Towards Understanding Low Constraceptive Prevalence in African Societies

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The evidence from Demographic and Health Surveys (DHS) indicates that, in Africa south of the Sahara, there is a low contraceptive prevalence – the proportion of women in reproductive ages (WRA) who use contraceptive methods (**Table 1**).

Table 1: Total Fertility Rates and Contraceptive Prevalence in sub–Saharan Africa 1986–90

Country	Total Fer–tility Rate	% Knowing Any Modern Method	% Currently using any Method	% Currently using any modern Method	Unment Need for Fam Plan
Zimbabwe	5.3	98	43	36	22
Botswana	4.7	94	33	32	27
Kenya	6.5	91	27	18	38
Ghana	6.1	77	13	5	35
Cameroon	5.8	63	13	4	—
Togo	6.1	81	12	3	40
Burundi	6.5	64	7	1	25
Liberia	6.4	68	6	6	33
Mali	6.9	29	3	1	23
Nigeria	5.7	41	6	4	21
Senegal	6.2	68	5	2	—
Sudan	4.6	71	9	6	29
Uganda	7.2	81	12	3	27

Source: DHS Newsletter Vol. 5 (1), 1992 p. 12
DHS World Conference Wall Chart, 1991.

With the exception of Botswana, Kenya and Zimbabwe, at 33, 27 and 43 per cent, respectively, prevalence in most countries is between 5% and 10%, and a few reaching 13%. Furthermore, the use of modern methods is much less. Except for the three countries mentioned, the level is only between one and six per cent.

Yet, also seen in this table are relatively high proportions (27 – 40%) of women with an "unmet need for family planning" who wish to stop childbearing or postpone a birth but without using any form of contraception. Nevertheless, with the exception of Mali (29%) and – surprisingly – Nigeria (41%), over two–thirds of women in virtually all the countries are familiar with modern methods of fertility regulation. A point for later discussion –but needing noting here– is that (with the possible exception of Botswana, Sudan and Zimbabwe) there are high TFRs in countries in sub–Saharan Africa, ranging from 5.7 to 7.2; and this applies even to Kenya, which has the highest contraceptive prevalence in the group with that TFR range.

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So what! one might legitimately wonder. One reason is academic interest in the society's change, particularly in under–developed areas, from natural to deliberate limiation of fertility and the associated small family norm. Secondly, the issue of low contraceptive prevalence in Africa deserves much more attention for two other legitimate reasons: individual health and national population policies, where one priority area is the reduction of the population growth rate through the reduction of fertility (raising the mortality rate being universally unaceptable). A co–requsite detail is the reduction of fertility to not just low but also equally at micro–macro desired levels, and at a pace commensurate with the avoidance of the negative consequences of a too old an age–structure (:Kamuzora 1992). Required therefore is understanding of the factors behind both low contraceptive levels and, perhaps more importantly, an answer to the larger question of the factors making for change from natural to deliberate control of fertility and its process. Indeed, as will become clear as we proceed, holistic understanding of contraceptive prevalence cannot be divorced from consideration of this social transformation context.

Therefore, while limited to the exploration of the factors that lead to the understanding of current low contraceptive prevalence levels, this paper raises questions concerning the change to deliberate control of fertility. The tackling of such of problems is a pre–requisite for an informed policy and programme design and will be a valuable contribution to the explanation of contraceptive prevalence.

1.0 Exploring Factors Associated With Low Contraceptive Prevalence

Factors associated with the adoption of contraceptive behaviour are a key to strategy planning. Yet such factors have hardly been studied. More attention has been placed on acceptance rates and ratios and use effectiveness of appliance methods, even for Bangladesh (Akther and Ahmed 1992) which has been covered by studies of all kinds. However, this is hardly surprising given the frontal approach to make people of the Third World reduce fertility deemed necessary for economic development through less young age structures (Coale & Hoover 1958). Consequently, donor policy – hence aid in the population field – has been directed to that evaluation of donor agencies in the population field (see Mosley & Branic 1989).

However, knowledge attitude and practice (KAP) studies in Asia (where official family planning programmes were a first major undertaking since the 1960's, and later demographic surverys beyond Asia – eg the World Fertility Surveys (WFS) and Demographic and Health Surveys (DHS) Provide insights into the issue of low prevalence of contraception. Further, as the decision to limit the number of children – and hence the use of contraception – has a direct link with motivation and desired number of children, adoption of and continuing with contraception cannot be divorced from this context. These points will guide our exploration.

1.1 Asia: From Natural to Deliberate Control of Fertility

Although contraception in Asia is now a way of life, contraceptive prevalence is beyond 50 per cent (as shown by eg data of both the WFS and DHS Population Index of 1990). It is reflected in rapid decline in fertility from TFRs of about 6 to 3 – 4 in less than 20 years from the mid 1960's to the mid 1980's (Freedman & Rutenberg 1992). Reported in virtually issue after issue of the Poplulation Council's monthly studies in Family Planning and Reports on Population/Family Planning (1970's), their initial experiences were failures. A common finding was high proportions of women, not using or really inteding to use any form of contraception, wanting no more children or wishing to postpone pregnancy.

However, when the right time came, that is with the eradication of the reasons and institutional structures that had caused the desire for and production of large numbers of children in the first place, so did people limit their fertilty eg Indonesia (McNicol & Singarimbum 1983), Indonesia, Malaysia and Singapore (Jones 1990), the Punjab in India (Nag and Kak 1984), and Thailand (Knodel et al 1984) – but not just cultural conduciveness eg in the latter country (Kamuzora 1989) as put forward by Knodel and his colleagues **(ibid).** This fertility reduction was even more drastic in terms of speed (20 years) than that which occurred in North–Western Europe which took about 100 years to move from 5 to 2 children (Knodel & van de Walle 1979).

Leaving out China as an indeed a special case, it is however insular and para–insular countries of east and South –east Asia (Taiwan, Hong Kong, Indonesia, Malaysia) where fertility has significantly fallen, first by rises in age at marriage then by contraceptive practice (Leete 1987). In continental south east Asia (eg Bangladesh and Pakistan and the neighbouring countries of Afghanistan, Nepal, etc.), there have been only moderate successes (Sathar 1989) which have been compared for similarities with sub-Saharan Africa **(ibid)**. In fact most of the decline in these south Asian countries has been due to rises in age at marriage rather than contraceptive practice **(ibid).**

The characteristics that distinguish the two Asian groups is the level of modernisation, particularly in education (both level and proportion) and out–of–home occupations. Those elements compete with early marriage and child bearing, especially opening up the world of a woman to *inter alia* alternative life possibilities, including knowledge and access to means of contraception. A comparative study by Sathar **(op cit)** for similarities of fertility trends and factors between south east Asian and sub–Saharan African countries points to their importance of these modernisation factors. Their absence is associated with continued high fertility and low acceptance of contraception. A recent study of factors of continuation of contraception in Bangladesh found factors like the number of sons desired, parity and child mortality (and hence concern for survival chances) were significantly associated with this. Those factors have, of course, to do with the level of underdevelopment, modernisation, particularly educational attainment (Akhter & Ahmed op cit), rather than Islam or general religious factors.

That Islam has until recently been misinterpreted as being pronatalist is probably not the reason for low contraceptive prevalence. This is because the countries that have officially and actively promoted fertility regulation and limitation with varying results are all moslem countries. Interestingly, Gavin Jones (1990) has compared fertility trends among the Malays (Virtually all moslems) of Malaysia, Singapore and Indonesia. Their fertility followed the developmental characteristics of each particular country. For example, Malays of Singapore followed the Chinese of Singapore, etc., rather than a Malay or moslem pattern; this related to socio–economic trends.

These experiences would make one think of other factors that might be operating elsewhere, forcing the mass of women to "shy away" from fertility regulation. The claim by Sathar **(op cit)** that moderate successes in contraceptive practice in Bangladesh and Pakistan were related to patriarchal controls and the associated low status of women, rather than Islam per se, sheds light on what may be the cause of low contraceptive prevalence. Female seclusion and "protection" that physically "bars" contact with the outside world, combined with low level of education, is suggested to be behind the problem (Sathar **ibid).** In Africa, with the exception of some muslim enclaves (eg Zanzibar), physical seclusion of women is non-existent. Indeed, as Sathar **(ibid)** rightly acknowledges, African women have a comparatively high degree of autonomy **(ibid).** While this is certainly true, the low prevalence could be similarly associated with patriarchy which is also the main cause of the low status of women there as in south Asia. As explored in the next Section, patriarchy further over-rides Islam as a factor.

1·2 Patriarchy

The relationship between patriarchy and the associated low status of women with low acceptance and discontinuation of contraception can be viewed in terms of cultural circumscription. This is because, even if not physically secluded, African women are so much caught up in the strong cultural set-up by both socialisation and day-to-day tasks expected of them that there is little chance of exposure to new ideas nor of seeking information on and adoption of modern ways of life including contraception. Even if they did, it would only be a one-off and they would quickly retun to the dominant cultural practices. By the time she gains independence, she would have already accumulated many children and would probably also already be a pronatalist. That would be in keeping with Epstein's (1981) "domestic cycle".

A society which espouses a combination of patriarchy and traditionalsm (as opposed to modernism) also tends to practice polygamy. It probably remains unsettled whether fertility is lower among women in polygamous than monogamous marriages; yet – where children are valued and contraception shunned as in pronatalist societies – attempts by women to secure a firmer relationship with a husband by "bearing for him" a substantial number of children has been talked about. Competition between wives or "pinis envy" (Simmons 1977) by natalist tactics to cement the relationship with a husband do not augur well for the adoption of or continuation with contraception.

These are issues that Davis (1967) was concerned with as early as 1967, when population policies with frontal approaches were being designed following the classic Coale and Hoover **(op cit)** thesis questioning whether population policies would succeed without changes in social stuctures that had made for and normatively protected pronatalist behaviour in the first place. Thadani's (1978) emphasis on changes in the social structure against Caldwell's (1976) ideation was in the same vein, although Kamuzora (1987) finds difficulty with unmotivated changes. Indeed the latter stresses material, so-called economic factors as underlying the changes. Certainly the factors behind fertility decline are complex (Jones **op cit);** nevertheless – and it is not treated any further here – disentanglement could possibly be aided by the chronology of historical events and social surveys as has been done for the persistence of high fertility in Africa (Kamuzora 1987, 1989).

In Africa we have two classic failure examples. Ghana and Kenya introduced official population policies to limit fertility specifically under the Coale-Hoover doctrine as early as the latter half of the 1960's. But it was only since the 1980's that the beginning fertility limitation began to emerge. In fact Ghana is still at a low of 13 percent prevalence of contraception (see **Table 1.** The two countries had certainly not lagged behind in – they are indeed historically known for, mass education. Together with Botswana and Zimbabwe, the two countries had reached absolutely high levels of formal education among women much above other countries by the time of the DHS's. Averages for whole countries were 39% and higher for women who completed primary school and higher (DHS Wall Chart 1991). It must be higher for major ethnic groups: in the west and southern areas in Ghana, and in Nyanza, Western, Central and Eastern provinces in Kenya. However, patriarchy (Oppong 1980, McNicoll & Frank 1987) was shown as one of the persistent factors of fertility determination in these countries.

If (patriarchal) cultural circumscription is real, then also could be the common survey finding of high proportions of women stating wanting no more children – and knowing various methods of fertility regulation – yet insignificant proportions ever used (or are currently using) contraception. Westoff (1988) has questioned and therefore raised doubt as to the existence of this KAP Gap. Closer scrutiny of DHS survery respondents (including African countries) on the realities of their current status, that is the objetive circumstances they are in, of possibilities of them practicing contraception eg pregnancy status, coitus (hence exposure to conception), intention to use contraception, etc., shows that only small, indeed insignificant proportions (less that 2%) really have "effective demand" for contraception (Westoff 1988).

The "Westoff KAP-Gap" is however instantaneous, that is, it captures only status at the time of the surveys. Over a period of time, as women go in and out of postpartum exposure, the proportion of women necessarily rises (Bongaarts 1991). Even with 2 – 3 per cent KAP-Gap the unwanted birth rate per year among married (exposes women) is in the order of 50 – 60 per thousand **(ibid).**

However, unwanted fertility does not take away the question why women do not reach out to means of contraception. In a later article, Westoff et al (1989) shows that the demand for family planning is little because the desired number of children is still high. Therefore decline in desired family size remains a necessity. This means changes in the factors underlying the need to limit fertility to low levels (inevitably,, changes in the socio-cultural factors) are yet to emerge. We look at the desired number of children next.

1.3 Desired Number of Children

In patriarchal societies, women themselves seem to have a stake in high fertility, as children not only provide the values as is the general case, but they are of special value to women by mitigating the negative aspects of patriarchal rule. They provide the social and economic security at divorce, in widowhood and old age (Cain 1982, 1983). This is because usually inheritance goes to sons. It is through them that a mother can have access to it; some – if not most of which she would have laboured to create and/or maintain. Otherwise the property goes to the male next-of-kin,

including the widdow herself. Even if changes take place to permit widdows to inherit their husband's property, their effects will be for the future. The desire for a "Sufficient " number of children – high in a child survival situation as an insurance buffer– would be expected.

The World Fertility Survey data shows African countries still desiring a high number of children, six to eight (Lightbourne 1987, Lightbourne & MacDonald 1982). This is the number that a woman will on average bear in her lifetime. Though refering to the same source of information, Sathar's **(op cit)** comparative analysis of sub–Saharan Africa with south Asia arrives at the same view.

This entrenchment of desires has been evaluated as plausible when put into the context of African historiography (Kamuzora 1986b, 1989a): summarily put as a feature in a labour intensive economy (Kamuzora 1984) and perilous environment (Caldwell 1977), threatened by sterility (Caldwell & Caldwell 1987), so that pronatalism has been nothing but a survival strategy (Kamuzora 1987). Even an early start of childbearing in Africa is seen as responding to objective demographic reality of low survival chances for generational social succession (Kamuzora 1991b). To drive the point home, even skeptics like Cleland and Wilson (1987) have acknowledged that Africa is a possible unique exception with regard to the reality of the concept of demand for children.

Still, with the desire for high numbers of children prevailing, could it then not be true that is low motivation to use contraception? This is explored next.

1.4 Motivation to Limit Fertility

Easterlin (1975, 1978) has developed a measure of motivation to adopt fertility limitation behaviour as being the difference between the potential number of children one is likely to have in one's lifetime and the desired number. However, perhaps actual, rather than the potential is more practical. That is it is more readily discerned than estimation of the potential even if the latter is theoretically plausible. Thus a person may be in one of the following situations:

(a) negative motivation: the number desired is more than the actual one has accumulated. Here one would not have reached the target. Thus young women would be unlikely acceptors. Indeed the African DHS evidence of increasing proportions of women wanting no more children by parity, exponentially, and linearly for contraceptive prevalence by age, depict this situation (see DHS reports in Studies in Family Planning since 1989). Similar findings have been made recently among Wagogo of Dodoma Region in central Tanzania (Nanyaro 1992).

(b) positive but small: one extra child, or even two, one may have beyond the desired number, may not make a difference, particularly in a non–materialistic society where children are also still of value. The high number of children desired, six, in the African circumstances was observed above as being very much near what women actually have so that motivation to limit fertility is small.

Even if one would need contraception to space childbearing, one may have other more acceptable alternatives, particularly indigeneous methods, for example, lactation/abstinence for a culture still traditional/islamic. In a pronatalist culture, a culture without any perfect contraceptive – that is where both economic and psychological costs are zero – there is likely to be low commitment.

Therefore, since Africa has not developed a low fertility norm, and in view of the associated basic factors – particularly the desire for a high number children and the related concern for child survival, it is poissible that those committed to using contraception are women who already have many children (say above four) and want to avoid excess numbers due to social (eg reaching grandmaternityhood (Caldwell & Caldwell 1977), economic and health reasons. They are therefore likely to be at later ages of chidbearing.

Cleland and Wilson (1987) have reviewed studies on fertility decline in North–western Europe and developing countries that partcipated in the WFS. They concluded that beyond the reason of excess fertility it is not known why a low fertility norm developed in these countries, even if the idea developed and became widely diffused and was socially acceptable (Woods 1987, Knodel & van de Walle 1979).

2.0 Summary and Conclusion

The identification and understanding of factors associated with low contraceptive prevalence in Africa has been sought in the experiences of developing countries in Asia. Some of the latter have undergone rapid fertility decline by adoption of modern contraceptive practice, albeit after inital failures, and some with moderate successes. Consequently, the prevailing situation in Africa was reviewed. Here a summary discussion is made and implications for successful fertility regulation programmes are drawn.

In East and South East Asia rapid fertility decline followed socio–economic structural changes, with rises in female education and participation in non–agricultural occupations being important elements. It is certainly debatable as to the importance of socio–economic against ideational factors and diffusion, although the tendency is now towards the latter two (Watkins 1986, Cleland & Wilson **op cit).** What is of common agreement however is that the propensity to limit family size has a link with emancipation of women in the area of education and literacy, leading to exposure to and the acceptance of new ideas. This agrees with European findings (Knodel & van de Walle **op cit).**

A comparison of East and South East Asia with areas where fertilitly has declined little, that is South Asia and virtually constant in sub–Saharan Africa, indicated women's status connected with patriarchy as one key element that accounted for the differences between the two groups – that is, East and South East Asia and the other areas. Cultural circumscription, the element within the woman status complex was identified as rendering a woman not to be exposed to experimenting with and adoption of new ideas. The negative aspects of patriarchy, low economic security particularly in old age, are responsible for the heavy reliance on children, hence double–barrelled pronatalism, entrenched at both the macro and micro levels.

The question is how to break out. Two simple answers can be given: one, raising educational levels and providing out–of–home occupations; two, a direct, frontal approach of information, education and communication about methods of fertility regulation/limitation. The first suggestion is certainly a fundamental development focus for the emancipation of women. However, it is deemed simplistic in view

of the realities of being able to do that given resource limitations. It is far removed from reality, particularly since – to have any effect on fertility at the individual level – education is observed in surveys to be from secondary school and above (Cleland & Wilson **op cit).** Indeed it has been observed in a survey in Mwanza, Tanzania, that younger generations, mostly those leaving school at primary level at about age of 14, have all the behavioural characteristics of high fertility (ie earlier marriage/start of childbearing and shorter birth intervals (Kamuzora 1986)). This could, however, be a temporary phenomenon as will be seen later.

The frontal approach is usualy defended mainly on the grounds of the existence of unmet need (expression of wanting to limit or postpone chilbearing), which is certainly high. One should provide IEC to all and services for those ex pressing the need. But the problem of the majority not coming forward remains there. Is unmet need not then based on a misconception that it is synonymous with demand for family planning? Here is where Westoff's **(op cit)** evaluation of the KAP Gap becomes important: effective demand is low;as for knowledge, the survey information indicates that the majority are aware of contraceptive methods, unless efective familiarity of the methods is hazy. But fold methods are always available: eg these were responsible for the initial control of fertility in Western Europe.

The unquestionable reality is that the majority do not come forward to adopt fertility regulation/limitation. The challenge before researchers, first and foremost, is finding out the factors that both prevent many women (indeed couples and communities) and make a few adopt fertility limitation behaviour, particularly through the use of modern methods. A leading question is whether it is not a basic question of social transformtion – relevantly moving from natural to deliberate control of fertility in marital/sexual unions. Relatedly, the development of a discrepancy between desired and potential number of children, hence the emergence of motivation to control fertility to desired levels, must be at the heart of the prevalence of contraception. This is understood more in the particular case of historico–culturalism in Africa, where the observed desire for high numbers of children matches actual fertility; hence little motivation for and consequent low contraceptive prevalence.

This does not mean the onset of fetility limitation may not be sudden and in the near future. Indeed rapid decline of fertility in Africa, although still at a low level of development, is more likely than not. Tendencies for decline in the demand for children and actual fertility have been observed in the DHS and other surveys in Africa (eg Kenya in Chogoria – east –central – (Goldberg **et al, op cit;** Bauni, 1989) and Maragoli – Western – (Bradley 1989); Tanzania – Bukoba District, though the genuine shift in the desired number of children there has not resulted in the limitation of fertility except at high parities (Kamuzora, forthcoming) due to expressions of uncertainties pointing to concern for child survival. (A similar case has been pointed out above for Bangladesh (Akhter & Ahmed **op cit).**) Thus even if contraception is adopted it could be to avoid excess fertility above the still high desired number of children. The excess fertility could actually come from rising fertility with modernisation, arising from erosion of traditional means of contraception before mastering modern methods – the compensation mechanisms (Lestaeghe **et al,** 1981, Gaisie 1981).

What is likely to bring down first the high desired number and, consequently, marital fertility through the wide adoption of contraception? It appears that the accurrence of this in the near future could be facilitated by the rising costs and declining benefits of children. That is, it could be forced by the increasing resource limitations to effect the desire for the current high number of children; and, it seems, also by the erosion of parental control, the crucial element that has ensured a transfer of benefits from children to parents. The current and immediate future trends in fertility and their underlying determinants will be interesting to observe, as a unique epoch occurring in one's own lifetime.

3.0 References

Akhter, H. and S. Ahmed, 1992: "Determinants of contraceptive continuation in rural Bangladesh". Journal of Biosocial Science 24 (2): 261–68.

Bongaaarts, J., 1991: "The KAP–Gap and the unmet need for contraception". Population and Development Review 17 (2): 293–313.

Cain, M., 1982: "Perspectives on family and fertility in developing countries". Population Studies 36 (2): 159–75.

Cain, M., 1983: "Fertility as an adjustment to risk". Population and Development Review 9 (4): 688–702.

Caldwell, J. C., 1976: "Toward a restatement of demographic transition theory." Population and Development Review 2 (3–4): 321–66.

Caldwell, J.C., 1977: "The economic rationality of high fertility: an investigation illustrated with Nigerian data." Population Studies 31 (1) : 5–27.

Caldwell, J.C., and P. Caldwell, 1977: "The role of marital sexual abstinence indetermining fetility: a study of the Yoruba in Nigeria". Population Studies 31 (2) : 193–217.

Caldwell, J.C., and P. Caldwell, 1977: "The cultural context of high fertility in sub–Saharan Africa". Population and Development Review 13 (3):409–38.

Cleland, J. and C. Wilson, 1987: "Demand theories of the fetility transition: an iconoclastic view". Population Studies 41 (1): 1–30.

Davis, K., 1967: "Population policy: Will current population programs succeed?" Science, 158.

Demographic and Health Surveys: Wall Chart, 1991.

Demographic and Health Surveys: Newsletter 1992.

Easterlin, R.A., 1975: "An economic framework for fetility analysis". Studies in Family Planning 6 (3): 54–63.

Easterlin, R.A., 1978: "The economics and sociology of fertility: a synthesis" in C. Tilly (ed.) Historical Studies of Changing Fertility. (Princeton: Princeton University Press).

Epstein, T.S., 1982: "A social anthropological approach to women's roles and status in develeping countries: the domestic cycle". In R. Anker, M. Baivinic and N.H. Youssef: Women's Roles and Population Trends in the Third World (London and Sydney: Croo Helm).

Frank, O. and G. McNicoll, 1878: "An interpretation of fertility and population policy in Kenya". Population and Development Review 13 (2): 209–44.

Gaisie, S., 1981: "Mediating mechanisms of fertility change in Africa – The role of post–partum variables in the process of change: the case of Ghana". International Population Conference Manila 1981 (Liege: IUSSP), Vol. 1: 95–114.

Jones, G.W., 1990: "Fertility transitions among Malay populations of Southeast Asia: puzzles and interpretation". Population and Development Review 16 (3): 507–37.

Kamuzora, C.L., 1984: "High fertility and the demand for labour in peasant economies: the case of Bukoba District, Tanzania." Devevelopment and change 15(1): 105–24.

------, 1986a: "Socialisation gap and high fertility behaviour among younger generations: evidence from Wasukuma of Mwanza Region, Tanzania". Biology and Society 3(1).

------, 1986b: "Population growth and the development problems of Africa: origins and implied solutions" UTAFITI: Journal of the Faculty of Arts and Social Sciences (University of Dar es Salaam) Vol. VIII (1): 5–12.

------, 1987: " Survival strategy: the historical and economic roots of an African high fertility culture." in E. van de Walle and J. Ebigbola (eds): The Cultural Roots of African Fertility Regimes. Proceedings of the Ife Conference, February 25 – March 1, 1987. (Dept. of Demography and Social Statistics, Obafemi Awolowo University, Nigeria, Population Studies Center, University of Pennsylvania, USA. To be published by University of California Press).

------, 1989a: "Issues for the understanding of the determinants of fertility in the East and Southern Africa Region." Theme Paper of the Conference on Understanding the Determinants of Fertility in the East and Southern Africa Region, Arusha, May 8–10, 1989.

------, 1989b: "In–depth interview approaches to demographic data collection." International Population Conference, New Delhi 1989. (Liege: IUSSP): 17–32.

------, 1991a: "Impending fertility decline at low levels of development in Kigarama village, Tanzania: cultural materialism versus indealism". Proceedings of the Second Annual Seminar of the Demographic Unit July 11–13, 1991 (University of Dar es Salaam).

------, 1991b: "Is early maternal age of 16 to 19 years a health risk? The issues in the context of Tanzania". Proceedings of the 10th Annual Scientific Conference of the Tanzania Public Health Association, Dodoma, November 18–22, 1991.

------, 1992: "Refining the issues for realistic population–development policies in Africa" African Review (1991) A first version is in the proceedings of the First Annual Seminar of the Demographic Unit July 11–13, 1990 (University of Dar es Salaam).

------, (forthcoming monograph in preparation): *Women and the onset of Fertility Limitation in Kigarama Village, Tanzania. In–depth Study of Life Circumstances and Perceptions of Value and Related Ideal Number of Children.*

Knodel, J. and E. van de Walle, 1979: "Europe's fertility transition: new evidence and lessons for to–day's developing world" Population Bulletin 34(6). A shorter version in "Lessons from the past: policy implications of historical fetility studies". Population and Development Review 5(2) 1979: 217–328

Knodel, J., N. Havanon and A. Pramualratana, 1984: "Fertility transition in Thailand: a qualitative analysis" Population and Development Review 10(2): 297–328.

Leete, R., 1987: "The post–demographic transition in East and South East Asia: similarities and contrasts with Europe". Population Studies 41(2): 187–206.

Lesthaeghe, R., I.H. Shah and H. Page, 1981: "Compensating changes in intermediate fertility variables and the onset of marital fertility transition". International Pupulation Conference Manila 1981 (Liege: IUSSP), Vol. 1: 71–94.

Lightbourne, R.E., 1987: "Reproductive preferences and behaviour" in J. Cleland and C. Scott (eds), The World Fetility Survey: An Assessment. (London: Oxford University Press): 832–61.

Lightbourne, R. E., and A. L. MacDonald, 1982: Family Size Preferences. (ISI and Wold Fertility Survey: Comparative studies, No 14).

McNicoll, G. and M. Singarimbum, 1983: Fertility Decline in Indonesia: Analysis and Interpretation, Report No. 20, Committee on Population and Demography,

National Research Council (Washington, D.C.: National Academy Press). (See also McNicoll, G. and M. Singarimbum, 1986: Fertility Decline in Indonesia: Analysis and Interpretation (Yogyakarta: Gadjah Mada University)

Mosley, W. H. and G. Branic, 1989: "Population policy in sub–Saharan Africa: Agenda of International Agencies IUSSP Seminar on Population Policy in Sub–Saharan Africa: Drawing on International Experience, Kinshasa, Zaire 27 February– 2 March, 1989. (Liege: IUSSP).

Nag, M.and N. Kak, 1984: "Demographic transition in a Punjab village" Population and Development Review 10 (4): 661–78.

Nanyaro,P.,1992 "Unmet need for contraception to space or limit births inselected areas of Dodoma rural and urban districts." Paper presented at the Third Annual seminar of the Demographic Unit, University of Dar es Salaam, July, 1992.

Oppong, C., 1980: "A synopsis of seven roles and status of women: an outline of a conceptual and methodological approach." ILO, World Employment Programme Working Paper (Geneva).

Population Index, 1990: "Trends in percentage of married women using contraception". Population Index 56 (2): cover page.

Sathar, Z., 1989: "Can–sub–Saharan African fertility policy benefit from the south Asian Experience?" Seminar on Population Policy in sub–Saharan Africa: drawing on International Experience, Kinshasa, Zaire 27 February–2 March, 1989. (Liege: IUSSP).

Simmons, Alan, 1977: "The Value of Children (VOC) approach in population policies: new hope or false promise?" International Population Conference, Mexico 1977 Vol. 1 (Liege: IUSSP): 157–80.

Thadani, Veena N., 1978: "The logic of sentiment: the family and social change." Population and Development Review 4 (3): 457–99.

Westoff, C. F. 1988: "Is the KAP–GAP real?" Population and Development Review 14 (2) : 225–232.

Westoff, C. F., et al., 1989: "The demographic impact of changes in contraceptive practice in Third World populations." Population and Development Review 15 (1): 91–106.

Watkins, S., 1986: "Conclusion" in Coale and Watkins (eds): The Decline of Fertility in Europe. (Princeton: Princeton University Press).

Woods, R. I., 1987: "Approaches to fertility transition in Victorian England" Population Studies 41 (2) : 283–311.

Social Ontologies and Logical Typing: Ideas for a Critique of Social Sciences, Politics and Ideology[1]

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Introduction.

In studying human communities and societies, how and where do we draw the line while categorizing their components? How do we grasp what connects these components to each other and how communities and societies connect with their invironments? "The ontology of a theoretical discourse is that primary structure set of kinds of entity in terms of which explanations can be given in that discourse" (Stephen Gaukroger, 1978, p. 39). Generally speaking, ontology has an impact on how we know something. The separation or dichotomy between epistemology and ontology is actually based on certain ontological assumptions.

All theoretical discourses have an explanatory structure; and all explanatory structures have an ontology and a domain of evidence. Social ontologies are primary structured sets of kinds of entity in terms of which explanations regarding society are given in discourses on society. Social ontologies – atomism, organicism, pure multiplicity, aggregationalism, structurism, holism, etc. are arrived at through a conscious or unconscious kind of *logical typing*. Of course, some social ontologies are better than others, explanatory structures bases on better ontologies are more powerful.

The presuppositions on which logical typing is based may be revealed by certain difficulties: *paradoxes* (para = beyond; doxa = belief) in mathematics and logics; *double binds* in psychiatry and *strange loops* in artificial intelligence, for example.

The need to examine carefully the presuppositions of logical typing or of how we draw demarcation lines in our everyday life activities came through the confrontation with those difficulties. These are not just games; they can be very deadly. If society acts as if the Darwinian line of evolution were true that evolution takes place not on the basis of the species and its environment', society may destroy itself by destroying its environment. A specie that destroys its environment, destroys itself. The correct demarcation line should be the species–plus–its–environment and not the species against its environment as unit of evolution. The basic question I am trying to draw attention to is: how do social sciences, politics and ideology draw their demarcation lines? How do they name the things – and their connections– theydeal with? What are the assumptions underlining their "logical typing"?

Paradoxes, Double Binds and Strange Loops

Awareness of the importance of 'logical typing' emerged in logic and mathematics while mathematicians, metamathematicians and logicians were dealing with paradoxes, standing on the way, against the attempts to make mathematics and logics consistent (e.g. the programme of reducing mathematics to logics, etc) and

1. A summary of a lecture given to Dar es Salaam philosophical club 1988.

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