

# 博士学位請求論文要旨

Formulation and operationalization of the capability approach:

Well-being of Chinese elders

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Improving individual well-being has always been the ultimate goal of pursuing economic development and the constant concern of policy-makers. It is obvious that capturing individual well-being in an appropriate way is crucial. It affects the design and assessment of policies and judgement regarding social change. Determining the appropriate method to measure individual well-being is a topic central to welfare economics. However, surprisingly, traditional welfare economics do not provide many means to evaluate well-being. In recent years, it has become widely recognized that traditional measures neglect much of the relevant information such as the unidimensional monetary measure (e.g., income), or subjective measure (e.g., life satisfaction) has serious limitations in capturing individual well-being. Alternative approaches can play a complementary role as well as provide more perspectives, which is helpful for understanding well-being more comprehensively. Under such a trend, capability approach was developed.

After four decades, the capability approach's impact on economics has remained rather limited. Most previous studies were concerned with developing multidimensional measures. Studies on the formulation and operationalization of the capability approach are far from adequate. Kuklys (2005) points out that one of the main reasons is that the capability approach may be too philosophical to be appealing to most economists, and that to establish whether the capability approach has something to offer to traditional welfare economics, we need a characterization and analysis of the capability approach using the methodology and language standardly employed in economics. Therefore, formulating the capability approach in an economic context is considered to be helpful for understanding the approach. In practice, due

to the unspecified feature, how to operationalize the capability approach empirically is still under exploration. This thesis consists of four chapters contributing to the formulation and operationalization of the capability approach using methodology standardly employed in economics.

In Chapter 2, we try to formulate the capability concept in an economic context based on production theory. Following previous literature, by considering individuals as entrepreneurs, who take resources as inputs and utilization ability as technology, the functioning-generating process could be seen as the production process of firms. A two goods and two functionings model is constructed. The difference between the present study and previous studies (Gotoh 2014, 2017) is that, relating to the application of optimality analysis, instead of synthesizing the utility maximization process and production process, we separate these two processes. Further, the case in which at least one good can be used to pursue multiple functionings is particularly focused on. Capability set is identified as the production possibility set of functionings. We also show the conditions needed for reaching optimal points in both goods space and functionings space. In addition, based on the model constructed, doubt about the necessity of introducing the capability concept to evaluate well-being as raised by Basu (1987) is discussed. We argue that it is necessary to explicitly distinguish goods space and functionings space when defining opportunity set. Individual capability set is objectively determined, rather than arbitrarily definable as in goods space. Basu's doubt about the usefulness of the capability concept is invalid in the case that goods have multiple uses.

Chapter 3 contributes to empirically investigate two arguments of the capability approach: (i) individual utilization ability which acts as the technology part in converting resources into functionings, is determined by personal, social and environmental factors; (ii) along with resources, utilization ability plays a role in determining functioning achievements. It is one of the very few studies in the field which have focused on individual utilization ability. The results suggest that personal factors (e.g., physical conditions or educational attainment), social factors (e.g., gender roles or the healthcare and social security systems), and environmental factors (e.g., residential environment) may affect Chinese older people's utilization ability (Basic Activities of Daily Living and Instrumental Activities of Daily Living). It is also shown that utilization ability significantly affects Chinese older people's functionings, including being in work, participating in social activity (including interacting with friends, playing Mahjong, going to a club), and providing childcare. In addition, it is found that there are inter-group

differences between rural and urban areas in the determination of utilization ability and its effects on functionings in China.

In Chapter 4, using balanced panel data from the CHARLS and correlated random effects models, the determinants of Chinese older people's functioning achievements and how older people evaluate different dimensions of their lives are examined. Following the multidimensional nature of capability approach, eight functionings are focused on: interacting with friends, playing Mahjong, going to a club, being in work, providing childcare, getting enough sleep, feeling lonely, and falling down. The results indicate that along with resources, utilization abilities such as activities of daily living and education significantly affect older people's functioning achievements. The results also confirm that functioning achievements are significantly associated with subjective well-being. In addition, inter-group differences between older females and males are investigated. It is observed that the influences of utilization ability on functionings are different between groups, and the two groups evaluate various dimensions of their lives differently. These results provide empirical evidence to the arguments of the capability approach and give insights to well-being in later life.

Chapter 5 investigates the determinants of subjective well-being from a capability approach perspective with a particular focus on distinguishing comparison effects from family and non-family members. The influence of individuals' own functioning achievements and one's achievements relative to others, in relation to subjective well-being, are examined. Two reference groups are here analyzed: one's spouse and others in the community. The results indicate that one's own and one's spouse's achievements have a positive impact on subjective well-being, while community achievements may have a negative impact. Within households, a husband's achievements have a larger impact on his wife's subjective well-being than do a wife's achievements on her husband's. Additionally, the mean level of community achievements is found to be significantly and negatively associated with urban males' subjective well-being, and the negative impact is large enough to cancel out the positive impact of urban males' own achievements, implying that urban males are especially sensitive to inequality in well-being. Furthermore, for older people in rural areas, the positive impact of one's spouse is larger than the negative impact of others in the community, while the opposite is true for older people in urban areas. This may indicate that along with economic development, the negative impact of inequality in well-being becomes larger, which explains why Chinese people do not feel more satisfied with lives when income increases. The study concludes by

stressing the importance of distinguishing comparison effects between family and non-family members in China. Without distinguishing, individuals' feeling about inequality in well-being may be largely underestimated. Moreover, as it is usually impossible to observe intra-household distribution of resources, therefore, this study also shows how the capability approach may contribute to the traditional economic studies.

Finally, Chapter 6 summarizes the preceding chapters and includes a discussion on the main findings, policy implications, limitations of the study as well as future work.