their mutual effects (Gioia & Chittipeddi, 1996; Smereck, 2011; Weick, Sutcliffe, & Obstfeld, 2005). This study attempts to respond to this need by exploring how participating faculty at one university made sense of an interdisciplinary cluster-hiring initiative. The resultant evidence warrants concluding that sensemaking and sensegiving can be mutually constitutive, for example, through a sensemaker's use of reflective sensegiving.

Practical implications. While the number of interdisciplinary initiatives implemented by American universities is growing rapidly (Brint, 2005; Brint, Turk-

Bicakci, Proctor, & Murphy, 2011), the failure of these institutions to align the expectations of the many groups of faculty in charge of implementing these initiatives may serve to critically undermine them. The evidence presented by this and other research resoundingly shows that without the robust and sustained support of the faculty charged with implementing them, interdisciplinary initiatives like the one at the heart of this case study are unlikely to achieve their intended purpose (Fumasoli & Lepori, 2011; Kotler & Murphy, 1981; Louval, 2013; Sa, 2008; Small, 1999). In sum, the results of this study suggest that absent of a clear and common understanding about the purpose and operation of an initiative, university faculty may tend to increasingly bend its implementation in ways that benefit the cultivation of their own expertise.

The findings of this study carry two practical implications. Both implications regard ways faculty members' sensemaking is likely to affect the prospects for organizational change at particular types of universities. More specifically, they regard the promotion of intracluster collaboration and the implementation of complimentary strategic initiatives in the future. These implications have limited generalizability, even to large American research universities, but sensible comparisons can still be made. Like the case studied here, many strategic initiatives implemented in modern American universities are explicitly intended to bridge or dissolve the self-reinforcing boundaries between disciplinary cultures (Abbott, 2002; Sa, 2008, 2011). The body of research on strategic organizational change in higher education is growing, so the most ready contribution of this work may well lie in the practical implications outlined here.

First and foremost, the findings of this study carry practical implications for the ongoing promotion of intracluster collaboration through a cluster-hiring initiative. This

practical implication stems from the finding that the ways in which faculty made sense of the strategic initiative affected their long- and short-term intentions to engage in intracluster collaboration. This suggests that encouraging faculty to understand such an initiative in particular ways might promote this collaboration. In response, it is argued that intracluster collaborations that involve teaching and mentoring activities should be substantially financially incentivized.

Unlike their respective service activities, newly hired and established faculty both saw their teaching and mentoring activities as instrumental to how they felt the initiative could be implemented successfully. As has been shown, faculty members' research activities are more heavily incentivized than their teaching activities, so it makes sense to incentivize faculty members' mentoring and teaching activity through similar initiatives because it provides an opportunity for all faculty to be engaged with an initiative in ways most are likely to believe is important. Futhermore, there is reason to believe that faculty often point to past mentors when accounting for the source of their inspiration to engage in teaching (Neumann, 2009). Moreover, interdisciplinary collaboration may be best promoted by encouraging faculty to address well-defined activities with common applicability to their varied work experiences and scholarly interests (Neumann, 2003).

This recommendation is also warranted by the fact that many faculty members struggled to find plausible ways to engage in teaching and mentoring activities through the initiative. Specifically, although few newly hired faculty either designed or participated in a co-taught course with colleagues in their cluster, a great many expressed a sustained interest in doing so. Importantly, most of these faculty members found that engaging in this particular type of teaching activity was not plausible. They also thought

that the intended effects of the initiative would greatly bolstered if their related teaching activities were better supported. Like Pat, many newly hired faculty members felt that if the impact of the initiative was "that to some extent the University can become more interdisciplinary in just teaching, that is fantastic." She continued, "So if our teaching allows students to go deep [into a topic] but maintain their breadth then that would also be a success." Ensuring that intracluster collaborations involving considerable teaching and mentoring activities are highly incentivized financially would foster the collaborations most faculty felt were important to their implementation of the initiative and would serve to enable some scholarly activity that might not otherwise occur.

The second practical implication of the findings of this study regards the implementation of complimentary strategic initiatives in the future. Given how critical the sensemaking and sensegiving of participating faculty was to diverting and delaying the intended outcomes of the initiative, it seems reasonable to make a recommendation regarding the extension or supplementation of this ongoing cluster-hiring initiative. Were the Interdisciplinary Faculty Initiative, or very similar initiatives, to be extended or supplemented through some administrative means, the findings of this study warrant recommending better aligning the expectations of participating faculty and administrators regarding the capacity for and consequences of the desired organizational change. The particular administrative practice recommended here regards the divergent interests of the academic units involved as well as the timeline of their participation.

This study produced ample evidence that the changing personnel needs of academic departments and units compromised the effective implementation of the ongoing cluster-hiring initiative. A number of the faculty who participated in this study

felt that academic departments and units undermined the intended outcome of the initiative by pursing their own immediate interests through the cluster-hiring process. For example, one established faculty described how the hiring processes related the initiative were constrained by the need to maintain "balance" during the "curriculum change we are going to have to all the courses." Meanwhile, another faculty member said his cluster was "a casualty" of "the particular choices made by particular departments, having to do with who was in charge of making those decisions and what the individual departments were looking for, for the purposes of their own development."

The finding that so many of the faculty who participated in this study felt frustrated in their attempts to align their scholarly activities with those of other colleagues in their cluster highlights the need to better align the expectations of the administrators and faculty members involved in any complimentary strategic initiatives in the future. Ensuring that the related academic departments and units collaborate around their most long-standing needs for personnel with specific expertise seems warranted by the evidence presented throughout this work. Requiring departments and units to do so as a condition of their participation in any complimentary initiatives would not guarantee their personnel needs would not shift during implementation, however, following this recommendation would increase the likelihood larger numbers of faculty would be familiar with the particular long-term needs of the departments and units involved. This might at least forestall miscommunication about faculty's relative expectations of how they would implement the initiative collaboratively. At most, this might discourage academic departments and units from attempting to address immediate fluctuations personnel needs through any complimentary initiative.

In general, both of the recommendations outlined here would serve to align the expectations of the different groups of faculty who would be in charge of implementing a similar cluster hiring initiative. These recommendations were made because the findings of this study strongly suggest that the Interdisciplinary Faculty Initiative failed to achieve its intended outcome in large part because the expectations of the participating faculty were not well aligned. This might be partially due to the fact that the initiative was identified as "interdisciplinary" yet the participating faculty had no consistent idea of what interdisciplinary scholarship was defined to include. More likely, the initiative probably failed to bring about the organizational change it was designed to promote because the participating faculty were not incentivized to adopt similar expectations regarding the way the initiative was to be actually implemented.

Limitations

Before moving on to discuss opportunities for further research, it is important to recognize the limitations of this study. The limited generalizability of this case to other large American research universities has been covered in detail in this and the prior chapters of this work, and beyond this, there are two additional limitations that prevent the findings of this study from shedding more light on the sensemaking processes of the participating faculty. First, although sensegiving can take many forms, the interview protocol was designed only to elicit information about how faculty purposefully tried to affect the way their peers understood the initiative through verbal dialogue. This narrow focus on one single context of communication is a necessary limitation of the study.

Focusing on this specific context of communication meant that the protocol could not be used to comprehensively track all types of communication between the

participants. For example, faculty were not asked to recall the frequency or content of email messages they exchanged with their colleagues. Instead, the interviews concerned faculty's detailed memories of those conversations and of those relationships that had the most meaningful impact on their understanding of the initiative's implementation. As a result, the evidence collected through this study sheds little light on the full network of communication and scholarly activity associated with each of the faculty clusters. Exploring what these networks look like, particularly how they enabled different forms of scholarly activity, would have been a powerful compliment to this study's findings regarding the effects of sensegiving on the sensemaking of others.

A second limitation prevents more conclusions from being made about the existence of patterned differences in sensemaking across academic fields or paradigms of inquiry, and it regards the anonymity of the participating faculty. The number of distinct combinations of academic fields and paradigms of inquiry among the participating faculty proved too small to enable consistent and anonymous comparisons. Certainly, faculty readily associated themselves with various academic fields. Moreover, a substantial proportion of the participating faculty drew a distinction between their fields of training and the fields they understood themselves as working in at the time of the interview. When asked at the start of their interviews to say a bit about their scholarly interests and research agenda, most faculty responded with some variation of the statement, "Well, I was trained in ___, but I've done most of my recent work in ___."

These findings suggest why this study was limited in its ability to describe differences in the sensemaking of faculty working in different academic fields or paradigms of inquiry. Providing rich descriptions of specific disciplines of faculty with

specific types of training and research experiences might have undermined this study's guarantee of anonymity, and the promises of confidentiality provided by this study were instrumental to conducting frank and open interviews with the participants about the role they played implementing a very expensive and high-profile initiative at their university.

Considered together, these limitations speak to the fact that sensemaking is a social process that can produce organizational change. While much of the evidence presented by this work is derived from interviews with individuals, the content of those interviews and the focus of this work was a case of organizational change at one university. This study is limited in its ability to speak to the experiences of very particular groups of faculty and particular individuals because it would violate the anonymity promised to them and would gradually push the study into an analysis at the individual level rather than the group level.

Discussion

All research is of a particular time and place, and this study is about the way a certain group of faculty understood their implementation of the Interdisciplinary Faculty Initiative at the University of Michigan introduced in 2007 and largely implemented over the course of the following five years. The degree to which the findings of this study can be generalized to other large American research universities is circumscribed by the characteristics of this particular context and by the limitations arising from the way this research study was designed and conducted. Still, the evidence, findings, and interpretations presented in this chapter have meaningful implications for organizational theory and practice in higher education. Specifically, this study shines light on how some faculty found participating in these types of interdisciplinary initiatives worthwhile. This

work has endeavored to show how a better understanding of how faculty sensemaking can enable the success of similar initiatives within America's universities in the future, and long-standing trends in the organizational behavior and performance of institutions of higher education make it likely that similar types of interdisciplinary initiatives will be widely implemented (Abbott, 2001, 2002; Brint, 2005; Brint, Turk-Bicakci, Proctor, & Murphy, 2011; Rhoades & Slaughter, 1997; Slaughter & Leslie, 1997; Slaughter & Rhodes, 2004).

This study suggests two avenues for future research. The first of these points to the passage of time, and the second regards organizational hierarchies. To contextualize the first of these points, it is critical to note how strongly Weick and other scholars of sensemaking emphasize that it is an ongoing process (Jennings & Greenwood, 2003; Weick, Sutcliffe & Obstfeld, 2005; Weick, 1995). They consistently argue that sensemaking can extend over very long or very short periods of time. The findings of this study provide a closer examination of sensemaking processes that were drawn out over comparatively long periods of time. Nearly every faculty member who participated in this study remarked at some point during his or her interview about the great amount of time it takes for an academic career to become established or for a cluster-hiring initiative to be implemented. In one way or another, they all made the point that understanding how to effectively collaborate with colleagues who have markedly different areas of expertise can take a very long time indeed. For example, Hans described how long it took him to fully understand why his colleagues working in a different field were collaborating with him in the way that they were. His point was that even when understanding how the

research agendas and practices of colleagues differ, it could take much longer to reach an understanding about why those differences matter:

> [Scientific] studies have to be incredibly planned out because if you make a mistake, you can't fix it… at least not easily. If you make a mistake in your questionnaire, and you send it out to everybody, what do you do? You've screwed yourself. So my initial impression when I started to sit in on these meetings was: OK. I just wasted an hour of my life while they argued about the wording of two questions. It took me a while to realize why it really mattered. And even if you intellectually know it, it takes longer to viscerally know it. You know what I'm trying to say?

Reflecting upon the temporal reach of the sensemaking processes explored by this study only serves to underscore the need for further research on the long-term effects of the Interdisciplinary Faculty Initiative and other initiatives like it. Such research would provide a helpful contrast to work that examines the short-term impact of strategic interdisciplinary initiatives in higher education (Feller, 2002; Gioia & Chittipeddi, 1991; Gioia & Thomas, 1996; Kezar, 2013; Kezar & Eckel, 2002; Sa, 2008, 2011). Moreover, investigating the development of sensemaking and sensegiving processes over long periods of time would provide opportunities to better understand its application to higher education practice, in which it is so often necessary to "sustain the various interpretations of those in the social community with competing interests" (Smerek, 2011, p. 84). Like Becher's (1989, 1990, 1994, 2001) sustained research into how faculty differentiate themselves by virtue of epistemologies and cultures of investigation, scholars of higher education should pursue extended studies of how faculty sensemaking and sensegiving develop in concert over time. Not only could such a research agenda contribute to what is known about one of the most understudied and central properties of the sensemaking

process, it would be well positioned to make a contribution to the field of higher education.

There are two particular types of research studies that seem well suited to this agenda. First, future studies could follow a cohort of faculty over the full course of their creation and implementation of an interdisciplinary initiative, collecting resultant data at multiple points in time throughout. Second, the effects of an interdisciplinary initiative implemented in the distant past could be explored. The participating faculty could be asked to reflect on their understanding of its long-term effects and its relationship to their current work. Models of particular types of scholarly activity could be used to explain why the impact of certain initiatives deviated from what was or could have been expected. Either way, future research conducted along these lines could make a substantial contribution to our knowledge of the sensemaking process and its application to the study of higher education organizations.

Contemporary and future scholars who read this work should also reflect on a second point that regards organizational hierarchies, which is the second scholarly contribution of this work. This study stands out from previous research on similar topics in that it explores the implementation of a strategic initiative by people who are positioned in the lower levels of an organizational hierarchy; most scholars who study the implementation and effects of interdisciplinary initiatives focus on the experience of top-management teams, particularly on presidents (e.g., Brint, 2005; Gioia & Chittipeddi, 1991; Gioia, Price, Hamilton & Thomas, 2010; Smerek, 2011) with some notable exceptions (e.g., Small, 1999). The need to study how sensemaking and sensegiving play out among the lower levels of organizations is well recognized (Rouleau, 2005), and the

body of research examining how the sensemaking of middle managers affects organizational change is growing (e.g., Balagun & Johnson, 2005; Maitlis, 2005; Maitlis & Lawrence, 2007; Rouleau & Balogun, 2010). This study adds to this body of research by examining the sensemaking of faculty who directly oversaw the hiring of new faculty into clusters as well as the faculty who were hired.

Most interestingly, whereas some of this existing research on top-management teams in higher education emphasizes the highly structured and guarded interplay of sensemaking and sensegiving (Gioia & Chittipeddi, 1991; Smerek, 2011), the findings of this study, particularly those regarding reflective sensegiving, depict the sensemaking and sensegiving processes as blended and as more accommodating of improvisation. This suggests that in response to top-management teams ambiguous or even well-structured sensegiving activities, people at the lower levels of organizations may find it helpful to ask a series of questions about their role in things, perhaps even in an extended and seemingly repetitive manner. Doing so may better enable them to divert the implementation of strategic initiatives and to serve their own purposes. The practical implications and recommendations of this work argue for use of policies and practices that better enable such individuals to experience implementing strategic interdisciplinary initiatives in the ways that they were intended to be implemented. At the very least, leaders and scholars of higher education should take from this study the argument that it is important to plan for faculty's likely reaction to the introduction of these initiatives.

Future research on similar topics should build upon this study by incorporating members of top-management teams as well as faculty members who occupy the lower levels of higher education organizations. Research that explores how these social groups

engage in various types of sensegiving at different points in time is notably absent from the literature on sensemaking. Such research would also help to establish how different types of sensegiving affect different elements and properties of the sensemaking process. Specifically, such studies could explore additional relationships between the theoretical and practical dimensions of this study as they are depicted in Figure 6. Such research is also needed to more definitively establish how sensemaking and sensegiving are related and can be incorporated into models of social behavior and cognition (Jennings & Greenwood, 2003; Weick, Sutcliffe, & Obstfeld, 2005).

One final note needs to be made about the capaciousness of sensemaking as a conceptual framework. The sensemaking process can be broadly construed as a "modified evolutionary process of ecological change" (Weick, 2003, p. 185). As an evolutionary process of ecological change, sensemaking can adapt itself to changing circumstances to accommodate any number and variety of human experiences. To scholars who are new to the theory, it can seem almost boundless. The faculty who described their experience making sense of the Interdisciplinary Faculty Initiative invoked a vast array of experiences and observations as meaningful to their related work. The single greatest challenge of conducting this study was to filter out isolated data and group the rest into a coherent and generalizable depiction of the faculty's experience.

Luckily, the sensemaking experience is also "the process of social construction that occurs when discrepant cues interrupt individuals' ongoing activity" (Maitlis & Sonenshein, 2010, p. 551). The discrepant cues that characterized so many faculty's understanding of this initiative were presented earlier in this work in an effort to circumscribe the boundaries of the case and to focus attention of the most salient aspects

of the sensemaking process overall. Despite this, future research on sensemaking and the implementation of interdisciplinary initiatives in higher education should champion the notion that students, faculty, and staff all seek to identify themselves through their varied scholarship and work. Most importantly, these scholars should find ways of showing their colleagues, "The social self is simply any idea, or system of ideas, drawn from the communicative life, that the mind cherishes as its own" (Cooley, 1902, p. 179).

Appendix A: Pilot Interview Protocol

Research Study Protocol
University Strategic Initiatives Study

Principle Investigator: Elias Samuels Ph.D. Candidate, University of Michigan School of Education, Center for the Study of higher and Postsecondary Education, 610 E. University Avenue, Ann Arbor, MI 48109
Email: eliasms@umich.edu
Phone: (734) 646-6147

This study examines the value of strategic initiatives to participating university faculty. The purpose of the study is to explore how strategic initiatives are designed to motivate faculty involvement and how that involvement is intended to affect their work.

This protocol includes:

1. An interview request that will be sent to potential participant's university email account.

2. A consent form that will be signed before each interview is conducted.

3. A list of interview questions.

Interview Request

Potential participants will be identified based on their participation on administrative committees and working groups associated with the 3rd Century Initiative. Only those individuals who are publically listed on the University of Michigan's 3rd Century Initiative website (http://www.provost.umich.edu/thirdcentury/) as members of the Learning Analytics Task Force, the Student Learning Advisory Committee or the Global Challenges Advisory Committee will be contacted with an interview request. Each interview request will be personalized, and one reminder will be sent to non-responders one week after the initial invitation is received. Follow-up interviews will be conducted with the permission of the respondents.

Good morning/afternoon,

I am writing to request a meeting to discuss your work on the [Learning Analytics Task Force/Student Learning Advisory Committee/Global Challenges Advisory Committee]. I am a doctoral student at the School of Education and am conducting research regarding the creation and implementation of strategic initiatives in higher education, such as the 3rd Century Initiative. The specific purpose of this research is to explore how the 3rd Century Initiative was designed to affect the work of university faculty.

I hope to be able to talk with you about this topic at a time and place that is most convenient for you. If you are available to meet please let me know what time would work best for you. Simply to suggest a time, I could meet with you on June ---, from noon to 1pm at your office in ---.

I would be happy to send you a list of the questions I plan to ask if desired. With your permission I will record our conversation, although you can request that our conversations not be recorded. The University of Michigan Institutional Review Board has determined that this study is exempt from IRB oversight. All participants will remain anonymous in any reports and presentations of the results.

If you have any questions or concerns about this meeting request please feel free to contact me at any time.

Sincerely,

Elias Samuels
Ph.D. Candidate, Center for the Study of Higher and Postsecondary Education
University of Michigan, School of Education
610 E. University Avenue, Ann Arbor, MI 48109

eliasms@umich.edu
(734) 646-6147

Consent to Participate in a Research Study
UNIVERSITY STRATEGIC INITIATIVES STUDY -- INTERVIEW

You are invited to be part of a research study that examines the value of strategic initiatives to participating university faculty. The purpose of the study is to explore the reasons that motivate faculty to be involved in strategic initiatives and how involvement affects their work.

If you agree to be part of the research study, you will be asked to participate in face-to-face interviews at the location of your choice. The interview will take about one hour and will be audiotaped to ensure that our conversation is recorded accurately. If you prefer that the interview not be taped you may request that it not be and still participate in this interview.

Risks and Benefits of the research: There are no risks involved in participating in this study. You will be asked questions about your involvement in a strategic initiative, how involvement has affected your work, and to compare the costs and benefits of involvement as you perceive them. There is no direct benefit to you from participating in this study and there is no financial compensation for participating. The knowledge obtained from this study may used to inform the creation, implementation and evaluation of future strategic initiatives at colleges and universities.

If you have questions about this research study or your participation, you may contact Elias Samuels, Ph.D. Candidate, at the University of Michigan School of Education, 610 E. University Avenue, Ann Arbor, MI 48109, or via email (eliasms@umich.edu) or phone at (734) 646-6147.

The University of Michigan Institutional Review Board has determined that this study is exempt from IRB oversight. By signing this document, you are agreeing to be part of the study. Participating in this research is completely voluntary. **You may choose not to answer any interview question and you can stop your participation in the study at any time.** You will be given a copy of this document for your records and one copy will be kept with the study records. Be sure that questions you have about the study have been answered and that you understand what you are being asked to do. You may contact the researcher if you think of a question later.

I agree to participate in the study.

_____
Printed Name

_____ _____
Signature Date

I agree to this interview being audio-recorded. ☐

Semi-structured Interview Guide

At the beginning of each interview the purpose of the research study will be described to each participant for the second time (the first instance being provided in the interview request). Each participant will be asked if they have any questions or concerns about the study or their participation and will be provided with the consent form as it appears in this protocol. Once the consent form has been signed an audio recorder will be tuned on the participant will be asked for their permission to record the interview; if permission is not granted the audio recorder will be turned off and interview notes will be taken by hand.

History of involvement

1 How did you initially get involved in the [Learning Analytics Task Force/Student Learning Advisory Committee/Global Challenges Advisory Committee].
   a. What motivated you to become involved? / Why did you agree to be involved?
   b. What activities generally constitute your involvement?
   c. What do you expect your future involvement to look like?
   d. What aspects of your involvement do you feel most strongly about / what part of your involvement do you get the most enjoyment out of?

Outcomes of the strategic initiative

2 What are the intended outcomes of the 3rd Century Initiative?
   a. How did your your task force/committee help identify or support these outcomes?
   b. What was your personal role in helping to identify or support these outcomes?
   c. Which outcomes do you feel are the most important and why?
   d. What other outcomes might have been appropriate for the 3rd Century Initiative?

Design of the strategic initiative

3 What did your task force/committee do to give the 3rd Century Initiative the best possible chance of meeting its goals?
   a. How were differences of opinion among your task force/committee reconciled?
   b. In what ways will University faculty be affected by this strategic initiative?
   c. How will the effects of the 3rd Century Initiative differ among faculty in different schools and colleges?

4 What other ways should the goals of the 3rd Century Initiative be achieved?
    a. How would those alternative means be better or worse than what is being accomplished through the 3rd Century Initiative?
    b. What roles or responsibility should the University have in doing that work?

Value of the strategic initiative

5 Aside from the outcomes we have discussed, what further value does the 3rd Century Initiative to university faculty or units?
    a. How might this strategic initiative benefit the university or university faculty in unexpected ways?
    b. How might your involvement affect your future work?

Wrap up

6 How is your experience with the 3rd Century Initiative similar to that of the other members of your task force/committee?

7 What parts of your work with the 3rd Century Initiative have we not discussed that I should have asked about?

8 Are there other questions you wish or expected that I had asked?

9 Would you agree to participate in a follow-up interview to expand on our conversation? The aim of the interview would be to expand on the issues and themes that have been raised in this conversation. If so, the interview would be conducted at a time and place of your choosing.

Appendix B: Dissertation Interview Protocol

Research Study Protocol

Sensemaking and Strategic Organizational Change

Principle Investigator: Elias Samuels Ph.D. Candidate, University of Michigan School of Education, Center for the Study of higher and Postsecondary Education, 610 E. University Avenue, Ann Arbor, MI 48109
Email: eliasms@umich.edu
Phone: (734) 646-6147

This study examines how faculty make sense of the contributions of a strategic initiative in which they have participated. The purpose of the study is to explore how the implementation of a strategic initiative is affected by the way that participating faculty understand the role they play in it. Further, the purpose of the study is to examine how this sensemaking process affects faculty members' adoption of different conceptualizations of higher education organizations.

This protocol includes:

1. An interview request that will be sent to potential participant's university email account.

2. A consent form that will be signed before each interview is conducted.

3. A list of interview questions.

Interview Request

Potential participants will be identified based on their participation on selected hiring committees associated with the Interdisciplinary Faculty Initiative or their being hired through this initiative. Each interview request will be personalized, and two reminders will be sent to non-responders no later than two weeks after the initial invitation is received

---

Good morning/afternoon,

[I am writing to request a meeting to discuss your involvement with the Interdisciplinary Faculty Initiative and specifically in regards to the [Cluster name] cluster hires. / I am writing to request a meeting to discuss your experience of being hired here at the University, and how this experience has influenced your subsequent teaching and research.] I am a doctoral student at the School of Education and am conducting research regarding the implementation and outcomes of strategic initiatives in higher education, such as the Interdisciplinary Faculty Initiative. The specific purpose of this research is to explore how the faculty who participated in this initiative make sense of its contributions to the promotion of interdisciplinary scholarship at the university.

I hope to be able to talk with you at a time and place that is most convenient for you. If you are available to meet please let me know what time would work best for you. Simply to suggest a time, I could meet with you on [Mo/Day], from [time to time] at your office in [X].

I would be happy to send you a list of the questions I plan to ask if desired. With your permission I will also record our conversation, although you can request that our conversations not be recorded. The University of Michigan Institutional Review Board has determined that this study is exempt from IRB oversight. All participants will remain anonymous in any reports and presentations of the results.

If you have any questions or concerns about this meeting request please feel free to contact me at any time.

Sincerely,

Elias Samuels
Ph.D. Candidate, Center for the Study of Higher and Postsecondary Education
University of Michigan, School of Education
610 E. University Avenue, Ann Arbor, MI 48109

Consent to Participate in a Research Study
SENSEMAKING AND STRATEGIC ORGANIZATIONAL CHANGE
-- INTERVIEW --

You are invited to be part of a research study that examines how faculty make sense of the contributions of a strategic initiative in which they have participated. The purpose of the study is to explore how the implementation of a strategic initiative is affected by the way that participating faculty understand the role they play in it.

If you agree to be part of the research study, you will be asked to participate in a face-to-face interview at the location of your choice. The interview will take about one hour and will be audiotaped to ensure that our conversation is recorded accurately. If you prefer that the interview not be taped you may request that it not be and still participate in this interview.

Risks and Benefits of the research: There are minimal risks involved in participating in this study. You will be asked questions about your participation in a strategic initiative, how involvement has affected your work, and to discuss the outcomes of your involvement as you perceive them. There is no direct benefit to you from participating in this study and there is no financial compensation for participating. The knowledge obtained from this study may used to inform the creation, implementation and evaluation of future strategic initiatives at colleges and universities.

If you have questions about this research study or your participation, you may contact Elias Samuels, Ph.D. Candidate, at the University of Michigan School of Education, 610 E. University Avenue, Ann Arbor, MI 48109, or via email (eliasms@umich.edu) or phone at (734) 646-6147.

The University of Michigan Institutional Review Board has determined that this study is exempt from IRB oversight. By signing this document, you are agreeing to be part of the study. Participating in this research is completely voluntary. **You may choose not to answer any interview question and you can stop your participation in the study at any time.** You will be given a copy of this document for your records and one copy will be kept with the study records. Be sure that questions you have about the study have been answered and that you understand what you are being asked to do. You may contact the researcher if you think of a question later.

I agree to participate in the study.

_____
Printed Name

_____ _____
Signature Date

I agree to this interview being audio-recorded. ☐

Semi-structured Interview Guide

This interview protocol contains interview questions for three groups of faculty. The first group includes both the faculty leads of the interdisciplinary clusters, and the second group contains as the faculty who served on the respective hiring committees. The third group includes the junior faculty that were hired as a result of the Interdisciplinary Faculty Initiative (IFI).

The interview questions for each of these three groups of faculty are very similar although the specific wording and order of the questions differs. These differences are intended to better accommodate the differences in the background knowledge and experiences of the two groups. In addition, some of the wording of the interview questions (i.e., [department(s)/schools] will vary across interviews depending on the nature of the faculty position being referred to. Since some faculty was hired to a specific department while others were hired to multiple departments or to a school-wide position it is necessary that the interview questions refer to the hiring unit(s) accordingly.

The length of each interview is estimated to be approximately 60 minutes. Every interview will take place at a time and location of the interviewee's choosing. Each interview will begin with a standard introduction followed by an offer to sign a consent form. Once the consent form is signed and any questions that the interviewee has about the study are answered the interview questions will be asked. With the permission of the interviewee each interview will be audio recorded.

Once each interview is concluded, the interviewee will be invited to ask any further questions about the study or any aspect of their interview experience. The principle investigator will also invite the interviewee to submit any additional questions or comments via email or by phone. Any reasonable requests for further information will be honored and the results of the research will be shared with the interviewee if requested.

Interview introduction:

Thank you for taking the time to speak with me. I hope to ask you a few questions about your participation in the IFI, and particularly about your work with the [cluster name OR department(s)/school].

The questions I hope to ask you generally regard the nature of your work on the [hiring committee/department(s)/school], and your opinions about the outcomes of the IFI. But before we can proceed, you need to have signed a consent form. Please note the check box at the bottom of the consent form – by checking this box you are giving me permission to record our conversation.

[Provide and collect signed consent form / answer questions about the study]

For faculty leads

To start, I want get to know more about you and your work here at the university.

1. Please tell me a bit about your scholarly interests and research agenda.
    a. What do you find most engaging about the academic field(s) you study?
    b. How does your research agenda build on these scholarly interests?
2. How has your view of yourself as a scholar changed over the course of your academic career?
3. Tell me about your experience working at the University of Michigan, in what ways has it been more or less enjoyable than you expected?

I would like to change gears now and talk about your participation with the IFI.

4. How did you first become involved in this initiative?
    a. What motivated you to serve as the faculty lead for the [Cluster Name]?
    b. What aspects of your role in this initiative have you enjoyed and which aspects would you have preferred to forgo?
5. How will your work on the IFI serve to benefit the academic units involved?
6. What do you understand to be the expectations for the faculty positions associated with the cluster?
    a. How did you come to understand what the expectations were for the faculty positions associated with the cluster?
    b. How have the conversations you have had with other university faculty helped you better understand these expectations?
7. How did you communicate about these expectations with your colleagues on the hiring committees for the cluster?
    a. Why were, or weren't, you effective in communicating these expectations to others
8. How were the hiring committees supposed to communicate the expectations of the positions to junior faculty they helped to hire?
    - How, if at all, did you communicate with the junior faculty that were hired about their positions?
9. Are you aware of any contributions that the junior faculty in the cluster have made to the academic units that hired them? If so, can you tell me about these?

10. Are you aware of any collaboration between these junior faculty in regard to their teaching or research? If so, can you tell me about these?

Finally, I'm interested to know more about your perception of the IFI considered overall.

11. What doubts have you had, if any, about the intended purpose of the IFI?
12. How has the experience influenced your thinking about the initiative in this regard? Do you still endorse it?
13. How has your experience participating in this initiative affected the way that you talk about it to others?
14. How has your experience affected the likelihood that you will participate in similar initiatives in the future?
15. How has the IFI or your participation in it affected your scholarly interests or research agenda?
16. What will the impact of the IFI will be for the University of Michigan five or ten years from now?

For members of the hiring committees

To start, I want get to know more about you and your work here at the university.

1. Please tell me a bit about your scholarly interests and research agenda.
    - What do you find most engaging about the academic fields(s) you study?
    - How does your research agenda build on these scholarly interests?
2. How has your view of yourself as a scholar changed over the course of your academic career?
3. Tell me about your experience working at the University of Michigan, in what ways has it been more or less enjoyable than you expected?

I would like to change gears now and talk about your participation on the hiring committee associated with the IFI. [To be used as needed] This faculty position was partially funded through a strategic initiative, the IFI, which was designed to promote interdisciplinary teaching and research at the university through a series of cluster hires. Specifically the position was connected to the [cluster name] which involved [school/dept. name 1, school/dept. name 2, school/dept. name 3…).

4. How did you first become involved in this initiative?
    a. How did you come to serve on a hiring committee for the [Cluster Name]?
    b. What aspects of your role in this initiative have you enjoyed and which aspects would you have preferred to forgo?
5. How will your work on the IFI serve to benefit the academic units involved?
6. What do you understand to be the expectations for the faculty positions associated with the cluster?
    c. How did you come to understand what the expectations were for the faculty positions associated with the cluster?
    d. How have the conversations you have had with other university faculty helped you better understand these expectations?
    e. How did you communicate with the faculty lead for the cluster about these expectations?
7. How did you communicate about these expectations with your colleagues on the hiring committee?
8. How was the hiring committee supposed to communicate the expectations of the position to the junior faculty member they helped to hire?

- How, if at all, did you communicate personally with the junior faculty member about their position?
- Why were, or weren't, you effective in communicating these expectations to others

9. Are you aware of any contributions that the junior faculty in the cluster have made to the academic units that hired them? If so, can you tell me about these?
10. Are you aware of any collaboration between these junior faculty in regard to their teaching or research? If so, can you tell me about these?

Finally, I'm interested to know more about your perception of the IFI considered overall.

11. What doubts, if any, have you had about the intended purposes of the IFI?
12. How has the experience influenced your thinking about the initiative in this regard? Do you still endorse it?
13. How has your experience participating in this initiative affected the way that you talk about it to others?
14. How has your experience affected the likelihood that you will participate in similar initiatives in the future?
15. Has the IFI or your participation in it affected your scholarly interests or research agenda? If so, can you tell me about these changes?
16. What will the impact of the IFI will be for the University of Michigan five or ten years from now?

For hired faculty

To start, I want get to know more about you and your work here at the university.

1. Please tell me a bit about your scholarly interests and research agenda.
    - What do you find most engaging about the academic fields(s) you study?
    - How does your research agenda build on these scholarly interests?
    - How do you intend to cultivate your scholarly expertise over the next several years of your career?
2. How has your view of yourself as a scholar changed over the course of your academic career?
3. Tell me about your experience working at the University of Michigan, in what ways has it been more or less enjoyable than you expected?

I would like to change gears a little and talk about your hiring and the expectations of your current position.

4. What motivated you to take your current position here at the university?
5. How do you expect your teaching and research will benefit the academic unit[s] that you work in five or ten years from now?
6. What do you understand to be the expectations for your current position at the university?
    - How did you come to understand what the expectations were for the faculty positions associated with the cluster?
    - What conversations did you have with other university faculty about the expectations for your current position?
        - Can you describe what you talked about?
        - How do you remember talking to the faculty who sat on the hiring committee about the expectations for your position?
        - Why were, or weren't, other faculty effective in communicating these expectations to others
7. Considered overall, how consistently and clearly would you say that have the expectations for your role been communicated to you?
    - How, if at all, have these expectations have changed over time?

I would also like talk about your faculty position in relation to the others that are associated with it through the IFI. [To be used as needed] Your faculty position was partially funded through a strategic initiative, the IFI, which was designed to promote interdisciplinary teaching and research at the university through a series of cluster hires. Specifically, your position was connected to the [cluster name] which involved [school/dept. name 1, school/dept. name 2, school/dept. name 3…).

8. Do you know any of the other faculty members who hired in your cluster? If so, how did you first get acquainted?
    - Are you aware of any contributions that these junior faculty have made to the academic units that hired them? If so, can you tell me about these?
    - How, if at all, have you collaborated with any of these faculty on research projects or teaching activities?
        - What plans do you have to collaborate in the future?
    - How did you talk about the IFI with any of these or any other colleagues?
9. What doubts, if any, have you had about the intended purposes of the IFI?
10. How would your experience being a faculty member here affect the likelihood of your participating in a similar initiative in the future? (e.g., by serving on a hiring committee for another junior faculty hire)?
11. How would you say that the IFI or your participation in it affected your scholarly interests or research agenda?
12. What will the impact of the IFI will be for the University of Michigan five or ten years from now?

Crosswalk of interview questions and conceptual framework

Aspects of Sensemaking				Selected Interview Questions (The interview questions for hired faculty differ slighly in wording and order of presentation, but their assocation with the conceptual framework is the same)
Enactment	Selection	Retention	Sensegiving	
		x		What do you find most engaging about the academic field(s) you study?
		x		How does your research agenda build on these scholarly interests?
		x		How has your experience conducting research in your field(s) affected your development as a scholar?
		x		How has your experience teaching in your field(s) affected your development as a scholar?
x		x		What do you enjoy most about working at the University of Michigan?
x				How did you first become involved in this initiative?
		x		What motivated you to serve as the faculty lead for the [Cluster Name]?
x		x		What did you enjoy most about the work you have done in that role?
x		x		How will your work on the IFI serve to benefit the academic units involved?
	x	x		How did you come to understand what the expectations were for the faculty…?
		x	x	How have the conversations you have had with other U. faculty helped you better…?
			x	How did you communicate about these expectations with your colleagues on the hiring…?
			x	How were the hiring committees supposed to communicate the expectations of the positions to...?
	x		x	How, if at all, did you communicate with the junior faculty that were hired about their positions?
	x			What contributions are you aware of that the junior faculty in the cluster have made to the...?
	x			What evidence have you seen that the junior faculty in this cluster have collaborated…?
		x		What doubts have you had, if any, about the intended purpose of the IFI?
			x	How has your experience participating in this initiative affected the way that you endorse it to others?
x				How has your experience affected the likelihood that you will participate in similar initiatives…?
		x		How has the IFI or your participation in it affected your scholarly interests or research agenda?
		x		What will the long-term impact of the IFI will be for the University of Michigan?

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