

Michael Lissack Statement of Research

Social Complexity Theory is a form of applied philosophy. Most managers lack exposure to the roles and responsibilities of being a true professional - notably the professions of law, medicine, architecture, and engineering. In these professions the would-be professional is taught that the ability to make decisions on behalf of others is accompanied by serving the public selflessly in making those decisions. The ability to make decisions/ responsibility to the public trade-off is an explicit part of the training and becomes an integral part of the professional's identity. Instead, managers are usually taught a set of decision making skills and tools and, emboldened by this new knowledge, believe they have free reign to use these skills. Many of our modern problems stem from this mistaken belief. At the very heart of both innovation and entrepreneurship is the need to have integrated values about self with the recognition of opportunities available in the environment and an understanding of the trade-offs which seizing those opportunities will entail. Too few of our managerial students are taught the applied philosophy tools which can better enable them to innovate and lead. Social Complexity Theory is a new perspective on those very tools.

Social Complexity Theory is concerned with the complexity which often rears its head whenever there is the potential for repeated encounters where history and memory have the possibility of playing a role. If we each were merely an abstract statistic and if we were destined to have no possibility for repetitious encounters, then the abstract rules of science – especially the physics which management scientists seek to emulate – might work as models. Such is not our world. We do have histories, we do have memories, those histories and memories can be transferred (and distorted) through storytelling and, in the face of this we have the potential for repeated interactions. Those repeated interactions (or at least their possibility) are what makes the managers' world complex and human organizations different from the more mathematical world of computer simulations and theories which are found in quantitative complexity theory.

People differ in what they accept as constituting an “explanation. ” There are people who believe that explanation consists of assigning or ascribing a label to something, and once one knows what category it's in, one has explained it. There are other people who are far more concerned with understanding mechanism. How do things work? How do things come to be? To the first group, explanation is equivalent to ascribing a label, and once one has the label, the label has explained something. These labels are codes. The second group vigorously disagrees. Labels are not mechanisms. These people need narratives that can deal with the emergence of the context. An explanation or a mechanism that works in a fixed world may not work in a changing world. From the perspective of the second group, managers have to be willing to revise narratives as necessary, as emergence occurs, as context changes, as situations change. And note, narrative is not merely telling stories. Narrative is providing enough ascribed coherence so that the people hearing the story, the rest of the audience that's part of the group with you, has got some kind of a potential willingness to act. People in the second group thus need to keep having narrative retold in current context. These people react to cues and fault codes for being inflexible. Social Complexity Theory helps to explain this second perspective to believers in the first.

Social Complexity Theory teaches that efficiency can be dangerous. Like anything else, too much of a good thing can prove to have ugly consequences. Efficiency it seems can be the enemy of resilience. As businesses and organizations face an ever more complex and rapidly changing world, complexity is its most common factor and resilience in light of that complexity is the key to survival. Here unfortunately efficiency tends to get in the way. Our modern world has structured much upon the belief that progress, efficiency and the way forward, stem from a mastery of labels and rules. Labels are the names we associate with items, people, groups, situations etc. Rules tell us what to do when we are dealing with something labeled 'x'. Ascribed, measured coherence focuses on how well a given item, person, situation etc. matches the assigned label. It also examines how well rule 'x'

matches desired outcome 'y'. The underlying assumption is that the pairing of label 'x' and rule 'x' will produce desired outcome 'y'. But, label based rules are not the only kind available to us. The traditional craftsman's apprentice spends years observing the master at work with two objectives: to gain awareness of what is contextually possible and to develop a repertoire of activities to make use of those possibilities. Aircraft pilots undergo hundreds if not thousands of hours of (simulation) training with much the same objective -- though their task is to recognize dangers that may present themselves context by context, and to develop a repertoire of reactions to these dangers. Both the craftsman's apprentice and the pilot do not learn their skill from the study of label-based rules. Instead, they are required to engage with experience and to learn from context. When a label can supplant a story, it is more efficient and thus "better." The problem with that presumption is that the study of labels and associated rules is devoid of a study of context and the dynamics presented by context.

When the focus is on efficiency, in order to assure coherence, we create lists and provide codes that keep us tied to the ascribed meanings. We sanitize out the ambiguous and the unexpected. There are times when efficiency and strict adherence to codes and checklists are absolutely essential. We want the products we order to arrive on time with excellent quality. We want our computers to operate without the need for error messages, and our baggage to arrive at the same airport and time as we do. If efficient codes have produced a positive experience before, we may want the next experience to be just like the previous one. Measured coherence and the establishment of procedure to enforce it are integral to how much of our world operates. Yet, making sense of the world or of that portion we encounter at any given moment is complex. How we go about it will determine our openness and/or preparedness for the emergent. When "making sense," we can depend on pre-established categories for what we observe and ascribe (assign) a label to what we see. Metaphorically speaking, we look-up in our codebook what rule or regulation applies, and try to stamp out any deviations from what we believe goes with the label assigned. Or we can look for stories that resonate with what we observe. As we seek stories, we engage in an emergent process of sense-making. In the first case, we seek to measure and eliminate deviance from the fixed label or category. In the second, we try to adjust to what we see unfolding before us. Both paths are ways of making sense or of finding coherence in a given situation, and lead to using the coherence as the basis for further action. Social Complexity Theory is the formal name for the second approach.

One area Social Complexity Theory looks at is the role of coherence and emergence in organizations. Coherence is regarded by many psychologists as critical to day to the day productivity and effectiveness of individuals. Both scholars and managers have adapted this belief to the world of management and organizations. Coherence is regarded as a sign of a well-run organization. But, the concept of a coherent thought defined as how well an idea holds together as a single entity gradually breaks down as the scale shifts to individuals, groups, and ultimately larger organizations. Adapting to and dealing with emergence is perhaps the most important task facing managers and organizations. Coherence as traditionally defined interferes with that task. By restricting the concept of coherence to measurement against definition (what we will call 'ascribed coherence') managers and organizations implicitly are restricting their ability to deal with the unknown, the uncertain and the emergent. Social Complexity Theory provides another perspective on coherence -- rooted in the felt experience of coherence and in the importance of emergence. Richard Rorty tells us, "Knowledge is not a matter of getting reality right, but rather a matter of acquiring habits of action for coping with reality." In common parlance such coping mechanisms are called "models." The aim of the present research is to teach managers and members of organizations to make use of some very different Social Complexity Theory models as part of their coping mechanisms.