The Tradeoff between Divergent Valuation and Structural Folds in Explaining Group Innovativeness

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Network research on organizational innovation has revolved around two opposing arguments on the structure of social relations and related social capital. On the one hand, brokering connections between dense cliques induces innovation for brokers and also for cliques, because connecting disconnected alters gives ego access to non-redundant information (Reagans & McEvily, 2003). On the other hand, dense ties and closure of social relations promotes trust and norms of co-operation that allows cultivating existing knowledge towards innovation to the market (Obstfeld, 2005). This network closure versus structural holes debate (Adler & Kwon, 2000; Burt, 1992, 2005; R. S. Burt, 1997) is network theory's depiction of the fundamental issues in organization theory of how to achieve simultaneous short-term and long-term performance.

However, the debate is problematic because it contrasts two concepts of social capital where one stream of theory states that the benefits fall for the individual, whereas another stream argues benefits for the community. The two concepts are in fact incomparable because brokerage denotes a structural position spanning two or more closed groups or clusters (R. Burt, 1997) and closure is a relational, reciprocal relationship between the actors in a group and it leads to shared norms and trust, which benefit the group as a whole (Coleman, 1988). All in all, the 'either or' perspective on structural positions and social capital that the debate has induced, has limited our understanding of the conditions in which one position is more beneficial that the other.

In this paper, we complement a recent body of research that has adopted a combinatory view of social capital. In this view, the closure-brokerage debate has been put aside. Recent research has developed towards explaining the structure of intercohesion, that is, contexts in which brokerage and closure join hands (de Vaan et al. 2015). Meanwhile in sociology research associated with the economics of convention school has built arguments that support a common practitioner's assumptions of group innovativeness: bringing together groups with other, dissimilar groups with the help of dense ties (structural folding) is conducive to innovativeness (Stark 2009). The dissimilarity discussed by economics of convention is usually related with different ways of valuing things (i.e., what is seen as valuable).

In building our novel construct of folded divergence, we bring together network theory and the economics of convention in order to examine the way in which structural folding and divergence in the evaluative principles bring about innovativeness at the level of the groups. As an instance of a combinatory network structure, we focus on cohesive cliques that overlap with other cliques – fold into each other. Divergence in evaluative principles and structural folding have not been studied together in an organizational setting. Previous studies give reason to assume that folded divergence would be positively associated with innovativeness. However, we propose that a combination of structural folds with *low* levels of divergence in evaluative principles is most beneficial for innovative behavior. Thus, if cohesive cliques are penetrated by cliques that exhibit high variance in valuation, this can be too disruptive for innovation to occur.

Our data comes from a social network study of 132 supervisors and contributors at an engineering firm. Our data is unique, as we run a self-administered social network and innovative behavior survey with a response rate of 90 % to obtain a full social network of the organization. We created an organization-specific survey instrument to measure divergence of evaluative principles. We performed clique analysis, created structural fold measures for each clique, and connected these data with measures for innovativeness and divergence. We find that with low levels of structural folding, divergence of valuation has a positive effect on group innovativeness but the effect is negative for both medium and high levels. Furthermore, for high levels the negative effect is significantly stronger compared to medium levels. We take these results to validate our hypothesis, which postulates that there is a tradeoff between divergence and folding: high levels of both at the same time are not conducive for group innovativeness.

Our findings lead to a novel take on the overarching closure–brokerage debate: closure with brokerage (i.e. structural folding) is beneficial but not if this leads to too much divergence in what people value. However, if there is more or less agreement on issues of valuation, structural folding can act as a source of generative disruption. Organizational management practices are often tuned into increasing divergence by, for example, intentionally grouping individuals with different personalities together. Our results would question this practice and allow employees in organizations to self-organize based on their competences and interests.