Project title: Work and Life Satisfaction of Employees in Agriculture
Scientific project management: M.Sc. Antje Jantsch, Martin Luther University Halle-Wittenberg, Institute of Agricultural and Nutritional Sciences, Agribusiness Management, Karl-Freiherr-von-Fritsch-Str. 4, D-06120 Halle (Saale)
Scientific supervision: Prof. Dr. N. Hirschauer

Problem background: Economic analysis is often based on a utility perspective. The ordinal utility conception adopts the behaviorist view that only the rank order of revealed preferences as observed in people's choices is meaningful (cf., HOUTHAKKER 1950; ROBBINS 1952; SAMUELSON 1937). While revealed preferences are sufficient, for example, for demand theorists when explaining how consumer choice translates into price, restricting economic analysis to observed behavior entails fundamental limitations: first, if people were completely rational, which they are not likely to be, equating revealed preferences with ordinal utility would be circular reasoning since no additional information is gained by rephrasing a preference order as utility order (ALCHIAN 1953: 31; ROBINSON 1962: 47). Second, being limited, by definition, to the observation of behavior, the revealed preference approach is not able to provide ex ante decision support in terms of expected utilities linked to individual choices. If people are bounded-rational (SIMON 1957) and if their preferences are subject to change over time, their observed choices do neither reflect their true preferences at the time of decision nor the utility they eventually experience (cf., DOLAN and KAHNEMAN 2008; KAHNEMAN and THALER 2006). Third, a discrimination among public policies aimed at promoting collectively rational choices is impossible per se if one restricts oneself to the observation of choices that people make in a certain institutional environment (BINMORE 2009; HARSANYI 1955); a preference order that is revealed in one institutional environment (e.g., no seatbelt laws) provides no indication whatsoever of the social net effect of a different environment (e.g., compulsory seat belt legislation). Instead, the behaviorist analyst is reduced to having to state that different choices can be observed in different environments (HIRSCHAUER et al. 2014).

In contrast, the cardinal utility conception attempts to answer the question of how much utility an individual obtains from his/her decision. It is closely linked to the utilitarian rationale that people should make choices that maximize their utility. Jeremy Bentham, the founding father of modern utilitarianism, equated “utility” with “happiness” and stated: “By the principle of utility is meant that principle which approves or disapproves of every action whatsoever according to the tendency it appears to have to augment or diminish the happiness of the party whose interest is in question: [...]. I say of every action whatsoever, and therefore not only of every action of a private individual, but of every measure of government” (BENTHAM 1789/2000: 14). Due to its decision orientation and its higher scale of measurement, the cardinal utility conception seems to transcend the limitations of the ordinal utility conception. A cardinal measurement would facilitate the quantification of utility differences among alternative courses of action that people can choose. It would also enable public policy analysts to estimate the social costs and benefits of policies by aggregating utility over individuals (GOSSEN 1854; PIGOU 1920). Unfortunately, however, cardinal measurement (calculus) remains a problem to this day despite the rather misleading label “felicific calculus” (or: “hedonic calculus”) that has been attached to Bentham’s explications that the estimation of utility/happiness is to be based on the duration and intensity of individual pleasure and pain.

Against this background, it is interesting to look at happiness research which has become popular in the last 35 years. Happiness research is based on self-reports of people’s satisfaction in various life domains or with life as a whole. Usually, numerical (Likert) scales are used to obtain a quantitative measurement. A typical question is: All things considered, how satisfied are you with your life? While some happiness researcher content themselves with the description and explanation of empirical happiness data, others attempt to go beyond a purely operational definition and explicitly relate happiness...
research to the cardinal utility conception (e.g., Bok 2010; Frey and Stutzer 2003). Bok, for instance, interprets happiness measures as an operationalization of Bentham’s felicific calculus: “Neither he [Bentham] nor his supporters could explain how to measure the intensity and the duration of pleasures and pains let alone how to aggregate the myriad sensations experienced by millions of citizens in order to determine the net effect of legislative proposals. As a result, his felicific calculus remained for many decades a subject suitable only for abstract discussions [...]. In the last 35 years, however, psychologists and economists in growing numbers have tried to overcome the problems of measuring happiness by the simple device of asking people directly [...] how satisfied [...] they are with the lives they are leading” (Bok 2010: 5).

Despite these optimistic views, modern happiness research is still riddled by two largely unresolved problems: first, its inexplicit relationship with various utility conceptions in economic theory (cf., Kahneman and Krueger 2006); second, conflicting concepts within contemporary happiness research where neither terminology nor definitions have been unanimously agreed upon by the scientific community. Commonly, “subjective well-being”, “life satisfaction” and “happiness” are used as interchangeable terms that describe an individual’s introspective hedonic evaluation of life. While we follow this terminological usage, it should be noted that this causes the risk to neglect a potentially important problem. People’s self-reports may vary with the formulation of the question (How satisfied are you? vs. How happy are you?) since different wordings may affect the relative weights of cognitive and affective evaluations in their answers (Andrews and McKennell 1980).

Despite its conceptual flimsiness, empirical happiness research is on the rise and questions regarding people’s satisfaction with life are now regular part of most large socio-economic panel surveys such as The German Socio-Economic Panel GSOEP (http://www.diw.de/en/soep). Even back in the 1980s, a “World Database of Happiness” was established by Veenhoven (http://worlddatabaseofhappiness.eur.nl/). Its main objective is to reflect the state of the art and provide a fairly complete and systematic overview of existing happiness studies, their measures, methodologies and findings. Empirical evidence from studies based on the definition of happiness as “the subjective enjoyment of one’s life as-a-whole” (Veenhoven 2011) are indexed and systematized in a classificatory archive of findings. At present, the database comprises more than 7,000 studies on happiness (Veenhoven 2014). Another reflection of the growing interest in people’s well-being is the foundation of journals such as “Journal of Happiness Studies” in 2000 or the “International Journal of Wellbeing” in 2011 which are mainly dedicated to the interdisciplinary and empirical investigation of well-being. A systematic survey of recent developments of happiness research regarding its methodology, its conceptual link with economic utility, and its implication for public policy analysis is provided by Layard (2006), MacKerron (2012), and Stutzer and Frey (2012).

Empirical happiness studies can be classified into two main types. Studies of the first type are descriptive studies that are based on surveys of different samples, describe self-reported well-being, and finally generalize towards the respective population (cf., Berg and Veenhoven 2010; Neumann and Schmidt 2013; Veenhoven 2012). Typical results are statements such as Population in region A is significantly more/less happy than population in region B. Specific examples are cross-sectional comparisons of rural and urban areas or across different professional groups. Studies of the second type are correlational studies aimed at investigating the determinants of happiness (cause-effect relationships). Usually, some kind of regression is used with self-reported well-being as endogenous variable and variables such as income, the quality of social relationships and trust in various domains, working conditions, public infrastructure, political voice, the quality of the natural environment, health, culture, etc. as exogenous variables (Dolan et al. 2008). Related to the second type of studies are “normative” (or: “prescriptive”) studies that use happiness findings as social indicators (i.e., decision support) for public
policy makers with an interest in increasing people’s well-being and fostering social progress. A prerequisite of meaningful normative advice are conditional forecasts (what-if forecasts). What-if forecasts attempt to answer the question of which changes in people’s well-being are likely to be brought about by hypothesized changes in their life conditions.

The potential benefit of happiness research in terms of policy advice is relevant since a great interest has emerged in society and the scientific community in the past decades to understand the essence and the metrics of “people’s well-being” in general. Simultaneously, the conventional belief is dissolving that an exclusive concern with production and consumption, as measured in national accounts such as gross domestic product (GDP), is sufficient for guiding policy makers (Dolan and Metcalfe 2012; Frey and Stutzer 2010; OECD 2013). Reflecting these developments, Stiglitz et al. (2010: xvii) summarize in the preface of their influential report on the Measurement of Economic Performance and Social Progress: “What we measure affects what we do. If we have the wrong metrics, we will strive for the wrong things.” Using rural development as an example, looking for the “right” metrics may require considering factors beyond income and wealth, according to their relative contribution to the well-being of rural dwellers.

Against a background of demographic change and youth out-migration from rural areas, the question of whether happiness research can provide advice is especially interesting with a look to the Common Agricultural Policy (CAP). According to fundamental EU principles, policy decisions such as the implementation of rural development measures are to be made according to the subsidiarity principle, i.e., as locally and close to the citizen as possible. The recent reforms of the CAP confirm and reinforce the importance of rural development policy by strengthening the second pillar. For the period from 2014 to 2020, EUR 85 billion have been allocated to the European Agricultural Fund for Rural Development. According to the European Parliament (European Parliament 2015), rural development policy is to improve the quality of life in rural areas and “to create a cohesive and sustainable framework that will safeguard the future of rural areas, basing this in particular on its ability to provide a range of public services that go beyond the mere production of foodstuffs, and on the ability of the rural economy to create new sources of income and employment whilst conserving the culture, environment and heritage of rural areas”. Beyond the realm of politics, more knowledge regarding the determinants of people’s life satisfaction may also be important for employers in rural areas. They are increasingly confronted with a lack of junior professionals since well-qualified young people are often dissatisfied with the quality of life in rural areas and hence migrate from rural to urban settings. Unfortunately, however, despite the large number of existing happiness studies, knowledge gaps persist regarding the well-being of specific groups of people in specific areas. Little empirical evidence exists, for instance, that informs us about the well-being of rural dwellers and agricultural employees in particular regions in Germany. More region-specific evidence could contribute to better informed policy choices based on the subsidiarity principle.

**Objectives and methods:** In the light of the described problem background, this research project aims at providing specific evidence regarding the life and work satisfaction of salaried workers in agriculture in certain rural areas in Germany. In particular, we attempt to answer the following questions:

1. Is the life and work satisfaction of agricultural workers different in different rural areas and in rural as opposed to urban populations? If so, why?
2. How much does the work satisfaction of agricultural workers contribute to their satisfaction with life as a whole?

3. How do income and various non-pecuniary job characteristics affect agricultural workers’ life satisfaction? What are the trade-offs (compensating income differentials) for non-pecuniary life characteristics?

4. Which gaps exist between people’s individual aspiration levels regarding income and non-pecuniary job qualities, on the one hand, and the actual levels of income and non-pecuniary job qualities, on the other?

5. Which cost-efficient measures are available for employers and policy makers in rural areas who attempt to foster both job and life satisfaction of agricultural employees and other rural dwellers?

The methodical procedure uses a simple analytical framework as point of departure (cf., Figure 1). In a first step, we will elaborate the framework on the basis of the literature in the field of behavioral economics. Using an explicit analytical framework is considered an adequate approach to avoid gaps, duplications, and inconsistent listings of variables that might arise due to spurious correlations. Whatever the focal level of analysis, inconsistent listings of correlates are futile descriptive exercises with little practical potential to indicate the variables that policies aimed at social progress could, and should, tackle to increase people’s well-being. After having defined the analytical framework, we will collect and analyze data of agricultural workers and people in certain rural areas of Germany to answer the aforementioned research questions.

Figure 1: Framework

We model people’s satisfaction with life as a function of their satisfaction in various life domains and determine their relative weights. The project’s specific focus is on job satisfaction which, in turn, is modelled as a function of income and various non-pecuniary job qualities (cf., Figure 1). An important part of the econometric analysis is the identification of compensating income differentials for various non-pecuniary characteristics of peoples’ jobs that hold job satisfaction constant. We can thus determine the trade-offs for these non-pecuniary job characteristics in terms of equivalent income (HELIWELL and HUANG 2011; VAN DER MEER and WIELERS 2013). In other words, we estimate the monetary

http://www.landw.uni-halle.de/prof/lu/forschung/?lang=en
value of certain job characteristics by determining the substitution rate between income and the specific job characteristic. Similar approaches have been used to value environmental goods. In these studies, well-being is modelled as a function of income and various environmental variables. Consequently, the amount of money is determined which is needed to compensate people for environmental impairments (e.g., LUECHINGER 2009; VAN PRAAG and BAARMA 2005).

**Literature**


