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Thinking outside anthropology's box:

Socializing undergraduates through collaborative research, teaching, and service

Most undergraduate anthropology majors will not pursue postgraduate careers in the discipline, so the greatest value of anthropological training is in providing a holistic sense of cultural relativity and appreciation for human diversity. However, translating anthropology's value to other career paths is frequently hindered by students' limited exposure to theory and methods and further complicated by the discipline's emphasis on individualistic fieldwork models and research outcomes. We argue these obstacles can be overcome by engaging students in mixed-methods collaborative groups that integrate students and faculty in local research, teaching, and outreach. This socializes undergraduates to view anthropology as naturally collaborative and applicable beyond careers in research. In this article, we outline a program that fuses experimental and field approaches to train students in qualitative and quantitative methods and critical thinking. We then detail implementation of this pedagogical model as a generalizable template that trains students for postgraduate careers outside anthropology. [collaborative training, experimental anthropology, human behavioral ecology]

Introduction

Anthropologists working within academia are frequently pressured by politicians, the media, and other disciplines to justify the value of an anthropological perspective (Lende 2011).

Much of this effort is directed toward reassuring undergraduate anthropology majors of future job prospects, although most will not become professional anthropologists. Only a minority of college students who take anthropology courses actually end up pursuing careers in the discipline (Bureau of Labor Statistics 2015). The issue, then, becomes how to best instruct undergraduates in anthropological concepts in a way that underscores their practical application to any career path and increases the accessibility of training in research methods (Copeland and Dengah 2016). We emphasize two key points for training undergraduates: (1) anthropology can be done by anyone, anywhere, and as a collaborative endeavor; and (2) incorporating teaching, research, and service equally is the best way to train students for any future career.

Despite advances in applied anthropology (Lassiter 2008; Stull and Schensul 1987), collaborative research within academia is frequently overshadowed by anthropology's enduring yet problematic tradition of solo fieldwork. The material students learn in classes often takes researchers who provide it years of hard slogging without peer or emotional support in isolated field sites—experiences that seem remote and difficult to undergraduates (Salzman 1989). This “lone researcher” archetype obscures the value of an anthropological education, which can be found in integrating perspectives of holism, cultural relativity, and human diversity. These critical aspects of “humanness” can be observed and experienced anywhere in the world, but anthropology's heritage of doing solitary fieldwork paints it into a corner (Salzman 1989, 1994). Promoting the discipline's merit requires thinking outside of anthropology's historical box by socializing students to understand academic research as a fundamentally collaborative and supportive field of inquiry.

Conveying anthropology's value is further complicated by a tendency within academia to atomize professional obligations. University teaching and research are largely detached from the public domain, and any crossover is usually categorized as service-learning or outreach (see also Copeland and Dengah 2016; Copeland et al. 2016; Funkhouser et al. 2016). These duties are measured individually in tenure evaluations, a practice that undermines efforts at integrative education, reinforces unrealistic distinctions, and obscures anthropology's underlying holism. Lamphere (2007) argues for collaboration, outreach, and policy applications in graduate training, but we suggest there are benefits for doing this earlier at the undergraduate level. By presenting anthropology as well-suited for interdisciplinary work, we can better convey its applicability to undergraduates and perhaps even potential employers.

This article presents one way to move outside of anthropology's historical precedent—what Salzman (1989, 1994) calls the “lone stranger”—by teaching anthropology as an integrated, applied practice via collaborative and interdisciplinary research. We describe our implementation and experiences with this approach in the context of research conducted with the University of Alabama's Human Behavioral Ecology Research Group (HBERG). HBERG provides a student-centered pedagogy via team projects grounded in human behavioral ecology and experimental approaches. By emphasizing a collaborative ethos, we avoid implicit reification of the solo fieldwork model or splintering of research, teaching, and application that students are exposed to in course readings.

Starting outside anthropology's history

The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn.—Alvin Toffler¹

In anthropology, fieldwork is the gold standard of credibility, but researchers are too often portrayed like Howard Roark in Ayn Rand's classic objectivist novel *The Fountainhead* (1943): rugged individualists who learn to do every aspect of research themselves. This solo fieldwork experience has become a *rite de passage* (Alland 1975; Salzman 1989, 1994; Wengle 1988). However, this may translate poorly for graduates pursuing careers in a professional world that

encourages team approaches to addressing institutional goals. Doing anthropological fieldwork alone can be incredibly self-reflective, but it is also challenging and wrought with unpredictability. In the best of circumstances, solo fieldwork is a lonely endeavor that isolates researchers from emotional support. But what happens if one becomes injured or suffers psychological distress? Depending on where fieldwork is conducted, their physical and mental welfare may depend on empathy from the people being studied (Rodman and Rodman 2000).

The solo fieldwork model owes much to the accidental case of Polish-born anthropologist Bronislaw Malinowski, who studied at the London School of Economics under C.G. Seligman. In 1914, he journeyed to the Trobriand Islands via Australia just before the onset of the First World War. Since Malinowski's nationality made him an official enemy of the state once the war broke out, he was discouraged from returning to Australia, lest he be interned as a prisoner of war. Thus, stranded for over four years, Malinowski made the best of things by learning the local language and achieving terrific ethnographic depth, as detailed in his classic book *Argonauts of the Western Pacific* (1922). However, as diaries published after his death make clear, Malinowski endured considerable hardship, depression, misery, and suffering throughout his forced exile (1989).

While the circumstances of his immersion were accidental, Malinowski's insights transformed anthropology, and his methods were purposely emulated. As a result, however, present-day anthropologists have inherited a rather uncritical regard for solo fieldwork (Salzman 1989, 1994). Certainly, Malinowski's work has not been without detractors, but the primary critique is of the self-contained and static functionalism he portrayed (McGee and Warms 2004). What is often left behind is the credulous reliance on the uniqueness of solo ethnography. As antidote, contemporary pedagogy usually emphasizes “thick description” and going “deep” (Geertz 1973). For instance, Bourgois and Schonberg (2009) point out that collaborative fieldwork is among the most overlooked but potentially valuable means of eliciting “deep meaning.” In their analysis of homeless heroin addicts, they contend that working together helped to foster a “broad range of different kinds of relationships . . . [and] scrutinize one another's contrasting interpretations” (Bourgois and Schonberg 2009:11).

The earliest example of collaborative anthropological research was the Torres Strait Expedition, led

by Haddon and accompanied by Rivers, Seligman, Ray, and Wilkin (Edwards 1997; Herle and Rouse 1998). But it was the texts of Malinowski and other 20th-century ethnographers (e.g., Radcliffe-Brown, Mead, and Bateson) whose examples would come to characterize the discipline (Denzin and Lincoln 2002). Anthropology has undergone extensive transformation since inceptions of American four-field and British social anthropologies, when research directions were dictated by colonial governments concerned with serving imperialist ambitions (Cervone 2007; Harrison 2008). Yet, too many anthropologists continue to emulate a hyperindividualistic model of fieldwork. This portrayal is reified in fragmentary cultural depictions such as Indiana Jones or Temperance “Bones” Brennan, which motivate many students to take anthropology courses in the first place. Adopting a collaborative approach requires modifying students’ expectations and teaching anthropology as more than just a solitary pursuit.

In the following sections, we describe our implementation of a collaborative, team-centered pedagogy in HBERG, which engages undergraduates in interdisciplinary research projects under a rubric of human behavioral ecology. We then describe the experiences of three undergraduates and one graduate member of HBERG to demonstrate how this reinforces the utility of anthropology and communicates its broad appeal for various career trajectories.

Collaborative, team-centered pedagogy

If you want to go fast, go alone. If you want to go far, go together. African proverb²

HBERG was founded in 2009 by the senior author (Lynn) as a forum to address questions and methods related to human behavioral ecology which fuses anthropological and evolutionary approaches to study the origins of human behavior and the ecologies they construct (Westneat and Fox 2010). We use “experimental anthropology” (i.e., mixed-methods approaches focused on testing ideas and theory rather than a strict protocol of how anthropology should be conducted) as a means to get undergraduates involved. In HBERG, we sought to emulate models used in psychology and biology, where laboratories of graduate students conduct research while training undergraduates under the supervision of a faculty director. However,

methodological training is not part of the undergraduate anthropology curriculum, so students arrive with little clue as to how they should proceed with research. Additionally, HBERG only has one or two graduate students at any given time. By necessity then, to create a sustainable model, we developed a structure that incorporates team approaches to training in research, teaching, and service.

At HBERG’s founding, research foci within human behavioral ecology were designed specifically to pique the interests of students and were also traditional topics in anthropology, including sex, self-deception, body modification, trance, fire, and religion. At present, this multiple-project approach is implemented over a year-long cycle in which students learn and develop skills in research design, methodology development, data collection and analyses, and research presentation and translation. The latter aspect involves training undergraduates to interpret scientific results for presentations at local and professional conferences and blogging for the University of Alabama’s Anthropology Blog Network and Evolutionary Studies (EvoS) Consortium.³ An important aspect of HBERG for many members is also participating in an outreach course that teaches anthropology to elementary and middle school students (see Funkhouser et al. 2016), as well as hosting special community events related to anthropology and evolution.

Our theoretical approach to HBERG follows Holley’s (2009) best-practices model to interdisciplinarity. This includes a student-centered pedagogy operating within a dedicated organizational and physical space; a curriculum shaped by interdisciplinary research experiences and focused on problem-based learning; and an emphasis on collaborative knowledge acquisition versus mastery of specific content (Lynn et al. 2014:93–94). This interdisciplinary orientation makes HBERG a beneficial resource for undergraduates from various disciplinary backgrounds, including applied and practicing approaches in anthropology and allied disciplines (for instance, see Brondo et al. 2016), who join during sophomore year and possess foundational ethnographic and scientific knowledge from their courses. Others come from computer science, biology, business, psychology, mathematics, and journalism departments, seeking research experience to complement their classroom education.

We utilize an umbrella model (Figure 1) of socialization that embraces undergraduates, graduate student mentors, and the faculty director.

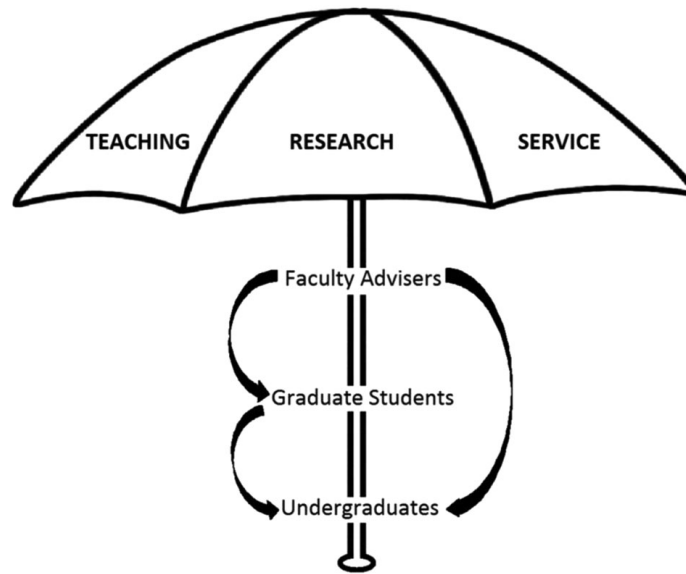


FIGURE 1. HBERG's pedagogical model.

Incorporating these various levels of expertise has become an important factor of HBERG's design and management. There is consensus that faculty mentors are key to graduate students' socialization, because the relationships established with faculty enable students to integrate themselves within an organization as adept researchers (Holley 2015; Weidman et al. 2001). Using this apprenticeship construct, HBERG members "scaffold" projects for those with less familiarity (Wood et al. 1976). Similar to age-mixing among younger students (Gray and Feldman 2004), undergraduates model themselves after graduate students and strive to work at a higher level, while graduate students make explicit what they have internalized as implicit knowledge to exercise their nurturance and leadership skills.

We find that HBERG undergraduates feel more comfortable expressing fears of failure and admitting their ignorance to graduate mentors, despite explicit acknowledgment by the faculty director that these emotions are normal experiences of the research development process. The faculty director, graduate students, and more experienced undergraduate members control those aspects of HBERG projects that newer members are incapable of accomplishing alone (see Copeland et al. 2016 for applied benefits of this approach). Expressly directing graduate students to watch for students who may be overwhelmed and trying to go it alone helps to prevent those traps from creeping into our collaborative model.

Fostering a collaborative approach to fieldwork also means challenging undergraduates to invest in peers, not just their professors or upper-level mentors. Most undergraduates involved in HBERG are there voluntarily and are self-motivated. However, because of the demands of large class sizes, U.S. students are largely socialized in public primary and secondary education to learn passively and on their own (Jeynes 2007). HBERG members, by contrast, are expected to actively work with others toward common goals by using collective resources and knowledge to bring studies to fruition.⁴ Students are keenly aware of the independence required, and many describe this as the "sink-or-swim" style of teaching because they must invest effort outside of required class time to maintain the progress of each research project.

Through HBERG, we also promote what Holley (2015:643) terms a "scholarly identity." Students gain a refined sense of professional obligation by cohering as a group while acquainting themselves with details of research and scholarly life. Undergraduate members of HBERG refer to themselves as "HBERGers," design HBERG logos to put on conference posters (Figure 2), and make group T-shirts. Their esprit de corps is a key factor enabling them to surmount the difficulty of conducting original research with only preliminary training. Creating a formal identity within a proper physical structure engenders a sense of belonging and solidarity, which orients them toward collaboration and teamwork

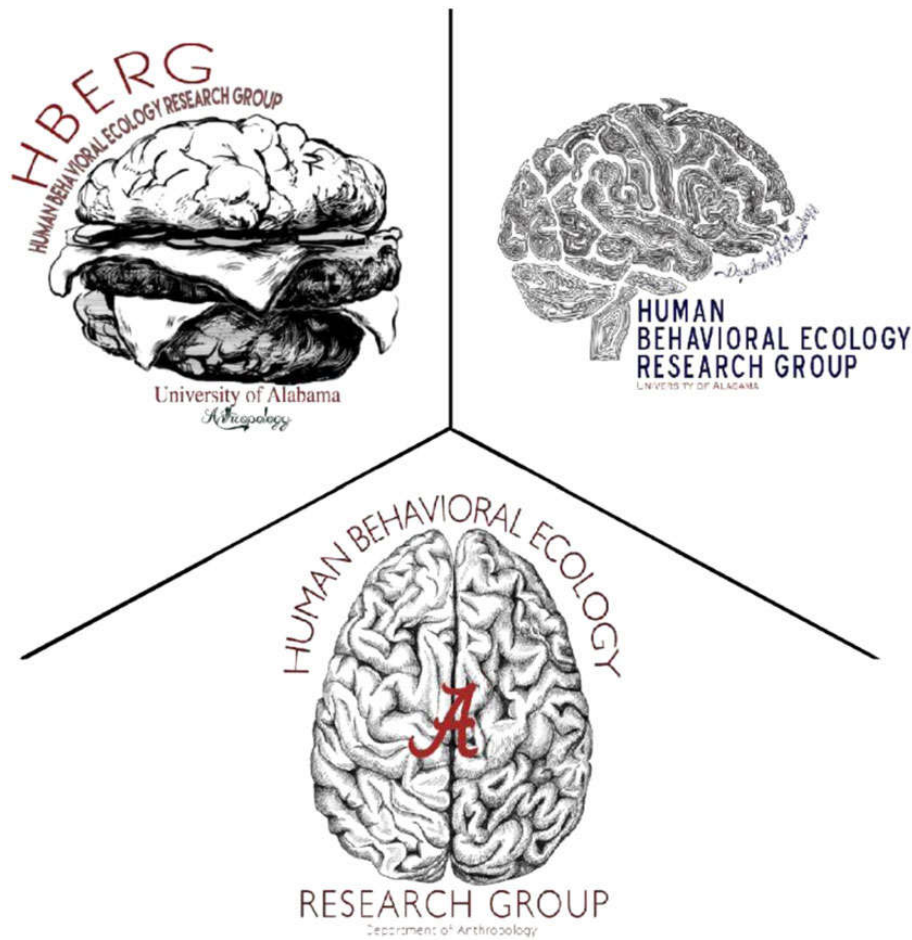


FIGURE 2. HBERG logos for conference presentations (designed by Isabella Rivera).

(see also Dengah et al. 2016; Snodgrass 2016 for similar models).

The HBERG process

Any education given by a group tends to socialize its members, but the quality and the value of the socialization depends upon the habits and aims of the group.—John Dewey⁵

Graduate students advised by Lynn are required to participate in HBERG as part of their training, while undergraduates are recruited in courses taught by Lynn or by graduate teaching assistants. Alternatively, students seeking research experience may be directed to HBERG by the department undergraduate director, academic advisers, or simply find the website or Facebook page. All undergraduates must complete an application form, which helps determine if students are persistent

enough, after expressing interest in HBERG, to follow through with assigned tasks.⁶ Experienced members help socialize new ones by walking them through the admission process: joining the Facebook group and e-mail list, creating a personal profile on the HBERG website, and completing online ethics training required for human subjects research. All ongoing projects are represented on a dry erase board with concrete goals and tasks in order to prioritize the weekly responsibilities necessary for completing them.

One ongoing study, “Fireside Relaxation and Social Synergy Study” (FRS), was the first developed, and tests an implication of McClenon’s “ritual healing theory” (2006). This suggests that ancestral populations developed primitive practices of what we today lump as “shamanism” via cooperative group behaviors intended to increase predictability in their interactions with their environments. McClenon (1997) imagined these practices developed around fires, since evidence suggests hominids

have controlled fire for 800,000 years. Modern hearth and campfires are generally considered relaxing, so those individuals most susceptible to these relaxation effects were probably more gregarious and ultimately more successful cooperators—that is, were favored through Darwinian processes of natural selection (McClenon 1997). Others even suggest that, because human ancestors could control but not actually start fires until approximately 40 kya, fire-side interactions and maintenance may have played significant roles in the evolution of the human social brain (Gowlett et al. 2012; Rossano 2010).

Using an experimental approach that involves testing blood pressure response to various sensorially disaggregated and simulated fire conditions (i.e., visual fires without sound, smell, or heat; visual fires with sound only; etc.), numerous HBERG students have participated in data collection. Initial findings suggest that fire with sound and a prosocial disposition are predictors of a relaxation effect (Lynn 2014). These results begged questions as to the role of sound alone and the implications of this evolutionary model. Thus, current tasks on HBERG's dry erase board for FRS include the following: recruit new participants, outline proposal for study of effects of real fire, clean 2014–16 data, analyze sound-only data, analyze skin conductance data, analyze media comparison data, and review media effects on physiology literature.

Another project is the “Belongingness and Religious Ecology Study—Tuscaloosa” (BREST), which aims to investigate the role of ecological variation in influencing cooperation and belongingness among different cultural groups. The BREST project began during the senior author's dissertation research on the influence of speaking in tongues on stress and commitment among Pentecostals in New York. Lynn found group-oriented and culturally relative behaviors can be “discerned,” or interpreted in emically meaningful ways, as gifts of the Holy Spirit that influence an embodied sense of belonging (Lynn 2013; Lynn et al. 2010, 2011, 2015). We have extended this research, following Wilson's (2010) suggestion that churches are ecologically relative cultural organizations, by developing a church-by-church based study of the religious ecosystems of Tuscaloosa, Alabama (Lynn et al. 2014).

The BREST project seeks to understand what—in a saturated religious marketplace—motivates people to attend specific churches, what members do to demonstrate commitment, how congregations benefit from members' displays, and how that influences

a personal sense of belongingness and well-being. HBERG students participate in this project by going into the field in pairs or teams and collecting sets of ethnographic data using a workbook manual developed specifically for the project. Students pick and attend a church and, initially accompanied by a graduate student or senior HBERGer, look for certain behaviors, demonstrations, and taboos that congregants use to identify and discern other members' commitment (Sosis 2006). HBERG researchers interview church members to assess emic salience of these signals and query for any not observed. They may then develop a checklist, similar to those used in behavioral ethology, to conduct focal and scan samples (Martin et al. 1993) and thereby determine various quantifiable markers of commitment signaling.

Graduate students work with the faculty director to publish first-author collaborations, which are managed through a weekly writing group. Each week, a group member circulates a piece of writing she or he is working on in advance of the meeting. We use a “quality circle” approach (Bauer 2011), in which the writer outlines the goals of the piece and receives feedback on the positive aspects to ensure those parts do not get inadvertently cut, as well as any suggestions for improvement. Students are regularly encouraged to workshop writing they are collaborating on within HBERG, but we also review thesis chapters, grant proposals, abstracts, and poster drafts, for example. The writing group includes any graduate student working on an HBERG-affiliated project, which sometimes includes those doing fieldwork or former HBERG undergrads now in graduate programs elsewhere. This distance component is managed using Google Hangouts to connect group members from as far away as other continents. For instance, the first author (Stein) continued participating in this aspect of HBERG while conducting dissertation fieldwork in Peru.

Thirty undergraduates have completed at least a full year in HBERG over six years, with five to ten students involved at any one time, while over 80 have at least tried it out for anywhere from a few weeks to a semester. During that time, HBERG students have served first author roles on 23 presentations at 11 different local, regional, or national conferences. The following cases from some of these students provide glimpses into how the HBERG model has prepared them for both anthropological and nonanthropological postgraduate trajectories.

The HBERG student experience

The art of handling university students is to make oneself appear, and this almost ostentatiously, to be treating them as adults.—Arnold J. Toynbee⁷

Most undergraduates who join HBERG do not continue on to professional careers in anthropology. The purpose of the research group is not to produce new anthropologists, but to socialize students to understand anthropology as an integrative knowledge base that applies to any professional domain. Grounding their experiences in collaborative, interdisciplinary research is invaluable to students for thinking critically. Ashley Daugherty, for instance, was a double-major in Anthropology and Spanish who joined as a sophomore to determine if she wanted to pursue biological anthropology as a career. Her involvement led to becoming lead experimenter for the FRS project and helped her gain experience designing and running high-volume, longitudinal research. This experience refined her leadership skills by encouraging self-reliance, and trained her to equitably manage and distribute group responsibilities to other HBERGers.

Daugherty's growing self-reliance improved her confidence in interacting with professionals at conferences, as well as reaching out to faculty and graduate students for support advancing research goals. After only a year in HBERG, Daugherty presented a research poster at a national conference (Carr et al. 2015), which exposed her to other ideas and led to development of her own research project. Subsequently, she collaborated with other HBERGers to design her project, obtain Institutional Review Board approval, and collect and analyze data within one year, which she presented at three different conferences (Daugherty et al. 2016a, 2016b, 2016c). Along the way, Daugherty and several other HBERG students helped host visiting speakers and organize a full conference for the inaugural meeting of a new scholarly society.⁸

This early familiarity with mentoring relationships is important for students who will most likely enter a hierarchical job industry. After two years with HBERG, Daugherty decided to pursue a career in museum studies rather than anthropology, but acknowledges that the independence she developed in HBERG will be beneficial for designing her master's project in graduate school. The value of HBERG for students like Daugherty is that it socializes them to recognize the advantages of

anthropological insight without restricting its broader application. Conversely, we train students from outside disciplines who join simply looking for research experience and ultimately restructure their career ambitions toward anthropology.

Isabella Rivera was referred to HBERG by a graduate student after changing her major from a premed track in biology to Anthropology. Having taken introductory biology, genetics, ecology, and cell biology courses, Rivera joined HBERG to balance her existing strengths in quantitative analysis with greater familiarity in qualitative methods. Her first year, Rivera gained experience conducting participant-observation with a team of HBERGers at the First Wesleyan Church of Tuscaloosa, AL as part of the BREST project. Like many large congregations, First Wesleyan's elders encourage congregants to form social interest groups that meet within the church, such as according to age, gender, and lifestyle. Rivera, along with fellow HBERGer Jessica Muzzo and others, spent over a year observing, documenting, and coding interactions among church members, discovering that certain interest groups extend beyond the church into congregants' secular lives. Through this insight, we became interested in the overlap of social networks among these groups and how it influences members' feelings of belongingness and psychological well-being.

Highly invested in the project, by her second year in HBERG Rivera was presented the opportunity to lead the study, a role hitherto reserved for graduate students. Rivera's foundation in biology motivated her to pursue a biological component (Rivera et al. 2016), exploring Tanya Luhrmann et al.'s (2010) "absorption hypothesis," which suggests that a blend of belief, training, and biological proclivity for absorption, or focused attention, may influence a sense of belongingness and success in a social group. Based on work by Lichtenberg and others (Lichtenberg et al. 2000, 2004; Szekely et al. 2010), we suggest a genetic polymorphism for the dopaminergic enzyme catechol-o-methyl-transferase (COMT) may be related to predispositions for absorption. Rivera is leading the team developing a pilot study to test this, which involves collecting saliva samples to compare genotypes associated with COMT with measures on the Tellegen Absorption Scale (Tellegen and Waller 2008), as well as other metrics that tap focused attention.

While Rivera worked to develop the biomarker portion of the study, Muzzo, who actually joined HBERG mid-way through her senior year, began

scouring social network literature to design a complementary methodological framework. Muzzo and Rivera then began to collect data to measure degree centrality, which is one measure of an individual's structural importance within a social network (Borgatti et al. 2013). This is accomplished by asking members of the First Wesleyan interest groups to list their top 10 friends or acquaintances and rank the strength of their ties to those people (close friend, friend, or acquaintance). A calculation based on these data is then used to develop a degree centrality score that can be compared to COMT genotypes.

As undergraduate researchers, Rivera and Muzzo may lack the experience or resources to conduct a project of this complexity alone. However, as members of HBERG they benefit from weekly support, guidance, and collaboration with others. Providing undergraduates ethnographic experience enhances their breadth in understanding the scientific method and its intersection with humanistic pursuits, and provides a foundation upon which to build further skills (Glass-Coffin 2016, Hale 2016). This biocultural research integration aligns anthropology well with the Next Generation Science Standards (NGSS) used to evaluate STEM education, which advocate learning activities such as these that enrich student capacities with regard to "crosscutting concepts." Participating in HBERG via studies such as FRS and BREST enhances students' comprehension of the nature of science and research (NGSS Lead States 2013).

The experience of the first author (Stein) also affirms HBERG's collaborative approach. As an undergraduate at another institution, his exposure to ethnographic classics fueled the belief that being an anthropologist meant doing international fieldwork alone. Upon arrival at graduate school, he proposed doing research in a remote area of Honduras, since no other anthropologist had worked there already. Stein completed a master's thesis based on this work and was admitted to the department's doctoral program, though he soon learned of the benefits of collaboration when he was invited to assist with two collaborative research projects abroad in Peru and Costa Rica (Lazo et al. 2013; Oths et al. 2012, 2013). It was through these experiences in the field with other anthropologists that Stein began to recognize the value of collaboration.

Upon returning from each of these trips, he worked with undergraduates in HBERG and also began to appreciate the merit of the work being

done by the group in Tuscaloosa. He realized that principles he had traveled to Honduras to test could, in some ways, be investigated just as easily (though in slightly different ways) at local research sites. Working alone and abroad did help Stein develop a sense of independence, confidence, and self-reliance. However, upon reflection, this is a specific type of experience that Stein sought, because he expected that only through suffering and without support in a faraway land could he achieve these things. HBERG offers members the chance to gain anthropological insights that prepare them for the world outside anthropology's box without requiring field experiences that entail loneliness, anguish, or desolation (though some simply desire that stereotypical experience).

Discussion

In HBERG, we train undergraduates to think of anthropology as a collaborative and interdisciplinary enterprise that can be pursued throughout their varied careers. This is not just for practical reasons but because collaboration produces better work through exchange of ideas and mutual support (Bourgeois and Schonberg 2009; Salzman 1989, 1994). Collaborative research is worth incorporating into all levels of research if only because the science itself benefits. We suggest that whatever gains to self-confidence achieved through solo fieldwork are outweighed by the superficiality of research conducted in this manner and the unnecessary emotional anguish, logistical problems, and research delays it may cause (Howells and Lynn 2016; Lynn and Howells 2015). As Malinowski (1989) clearly appreciated but concealed unto death, fieldwork is difficult enough. Why add the burden of working alone just because it was the method modeled by our predecessors? A team-centered pedagogy offers students opportunities to gain skills typically unavailable until graduate school.

Collaborative research projects also provide venues to socialize undergraduates to view anthropology as an intersection for interdisciplinary exchange rather than a bounded discipline, which is critical for translating its value to other professions (Holley 2009; Lamphere 2004). We believe anthropology trains students to be more "forest-oriented" than other disciplines, meaning that unlike students taught specific methods for limited career trajectories, the anthropological perspective increases broad conceptual knowledge. Anthropology

graduates do not miss the forest for the trees. Applying that knowledge via practical research, teaching, and outreach increases students' capacities in critical thinking and ability to engage with the media and those outside our discipline on key issues (Scheper-Hughes 2009). In evolutionary theory, overspecialization is only adaptive insofar as one's role is relevant. Thus, socializing students to foster broad, conceptually oriented knowledge and experience makes them more flexible and adaptive in a rapidly changing world.

HBERG's success is measured in the quality of relationships students develop with peers, graduate students, and faculty, as well as the number of members who present at conferences and publish articles in peer-reviewed journals (Holley 2009). This makes their resumes competitive, regardless of whether they continue doing anthropology or pursue other directions. For Rivera, who joined HBERG with existing competence in quantitative analysis, being a member afforded greater appreciation for ethnographic and qualitative research methods. Similarly, Daugherty notes how HBERG provided a forum to develop organizational and leadership skills, which she used to implement her own research project. For Muzzo, HBERG introduced her to aspects of research design that could only be learned through experience, enabling her to decide whether anthropology is the right path to pursue and boosting her confidence in the process. Relatedly, Stein's role as graduate mentor has better prepared him for the professional expectations of an academic career in anthropology, especially in the capacity of faculty adviser.

Former HBERGers have continued down diverse professional trajectories, including anthropology, neuroscience, museum studies, developmental finance, medical school, and even social activism. We would hesitate to assert HBERG deserves credit for preparing these graduates for their respective endeavors if it were not for the fact that many former students have communicated how their experiences in the group put them ahead of the curve in attaining career goals. One student wrote to Lynn about the benefit of getting involved in research: "Thank you for . . . creating an environment where I could really grow." Another, after receiving a fellowship for a doctoral program in history, wrote, "Being involved in HBERG . . . helped guide and focus my undergraduate education. You supported my academic interests and gave me the opportunity to do research that genuinely interested me. Although I'm

not continuing along in something Anthro-y, I know the tools and skills I've developed will be immeasurably valuable."

Limitations to undergraduate collaboration

HBERG is not uniformly successful. Resources are scarce, limiting the personal time the laboratory director (Lynn) or graduate students (e.g., Stein) spend assisting undergraduates in grasping concepts, filling in knowledge gaps, or training them in methods. There was little in the way of the vision we have outlined here when the group began in 2009. Developing structure has been important and has come in fits and starts. While many benefit from fluid organizational structure, others who thrive under constant direction can become overwhelmed and sometimes depart from the group. Some may stay but do little, and uncommitted members can even lead to difficulties for the rest of the group. The self-reliance and resourcefulness that this pedagogical approach requires can also mean a longer research process than if the students were intently supervised.

There are also caveats from students' perspectives. The biggest one is how intimidating our approach can be, even for undergraduates who enjoy great success as members. For new HBERGers joining an existing project, learning procedures fast enough to contribute means a steep learning curve. Thrusting students into field settings without much guidance may also pose difficulties in discerning what they should study, even when the research is local and they have a manual and peers in tow. As with culture shock among solo fieldworkers, this more general "discipline shock" may even preclude their initial independence. Similarly, having to learn complex statistical data analysis from other students and textbooks, as well as presenting their findings competently at conferences, presents greater obstacles than if this knowledge were taught in a traditional classroom setting.

We have learned that two essential factors mitigate some of these issues. The first is the aforementioned online application for screening applicants for the trait of persistence. The next factor is that, for the most part, projects are not dependent on any single person's knowledge or expertise, with the exception of the laboratories' faculty director. HBERG projects are ongoing and have involved

numerous student researchers over several years. The value of this technique is that students overcome obstacles by investing in each other to reach common goals and solutions.

Conclusion

As Salzman (1989, 1994) suggests and Bourgois and Schonberg (2009) demonstrate, collaborative and interdisciplinary research offers the prospect of gaining richer, more insightful fieldwork experiences. Training undergraduates to do this work means overcoming disciplinary and institutional obstructions—namely, anthropology’s implicit reliance on Malinowski’s individualistic investigative model (Borofsky 1994, Salzman 1994) and the overemphasis on solitary research as the culmination of anthropological training (Lamphere 2007). HBERG establishes an environment in which students committed to learning can gain experience conducting interdisciplinary, anthropological research, teaching, and service in a team setting. This allows them to develop confidence as leaders, identify personal biases and proclivities, and support each other’s pursuits of knowledge. Not only does this socialize them to view anthropology as collaborative, it provides practical training that better translates for the majority of graduates who will likely seek careers outside of anthropology, and improves the discipline for those students who do stick around.

Notes

1. Ratcliffe (2011:381).
2. Booker (2016:214).
3. <http://anthropology.ua.edu/blogs/> and <http://evostudies.org/>, respectively.
4. See <http://cdlynn.people.ua.edu/hberg.html> for a complete list of presentations and publications by project.
5. Dewey (1916).
6. Having an online application as a simple filtering technique (<http://cdlynn.people.ua.edu/join-us.html>) has proved inordinately successful in predicting which students will complete tasks rather than sporadically participating and waiting for instruction.
7. Toynbee (1969).
8. The Southeastern Evolutionary Perspectives Society (SEEPS), which held its inaugural

meeting at the University of Alabama, February 12–14, 2016 (<http://seepsociety.weebly.com/2016-meeting.html>).

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