

## HONORS EXPERIENTIAL LEARNING PROJECT PROPOSAL FORM

### Basic Information

Full Name: Batsheva Serota

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College: A&S

Major: Psychology

Title of Project: Fast Life History Strategy & Academic Achievement

Thematic Area: Research

Expected Project Start Date: January 30, 2013

Expected Project End Date: August 30, 2013

### Project Information

1. Provide a detailed abstract of your proposed honors experiential learning project.

For this project, the research team and I will be testing four causal assumptions:

1. Truancy reflects fast life history strategy.
2. Fast life history strategy causes low GPA longitudinally.
3. Low GPA causes fast life history strategy longitudinally.
4. Fast life history strategy and GPA share a cause or causes.

Ultimately, I will be helping investigate whether lack of success in school causes decreased investment in education and risky behavior such as substance abuse, or vice versa—whether lack of success reflects a fast life history strategy, which is characterized by impulsivity and risk-taking.

I will examine these questions by taking the following steps:

1. conducting a thorough literature review
2. preparing nationally representative longitudinal data for analysis
3. assisting with data analysis
4. preparing a national presentation
5. helping with manuscript development

**\*My time commitment for this project will be 3hrs/week for 30 weeks.**

One article in particular that I will be using and examining suggests that the interplay between substance use, delinquent behaviors, and academic achievement should be further investigated (Hallfors, 2002). This project is based upon this notion.

The itinerary for this project will ultimately involve the initial steps of searching for relevant articles, developing an annotated bibliography, and drafting a literature review. I will then prepare the data for analysis, assist with analyses, contribute to a conference presentation, and finally help work on an outline for a research paper. The final step would involve developing a finalized conference presentation and manuscript for submission to a peer-reviewed journal.

This project is personally meaningful because I am passionate about individualized treatment for people with substance abuse and other clinical disorders. By getting a better look at what issues are related to risky behaviors, I will be able to paint a clearer picture of the dynamic and interpersonal factors that contribute to substance use and abuse. My professional goals are to work in the counseling field, so studying issues relating to substance abuse will be relevant when developing a future career plan. Eventually, I will be able to apply what I have learned directly in a clinical practice.

**Clearly and thoroughly address how each of the following elements will be exhibited in your work:**

2. Connection to Learning Outcomes within the Honors Thematic Area (identified above)

My role as a research assistant in a Substance Abuse Counseling (SACN) lab involves several key responsibilities, all of which are backed up by a necessary skill set, all of which help keep the lab and its projects running. For example, I will be assisting with developing a draft of an article for submission in a peer-reviewed journal. Conducting background research and understanding the theories behind it takes discipline, a strong background in the topics at hand, as well as good note-taking and reading skills. Background research is a necessary component of developing a research question in order to see what has been done, what the gaps in the research are, and how we can fill those gaps with our work. I will also be assisting in the writing of the paper, which takes organization and discipline. Being part of a research team is demanding due to the time that needs to be put in to writing a research paper as well as focusing on the tasks at hand. I will be able to see the publication process firsthand, including writing up a draft and abstract, and submission of the paper—all of these things require determination as well as patience. Being part of a research team requires strong interpersonal skills and team work, which involve a collective determination to continue answering questions about a certain topic and a resilience present when there are failures to find some specific answers. Because of all of these crucial skills and responsibilities I will have to own up to, this project will allow me to achieve several learning outcomes of the research theme. I will develop a research question through examining previous research and form a hypothesis based on the question I am asking. Not only will I help complete the project, but I will also think extensively about how my research could possibly have worldwide impact.

Firstly, I am working on framing and developing a research question regarding education and substance use—I will be trying to determine whether truancy influences substance use, whether drugs cause an decrease in education investment, or whether drugs and academic achievement have a more dynamic relationship. In order to investigate these issues on a deeper level, I must look into previous research and studies, which will allow me to possess a well-developed awareness of literature regarding investment in education as it is related to risky behaviors such as drug use. I will use theories, such as Life History Theory (LHT) and other theories of evolutionary psychology (EP), presented in previous research to build a foundation upon which my paper can rest on. Through extensively examining previous research on the topics at hand, such as analyzing longitudinal data on GPA, I will be able to form a hypothesis that will be the basis of my research paper.

Because substance use is a cross-cultural universal (Durrant & Thakker, 2003), this research study has worldwide implications, and I will be considering what these implications are beyond my completed research. Substance use being a “cross-cultural universal” means that substances are used throughout the world and can affect subgroup of every population, meaning they can play a part in every single person’s life. When I think about what this means, the implications are astounding. This is why, to me, substance use research is so important, because drugs infiltrate every corner of the world as well as throughout history. Because of this, I will constantly be considering the weaknesses and limitations of my study. That way, I can come up with future directions of research on the issue of drugs and how they affect or are affected by academic achievement and school attendance. If the current study can begin to paint a picture of how substance use interacts with educational variables such as truancy, future research can be developed to improve our education system as well as provide preventative measures regarding drug use so that we can keep students in schools. Increased enrollment in schools leads to higher graduation rates, which leads to more professionals with steady careers, which can ultimately lead to a more stable, more fruitful society. Therefore, I can definitely see how my research, a simple stone in the path, can contribute to a larger, worldwide goal of structuring better communities. If we can see how drugs and education are connected, we can try to infiltrate that bond to build a better future for students and the public as a whole.

## References:

Durrant, R., & Thakker, J. (2003). *Substance Use and Abuse: Cultural and Historical Perspectives*. Thousand Oaks: Sage Publications

### 3. Connection to Goals and Academic Theories

After I graduate, I plan to attend graduate school for clinical psychology. Because psychological disorders are co-morbid with substance abuse, I am pursuing a certificate in substance abuse counseling in addition to my psychology degree. Eventually, I would like to work as a clinical psychologist in a private practice, helping people with psychological disorders, including substance abuse problems. I hope that this project will not only provide me with research and paper writing experience, but also give me insight into what other problems may revolve around substance abuse. By investigating how substance abuse is related to other delinquent behaviors, I will be able to help my future patients on a deeper, more individualistic level.

I will be using the following articles as references throughout my project. I will also search for other articles that cite the Hallfors article to see what follow-up work has been done based on that particular study. The Hallfors article will serve as a baseline for the research paper because it relates poor academic achievement with decreased investment in education and greater investment in risky behaviors. The Roe article and the Sandau-Beckler article are both reviews that deal with the topics of substance use and abuse; these reviews will provide me with additional support for this project by shedding light on the problem at hand as it relates to drug addiction.

Hallfors, D., J. L. Vevea, et al. (2002). Truancy, Grade Point Average, and Sexual Activity: A Meta-Analysis of Risk Indicators for Youth Substance Use. *Journal of School Health*, Blackwell Publishing Limited. 72: 205.

Roe, S. and J. Becker (2005). Drug prevention with vulnerable young people: A review. *Drugs: Education, Prevention & Policy*, Taylor & Francis Ltd. 12: 85-99.

Sandau-Beckler, P. A., E. Devall, et al. (2002). "Strengthening Family Resilience: Prevention and Treatment for High-Risk Substance-Affected Families." *Journal of Individual Psychology* 58(3): 305.

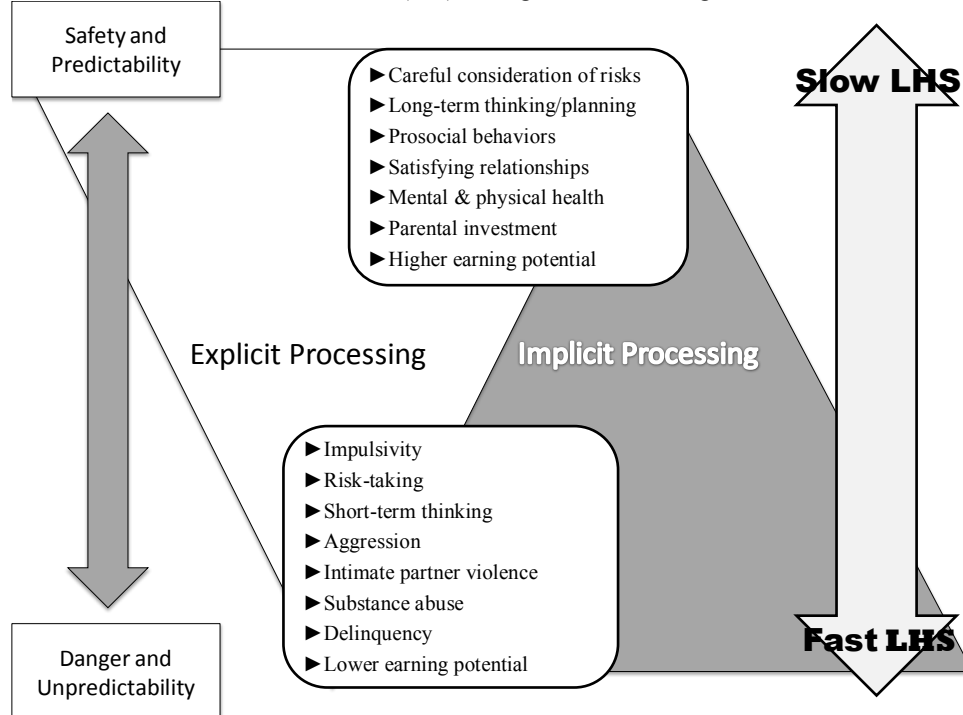
I will also be looking at articles (cited below) that will help me understand risky behaviors such as substance use by relating how evolutionary psychological research has examined the coordination of these variables with different life history strategies. Life history theory (LHT) is based upon the notion that throughout evolution, certain environmental conditions have determined what humans tend to devote their resources to; fast life history strategies in particular are characterized by harsh and unpredictable environments and involve high mating effort and low parental investment. Therefore, those individuals with fast life history strategies are more impulsive and short-term thinking, which leads to risky behavior such as delinquency and substance use. This is related to the current study because we will be investigating the connection between fast life history strategy and investment in education. Life history theory as it is related to behavior is clearly illustrated in *Figure 1* (Richardson & Hardesty, 2012).

The main theory behind this project involves the notion that delinquency, greater mating effort —such as the number of sexual partners—, substance use, and truancy all coordinate because they reflect fast life history strategy. Fast life history strategy (LHS) entails being adapted to reproducing more with less parental investment in order to pass on as much of one's genetic makeup as possible, given harsh and unpredictable environments (Figueredo et.al., 2006).

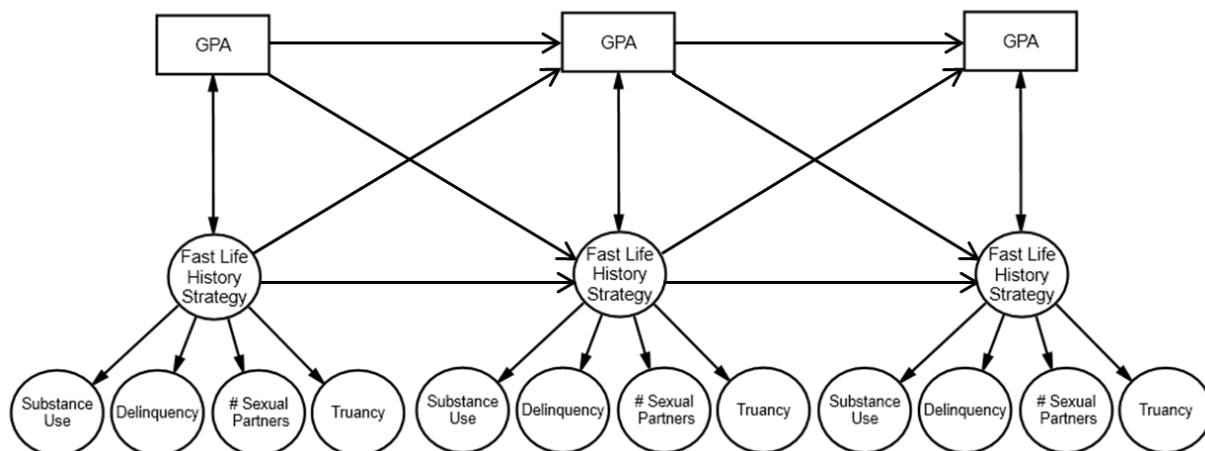
Our research questions stem from the above in that life history theory suggests an alternative to the idea that academic failure drives de-investment in education and increased investment in risky and antisocial behaviors. In other words, individuals may be biologically prepared to invest in mating effort and risky behaviors at the expense of education. Investment in fast life history strategy and the traits that reflect it may cause low GPA, instead of the reverse. Or, both causal pathways, such as low GPA leading to fast LHS and fast LHS leading to low GPA may be important. These ideas and theories will serve as the basis of our research paper. In our study, we will adjust the effects between fast LHS and GPA for intelligence given that this is another important cause of low GPA. We will test the theoretical model below (*Figure 2*). Intelligence is not displayed for the sake of conceptual clarity.

**Figure 1**

Figure 1. Immediate Survival Focus (ISF) in Cognitive Processing



**Figure 2**



## References:

- Figueredo, A.J., Vásquez, G., Brumbach, B.H., Schneider, S.M.R., Sefcek, J.A., Tal, I.R., Hill, D., Wenner, C.J., & Jacobs, W.J. (2006). Consilience and life history theory: From genes to brain to reproductive strategy. *Developmental Review*, 26, 243-275.
- Richardson, G. B., & Hardesty, P. (2012). Immediate survival focus: Synthesizing life history theory and dual process models to explain substance use. *Evolutionary Psychology*, 10(4), 731-749.

## 4. Initiative, Independence, and Creativity

At the beginning of fall semester, I had been thinking about getting a certificate in substance abuse counseling (SACN) for a while. So, I decided to take a History of Substance Abuse Counseling course last semester to help me decide my educational path. I thoroughly enjoyed the class, as well as Dr. George Richardson's (my advisor) teaching style. This class not only helped me decide to get an SACN certificate, but it also made me realize I wanted research experience in the field. Dr. Richardson emphasized evolutionary psychology and fast life history strategy in his course, and I expressed interest in this topic, finding additional articles and researching it more than the class required. After the course ended, I knew that my research interests aligned with Dr. Richardson's. Before I got the chance to ask him about what he was working on, he noticed that I was a critical thinker and asked me to join his research team. I, of course, answered yes, and this prompted me to look into his past published works and get a feel for the topics over winter break, before the current semester started. I used initiative to get the ball rolling as soon as I decided to get an SACN certificate, and it paid off for me in a big way, because I am working with a research team that is passionate about the same issues surrounding substance abuse that I am interested in.

For this project in particular, I will demonstrate independence in a few distinct ways. I will be personally working on researching and writing up sections of the paper related to consistently found risk factors as they connect to substance abuse. In addition to this, I will be arguing how these variables might be caused by fast-life history strategy—in order to do this, I need to personally connect the data to the background research. I will also independently help with the writing up and editing process of the final paper.

## 5. Reflection

I will be writing a reflection journal throughout the project indicating surprising things I learn, challenges I encounter while writing a research paper, as well as how the information I am discovering relates to my future plans. The sections in which I keep notes on my research will be more like a lab journal, because I will be able to indicate what works, what isn't working, and what I can do to improve as well as strengths and weaknesses of the study. The rest of my reflection, which will include topics such as how this will affect my clinical work and other career plans, global implications of this study, and directions for future research on this topic, will be in more of a journal form.

For each entry in my journal, I will keep certain questions in mind that pertain to my professional goals in addition to a more global view on the current research. For each entry, I will have two sections, a 'goals' section and a 'global' section, in which I will attempt to answer the questions listed below. These questions will prompt my ideas and direct my thought process so that my ideas will flow in a structured way and I can get the most out of my reflection as I can.

The 'goals' questions I will ask are as follows:

1. How will this research help me achieve my clinical goals?
2. How can I apply what I learn to my future work in the mental health field?

3. As an aspiring professor, how can I use this information to better help my students?

The 'global' questions are listed below:

1. How can this research affect how our society deals with the issue of substance abuse as it relates to education?
2. What are the implications of this research in terms of the global substance use problem?
3. What are the implications of this research in terms of declining graduation rates?

These questions will occasionally overlap; for example, applying the current research to a clinical setting may have global implications. I will foster these connections throughout my reflection, as well.

## 6. Dissemination

The projects will be written up as a research publication and will be submitted to a peer-reviewed journal. I also plan on presenting the research at a national conference.

There are several options for where I will try and seek publication for this paper, and they are broken down into two groups—evolutionary psychology (EP) journals and applied journals. The EP journals are more theory oriented, while the applied journals are more clinically oriented; deciding between the two is something that the research team and I will discuss throughout the research process before we come to a conclusion.

Potential EP Journals to publish with are listed below:

- Evolution and Human Behavior
- Human Nature
- Evolutionary Psychology

Applied journals include the following articles:

- Journal of Educational Psychology
- American Educational Research Journal
- Child Psychiatry and Human Development
- Journal of School Health
- Journal of Counseling and Development

The benefit of choosing an EP journal over an applied journal is that fast life history theory is a direct product of the research done in evolutionary psychology. Therefore, publishing in an EP journal would be the most salient option. However, it is also important for counselors and practitioners to be exposed to how truancy related to substance use—this topic would be useful for both educators and clinical psychologists alike. Again, the decision of where to publish is something to be considered throughout the process, and it could rely on several factors, depending on the direction of the research.

Another way I will disseminate my project is through my work mentoring with UC's RECON program. I will be able to demonstrate to students how to take initiative when joining a research lab, how to show the professor your strong points and capabilities, as well as how to execute a complete research project

## 7. Project Advisor (list the person's name, title, and contact information)

Dr. George Richardson, Ph.D., Assistant Professor, Substance Abuse Counseling  
richargg@ucmail.uc.edu; (513) 556-9261

## 8. Budget (if applicable) 3hrs/week, 30 weeks