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Social Networks and Fertility: Structural Aspects of Reproductive Decision-Making and Behavior in Traditional and Modern Societies

Part 1 Introduction and Overview

1.1 Social Networks and Fertility: An Overview
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1.2 Social Networks and Fertility
Kohler, Hans-Peter and Christoph Bühler, 2001. In: Neil J. Smelser and Paul B. Baltes (eds.), *International Encyclopedia of the Social and Behavioral Sciences*. Oxford: Pergamon/Elsevier Sciences, 14380-14384.

The article gives a brief overview about key-aspects of social networks and fertility.

Part 2 Social Networks within the transition from high to low fertility

2.1 Der Einfluss starker Beziehungen auf die Nutzung moderner Kontrazeptiva in Kenia
Christoph Bühler und Hans-Peter Kohler, 2004. *Zeitschrift für Soziologie* 33(1): 5-25.

The persistent decline of fertility in Kenya has been attributed to increasing modernization and urbanization as well as to the increased use of modern family planning methods. The growing acceptance of modern contraceptives in Kenya is the result of a diffusion process. Informal communication networks are key factors in this process because actors, who already use modern contraception, influence other actors to use these methods as part of day-to-day interactions and communications. This influence depends — among other aspects — on the extent to which users of modern contraceptives and potential users of these methods are connected through strong ties. In particular, strong ties are relevant for social influences because they create structures of normative expectations and constitute sources of reliable information. This paper is based on data on 740 women participating in the *Kenyan Diffusion and Ideational Change Project*, and our analyses support the role of strong ties for women's decisions to use modern contraceptives. In particular, the empirical results show significant associations between a woman's probability to use modern contraception and strong ties to users and non-users in her social network. Moreover, our analyses also reveal a particular relevance of the social relationships associated with strong ties. For instance, strong ties to friends or family members exert a stronger influence on contraceptive decisions than strong ties to persons of the immediate household.

2.2 Talking about AIDS: The influence of communication networks on individual risk perceptions of HIV/AIDS infection and favored protective behaviors in South Nyanza District, Kenya

Christoph Bühler and Hans-Peter Kohler, 2003. *Demographic Research*, Special Collection 1, edited by Susan C. Watkins, Eliya M. Zulu, Hans-Peter Kohler, and Jere Behrman, 398-438.

This paper explores the significance of social relationships to two important stages in the process of sexual behavioral change in response to increased HIV/AIDS risk in rural Africa: the perceived risk of becoming HIV-infected through unprotected sexual intercourse and the preferred methods of protection either through sexual fidelity, or through condom use. The empirical analyses are based on cross-sectional data from the Kenya Diffusion and Ideational Change Project (KDICP) which provides information about AIDS-related, ego-centered communication networks of Kenyan men and women. The results show that perceived risks, as well as preferred methods of protection against HIV-infection, depend in general on the prevailing perceptions and favored protective methods within personal communication networks. However, different influential network properties can be found. The risk-perceptions of women are shaped by strong relationships and cohesive network structures. Male's risk perception depends more on the number of risk-perceivers in their communication networks. Heterogeneous relationships of various kinds are influential on women's and men's probability of favoring sexual faithfulness as a method of protection against HIV-infection.

2.3 *Die Nutzung sozialer Netzwerke in unsicheren Situationen: Entscheidungen über Fertilität und Familienplanung in Kenia*

Christoph Bühler, 2004. In: Andreas Diekmann and Thomas Voss (eds.), *Rational Choice Theorie in den Sozialwissenschaften. Anwendungen und Probleme*. Munich: Oldenbourg, 309-330.

The paper explores whether people actively seek to reduce their uncertainties in decisions about the use of modern contraceptives by intensively utilizing their personal communication networks. Data from 489 women from South Nyanza district, Kenya show that women with innovative fertility-related goals, i.e. women that intend to postpone childbearing for more than two years or that want to stop reproduction, report about significantly larger fertility related communication networks as women with traditional intentions. Moreover, women that intend to pursue innovative goals, but have to face restrictions by disagreeing husbands, fear for side-effects or religious reasons, use their communication networks especially intensive. The results show a positive relationship between individual uncertainty and communication intensity thereby showing that communication networks do not only determine reproductive behavior, but are also utilized for active decision making.

Part 3 Social Networks within the transition from low to lowest-low fertility

3.1 *Weniger Kinder trotz steigenden Wohlstands? Zum Verhältnis von Haushaltseinkommen und Fertilitätsintentionen in der Bulgarischen Bevölkerung*

Christoph Bühler, 2005. In: Karl-Siegbert Rehberg (ed.): *Soziale Ungleichheit - kulturelle Unterschiede: Verhandlungen des 32. Kongresses der Deutschen Gesellschaft für Soziologie in München 2004*. Frankfurt/Main and New York: Campus, 1247-1257.

Using data from the Bulgarian survey 'The Impact of Social Capital and Coping Strategies on Reproductive and Marital Behavior' from 2002, the influence of households' economic situations, measured by their monetary income and the share of income spent for food, on fertility intentions of individuals and couples is explored. The results show that men's quantum related intentions to have a child and women's tempo related reproductive plans are sensitive to the economic situations of their households. However, males and females from high-income households intend to postpone the birth of a first child. Higher levels of income and lower shares of income spent for food also increase the probability that both partners intend to have a second child in general. According to the timing of a second child however, a better economic situation of the household supports primarily males' intentions to have this child soon.

3.2 *Additional Income, Family Agriculture, and the Birth of a First or a Second Child in Russia at the Beginning of the 1990s*

Christoph Bühler, 2004. *Demographic Research and Policy Review* 23: 259-289.

At the beginning of the transition period, many Russian households faced substantial economic hardships and uncertainties. An economic downturn had become one of the major factors responsible for the significant and rapid decline of Russian fertility. However, many households tried to cope with this situation by engaging in multiple income generating activities and the cultivation of food on private plots of land. The question therefore arises whether these activities had a positive impact on fertility decisions. This paper explores the association between (additional?) employment or subsistence measures (second jobs, part-time self-employment, and part-time family agriculture) and the probability to have a first or a second child in Russia during 1990 and the spring of 1993. Data from 966 respondents from the Russian component of the survey "Social Stratification in Eastern Europe after 1989: General Population Survey" show that activities that generate an additional income were positively associated with the birth of a second child. This is especially the case if these activities produce half of a respondent's or her household's income. The birth of a second child was also positively associated with the fact that a household consumed food that was cultivated by the household itself. However, none of these activities was significantly connected with the birth of a second child.

3.3 *Social Capital Related to Fertility: Theoretical Foundations and Empirical Evidence from Bulgaria*

Christoph Bühler and Dimiter Philipov, 2005. *Vienna Yearbook of Population Research*, 2005: 53-81.

Interpersonal relationships of support have been found to be an important factor in individual fertility intentions in Central and Eastern European countries. The foundations of this positive influence have not been well explored to date, however. We present a theoretical discussion on exchange-based social capital and argue that processes of interpersonal exchange are relevant for reproductive decisions when they provide access to resources that help to reduce the costs of having children and stabilize the economic situation of a household. Data from 2002 on the fertility intentions of 2,016 Bulgarian women support our argument. The availability of important and substantive resources has a positive impact on women's intentions to have a second or third child and their timing of having a first or second child. The embeddedness in kin-based exchange systems of indirect reciprocity shows similar positive effects and highlights especially the significance of parents as a source of intergenerational transfers and support.

3.4 *Learning from Others and Receiving Support. The Impact of Personal Networks on Fertility Intentions in Poland*

Christoph Bühler and Ewa Fratzack 2007. *European Societies* 9(3): 359-382

Research about fertility has focused in the main on studying separately the influences of communication networks and social capital on reproductive behavior, but it has rarely tried to integrate both network properties theoretically or analytically. We therefore discuss a general model of purposeful behavior that perceives individuals' subjective perceptions of the utilities of different courses of action to be affected by structures of interpersonal influence. Resources needed to realize desired goals are furthermore shaped by exchange relationships that build social capital. These considerations are empirically applied to explanations of the intentions of 758 Polish men and women ever to have a first, second, or third child. Personal networks are especially relevant for the considerations to have a first or a second child. The intentions of childless respondents are positively influenced by network partners that are in a similar stage of their reproductive biographies or that have already taken the step of having a first child. However, respondents with one child intend to have a second child with a higher probability the more they have access to fertility-related social capital.

3.5 *On the Structural Value of Children and its Implication on Intended Fertility in Bulgaria*

Christoph Bühler, 2006. Provisionally accepted by *Demographic Research*.

Personal networks receive increasing recognition as structural determinants of fertility. However, the network perspective also helps to explain personal motivations for having children. Using theories of interpersonal exchange and of the value of children, it is argued that children can substantively alter and improve their parents' social networks. Individuals perceive this potential advantageous development as a structural benefit and consider this value in their reproductive decisions. Data from Bulgaria, collected in 2002, support this argument. The intentions of females and males to have a first or second child are positively influenced by at least one structural value. Women's intentions are promoted by the prospect that a child will bring their parents and relatives closer or will strengthen the bond with the partner. Male's intentions are closely associated with the expectation that a child will improve their security at old age.