

Structural change and farm handover

Hofübergabe und Strukturwandel

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Zusammenfassung

Die Hofübergabe stellt den Zeitpunkt dar, zu dem ein Austritt aus der Landwirtschaft am ehesten erfolgt. Andererseits ist sie durch die Erbgewohnheiten in der Landwirtschaft geprägt. Dies verleiht den Erbgewohnheiten eine besondere Bedeutung in der Erhaltung der Landwirtschaft.

Die vorliegende Arbeit präsentiert eine soziologische Motivation für die weit verbreitete Anwendung der geschlossenen Hofübergabe an einen Sohn. Es zeigt, dass die geschlossene Hofübergabe an einen Sohn durch den allgemeinen Wunsch nach „dem Besten“ für die Kinder begründet werden kann, wenn zugleich die Reproduktion dem Sprichwort „der Wunsch nach einem Sohn ist der Vater vieler Töchter“ entspricht.

Schlafworte: Hofübergabe, Anerbe, Fairness, Androzentrismus

Summary

Inheritance habits within agriculture are still an issue of research as the event of farm handover is the stage where exit from agriculture threatens most. The paper at hand presents sociological motivation for the widespread habit to transfer to a male principal heir. It argues that transfer to a male principal heir may result from parents desiring “the best” for the children and reproducing according to “the desire for a son is the father of many daughters”.

Keywords: farm handover, principal heir, fairness, androzentrism

1. Introduction

Inheritance habits within agriculture are still an issue of research as an upcoming farm handover is the stage where exit from agriculture is most likely (PFEFFER, 1989).¹ The paper at hand deals with the origin of one traditional habit, the habit not to handover to all children in equal shares, but to transfer the farm to one male principal heir. The male principal heir is typical for some social communities, but it is in no way a universal phenomenon. The usual argument for a principal heir consists in the conservation of vital operational units (DOLL et al., 2001; KÖHNE, 1995; MANN, 2005). The viability on its part encourages the continuation of farming (ZECH, 2004). The paper at hand now ascribes the habit of principal heirs to the reproduction scheme and reveals surprisingly no contradiction to fairness. Fairness and the privileged position of male go together when the point of view is subjective and "biased".

The proceeding is the following: the next chapter presents a short review of the literature dealing with determinants of farm handover and the optimal choice of the successor. The subsequent chapter presents the model which motivates the dominance of the handover to a male principal heir. The final discussion considers potential extensions of the model and summarizes the results.

2. Literature Review

Structural change within agriculture means usually an exit of farmers, only rarely an entry of new farmers. The voluntary exit most probably comes about at the end of work-life when farm handover from one generation to the next would be imminent. Farm handover is analysed in many studies.² Patterns differ by country and region, respectively

¹ Another reasons why transfers to the next generation are still interesting, is "the old cliché that there are two inevitable events in life, death and taxes, is particularly apropos to the estate planning problem when both these events occur simultaneously." (Boehlje and Eisgruber, 1972, 471).

² Old age pension scheme (Kotlikoff and Spivak, 1981, Hennessy, 2002) provide the frame for inheritance patterns. Where old age pension scheme have a long history and children do not have to provide a living for their parents, parents are free to sell the farm when they retire.

tradition, and legal frame (HUTSON, 1987, HENNESSY, 2002; MANN and ROSSIER, 2006). The transfer to a principal heir is a widespread tradition within agriculture, and the heir is ordinarily a son – if existent – and not a daughter (BERNHEIM, SHLEIFER and SUMMERS, 1985; MANN and ROSSIER, 2006; HUTSON, 1987). Concerning Northern Germany, GLAUBEN, TIETJE and WEISS (2004b) find evidence for a higher probability of a farm handover in those families with more sons. Further, the probability of a handover decreases with the number of daughters. This fact may be linked to the importance of tradition and genealogical tree in agriculture in Germany. The strong link between the existence of sons and the probability of handover is confirmed by MANN and ROSSIER (2006), too. For the German-speaking area, they state “... in allen drei Regionen ist es von eminenter Bedeutung für die Zukunft des Betriebes, ob männlicher Nachwuchs vorhanden ist.” (MANN and ROSSIER, 2006, 10).³ But in contrast to GLAUBEN, TIETJE and WEISS (2004b) MANN and ROSSIER (2006) do not find much influence of daughters on the probability of farm handover.

For South West Wales, HUTSON (1987) sees a significant feature in the “patterns of inheritance and the ways children are amalgamated into family enterprises...” (HUTSON, 1987, 215). He cites: “... simple commodity production enterprise, whose internal relations are governed by other principles, generally variations of the gender division of labour, kinship obligations and patriarchy.” (HUTSON, 1987, 216). His results base on 50 interviews and confirms the relevance of children’s sexes: “A successful farm management team needs in the first place children – of appropriate ages and sexes ...” (HUTSON, 1987, 218). Traditionally, daughters were disposed of in marriage. In contrast, sons obtained the basis to make a living by their own. The general propensity to inherit businesses to sons is also stated by HANDLER (1994).

Other family specific factors influencing the probability of handover are the age of the farmer, the age of the potential heir(s), and of the education level. The age of the farmer has a non-monotonic impact on the handover probability (GLAUBEN, TIETJE and WEISS, 2004a and 2004b), the education level displays a negative impact (HENNESSY,

³ They cite: “Das Fehlen eines Sohnes senkt die Übergabewahrscheinlichkeit enorm, da es in den meisten Fällen immer noch die Söhne sind, die als Betriebsnachfolger favorisiert werden” (MANN and ROSSIER, 2006, 9).

2002). Concerning the time of handover, the number of children may speed up handover (GLAUBEN, TIETJE and WEISS, 2004a and 2004b), or may slow down the handover (KIMHI, 1994). The studies propose some rational explanations for their finding: more potential heirs allow for waiting and finding out who is the most favourable one to become the principal heir. On the other hand, if the farmer waits too long with his decision all children are gone and do not return to agriculture. The probability that they earn a better living outside agriculture increases with their education level.

Farm features impact the probability of handover as well. A minor farm size linked to a minor income, often impedes handover (HENNESSY, 2002). The larger the farm, especially the larger the fraction of farm land in ownership, and the larger the income, the higher the probability of handover (GLAUBEN, TIETJE and WEISS, 2004a and 2004b). As specialised farms earn a higher income, their probability of handover is higher as well (GLAUBEN, TIETJE and WEISS, 2004a). On the other hand, fulltime farms should have a higher income, too, but GLAUBEN, TIETJE and WEISS (2004a) do not identify any impact of part-time farming on the probability. Some of the contribution to the literature further analyse the impact of debt and investments, of lease paid for tenure. In total, the better the economic situation of the farm and its prospect, the higher the probability of handover.

In summary, many empirical studies deal with factors influencing handover; yet, rarely theoretical analysis is presented.⁴ Further, there is no answer to the question why the preference for male heirs is so widespread. The following chapter provides a theoretical model which gives a probable answer.

3. Dominance of handover to a principal heir

The transfer to a principal heir is an old habit. The usual explanation is: 1. non-existence of an alternative to continue viability of the farm and 2. the concentration of the wealth within the farm, i.e. indivisibility (KIMHI, 1994). Yet, viability and indivisibility refer also to other sectors, and inheritance patterns differ. Ergo, why did the principal heir law dominate in agriculture and not in other sectors? The following model

⁴ An exception is KIMHI (1994). The model explains how to calculate the optimal time for hand over.

tries to motivate the uneven inheritance in agriculture in a freakonomic’s fashion. It borrows from the proverb “the desire for a son is the father of many daughters”.

Inheritance to equal shares is not a problem as long as the population reproduces each generation, i.e. couples (spouses) have two children on average. Then, siblings can inherit half of their parents’ wealth, marry someone inheriting “half a wealth”, too, and own one “wealth” together with their spouse. The reproduction scheme is the critical aspect within this argument. The model assumes at this point a different family planning within agriculture. The assumed agriculture’s reproduction scheme advises to have two children with special emphasis on males. If none of the first two children is male, continue. If the third child is a son, stop. Otherwise continue ones more. The following schema summarizes the outcome assuming son and daughter with equal probability:

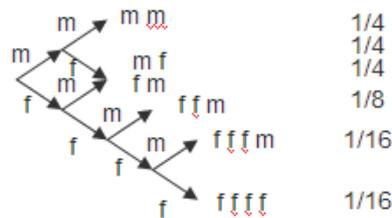


Fig. 1: Family planning scheme; f = female, m = male
Source: own demonstration

The structure is highly non symmetric, however, the scheme results in 19/16 daughters on average, and 19/16 sons.⁵

Our goal is the assessment of two inheritance patterns, inheritance to equal shares and transfer to a male principal heir. In order to compare them, we look at the farmer community from outside (see figure 2),

⁵ Avg. number of daughters: $\frac{1}{4} \cdot 0 + \frac{1}{4} \cdot 1 + \frac{1}{4} \cdot 1 + \frac{1}{8} \cdot 2 + \frac{1}{16} \cdot 3 + \frac{1}{16} \cdot 4 = \frac{19}{16}$, avg. number of sons:

$\frac{1}{4} \cdot 2 + \frac{1}{4} \cdot 1 + \frac{1}{4} \cdot 1 + \frac{1}{8} \cdot 1 + \frac{1}{16} \cdot 1 + \frac{1}{16} \cdot 0 = \frac{19}{16}$. The first multiplier in a product refers to the

frequency (weight), the last factor to the number of daughters (sons).

and further take the view of a young, yet not married daughter and of a young, yet not married son.

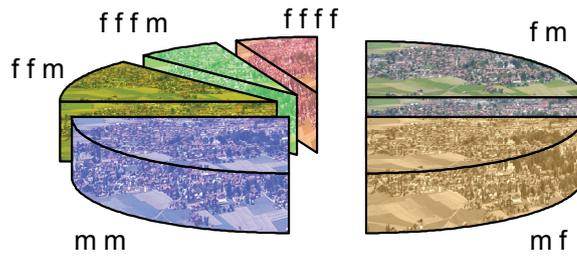


Fig. 2: Farm families by their mixture of young generation
 Source: own demonstration

From outside we recognize all farm families with their objective frequency given through the scheme in figure 1.

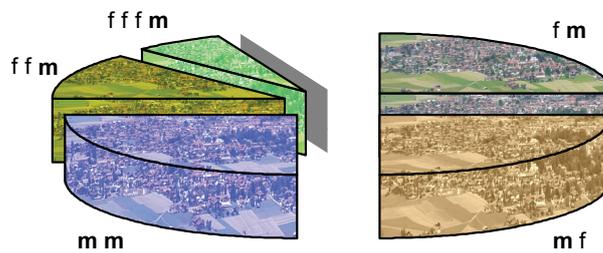


Fig. 3: Farm families - view of a daughter
 Source: own demonstration

A young, yet not married daughter will see the community in a different way. She ignores farms missing at least one son. It is, she dis-

regards all farms labelled “f f f f” (see figure 3). Further she re-weights farms by their number of sons.⁶

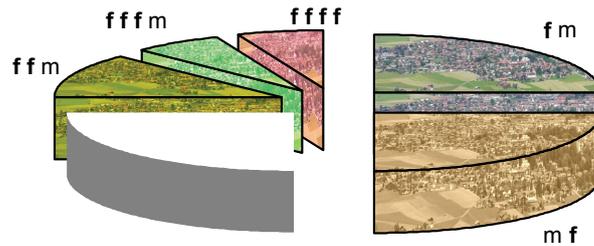


Fig. 4: Farm families – view of a son
Source: own demonstration

Last but not least, a young, yet not married son has an analogue biased view on the community (see figure 4). He looks right through all farms labelled “m m” and re-weights the residue by their number of daughters.⁷

Given the “partial blindness”, and the re-weighting as well as the assumption that all other parents would chose an inheritance to equal shares, parents calculate the future dowry each individual child can expect to “marry”. The spouse of a daughter, i.e. the future son-in-law, is expected to have a dowry sized 107/228 farms, i.e. 0.47 farms on average.⁸ In contrast, the average dowry of the spouse of a son, i.e. the daughter-in-law, amounts 85/228 farms, i.e. 0.3728 farms.⁹ Therefore,

⁶ Re-weights from the perspective of a daughter: mw 4/19, wm 4/19, mm 8/19, wwm 2/19, wwwm 1/19. Within re-weight notation w =weiblich (female), m = männlich (male).

⁷ Re-weights from the perspective of a son: mw 4/19, wm 4/19, wwm 4/19, wwwm 3/19, wwwww 4/19.

⁸ $\left(\frac{4}{19} + \frac{4}{19} + \frac{8}{19}\right) \cdot \frac{1}{2} + \frac{2}{19} \cdot \frac{1}{3} + \frac{1}{19} \cdot \frac{1}{4}$; the first multiplier in a product is the weight, the second multiplier the dowry (share of the farm) the spouse will inherit.

⁹ $\left(\frac{4}{19} + \frac{4}{19}\right) \cdot \frac{1}{2} + \frac{4}{19} \cdot \frac{1}{3} + \left(\frac{3}{19} + \frac{4}{19}\right) \cdot \frac{1}{4}$; ditto.

parents get the subjective impression that an equal division of their farm between their children favours the daughter(s). That is, if a daughter gets the same share of the inheritance, but she marries someone richer than her sister-in-law, she will have a better life than her brother. Of course, the view is subjective as the fraction of female to male is 1:1, and theoretically all children will get married and – together with their spouse – they will own the same (which will be less than their parents wealth, due to the population growth in the given reproduction scheme).

The subjective impression of transfer consequences biased in favour of daughters triggers parents to depart from inheritances to equal shares. Next, we look at the transfer to a male principal heir. For this scheme we assume, the second born son of the 25% of farms with two sons will get nothing (and leaves agriculture), and the elder one gets the farm. In families with one son and one, two or three daughters, the son gets the farm. Further, the 6.25% of farms missing a son will exit agriculture. In total, out of 19 sons 4 will leave agriculture, and the same is true for the daughters. Among the one who stay in agriculture, the choice of a spouse seems to be easier as none of the residue daughters has a farm and none of the residual sons has to share his parent's farm with a sibling.

But, in total there will be structural change as the number of farms decreases with each new generation. However the decrease meets competitiveness, in contrast to the increase associated with the inheritance to equal shares.

4. Discussion

Decisions based on tradition, like the transfer to a male principal heir, might become “old-fashioned” and might be substituted by more modern decisions like shared ownership and responsibility. This becomes more realistic as farms grow larger and larger and land prices increase more and more and the concentration of wealth among less and less farmers might not match political intentions.

The model presents a freakonomic's style explanation for the common practiced transfer to a male principal heir. The explanation grounds in three assumptions: 1. an “asymmetric” reproduction scheme, 2. a subjective, “biased” view on the dowry of future sons-in-law and daughters-in-law, and 3. the attempt not to discriminate against sons. The presented explanation differs much from earlier literature as it gets

along without interviews or data analysis. Therefore, it offers a general way to analyse the interplay between traditional reproduction habits and potential new ownership structures, which cannot be analysed by those methods dependent on data. Yet, new ownership structures become increasingly important and their impact should be studied in advance. Additionally, farmers might substitute the traditional reproduction habits through new habits as farm responsibility and the division of farm work alter. Still, the “perspective” presented offers a method to analyse potential outcomes.

However, as a start the next step could be to extend the reproduction scheme to a higher minimal number of children as well as a higher maximum number of children, and to allow for one additional child subsequent to a son, even if the interim-maximum number of children already exists. These extensions of the model should be analysed concerning the stability of the results presented in this paper.

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