

Implications for Teaching, Student Recruitment and Retention

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Abstract

The Myers-Briggs Type Indicator (MBTI) has been used to investigate agriculture college student personality types. MBTI results show agriculture students to be quite different from the typical college student. One explanation for student differences is the (presumed) predominance of the agrarian belief system among agriculture students. Agrarian values are shown to be consistent with the personality types and behavioral preferences identified by MBTI results. The agrarian belief system can be an obstacle to agriculture student recruitment and retention, and should be explored by students early in their undergraduate careers.

Are Agriculture Students Different?

Several articles in the *NACTA Journal* have summarized results of personality-type research conducted at the University of Nebraska-Lincoln College of Agriculture (Barrett, Sorensen and Hartung 1985, 1987; Sorensen and Hartung 1987). Similar research has also been reported by Roberts and Lee (1977) for Texas Tech University agricultural economics students. The Nebraska and Texas studies both used the Myers-Briggs Type Indicator (MBTI) to in-

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vestigate the instructional, recruitment, and retention implications of differing faculty and student personality types.

The Nebraska and Texas studies provide strong evidence that students majoring in agriculture are not typical college students. In their evaluation of agriculture students, the Nebraska researchers observe that 75% are practically oriented. Agriculture students tend to prefer learning situations that provide information they can apply to present use (Barrett, Sorensen and Hartung 1987). The Nebraska study found agriculture students to be skillful at putting knowledge to practical use, with less skill and interest in studying abstract concepts. The MBTI profiles indicated agriculture students tend to have limited patience for information that may be used in some future, but not clear time or place (p. 18). The Nebraska researchers concluded agriculture students have limited need or desire for theory, and low interest in the future implications of subject matter (Barrett, Sorensen, and Hartung 1985). Agriculture students are described as "linear" (sequential, step-by-step) learners who prefer facts, usable information and concrete skills (p. 53).

The Texas Tech researchers found similar results for agricultural economics students. They advised teachers in agricultural economics to not expect the majority of their students to "grasp readily anything that requires much intuition nor lose patience when students fail to conceptualize in abstract" (Roberts and Lee 1977, p. 1025-1026).

The Nebraska and Texas results confirm the observations made by this college of agriculture faculty member. However, the temperaments typical of agriculture students (represented by MBTI scores) may be only the outward manifestations of deeply held values. Concentrating on student MBTI personality types and predicted learning styles may be similar to evaluating a package by its wrapping. In order to fully understand agriculture student behavior, it is necessary to appreciate agriculture student values and beliefs. This approach supports the personality type results of the Nebraska and Texas studies, and thus provides greater insight into agriculture student behavior. Agriculture college student recruitment and retention could also be enhanced by increased understanding of the "typical" agriculture student value system.

Values

Values are used here in the sense elaborated by Tweeten (1979) and Gulley (1974). Tweeten begins his classic work

on agricultural policy with a chapter dedicated to a discussion of goals and values from a rural perspective. He states that values are "standards of preferences that guide behavior" and further defines values as "feelings of what is desirable or what ought to be" (p. 1). Gulley distinguishes between beliefs and values, but indicates the two terms are closely related and often interchangeable. He defines beliefs as "convictions that certain things are true, trustworthy, or real" (p. 1). According to Gulley, factual beliefs are not necessarily true or based on reality, but rather what individuals and groups perceive to be true. Normative beliefs are called values and defined by Gulley as concepts about what "ought to be" or "ought not to be" (p. 1).

Values are often viewed as standards which guide and justify behavior. A value system is the overall package of values or beliefs, or an ideology held by an individual or a group. *In short*, values define an individual or a group.

Agrarian Belief System

Agrarian ideology involves value judgements, beliefs and expectations about farmers, farming, and the place of agriculture in the larger society and economy. ("Farms" and "farmers" as used here include "ranches" and "ranchers".) This belief system is often labeled "agrarian fundamentalism", "farm fundamentalism", "pastoralism", and "agrarianism". Agrarian ideology is based on the primacy of agriculture, both socially and economically. In a social sense, agriculture is seen as the only truly honorable and virtuous way of life. Farming is considered the most natural human lifestyle, while city life is artificial and unnatural. The primacy of agriculture in an economic sense is the notion that the production of primary products (through agriculture, mining and forestry) is the most basic occupation and the only source of wealth in an economy.

Agrarianism in the United States is based largely on the beliefs and writings of Thomas Jefferson. Jefferson believed the U.S. could only be successful and true to its democratic ideals if it were a nation composed of small landowners, or "yeoman farmers". In the U.S. experience, the farmer or husbandman, is believed to be closer to God (than non-farmers), more honest, moral, reliable and independent. In the agrarian belief system, the farmer makes a better, more patriotic citizen. Farmers revere the land, God, the nation, and are hardworkers. Devout agrarian fundamentalism considers agricultural production to be a divine calling.

Within the agrarian belief system, the family farm is understood as an icon or ideal type (Molnar and Wu 1989). The survival of agriculture in its ideal form (the family farm) is viewed as an essential part of U.S. cultural heritage which is necessary for the future socio-economic and political security of the nation. The farmer and family farm are thus seen as cultural bedrock upon which all else rests. According to the agrarian ideology, as goes the farm, so goes the nation.

Agrarian beliefs have served as fundamental guiding principles in the United States since colonial times. Agrarianism helped shape land settlement and economic develop-

ment policies through the various homestead acts, establishment of the Land Grant university system, and exploitation of water resources. The belief system is also at the root of extensive government intervention in agriculture beginning in the 1930's and continuing through the present day. Agrarianism has helped form American's expectations about farming and landholding, and the role of government in agriculture.

A 1986 survey, consisting of a sample of 3,229 U.S. civilian households within the continental United States, revealed widespread support for agrarianism among both non-farm and farm residents (Jordan and Tweeten). Eighty-two percent of the survey respondents agreed with the statement "Agriculture is the most basic occupation in our society, and almost all other occupations depend on it". For the statement, "The family farm must be preserved because it is a vital part of our heritage", 82% of the respondents were in agreement. Of the respondents who lived on farms at the time of the survey, 99% agreed with the first statement and 92% agreed with the second statement.

Based on these survey results, agrarian fundamentalism in the United States is clearly alive and well, and an element of the belief system of a large percentage of the population. Agrarian beliefs appear to be strongly held throughout the United States, regardless of familiarity with and closeness to production agriculture, age, race, gender, political philosophy, and location of residence. However, the 1986 survey did show declining agrarianism with increasing household income, increasing education, and among younger respondents.

Agriculture Students

U.S. colleges of agriculture do not report student numbers relative to farm, rural, or metropolitan backgrounds; however, some regional evidence as to student origins is available. Terry and Gray (1987) reported 85% of 565 agricultural majors in Missouri and Arkansas non-Land Grant universities had a farm background. A Missouri study found that 52% of animal science majors were from rural or farm backgrounds (Mollett and Leslie 1986). Although comprehensive information is not available as to the nationwide percentage of agriculture students with farm backgrounds or close ties (e.g., through grandparents or other relatives) to production agriculture, it is safe to assume that strong agrarian fundamentalist beliefs are held by a majority of students in colleges of agriculture.

The Agricultural Creed And Agricultural Education

Paarlberg (1964) developed an "Agricultural Creed" consisting of seven articles, and summarizing much of the above discussion. As stated by Paarlberg (p. 3), the articles of the creed may be expressed as follows:

1. Farmers are good citizens, and a high percentage of our population should be on farms.
2. Farming is not only a business but a way of life.
3. Farming should be a family enterprise.
4. The land should be owned by the man who tills it.

5. It is good to make two blades of grass grow where only one grew before.
6. Anyone who wants to farm should be free to do so.
7. The farmer should be his own boss.

This creed emphasizes the special (and superior) nature of farmers and farming (articles 1, 2 and 3); closeness to nature, productivity and visible accomplishments (article 4); independence and freedom from outside interference (articles 4, 6 and 7). The creed also evidences a linkage to the Puritan work ethic, with its belief in diligence and individual responsibility (Paarlberg 1964, p. 3). The productivity elements of the creed have their origins in the history of countless generations threatened by hunger and famine. The belief in land ownership and independence is a reaction against the unequitable distribution of resources from which emigrants to the United States have sought refuge since colonial times. Much of the creed represents the American rejection of European aristocratic and feudalistic traditions. It is also rooted in the free enterprise ideas of Adam Smith, developed at about the same time as the American Revolution. The agrarian belief system summarized here is a product of a combination of uniquely American political, economic, social and philosophic traditions. To reject agrarian values and beliefs could thus be viewed as un-American.

Shocking Experience

For agriculture students who arrive at the university with firmly held agrarian values, the higher education experience must be very shocking. They are faced with abstract concepts and theories. Much of the subject matter requires conceptualization with limited hands-on opportunities for learning (i.e., macroeconomic theory). They see faculty who earn their living by thinking, researching, and writing for small or obscure audiences; the accomplishments of few faculty members are as visible or immediate as "making two blades of grass grow where only one grew before".

One of the basic tenets of agrarianism is that farmers are better than everyone else. When students holding agrarian beliefs are confronted with coursework and classes that require other sides of the economic and social equation to be considered, the educational experience can be perceived as an assault on their value system. When what the students believe to be true and right is subjected to analysis and objective discussion, the student may feel everything they value is being violated. In the West, public land grazing is an example of an issue where an attack on the student's value system is often what is perceived as a result of teaching the principles of cost/benefit analysis. After all, if ranchers are truly better, more honest, moral, and reliable than everyone else, how could they possibly not make the right decisions with respect to land management? When agriculture students with farm backgrounds encounter instructors who do not openly share their agrarian values and who encourage the students to "think globally", the students may feel betrayed. Why, they may ask, should we study environmental or consumer issues when we know that farmers and farming are superior to all other concerns or "special interests"?

Hostility Toward "book learning"

Much of the agrarian belief system leads to an overt hostility toward "book learning" as opposed to knowledge gained through practical experience. The Texas Tech research led to the conclusion that agricultural economics students do not appear to learn well by reading. This may be because they do not believe reading has anything to offer them, not because they are inherently unable to learn by reading. Some material presented to students will *always* be impractical and unusable *for the present*, and students who reject that information and the instructors who present it are doing so based on their beliefs as to what is important. In the agrarian belief system, immediate, visible productivity is the most highly valued enterprise.

Current issues in agriculture are creating a siege-like climate for many farmers and ranchers. Environmental and food safety concerns, trade liberalization, budget austerity, and animal welfare are some of the issues faced today by the agricultural community. Increased regulation of agricultural production is occurring, with the resultant loss of independent decision making by farmers. Budget austerity is leading to a reduced federal commitment to agricultural subsidies. Economic restructuring through gradual elimination of subsidies and trade liberalization will lead to dramatic changes in the character of agriculture in the United States. These outside forces for change in agriculture are challenging the traditional agrarian belief system, and are also important issues to be learned about in a college of agriculture. However, when a devoutly agrarian student is faced with this threatening array of issues, he/she would be expected to react defensively. The defensiveness could be manifested in rejection of reading materials, a grasping for practical information and concrete skills, and a rejection of subject matter that does not conform to the agrarian belief system. Instructors who emphasize concepts, relationships, or use theoretical subject matter and facts to evaluate important "real world" problems may also be perceived as threatening to agrarian values.

One recommended strategy for managing the agrarian belief system is to begin policy oriented undergraduate agricultural economics courses with civics material. Reminding students of the broader values underlying the founding of the United States, as embodied in the Constitution and Declaration of Independence, provides a common, basic belief system from which the rest of the course can proceed. It is also helpful to introduce the concept of "farm fundamentalism" early in courses.

Implications for Retention and Recruitment

Using their MBTI results for agriculture students in Nebraska, Barrett, Sorensen, and Hartung (1985) wondered if students drop out of college early because their preferred learning environment is not to be found. They concluded that students who preferred practical applications and learning-by-doing (the "super realists") would want action learning, and would not be motivated by much of what comprises a university education (even in agriculture). But,

is it more likely that many agriculture students become college dropouts because of conflicts between their agrarian values and their experiences in the university community? Research in Wisconsin in 1971 found a positive correlation between agrarianism and discontent with American society (Butteli and Flinn 1975). This discontent may be an important factor in understanding agriculture college dropouts.

If agriculture college dropouts are due, in part, to conflicts of values and if we have an interest in retaining these students, early intervention is essential. Students need to clarify and understand their agrarian values early as undergraduates. Identifying individuals "at risk" for agrarianism-related decisions to drop-out may aid in retention.

The conclusions made by the Nebraska and Texas researchers regarding the need to adapt to student's "super-realist" learning styles by reducing reading, homework, and the teaching of abstract concepts are recommendations that would do a disservice to students in colleges of agriculture. These prescriptions deny the need to develop critical thinking skills among agriculture students. According to industry analysts, the most striking weakness of many agricultural degrees is their focus on technical skills (Tevis 1990). In a recent survey, 140 agribusiness employers in the United States and Canada concluded that agriculture students lack sufficient knowledge of economics, world history, geography, psychology and other liberal arts subjects, as well as insight into the U.S. food and agricultural sector's world role. Clearly, many of these subject areas are ones with high degrees of abstraction, and are far removed from the learning-by-doing atmosphere of many agriculture courses. Not challenging students with abstract concepts, critical thinking, or "thinking globally" will not meet employer needs or enhance student employability.

If colleges of agriculture are to survive and prosper in coming years, non-traditional agriculture students must be recruited. Traditional agriculture students are those who come directly from farms and ranches, or who have close family ties to production agriculture. The population which has provided these students is shrinking. In their attempts to attract non-traditional students, colleges of agriculture are expanding their recruiting efforts to emphasize the wide variety of careers available to students with degrees in the agricultural sciences. If this recruiting is not successful, the future of colleges of agriculture is in doubt.

Many non-traditional students will not hold devout agrarian values. Once successfully recruited, these students may not necessarily remain in a college of agriculture due to the possibility they will be alienated by an agrarian "cult". A value system based on beliefs which hold that farmers are always right and superior to everyone else, and that other pursuits are inferior to the agricultural one, would

appear to have little tolerance for other ways of life. Agrarian values which exclude or alienate potential participants from colleges of agriculture may be ultimately self-destructive. Once again, a possible solution to recruiting and retaining non-traditional students leads to the suggestion that values clarification for all students be an integral and early element of the curricula in colleges of agriculture.

Conclusion

Myers-Briggs Type Indicator (MBTI) results show agriculture students to be quite different from the typical college student. Recommendations have been made that colleges of agriculture adapt their curricula to accommodate typical learning styles identified through the MBTI. Based on employer needs, such accommodation would not serve the best interests of the students. Student values clarification and increased self-awareness are better methods for enhancing learning, recruiting and retaining students. The agrarian belief system is consistent with the personality types and behavioral preferences identified by MBTI results. This belief system can also be an obstacle to agriculture student success, and should be explored by students early in their undergraduate careers.

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