The effect of exploration and exploitation role orientation on dynamic knowledge networks

Abstract
We examine how the way individuals perceive and interpret their work influences the types of networks that they build. We advance research on social network dynamics in organizations by theorizing how role orientation regarding exploration (i.e., pursuit of new knowledge for innovation) versus exploitation (i.e., making best use of existing knowledge for efficiency) affects how individuals change their knowledge networks. We theorize and empirically test how dynamic micro-network mechanisms are influenced by exploration versus exploitation role orientation. We test our ideas in a dataset comprising 135 employees at three time points in the research and development unit of a large industrial company. We analyzed our data using the actor-based Simulation Investigation for Empirical Network Analysis (SIENA) modeling framework. Our results indicate that over time employees with high exploration role orientation have a tendency to form more knowledge ties at a higher rate than others, make reciprocal knowledge ties, and have a tendency for open networks. In contrast, employees with high exploitation role orientation have a tendency not to form reciprocal ties and have a preference for closed networks. We conclude with managerial implications and avenues for future research.

Short Biography of Prof. Andrew Parker
Andrew Parker is a Professor of Business at the University of Exeter Business School. His research uses the lens of network theory to better understand problem solving processes, innovation, knowledge transfer, turnover, performance and well-being within organizations. He has conducted social network analysis research in over 90 multinational organizations and government agencies. He was a Senior Consultant at IBM’s Institute for Knowledge Management, a research fellow at the Network Roundtable at the University of Virginia, as well as a founding member of The Connected Commons. In addition, he has been a visiting professor at MelNet, a network research group based at the University of Melbourne, as well as being a visiting professor at the University of Kentucky’s LINKS Center for Social Network Analysis. His research has appeared in Science, Academy of Management Journal, Organization Studies, Journal of Applied Psychology, Journal of Management Studies, Global Strategy Journal, Management Communication Quarterly, Mjonagement, Social Networks, Sloan Management Review, Organizational Dynamics and California Management Review. He is the co-author of The Hidden Power of Social Networks and co-editor of Networks in the Knowledge Economy. He received his PhD from Stanford University.