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Von Hayek and the Amish Fertility
How religious communities manage to be fruitful and multiply - A Case study

Michael Blume

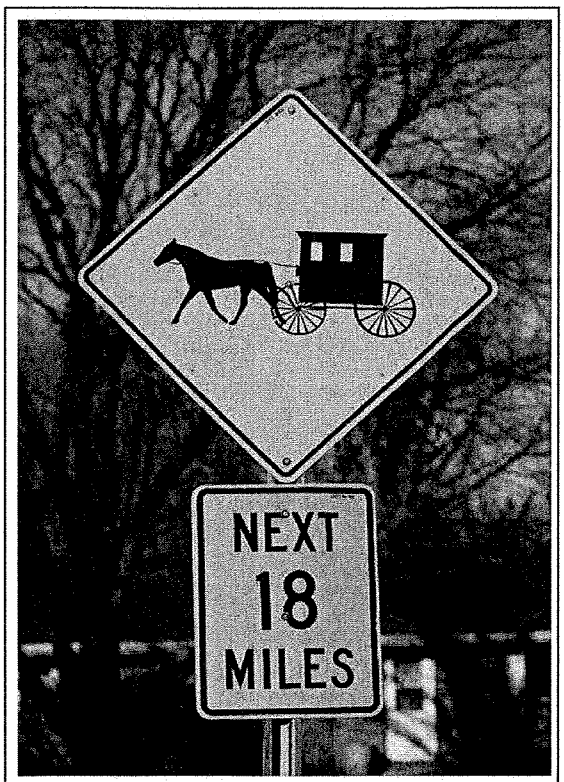
Abstract

An evolutionary hypothesis formulated by Friedrich August von Hayek (1899 - 1992) about successful religions bestowing 'reproductive advantages' upon their adherents has been validated by numerous studies during the last years. On average, religious people tend to have higher fertility than their secular neighbors, leading to contemporary and complex developments in modern and shrinking populations. But to state correlations doesn't explain them. On the basis of the peculiar (but not singular) demographic expansion of the Amish, a religious community which achieved very high birth rates for centuries while refusing converts, the proximate mechanisms at work at the individual, social and institutional levels are explored exemplarily.

1. Biocultural Evolution of Religiosity and Religions

An evolutionary hypothesis formulated by Friedrich August von Hayek (1899 - 1992) about successful religions bestowing 'reproductive advantages' upon their adherents has been validated by numerous studies during the last years. On average, religious people tend to have higher fertility than their secular neighbors, leading to contem-

porary and complex developments in modern and shrinking populations. But to state correlations doesn't explain them. On the basis of the peculiar (but not singular) demographic expansion of the Amish, a religious community which achieved very high birth rates for centuries while refusing converts, the proximate mechanisms at work at the individual, social and institutional levels are explored exemplarily.



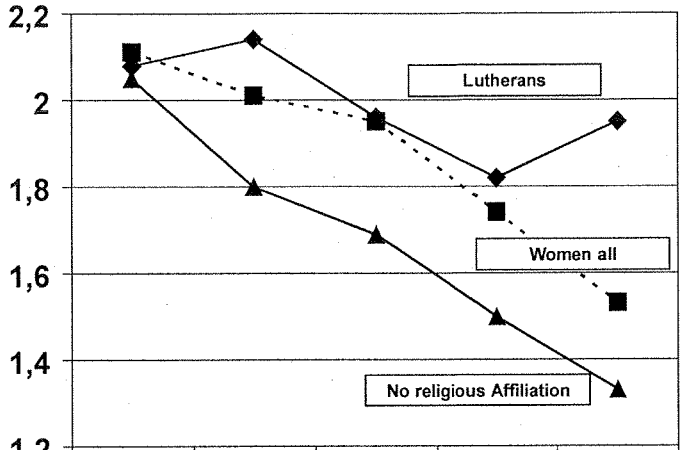
Traffic sign alerting drivers for Amish Buggies on the road, near Arcola, Illinois. Picture by Daniel Schwen, WC

According to Hayek, religious mythologies are helping humans to adapt to their changing environments by sanctioning successful traditions and endorsing cooperation. Drawing on Hume's essay on the "Natural History of Religion" (1757) and Darwin's observation of his dog perceiving agency in a wind-blown parasol, von Hayek assumed that supernatural agents as ancestors, spirits and gods would be constructed on the basis of animistic biases in brain evolution (cp. Hume 1757/2008; Darwin 1879/2004; Guthrie 1995; Sukopp this volume). As such agents were believed to be watching, this would motivate and bolster rule-abiding behaviors, e.g. regarding sexuality, family, law and loyalty. Therefore, Hayek observed that ritual behavior

signalling shared faith in supernatural "guardians" was able to build trust among adherents, bestowing higher levels of in-group cooperation. Although most religious enterprises would tend to fail amidst the intra-religious competition, those surviving the centuries could only do so by organizing higher numbers of children raised in faithful families, thereby linking cultural and biological (genetic) success "on a progressive scale". Thus, the life-supporting values frequently taught by religious communities and an overall "reproductive advantage" of religious people would not emerge out of "intrinsic" qualities of religiosity, but out of "historical", competitive processes of (bio-)cultural evolution (von Hayek 1992).

The assumed advantage of the religious concerning intergenerational reproduction turns out to connect biological and cultural evolution. From a biological perspective, cooperation, health and survival benefits not resulting in more offspring are a dead end (Euler 2004). And from a sociocultural perspective, higher birth rates among members of distinct religions have been observed in a range of historical studies (Stark 2006; Derosas & van Poppel 2006) and verified by several contemporary studies ranging from national studies to the international World Value surveys and censuses (Adsera 2006; Frejka & Westhoff 2008; Blume 2009b, Vaas & Blume 2009). But although the statistical correlation is solid, studies are showing huge and shifting variations in the reproductive performances of specific religious communities. "Religious systems and fertility are complex processes. Disentangling the linkages between these complex processes are major challenges for social scientists and historians." (Goldscheider 2006) For example: Rising levels of personal security, formal education and increasing wealth have been shown to exert secularizing influences, as extrinsic incentives for religious participation as e.g. communal protection, reciprocal help etc. dwindle (cp. Rees 2009). But those educated retaining (or joining) specific religious affiliations due to more intrinsic and spiritual motivations actually seem to be able to augment their relative, reproductive advantage along different paths, as e.g. observed in a comparative study on Muslims, Hindus and Christians in India (Iyer 2002), a German survey in 2002 (Vaas & Blume 2009) and a recent in-depth analysis of data from an Australian census (Newman & Hugo 2006).

Figure 1: No. of Live Births to Women 40-44 yrs. to Education & Religion, Adelaide, Australia - Census 1996. (Shown: Lutherans with highest, Non-affiliated with lowest of all)



	No post-school	Skilled, basic vocational	Under-graduate	Bachelor	Postgraduate
Lutherans	2,08	2,14	1,96	1,82	1,95
Women all	2,11	2,01	1,95	1,74	1,53
No Affiliation	2,05	1,8	1,69	1,5	1,33

Data: Newman & Hugo 2006

2. Exploring the Proximate Mechanisms by Case Studies

Therefore, statistical correlations are important, but they are not sufficient evolutionary explanations. One could still assume, for example, that the arrow is pointing the opposite way - parents with many children may join religion(s). Or, the correlation could be rooted in third variables influencing both family size and religiosity, e.g. urbanization. Still others speculated that the higher fertility of the religious could be the result of power-hungry clergy forbidding contraceptives in order to increase their following. Obviously, research on the proximate mechanisms linking religious behavior and average fertility of adherents is addressing key questions of evolutionary studies on religiosity, religion(s) and human behavior in general (Fetchenhauer 2009).

Strong possibilities to test and develop hypotheses in real life are case studies. There are thousands of religious communities with distinct shapes, strategies and histories around leading to diverse, evolutionary outcomes (Wilson 2002). As an example, the all-celibate Shakers (founded 1784) verified that religious affiliation is able to influence human reproductive behavior, that not all religions are necessarily linked

to higher fertility and that those abstaining from siring offspring tend to pass out of (bio-)cultural evolution rather quickly, even if they try to survive by adoption and proselytizing (Stein 1994).

Another point in case is Judaism, which has a tradition of strong reluctance in accepting converts. Nevertheless, according to the Census 2000, Swiss Jews combined higher percentages of academically educated, leading professionals and urban dwellers with nearly double as many births in comparison to the Non-Affiliated (Blume 2009b). Actually, the high fertility of orthodox Jews in contrast to their liberal or secular contemporaries is currently reshaping the demographical and political landscape of Israel (Cincotta & Kaufmann 2009). Beginning evolutionary studies in Jewish lore and rituals have proven to be valuable in exploring the potential of religious behavior (Goldberg 2009). Each case study may help to falsify some hypotheses and to clarify others. Exploring the individual, social and institutional religious behaviors of distinct communities achieving higher birth rates throughout subsequent generations contributes to understanding the proximate mechanisms and evolutionary potentials of religiosity and religions.

3. Case Study: The Amish in the USA

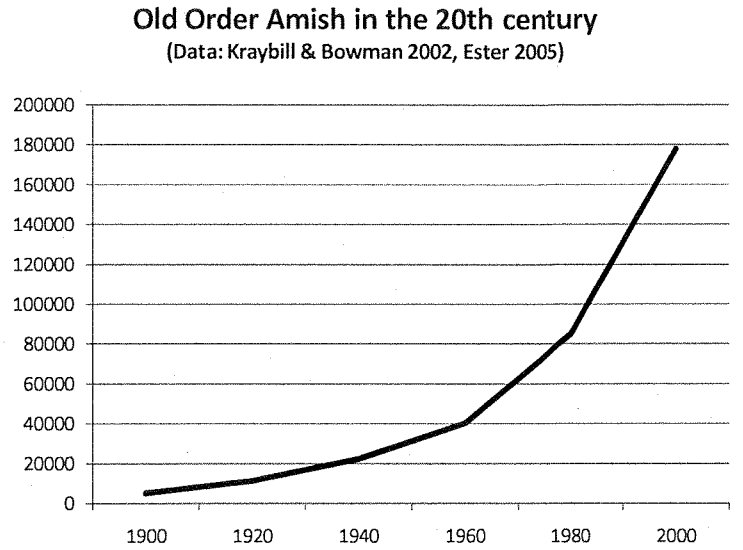
Owing to their centuries-old traditions of multiethnic immigration and non-discriminating religious liberty, the United States brought forth a competitive and dynamic landscape of religious communities contributing to overall higher levels of fertility than any other "Western" society (Frejka & Westhoff 2008). Distinct religious traditions as e.g. the Mormons, Hutterites, Old Order Mennonites and Old Order Amish have been thriving for generations due to high birth rates and most children remaining in the faith.

The Amish started as a branch of the Anabaptist movement emerging in the aftermath of the Protestant Reformation in Europe. In 1673, elder Jakob Ammann formed a distinctive, non-violent community of Swiss and South German Anabaptists who later came to be called after his last name – the Amish. While those remaining in Europe finally succumbed to persecution, discrimination and assimilation with the last community expiring in Germany in 1937, about 4,000 found refuge in the United States during the 18th and early 19th century.

Refraining from slavery as well as from conscription and political oaths, increasingly reluctant to accept converts and plagued by competitive, pietistic and evangelical missionaries, their communal survival seemed far from secure at the start. As cultural assimilation won many Amish young and severe schisms occurred over religious topics (as e.g. rules of clothing), orthodox branches (called the "Old Order Amish") only grew slowly to about 5,000 heads at the end of the 19th century. They never wielded political power and they never formed a strong hierarchy. To this day, each district is self-organized by seeking consent and a non-paid staff of lay-ministers elected by a combination of nomination and drawing lots (perceived as divine intervention). On the same line, the Old Order Amish never erected Church buildings, worshipping in houses and barns instead. Although loyally paying any taxes, the Old Order Amish strongly resisted State security programs and government subsidies as dangerous 'handouts' (Kraybill 2003).

But as the overall fertility levels of their surroundings began to decline, English became the dominant language and electricity, machinery, automobiles and computers began to change the fabrics of American live, the Amish adapted, managed to keep up their identity, to retain their high birth rates (around six to eight children per woman on average) and finally to erect their own schools and to lower their rates of people leaving to below 20% per generation. As a consequence, their numbers doubled every 15 to 20 years, growing exponentially during the 20th century while spreading throughout the US and Canada (Ester 2005). With yearly growth rates fluctuating between four to six percent, the numbers of Amish continue to soar, e.g. from 218,000 in 2007 to 231,000 in 2008 (YCAS 2009).

Figure 2: Old Order Amish (Children & Adults) in 20th century USA.



Although a range of more complex definitions of religiosity are debated in the interdisciplinary range of evolutionary studies, to define it comprehensively as "behavior towards supernatural agents" has been proven successful in many cases (cp. Feierman 2009). Drawing on the theoretical sketch by von Hayek presented at the onset of this chapter, it is possible to disentangle the influence of the traditional mythologies of the monotheist Amish on the individual, social and institutional level. If not stated explicitly otherwise, all of the following ethnological observations are cited from and cross-checked by the studies of Greksa & Korbin (2002), Kraybill & Bowman (2002) and Esther (2005).

3.1 Individual Influences

As the Amish started as an Anabaptist movement, facing persecution for their insistence only to recognize baptisms of adult, responsible and willing individuals, individual choice before the eyes of God remains of central importance to their culture. For example, adolescent Amish are allowed some years of "Rumschpringa" (transl. jumping around) including the testing of automobiles, cinemas and decent flirting. And if a member of an Amish family chooses not to be baptized, others might be disturbed, but this doesn't result in social banishment (the so-called "shunning") from family and community. In fact, prospective converts are often rejected on the basis that other churches could of-

fer the way to salvation, too. But if the Amish baptism is asked for and accepted, it is deemed binding for life – a path which has been chosen by more than 80% of young adults raised in Old Order Amish families. After the baptism, any further violation of the "Ordnung" (the communal interpretation of God's Will) might result in admonishment and shunning until the sin is confessed and forgiven.

The same thinking applies to matters of marriage and family. Amish are free to choose their partners among their peers and a range of festivals with mixed adolescent choirs, sports contests, reunions, reciprocal visits and festivities (such as holy days and weddings) are offering ample opportunities of getting in touch. But sexuality is strongly restricted to rightful marriages between the baptized, offering further incentives for young Amish to choose both early on. And if a wedding has taken place, it is again deemed binding for live. Divorces among Old Order Amish are almost unheard of, as they are forbidden by the Ordnung.

The same holds true with regard to children. Not even Old Order Amish forbade the use of contraceptives, as such matters are perceived to be a matter of familial privacy. But then, God's first words according to the Bible ("Be fruitful and multiply", Gen 1.28) are accepted as a literal commandment. In accordance with this statement and many parts of the Bible (cp. Goldberg 2009), children are perceived both as a religious duty and a heavenly blessing. Thus, "spacing" children is accepted, but voluntary childlessness would constitute a violation of the Ordnung and is acceptable only under very restricted conditions (see below, Institutions).

3.2 Social Influences

The main reason why young Amish generations tend to join their parent's Church in about four out of five cases is to be found in the social structure of the community. Amish are raised in very close-knit networks of families, friends and fellow believers. Almost all Old Order Amish are bound together by at least ten distinct badges signalling their distinct faith and identity: 1. Horse-and-buggy transportation (or rental of automobiles and buses driven by non-Amish.) In some communities, roller blades are increasingly popular. 2. The use of horses and mules for fieldwork, while tractors are forbidden or restricted e.g. to wooden tires. 3. Plain dress (in many variations). 4. A beard

and shaven upper lip for married men. 5. A prayer cap for women. 6. The Pennsylvanian German dialect. 7. Worship in homes and barns. 8. Eight-grade schooling, increasingly in Amish schools. 9. Restrictions regarding electricity to 12-volt-batteries. 10. Taboos on the ownership of televisions, computers and telephones (the latter are sometimes allowed in shared outdoor use). With the exception of their historical, theological, regional and cultural neighbourhood to the Old Order Mennonites (with many friendly contacts and some discreet swapping of seeking members), their social fences towards the Non-Amish are too high to be crossed frequently.

Young Amish are thus absorbing distinct social capital as well as an education concerning the specialized economy, peculiar language and rich spiritual life of their community. If they'd choose to leave the Amish world, most of this specialized 'wealth' on knowledge and status would be lost in exchange for a live starting on the fringes of mainstream, competitive society. Thus, comparable to orthodox Jews or the Hutterites, most Amish chose to stay, some even returning after years of probing 'the world' (cp. Sosis 2003).

If we might perceive this as undue restriction of choices, we might ask ourselves if we would be able to face the very same costs e.g. by joining an Amish district or a band of hunters and gatherers. Most of us wouldn't be able to leave behind all the 'valuable' skills and social contacts we were raised in, too. And as any Amish, we would have to start with almost no status in the new culture. In a sense, religious communities as the Amish are simply exerting their liberty rights to establish distinct streams of traditions separate from those of the overall mainstreams.

3.3 Institutional influences

The Amish are very reluctant regarding any kind of complex institutions. Their districts are restricted to a size of about 150 members, without central theological institutes, church buildings and paid clergy. All districts are self-organized, their rich variety bound together in subtly liberal, conservative and orthodox "fellowships" by networks of familial relations and reciprocal visits of lays and ministers. The Amish faced persecution repeatedly for rejecting any involvement in State institutions as armies, courts, parties or trade unions. Although they feel compelled to obey legal authority, to bow to the law, to pay their tax-

es and to pray for those ruling (as authorities are perceived to be ordained by God), they non-violently insisted on their Ordnung in repeated conflicts. For example, the Old Order Amish didn't object to their payments regarding Social Security. But they did fear the subsequent claims earned this way by those paying, as they felt that these governmental 'handouts' would erode their own social networks of religious reciprocity and communal care. Insured people in need would turn to the State, not to their Church. Therefore, many stubbornly faced juridical persecution until self-employed Amish were freed from the Social Service system.

Along the same line, Amish used to send their children to the rural one-room-State schools until these were merged into larger ninth-grade-institutions with subsequent educational pathways. Loyally paying their communal school taxes, most Old Order Amish nevertheless rejected school education beyond eight-grade for their children, starting a network of private Amish one-room-schools of their own. Sued by State authorities in Wisconsin vs. Yoder in 1972, they finally won that case before the Supreme Court, too – having turned (to their own surprise) into the very unlikely heroes of American civil liberty movements in the process.

The Amish schools became an important part of communal life, with all teachers drawn from the ranks of women until the birth of their first child. In fact and although they nominally rejected any formal celibacy, some of these teachers don't marry, living a life of respected, institutional child care instead (Fisher & Stahl 1997). Strongly supporting evolutionary studies concerning celibate roles of priests and nuns in other religions, Amish teachers are effectively functioning as 'helpers at the nest' (Vaas & Blume 2009), contributing to the reproductive performances of their religious communities by alloparental care distinguishing Homo sapiens from all other living primates (cp. Hrdy 2009).

According to evolutionary hypotheses on the sexual selection of religiosity, women should be more ready to support the social structure securing their familial investments on average, even if the religious communities restricted visible roles to men. In contrast, men should be more ready to leave religious communities with strict rules restricting sexuality to monogamous marriage (Euler 2004; Blume 2009b). These hypotheses are supported by the Amish case, too: Strong majorities of those leaving are male, with many more enticed (back) into the com-

munity of the baptized by prospective brides insisting on a binding Amish Church wedding.

4. Conclusion

As I recently returned from Pennsylvania, I found myself back in the very Southern German regions the Amish emerged from. Today, Germany is to be counted among the most 'progressive' societies with unparalleled levels of internal and external peace, wealth, social security, education and waves of (increasingly intolerant) secularization. But during the last years, the widespread self-assumption as a society leading other peoples (including these "oddly religious" Americans) into the rational end of history has been shaken. We Germans are slowly beginning to recognize that we are living as a shrinking population, with only two children following three adults for decades. Although we extended our life spans and invited millions of immigrants, their birth rates fell with 'successful integration', too, with only the insistent religious retaining bigger families. Effectively, Germany has been facing more deaths than births during any single year since 1972. The closure of churches has been followed by that of playgrounds, kindergartens, schools and whole settlements. At the same time, Germany is facing steep growth of religious diversity among the younger generations. Maybe political scientist Eric Kaufmann was right to assume that the demographics of an increasingly diverse and competitive religious market are beginning to outbalance European secularization, as it has done in the US (Kaufmann 2006). And maybe von Hayek was right to assume that the widespread contempt of religious liberty and religions doesn't constitute the peak of evolutionary history, after all (von Hayek 1992).

As the Germans began to dwindle, the Amish - long ridiculed as "dumb Germans" - became the unlikely heroes of broader mainstream publics and civil rights movements in the United States and abroad. They were increasingly cherished (and often romanticized) for their valuing of religious traditions instead of quickly changing fashions, for their insistence on self-organization instead of State dependency and their dedication to political non-violence. Currently, scores of non-Amish tourists are flooding their traditional settlement regions, fascinated by this distinct way of life. Scientists interested in understanding human evolution and behaviors shouldn't be less curious. The Amish and oth-

er religious minorities might teach us a lot about the biocultural, evolutionary histories and potentials of human (religious) life.

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