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Examining Likeness Among Secondary Agriculture Youth

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Abstract

Likeness, also known as homophily, describes the tendency for individuals to seek out others who are socially similar to themselves. As a society, we are attracted to "like" behaviors, but subconsciously the value placed on likeness can lead to undesirable outcomes including segregation, reduced diversity in peer groups, and narrower social interactions. Homophily behaviors present major limitations to multicultural group interaction and can negatively impact the recruitment and retention of diverse groups. The purpose of this study was to determine if homophily behavior exists among Kentucky secondary agricultural education youth toward three binary variables: a) farm background/non-farm athlete; b) Black student/white student; and c) gay student/straight student. Senior level high school students throughout the state were randomly assigned two, of eight, mock student profiles to determine if they were "like" them or "different" than them. Student participants reported homophily-likeness toward students who were white and perceived differences in likeness from students who were Black or gay. Further analysis suggested that students were open to likeness if the mock student profile reflected a minimum of two similar variables to their own demographic. Continued critical research, conversation, and professional growth in homophily is necessary to avoid particular group extraction and to promote inclusion and diversity initiatives in secondary agricultural education.

Keywords: homophily; likeness; critical theory; agriculture youth

Introduction

The National FFA Organization, a leadership organization for youth with interest in agriculture, created the *We Are FFA* platform to purposefully direct the organization towards enhanced appreciation and promotion of diversity and inclusiveness at local, state, and national levels (National FFA, 2020). The mission and vision of *We Are FFA* is centered on empowering communities, providing resources, removing barriers, and creating opportunities for success to all FFA members through celebrating diversity and increasing multicultural awareness (National FFA, 2020). Various National FFA convention themes over the last two decades have included the recognition of historically marginalized groups such as Native American, Hispanic and Latino, and African American populations with additional resources provided to local FFA chapters to hold similar celebrations of culture (National FFA, 2020).

While the National FFA Organization has made strides with diversity and inclusion initiatives like *We Are FFA* and continues to collect data regarding race and ethnicity of its members (National FFA, 2020), there remains a paucity of research on how disparities impact agricultural education programs at all levels. Additionally, initiatives directly from the National FFA Organization only represent one facet of the three-component model that makes up school-based agricultural education

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(SBAE) programs nationwide (Newcomb et al., 2004). There is a growing need for research on the diversity and inclusion of social groups within SBAE classrooms beyond basic demographic data collection. In fact, agricultural education literature over the last decade has specifically called for research focused on unpacking recognized diversity and inclusion deficiencies (LaVergne et al., 2012; Talbert & Edwin, 2008; Vincent & Kirby, 2015); deficiencies that has been well-documented within the agricultural education profession for over two decades (Jones & Bowen, 1998; Talbert & Larke, 1995), and have arguably been present since its inception.

To date, limited research conducted within the sphere of diversity and inclusion in secondary agricultural education has largely focused on the teacher perspective. Warren and Alston (2007) found that North Carolina agriculture teachers posit that barriers to diversity inclusion include the existence of prejudices and stereotypes, the general perceptions of agriculture, and guidance counselors' efforts to place poor performing students in their courses. LaVergne et al. (2012) emphasized that Texas agricultural teachers perceived a lack of role models, ongoing stereotypes, perceptions of agriculture, and acceptance of peers as major barriers to obtaining a diverse program. Teachers are a driving force in setting the tone for local programs, which includes the recruitment and retention of students, influencing peer interactions, and establishing a positive classroom environment (Darling-Hammond & Bransford, 2005). Research also supports that students relate better to and prefer teachers that are similar to themselves (McCroskey et al. 2006; Myers & Huebner, 2011; Rocca & McCroskey, 1999). However, teachers are not the sole influence on the student demographic makeup of these programs or student interactions within these programs, as the students themselves play a critical role in forming and retaining social groups (Dhuey & Lipscomb, 2008).

While the teacher perspective is valuable in moving forward purposeful diversity and inclusion initiatives, there remains a need to explore the perspective of youth enrolled in SBAE programs. This research will examine social norms currently present within youth as it pertains to diversity and inclusion to further unpack issues and to work collectively towards accomplishing important strategic diversity initiatives.

Theoretical Framework

The theory of homophily is rooted in likeness and describes the behavioral tendency for individuals to seek others who are socially similar to themselves. The term originally stems from the ancient Greek words "homou" meaning together, and "philia", meaning friendship. When it was originally presented, homophily was positively charged and explained why, and how, similarities connect individuals (McPherson & Smith-Lovin, 1987). McPherson et al. (2001) described homophily structures as network ties of various types, including marriage, friendship, colleagues, and other relationships that involve advice, support, and information transfer. Homophily behavior can also arise beyond the scope of aforementioned relationships to include geographical proximity, familial ties, organizational foci, isomorphic sources, cognitive processes, and selective tie dissolution (McPherson et al., 2001). Each example of homophily is unique in its formation and subsequent influence, which must be considered before attempting to promote diversity.

Homophily provides a fundamental illustration of how the context of a network can drive the formation of a community (Easley & Kleinberg, 2010). Although, the initial formation of friendships and friendship choices are based on behaviors and what the group can offer (Kiesner et al., 2003), behaviors are further developed based upon environmental and societal norms, beginning at the adolescence stage (Smirnov & Thurner, 2016). Brechwald and Prinstein (2011) discuss that once an individual's sense of identity is formed within a group, peers have significant influence over the other areas of an individual's life. Furthermore, the authors discuss how students embrace new behaviors within social context through valued peer feedback such as modeling, reward, and punishment

(Brechwald & Prinstein, 2011). Regardless of whether homophily is formed around a behavior, it often expands into other variables; thus, creating a deeper more stable network of friendships and group likeness.

By studying how and why homophily occurs, scholars can identify the importance of organizational, or classroom, environments and the impact of these environments on individuals' interactions and relationships. Group identity and development of likeness is more likely to occur as groups grow in size, whether this in a classroom environment or workplace (Van Der Wildt et al., 2015). Furthermore, the larger the environment, the greater the probability of diversity, allowing individuals to be more likely to find someone similar to their own culture, resulting in natural homophilic connections (Curarini et al., 2016; McPherson & Smith-Lovin, 1987). Therefore, managers, teachers, employers, etc. cannot simply recruit for diversity. Instead they must also put programs in place to increase cross-cultural ties by fostering meaningful interaction across groups.

Due to its innate nature, homophily can occur in settings predetermined. This phenomenon was illustrated in a study by Currarini and Mengel (2016) where individuals were randomly assigned to groups to play a game. When separated and asked to find a peer on their own, participants were more likely to gravitate back to an individual from their previously randomly assigned group. Not only can homophily occur in settings without stereotypes, it can also occur structurally. Caetano and Maheshri (2017) used the novel Foursquare mobile application to analyze how people within eight major US cities sorted into neighborhoods and venues. Their study revealed structural homophily occurring within neighborhoods that reflected similar demographics, political beliefs, and ages. As a result, students were stepping foot into a school environment with other individuals predominantly like themselves.

Unfortunately, when exploring homophily in the realm of sociology and education, it can reveal a deficiency in the concept of likeness. In a study conducted by Richards (2014), an analysis was performed on the racial/ethnic segregation of schools, using a large national sample to estimate the effects of gerrymandering on school diversity. Results uncovered that gerrymandering generally exacerbates homophilous segregation. Boucher (2015) claimed that individuals don't have a preferential bias but are more likely to establish connections with, and prefer to meet people, similar to themselves. This preferential mindset, considered normative homophily, is a cognitive bias, such as stereotype threat, that perpetuates perceptions of in-equipotential and subsequent discrimination (Vigil & Venner, 2012).

Researchers in educational psychology are addressing the implications of disproportionate social connections, as impacted by homophily. Lin et al. (1981) explored how homophily served as an explanation for the inequities across labor market outcomes. Subsequently, Blau (1994) investigated how homophily played a role in the perpetuation of class inequality. Homophily effects the sociodemographic composition of occupations (Rotolo & McPherson, 2001) and voluntary associations (McPherson, 1983), especially in youth non-profits, which is the classification for the National FFA organization. Jones et al. (2010) examined various traits within self-regulated learning in high school mathematics students and determined that homophilous groups shared the same effort regulation amongst peer groups; however, the peer groups did not share similar academic performance. These practices learned from network ties within group dynamics may directly relate to an individual's ability to navigate school systems.

For generations homophily has guided research on the behaviors utilized to connect individuals to one another (Marsden, 1988), but only recently have there been attempts to utilize anti-homophilic approaches for assisting dichotomous groups in schools. Strayhorn et al. (2014) found that interventions as simple as face-to-face, cross-racial interactions were powerful enough to help foster a sense of

belonging within minority students at predominately white institutions. Stark and Flache (2012) suggests that educational interventions may be appropriate to implement within classrooms when intentionally planned to offset racial homophily.

To succeed in holistically moving forward diversity and inclusion initiatives within FFA and SBAE, researchers must first understand what variables homophily is occurring around (e.g. race, background, sexual orientation, etc.) and then to what extent students are willing to include others who may not be similar to themselves. The positive effect of homophily, increased motivation to promote organizational success, plays an important role in creating inclusivity and belonging amongst members. However, if in-group mentality occurs, the negative effects of homophily, such as the exclusion of non-members, will be more difficult to overcome.

Purpose and Objectives

The purpose of the study was to determine the relationship of homophily among senior level students enrolled in secondary agricultural education courses. The following binary characteristics were explored: race (Black or white), sexuality (heterosexual or homosexual), and social group (traditional farm background or non-farm background athlete) to determine whether prejudicial homophily is occurring among seniors within the secondary agriculture classrooms. The following research objectives were developed to focus the study:

RO1: Describe the student population of participating SBAE seniors.

RO2: Describe the perceived identity of homophily by mock student profiles.

RO3: Identify the mock student profile with the greatest homophilic similarities, as perceived by the senior participants.

RO4: Identify the mock student profile with the greatest homophilic differences, as perceived by the senior participants.

RO5: Describe the relationship of perceived measurement of homophily by the mock student profile with the greatest homophilic differences and student characteristics.

Methodology

The researchers implemented a quantitative study design that was descriptive and correlational in nature. A descriptive approach was utilized to describe the current situation of the problem (Fraenkel & Wallen, 2006). Correlational research explains relationships between two or more variables (Neck et al., 2018). The researchers examined homophily scales and explored how variables of race, sexuality, and social group impacted a student's inclusion into the secondary agriculture classroom.

Population and Sample

The population consisted of seniors enrolled in secondary agriculture throughout Kentucky during the fall semester of 2017 (N = 2,766). Seniors were purposefully selected because they are considered the face of four-year programs as they reflected the philosophies set-forth by the leaders before them (Dhuey & Lipscomb, 2008). All participating seniors had to be enrolled in the agriculture program at their school for at least two years as continuously invested students were more likely to reflect the current culture. Additionally, all seniors had to be at least 18 years of age to be eligible to participate per the university IRB and all were active FFA members. A recruitment letter was sent out to all 140 secondary agriculture programs, requesting the participation of seniors within each program through a provided school log-in and survey link with a designated time to complete. Of the identified seniors, 417 agreed to participate from 57 secondary agriculture programs. The programs resided throughout the state rather than a particular region. After removal of incomplete questionnaires, a remaining 399 responses yielded usable data. Demographic information was not collected on the

seniors regarding their own race, sexual orientation, or social subgroup to allow for more honest responses. It should also be noted, that Kentucky agriculture students are a primarily homogenous group, with 88.4% of students identifying as white, non-Hispanic and 71.5% living in rural communities (Kentucky FFA Executive Secretary, personal communication, 2020). Additionally, during the 2019-2020 school year, the demographic breakdown of Kentucky public school students was 75.3% white, non-Hispanic, 10.6% African American, 7.6% Hispanic, and less than 7% Hawaiian/Pacific Islander, Native American, or two or more races (Kentucky Department of Education, 2021).

Once a participating senior connected to the online questionnaire, a method of stratified sampling was utilized regarding the profiles being completed. Researchers generally want to obtain an overall estimation through inexpensive means (Jackson, et al., 2011); therefore, an online approach was selected versus face-to-face. In order to maximize the response rate, teachers were provided weekly email reminders for the six-week duration of data collection. Furthermore, the researchers followed the data collection techniques of sending reminders to non-responders set by Dillman et al. (2014) to improve response rate.

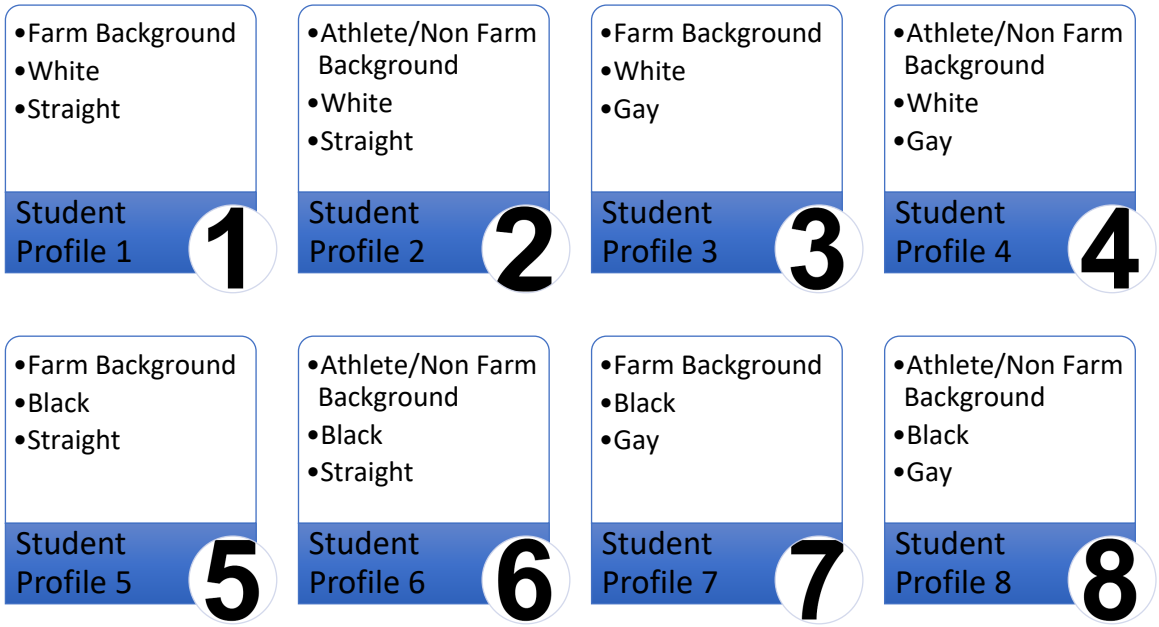
Instrumentation

An internet-based questionnaire was used for the benefits of user-friendliness, timeliness in reaching participants, elimination of mailing expenses, decreasing human error in entering data, and reducing time spent on coding responses (Witte, 2000). The questionnaire was divided into three sections. The first section included student consent. Students who consented moved into the second section of the survey; however, students who did not agree to participate (n =18) were exited from the survey to a page thanking them for their time.

Eight mock student character profiles were developed based off three binary variables: race (Black and white), sexuality (gay and straight), and social group (traditional farm background and non-farm background athlete). The two racial profiles were chosen as they were identified as the two most populated races in the state's most recent census (Zealand, 2013). For simplicity among the participants completing the questionnaire, the options of sexuality used within the mock student profiles were gay and straight instead of heterosexual and homosexual. The terminology gay and straight were consciously chosen based off research published in the Journal of Sexuality Research & Social Policy, specifically the work of Schindel (2008).

Two social subgroups were developed based on a previous questionnaire designed to solicit various social groups present in Kentucky high schools that were the opposite of a traditional farm background. Various social groups identified were "band kid", "jock", and "academic team kid", but the most prevalent social group reported was "athlete". Based on this information, the decision was made to include athlete, non-farm background as the opposite social group to traditional farm background for the mock student profile development. The researchers recognize that some students from a traditional farm background also may self-identify as athletes, but for the purpose of the study, it became important to create a visual within the mock student profile for purposeful decision making by participants related to the homophily scale. To ensure all cultures were equally explored and limit participant fatigue, the mock student profiles were separated into all possible existing options (see Figure 1). Because students were stratified randomly by the online questionnaire, participating seniors received 2 of the 8 mock student profiles.

Figure 1
Identified Mock Student Profiles



The second section of the questionnaire consisted of an attitude & background homophily scale (referred to this point forward as simply, homophily scale). Homophily scales were originally developed by McCroskey et al. (1975). Homophily scales have an overarching goal of creating a measurement that processes participants' perceptions without the imposition of the investigator (McCroskey et al., 1975). Before the development of homophily scales, McCroskey et al. (2006) criticized that researchers judged homophily based upon observations being coded by characteristics, which in turn provided differences from researcher to researcher as it was heavily dependent on the individual researcher's viewpoint. The two randomly selected mock student profiles that each participant received were transferred to the homophily scale. The homophily scale allows students to choose between two options for each dimension. In this study, the researchers selected, from a list provided by McCroskey et al. (1975), the following homophily areas: 1) different from me/similar to me; 2) thinks like me/does not think like me; 3) doesn't behave like me/behaves like me; 4) from a different social class/from the same social class; and 5) culturally different/culturally similar; 6) has an economic situation like mine/does not have an economic situation like mine. The final section of the questionnaire requested characteristic information of participants including leadership positions within and beyond FFA, international travel, parental education, practicing religion, parental income, and home residence (rural, suburban, or urban).

Validity and Reliability

A panel of experts (n = 33) reviewed the questionnaire for face and content validity. The panel consisted of experts in the field of inclusion and diversity (n = 3) as well as youth of similar backgrounds and ages (n = 30). All panel experts received documents containing the research purpose, objectives, and copies of the questionnaires. The panel members were asked to examine clarity, verbiage, understanding of phrases, and visual appearance. Modifications were made following the expert panel recommendations to improve the age appropriateness and content of the questionnaire. To establish construct validity, the multitrait-multimethod matrix (Campbell & Fiske, 1959) was implemented. After assessing the six major considerations for construct validity through convergent and discriminant validity, the scale reached critical value deeming it to be valid. McCrosky et al. (1975) created the

original homophily scales and determined reliability for the three dimensions assessed. Attitude and demographic background dimensions have consistently received alpha reliabilities of $a > .80$. The background dimension has received alpha reliability $a < .70$. According to Santos (1999), a score of 0.70 is considered reliable.

Data Collection

A recruitment letter was sent via email listserv to the state's 140 agricultural teachers during the fall of 2017. The teachers then distributed the questionnaire link to the senior members to increase response rate and minimize non-response error. Teachers were requested to provide time for students to complete the questionnaire from any electronic device that had connection to the internet as the questionnaire was designed to for compatibility on a computer, tablet, and smartphone. Email reminders were sent three times over the course of six weeks. A comparison of completed questionnaires from the first invitation to the last reminder was completed and no significant difference was determined. After the closure of the survey, answers were kept on a secure, online statistical analysis website.

Data Analysis

The questionnaire, in its entirety, was created in Qualtrics and then transferred over to the Statistical Package for the Social Sciences® (SPSS) 24. All statistical analyses are subject to assumption. Within the context of the study, the researchers utilized descriptive statistics, measurements of central tendencies, and bivariate correlations. To utilize bivariate correlations, eight assumptions must be addressed, as defined by Laerd Statistics (2013). First the dependent variables must be measured on a continuous scale. The second assumption requires the research to have two or more independent variables, which can be continuous or categorical. The third assumption requires an independence of observation. The fourth assumptions states there must be a linear relationship between the dependent variable and each independent variable. Assumption five requires homoscedasticity. Assumption six states that multicollinearity cannot be shown by the data. The seventh assumption requires that there can be no significant outliers in the data. The final assumption requires that the researchers check that errors are approximately normally distributed (Laerd Stastisics, 2013). All eight assumptions were addressed in this study.

For research objective 1, describe the student population of the secondary agricultural education seniors, frequencies and percentages were calculated to describe the characteristics of the participating students. For research objective 2, describe the perceived identity of homophily by mock student profiles, frequencies and percentages were calculated to describe the depth of each homophily scale by mock student profile. For research objective 3, identify the mock student profile with the greatest homophilic similarities as perceived by the senior participants, the researchers examined the profiles with the most "like me" scores. For research objective 4, identify the mock student profile with the greatest homophilic differences as perceived by senior participants, researchers examined the profile with the least "like me" scores. For research objective 5, describe the relationship of perceived measurement of homophily by the mock student profile with the greatest homophilic differences and student characteristics, bivariate correlations were employed to determine if there was a connection between any student characteristics and perceived measurements of homophily.

Findings/Results

Research objective one sought to describe the characteristics (leadership positions, international travel, parents' highest obtained education level, religion, perceived family income, and home residence) of the 18-year-old seniors enrolled in a secondary agricultural class within the observed state of Kentucky ($n = 399$). The majority of participants ($f = 297$; 74.4%) had not obtained

an officer position within their FFA chapter nor served in a leadership role within other clubs and/or sports (*f* = 263; 65.9%). Similarly, the participants were located in primarily rural home residences (*f* = 258; 64.7%), had never traveled abroad (*f* = 264; 66.2%) and identified themselves as a member of the Christian religion (*f* = 295; 73.9%). The majority of the participants reported that the highest accomplished educational level of at least one parent was a high school diploma (*f* = 156; 39.1%) and reported a family household income between $50,000-$74,999 (*f* = 78; 19.5%).

Table 1

Characteristics of Senior Participants Enrolled in Secondary Agriculture (*n* = 399)

Characteristic*	*f*	%
Present/Past FFA Officer		
Yes	57	14.3
No	297	74.4
Non-reporting	45	11.28
Officer or Captain of a Club/Sport		
Yes	90	22.6
No	263	65.9
Non-reporting	46	11.53
Travel to another country		
Yes	90	22.6
No	264	66.2
Non-reporting	45	11.3
Parents' Highest Education		
Some High School	35	9.9
High School Graduate	156	39.1
Technical/Associate Degree	60	15.0
Bachelor's Degree	58	14.5
Master's or Professional Degree	44	11.0
Non-reporting	46	11.53
Religion		
Christian	295	73.9
Non-Christian	5	1.4
Atheist	9	2.3
No Religion	44	11.0
Non-reporting	46	11.53
Perceived Household Income		
Less than $25,000	39	9.8
$25,000-$34,999	62	15.5
$35,000-$49,999	59	14.8
$50,000-$74,999	78	19.5
$75,000-$99,999	44	11.0
$100,000-$149,999	37	9.3
$150,000 +	33	8.3
Non-reporting	47	11.8
Home Residence		
Rural (Less than 1,000 people/square mile)	258	64.7

Table 1
Characteristics of Senior Participants Enrolled in Secondary Agriculture (n = 399), Continued…

Suburban (1,000 – 3,000 people/square mile)	77	19.3
Urban (3,000+ people/ square mile)	18	4.5
Non-reporting	46	11.53

*Note: As reported by the participants

In research objective two, participants were asked to evaluate six homophily scales of the two mock student profiles they received. The attitude homophily scales were constructed from the following dimensions: "is like me" versus "is unlike me", "Is different from me" versus "is similar to me", "thinks like me" versus "does not think like me", and "doesn't behave like me" versus "behaves like me". The background homophily scales were constructed from the following dimensions: "is from a different social class" versus "is from the same social class", "is culturally different" versus "is culturally similar", and "has an economic situation like mine" versus "does not have an economic situation like mine".

For research objective three, the researchers sought to identify the mock student profile with the greatest homophilic similarities. The majority of secondary agriculture seniors perceived to have similar attitude and background to mock student profiles 1, 2, 5 and 6 in regard to being similar in attitude, similar in social class, thinks similarly, has an economic situation similar, and would behave similarly to them. In addition, the majority of the seniors perceived mock student profiles 1, 2, and 3 to be culturally similar to them, see Table 2. To determine which mock student profile generated the greatest homophilic results, as perceived by the senior participants, the researchers examined which profile received the highest "like me" scores. Based upon the results, mock student profile 1 (farm background, white, and straight) had more participants perceive to be similar in each dimension area.

Research objective four sought to identify the mock student profile that obtained the least homophilic perceived dimensions to the senior participants. Based upon Table 2, mock student profile 8 (non-farm background/athlete, Black, and gay) had more participants perceive to be different in each dimension area than the other mock student profiles.

Table 2

Frequencies of Homophily Scale for Mock Student Profiles (n = 399)

Homophily Scale Question	Dimensions	MSP #1		MSP #2		MSP #3		MSP #4		MSP #5		MSP #6		MSP #7		MSP #8	
		f	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%
Attitude Scale 1	Attitude different than me	24	23.8	30	41.1	60	71.4	78	83.9	33	38.8	38	44.2	54	77.1	63	77.8
	Similar attitude to me	77	76.2	43	58.9	24	28.6	15	16.1	52	61.2	48	55.8	16	22.9	18	22.2
Attitude Scale 2	From different social class	22	22.0	26	36.1	44	52.4	62	68.1	28	32.9	33	38.4	38	55.1	58	71.6
	Is from same social class	78	78.0	46	63.9	40	47.6	29	31.9	57	67.1	53	61.6	31	44.9	23	28.4
Attitude Scale 3	Is culturally different	23	23.0	27	38.0	37	44.6	59	65.6	46	53.5	50	58.1	51	73.9	70	85.4
	Is culturally similar	77	77.0	44	62.0	46	55.4	31	34.4	40	46.5	36	41.9	18	26.1	12	14.6
Attitude Scale 4	Does not think like me	29	29.6	34	48.6	56	67.5	63	70.8	27	31.8	37	43.0	51	73.9	54	67.5
	Thinks like me	69	70.4	36	51.4	19	32.5	26	29.2	58	68.2	49	57.0	18	26.1	26	32.5
Background Scale 1	Doesn't behave like me	24	23.8	34	48.6	65	78.3	69	76.7	31	35.5	37	43.5	51	73.9	71	87.7
	Behaves like me	77	76.2	36	51.4	18	21.7	21	23.3	54	63.5	48	56.5	18	26.1	10	12.3
Background Scale 2	Has an economic situation like mine	72	72.7	40	58.0	35	42.2	40	44.9	52	61.2	41	48.2	32	47.1	34	43.0
	Does not have an economic situation like mine	27	27.3	29	42.0	48	57.8	49	55.1	33	38.8	44	51.8	36	52.9	45	57.0

Note. MSP#1 = Farm, White & Straight; MSP#2 = Athlete/No Farm, White & Straight; MSP#3 = Farm, White & Gay; MSP#4 = Athlete, White & Gay; MSP#5 = Farm, Black & Straight; MSP#6 = Athlete, Black & Straight; MSP#7 = Farm, Black & Gay; MSP#8 = Athlete, Black & Gay

Mock student profile 8 received the most divisive results on the homophily scales. Therefore, a bivariate correlation was run to determine what student characteristics impacted those responses. Mock student profile 8 only found three statistically significant correlations. A small, positive correlation effect was found between the fifth homophily scale and urban, suburban, or rural home residence type (r = .27), between homophily scale three and religion (r = .25), and between homophily scale four and having traveled to another country (r = .28), see Table 3.

Table 3
*Bivariate Correlation for Homophily Scales and Student Demographics for MSP 8***

	FFA Officer	Sport or Club captain	Travel Abroad	Parent Education	Religion	Parental Income	Rural, Suburban, Urban
Different from me/ Similar to me	-.05	.01	-.12	-.20	.17	.00	-.07
Doesn't behave like me/ Behaves like me	-.12	.11	-.19	-.12	.03	.12	.03
Different social class/ Same social class	-.07	.08	-.16	-.12	.25*	-.11	.02
Culturally different/ Culturally similar	.01	-.06	.28*	.01	-.09	-.09	-.20
Does not think like me/ Thinks like me	.18	.12	-.11	.02	.19	-.06	.27*
Does not have an economic situation like mine/ Has an economic situation like mine	.04	-.00	.13	.04	-.07	.12	.01

*$a \leq .05$
**MSP 8 is non-farm background/athlete, Black, and gay

Conclusions, Implications, and Recommendations

The purpose of this study was to evaluate the depth of inclusiveness among SBAE senior students within Kentucky using the concept of homophily. The researchers acknowledge that the study of homophily encompasses multiple variables and the results are based upon youths' perceptions of a fictitious student character profile; however, these profiles exist as real students in Kentucky public schools. Like all studies, limitations exist. The researchers recognize that a level of trust was extended to SBAE teachers to distribute the link to their students. Additionally, due to the unique geographic and population makeup of students in Kentucky, this data may not be able to be used when inferring to other states or populations. Furthermore, due to the personal nature of the questions and out of respect for student confidentiality, no personal identifiers were requested from participants (race, gender identity, sexual orientation, etc.). However, due to the sensitive nature of the questions the results are at risk of misreporting due to embarrassment of comfortability (Tourangeau & Yan, 2007).

After examining the demographic and characteristic information reported by the participating seniors, generalized causal inference can be made. According to Cook et al. (2002), *surface similarities* can be made due to numerous characteristics that reflect the generalized population of students enrolled in agricultural education (Lawrence et al., 2013). As a result, the researchers are encouraged to consider the findings reflective of the homophilic beliefs of the overall population.

The homophily scales required participants to choose between two statements. Based upon the results, the more similar the mock student profile was to the majority's demographics, the more frequently they were selected as "like me". When examining the eight mock student profiles, the profile that the senior participants perceive to believe to be most like them in cultural background and attitude was mock student profile 1, which reflects a student from a farm background who is white and straight. The researchers are led to believe that the student participants are maintaining a homoliphic attitude, even in regard to fictitious characters represented by the mock student profiles. Considering the study conducted by Smirnov and Thurner (2017), students are more likely to change their friend network then they are to change their attitude; therefore, it can be inferred that the students will maintain a friend network that reflects their own identified cultural identities.

With the students identifying a profile to be most like them, one cannot assume homophilic behaviors exist without examining all the student profiles. Unfortunately, the seniors perceived mock student profile 8 (non-farm background/athlete, Black and gay) to be unlike them in every category. In fact, MSP 8 received more "not like me" votes than any of the other seven mock profiles. The researchers understand that students could be pressured by social norms regarding their identified perceptions, but it should be reiterated that each senior participant received two random profiles. Considering most of the students are from a rural home residence, the students are identifying a culture that reflects that of their own, resulting in signs that homophily exists among secondary agriculture youth (Van Der Wildt et al., 2015).

The indicators of homophily occurring among secondary agricultural youth are alarming, as the participants assumed, based off the three minimal variables they were provided, the rest of the mock student's characteristics, including economic situation and how they behave and think. These assumptions can be damaging to other students they may encounter in their agriculture programs and in their lives that do not reflect a similar culture. The researchers believe that the students, in no manner, would intentionally insult someone who was not like them; but the likelihood is probable that these assumptions would be the origin of microaggressions or subtle, automatic, non-verbal put downs (Pierce et al., 1978), resulting in students avoiding the opportunity to network with secondary agriculture students they perceive as dissimilar to themselves. Moreover, students who are perceived as different from the norm may need to assimilate or be forced to hide their identity in order to be accepted among the students.

The term "culture" was never defined to the senior participants; however, in identifying students who were perceived to be "culturally like me", it was interesting that the students were comfortable if the majority of the three minimal variables reflected them. For example, mock student profiles 1, 2, and 3 were the only profiles the students identified as "culturally similar to me". When examining the identities of these profiles, farm background was the only variable that did not matter in cultural similarity; however, sociologists, such as Wendell Berry (2006), posit that production agriculture is cultural. In the context of this study, the two factors that appear to be the tipping point for cultural identity are the variables of race and sexuality. McPherson and Smith-Lovin (1987), believed the character of the organizations, like FFA, dictate the friendship tie to become homophilous. This homogenous mindset dictates the possibility for diverse friendship choice and was coined by the authors as *induced homophily*.

Within the findings, the evidence of *choice homophily* (McPherson & Smith-Lovin, 1987) exists among the student participants. In the context of choice homophily, students were randomly

provided dyadic heterogenous profiles and asked six options to determine likeness. The study merely provided the students with the arena for the formation of friendship ties; the *choice* was within the student to decide likeness or difference. Since mock student profile 8 provided the largest difference from the other profiles, the researchers sought to determine if a relationship existed between the demographics and the homophily scales. Overall, a strong relationship was not determined. Three areas provided a small significant correlation, including home residence, religion, and travel abroad, but overall the results imply that the backgrounds examined do not depict an origin of the students' homophilous behavior.

Group composition has a very substantial effect on the amount of homophily in friendship networks (Rotolo & McPherson, 2001). With the population reflecting a homogenous demographic, the results support the idea that face-to-face groups have substantial effects on tie formation in social networks. Such social networks can be inviting to new students who reflect similar homophily demographics, particularly in race and sexuality. Likewise, students who are not homophilous to the social network in secondary agricultural education will find difficulty in being welcomed and accepted unless the individual student chooses to assimilate to the dominant culture (Berry, 2006).

Additional research is encouraged to determine origins of homophily in secondary agricultural education classrooms. From other studies, Shrum et al. (1988), determined that racial and gender homophily behaviors and friendship ties began at the middle school level and by high school homophily could be set for the remainder of a student's life. This creates a sense of urgency for SBAE programs that typically begin at the middle and high school level, as immediate intervention is needed to truly influence budding homophily behavior. It is also pivotal that middle school teachers and administrators explore curriculum opportunities for students to be introduced and accepting of students of backgrounds different from their own. Curriculum such as Character Counts (Counts, 2004) provide opportunities for discussion to occur regarding diversity and inclusion.

Due to the impact biracial interactions can have on an individual's likeness (Joyner & Kao, 2000), it is recommended that secondary agriculture programs look to develop partnerships with racially diverse organizations in order to create context and exposure. More importantly, postsecondary agriculture teacher education programs should address homophily within their classroom instruction as well as develop programs that increase the recruitment efforts for a more inclusive program (Rocca & McCroskey, 1999). Designing partnerships or establishing a local MANRRS chapter is one step toward minimizing the existing choice and induced homophily, but it is not the only answer. Simple instruction on homophily is not enough, as students and teachers are not aware of how their subconscious behaviors welcome and warrant friendship ties.

Purposeful interventions in Kentucky classrooms to prevent homophily and in-group mentality from occurring should be employed. Interventions should strive to create a collective, inclusive atmosphere, where diverse backgrounds are respected. Initiatives from the National FFA, such as the *We Are FFA* platform and provided resources, can serve as a starting point for SBAE teachers (National FFA, 2020). Interventions can be as simple as utilizing inclusive pedagogy practices or as complex as integrating multicultural education curriculum within the program. Additionally, classroom procedures that promote crossing homophilius lines and ensures student respect and empathy should be utilized to foster positive relationships across social groups. If funding is available, well organized international agriculture experiences may provide students with reflective opportunities to see how cultures differ from their own in a positive manner. Potentially, the most important effort to mitigate homophily in SBAE programs is to recruit students who bring diversity and a wide array of experiences with them to the agriculture classroom. It is recommended that SBAE teachers make a conscious effort to help all students develop expertise in inclusion and develop cultural humility over the entirety of the program.

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