Relatedness put in place
On the effects of proximity on firm performance

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Akademisk avhandling

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Abstract
This thesis contributes to recent theorizations in economic geography on the effects of proximity on firm competitiveness. One of the great challenges in the contemporary economy is for firms to remain competitive. Their innovative ability is highly dependent on the knowledge they possess and their ability to acquire new knowledge. It is argued that a relational proximity between individuals reduces uncertainty and offers a joint platform for communication and learning. Therefore, does this thesis apply a micro-perspective in which the labor force and the knowledge composition within plants is examined. The aim is pursued by exploring the interrelationship between different types of proximity in the labor force and plant performance. The proximity dimensions under scrutiny are; the cognitive-, the organizational-, and the geographical proximity dimension.

The three empirical papers in the thesis are based on longitudinal micro-data from the database ASTRID. The database connects detailed socio-economic data of individuals to features of plants and firms in the entire Swedish economy. The empirical findings suggest that the different types of proximities are interdependent with regard to learning in firms. The interdependence is manifested through the variable impact on plant performance that a given distance in one dimension has, depending on what other type of proximity is accounted for at the plant. It is further found that the proximity dimensions have conditional effects on learning and innovation in firms. The empirical findings also indicate that the circumstances under which learning and knowledge application take place, vary between capital-intensive and labor-intensive sectors. Moreover, it is found that relatedness in the cognitive dimension is not unambiguously positive for interactive learning and innovativeness. Similarity in one dimension and unrelatedness in the cognitive dimension, has a significantly stronger impact on interactive learning than simply having relatedness in the cognitive dimension. It therefore seems as if the combined distance of several proximity dimensions should be taken into account when estimating the innovative power of a firm or industry.

When the empirical findings are considered together it is evident that the local environment generates relational proximity between agents through formal- and informal networks. This proximity reproduces and rejuvenates the localized capabilities by allowing for the combination of heterogeneous pieces of knowledge in firms through local unrelated labor inflow. In conclusion, time and place are the paramount dimensions that shape the micro-dynamics of knowledge generation and innovation in firms.

Keywords
Cognitive proximity, labor mobility, knowledge, plant performance, relatedness, proximity dimensions