# **Application: 0763874843**

Sarah Alami - sarah.alami.g@gmail.com Dissertation Fieldwork Grant

#### **Summary**

**ID:** 0763874843 **Status:** In Progress

## **DF Eligibility**

Completed - Nov 1 2020

# **Dissertation Research Grant Eligibility Form**

What is the start date for your proposed research project?

(Funding for the current application season is limited to projects starting between July 1 and December 31, 2021.)

Jul 1 2021

Are you registered in a doctoral degree program?

Yes

When will you have completed ALL your institution's requirements for the doctoral degree EXCEPT the dissertation?

Aug 11 2020

## **DF Application Form**

Completed - Nov 1 2020

# **Dissertation Research Grant Application Form**

## 1. Applicant Information

## **Name of Applicant**

(Please give full legal name: first, middle, and surname)

First name:	Sarah
Middle name:	(No response)
Surname:	Alami Gouraftei

## **Preferred Mailing Address of Applicant**

Address line 1:	703 Bolton Walk
Address line 2:	Unit 208
City:	Goleta
State/Province:	California
Zip/Postal Code:	93117
Country:	United States

## **Applicant Contact Details**

Email:	sarah.alami.g@gmail.com
Telephone:	619-994-4468

## 3. Applicant Personal Information

Applicant's Date of Birth:
Feb 19 1989
Applicant's Place of Birth:
Casablanca, Morocco
Applicant's Citizenship:
United States
Are you a dual citizen?
No
Applicant's Gender:
Female
Is English your scholarly language?
Yes
2. Applicant Education History

# Applicant's Highest Academic Degree:

Master's Degree

# **Year Degree Awarded:**

2019

# **Institution that Awarded Degree:**

Enter proper names (eg, "Michigan" or "London") to search for institutions.

California, Santa Barbara, U. of

Institution that awarded degree not listed?

**No Responses Selected** 

# **Discipline of Degree:**

Anthropology

# 3. Applicant's Current Doctoral Status

# Date you expect to receive the degree:

Sep 15 2022

#### Department that will award degree:

Anthropology

## Institution that will award degree

Enter proper names (eg, "Berkeley" or "Manchester") to search for institutions.

California, Santa Barbara, U. of

Institution that will award degree not listed?

## **No Responses Selected**

Is English the scholarly language of your institution?

Yes

# 4. Supervisor Information

# **Supervisor Personal Information**

First name:	Michael
Middle name:	Douglas
Surname:	Gurven
Gender	Male

# **Supervisor's Academic Position**

Title	Full Professor
Department	Anthropology

#### **Supervisor's Academic Institution**

Enter proper names (eg, "Tokyo" or "St. Olaf") to search for institutions.

California, Santa Barbara, U. of

#### **Supervisor Institution not listed?**

## **No Responses Selected**

# **Supervisor's Preferred Mailing Address**

Address line 1:	Department of Anthropology University of California-Santa Barbara	
Address line 2:	(No response)	
City:	Santa Barbara	
State/Province:	California	
Zip/Postal Code:	93106-2202	
Country:	United States	

# **Supervisor Contact Details**

Email:	gurven@anth.ucsb.edu
Telephone:	805-893-2202

# **5. Project Details**

6. Project Title:
(15 words or less)
Drivers and consequences of intermarriage on social networks and risk-buffering in rural Bolivia.
7. Requested Funding:
(maximum \$20,000) US\$
Please do not use commas (eg, input "20000" for maximum)
19950

#### 8. Please provide a project abstract.

(This should be a general description of your proposal in language that an interested layperson could understand. If your application is successful, we will post this abstract on the Foundation's website.)

Boundaries between groups are challenged when couples marry across different cultural ethnic and/or religious affiliations. This has consequences on couples, their families, and intergroup relationships. While intermarriage may provide access to new resources and social networks, it may also involve costs such as social stigma and loss of support from one's natal community. This study takes a human behavioral ecology approach to explore drivers of intermarriage at the individual, household, and community levels in order to deepen our understanding of how contemporary heterogeneous societies take shape, as well as the effects of community heterogeneity on social support networks and resilience to resource shortfalls. This research will take place in two Bolivian multiethnic villages whose economies rely extensively on small-scale commercial agriculture. Using data on community member's social ties, economic diversification and resilience, and cultural beliefs about neighboring ethnic groups, we will analyze factors associated with intermarriage and test the extent to which intermarriage bridges social divides between community members. This study will help inform longstanding debates in anthropology surrounding how kinship structures form, the effects of intergroup cooperation on resilience in the face of resource shortfalls, and the impacts of migration and cultural pluralism on cultural identities and ethnic conflicts.

9.	Projects eligible for support must start between July 1, 2021 and December 31, 2	2021.	What
is	your start date?		

## **Project Start Date:**

Jul 1 2021

#### **Project End Date:**

May 1 2022

Bolivia
11. List any research permits and ethical approvals required for this project.
IRB approval
12. When do you expect to have all the required permits and permissions in hand?
I have obtained the required permissions on 07/27/2020.
13. Will you work with any academic collaborators (other than your supervisor) while conducting this research?
What is an Academic Collaborator?
No
Will you work with any other academic personnel while conducting this research?
What are other academic personnel?
Yes

10. List the country or countries where you will conduct this research.

#### **Please list other Academic Personnel**

	Name	Role	Institution
1	Hillard Kaplan	Assistance with field work logistics and methodology; Committee member	Economic Science Institute, Chapman University; The Tsimane and Moseten Health and Life History Project
2	David Lawson	Assistance with methodology; Committee member	University of California- Santa Barbara
3			
4			
5			
6			

Do you have plans to apply to any other	r granting a	agencies for	the funds	covered i	n this
application?					

No			

## Do you have any applications pending?

No

## 16. Have you already received financial support for this and any other phases of this project?

Yes

#### If so, please list the sources and describe the expenses and activities covered.

I have obtained a Dissertation Improvement Grant from the National Science Foundation (NSF DDRIG) in August 2020 (\$25,200). The NSF DDRIG fully covers international travel (\$2,780), the costs of food expenses (\$2920), the costs of research dissemination (\$200), and the indirect cost rates for off-campus research (\$5,200). It partially covers participant compensations (\$3150) and field research assistance (\$10,950). Funds are requested from the Wenner-Gren foundation to fully cover lodging in the study communities for ten months, the purchase of field equipment (e.g. tablets for data collection, phone/internet plans or cards necessary for data back-up and communication with research assistants), necessary local travel in Bolivia, the broadcast of participant recruitment messages, and costs resulting from protocol changes due to COVID-19 including renting two outdoor spaces to establish open-air remote research stations, the purchase of Personal Protective Equipment (PPE), COVID-19 test kits, and cleaning supplies to ensure the safety of participants and that of the field researcher and the field research assistants. Funds from the Wenner-Gren are requested to partially cover the salaries of research assistants and participant compensations.

17. Please help us identify your project by subfield and research area.	
Subfield:	
PHYSICAL-BIOLOGICAL	
Topical Area:	
Human Biological Variation (living people)	
18. Please provide three Key Words or short phrases that characterize your project.	

Behavioral ecology of interethnic marriage

**Bolivia** 

Social support networks and risk-buffering in the face of resource shortfalls

#### 19. Have you received a Wadsworth Fellowship?

No

#### 20. Are you resubmitting an application that was unsuccessful in a prior season?

No

#### 21. Project Description Question 1:

**Describe the purpose of your research.** What will be the focus of your investigation? What is your main research question? What other questions will you need to answer to address it? Please note: We will be evaluating your application in the context of the ongoing Covid-19 pandemic. You should formulate your research objectives clearly and carefully. Find a focus that will allow you to address your questions through a range of different avenues.

Contemporary societies are often culturally diverse. Harnessing the advantages of such diversity while minimizing conflict is at the forefront of political debates worldwide, and a central theme (and promise) of social science research. Intermarriage between individuals from different ethnic, racial or religious groups is often used as an indicator of social mobility and minority integration into mainstream society (Alba and Nee, 2003; Rodríguez-García, 2015). High rates of intermarriage are believed to indicate greater intergroup tolerance (Alba & Nee, 2003; Qian & Lichter, 2007), and the presence of intermarried couples and children with a multicultural heritage may reduce the rigidity of group boundaries reproduced through family systems (Alba, 2009; Smits, 2010). Though improved social cohesion may be a positive effect of intermarriage, for the individuals involved, intermarriage comes with serious risks. These include cultural incompatibility between spouses (Kalmijn et al., 2005; Smith et al., 2012), alienation and rejection by in-laws or peers (Bratter & Eschbach, 2006; De Miguel Luken et al., 2015), power imbalances within the couple that may result in greater risk of spousal abuse (Kusel, 2014; Nemoto, 2006), as well as cultural erosion such as the loss of a sense of cultural identity and/or the loss of one's native language in subsequent generations (Alba & Islam, 2009; Kim et al., 2017). There is evidence demonstrating strong preference for homogamy - the tendency to choose culturally similar marriage partners (Bereczkei et al., 2002; Schwartz, 2013) - and divorce rates tend to be higher for intermarried couples (Bratter & King, 2008; Kalmijn et al., 2005; Lehrer & Chiswick, 1993). Given crosscultural evidence for homogamy and the perceived obstacles to intermarriage, what factors best predict intermarriage in multicultural societies? How does socio-ecology affect individual preferences and favor

social norms encouraging or opposing intermarriage? And what are the social and economic repercussions of intermarriage for the individuals involved and their families?

To address these questions, the proposed project will examine the drivers of marriage between individuals from different ethnic groups (hereafter "intermarriage") in two Bolivian multiethnic villages. Drawing on the existing literature and insight gained from a pilot study conducted in 2018, the proposed study will test four hypotheses.

Hypothesis 1: Intermarriage broadens the pool of prospective partners providing greater access to partners with desirable qualities (e.g. desirable age, wealth, or cultural capital).

Hypothesis 2: Intermarried couples are more resilient against resource shortfalls thanks to broader social support networks and/or more diversified production strategies.

Hypothesis 3: Intermarried individuals play a central role in creating social connections and relationships of exchange and interdependence between their respective groups.

Hypothesis 4: Intermarriage is a fallback strategy when there are limited suitable partners within one's group.

The project will take place in the Alto Beni, a municipality of the La Paz department selected for its ethnic and cultural diversity. Located in the transitional yungas between the Andean highlands and tropical lowlands, the region is native to Moseten, historically forager-farmers (now engaged in small-scale commercial agriculture) who were organized into missionary communities by catholic priests in the late 18th and early 19th centuries (Godoy, 2015; ISEAT, 2017). Since the 1950s, the region has received a substantial flow of immigrants – largely Aymara and Quechua – from the overpopulated Altiplano highlands, but also other indigenous and non-indigenous immigrants from all Bolivian provinces (Von Stosch 2010; Babel 2018; Fabricant 2012).

Data will be gathered in two adjacent villages: Santa Ana (187 households, population 778 in 2018), and Puerto (~45 households, population ~180), which are ideal places for conducting this study. The primary ethnic marker in these communities is cultural identity, which in Bolivia includes non-indigenous descendants of Europeans, as well as 36 nationally recognized pueblos indígenas (indigenous groups). Hence, there are many opportunities for friendly, antagonistic or indifferent relations between individuals of different ethnicities. Despite the variety of ethnic groups, everybody speaks Spanish as a first or second language and practices Catholicism. Thus, it is possible to study the role ethnicity and cultural

identity play in determining marital preferences without the confounding effects of linguistic or religious barriers. Similarly, there are no institutional barriers to intermarriage, such as anti-miscegenation laws. Villagers of different ethnicities share the same public spaces including an elementary and secondary school and a health center, and they all participate to a similar degree in the political life of their community. Although residents of the study communities are primarily small-scale farmers, resource access and subsistence strategies vary between groups, making it possible to test whether intermarriage can serve to diversify the production strategies of couples, and increase access to economic and social opportunities for themselves and their families. Moseten tend to have preferential access to arable land while groups who have migrated from the Bolivian highlands (Aymara and Quecha) and other regions (mainly Leco, Camba, and Trinitarios) are more likely to engage in other economic activities (e.g. running shops, driving taxis). Ethnic composition and political organization also vary between villages, allowing for an additional level of comparison. Santa Ana is majority Moseten with important Aymara, Leco and Trinitario populations. All residents belong to OPIM (Organizacion del Pueblo Indigena Moseten), an organization aimed at representing Moseten communities at the national level, and responsible for the negotiation of land rights over the Moseten indigenous territory (Tierra Comunitaria de Origen Moseten) (ISEAT, 2017). Puerto on the other hand, is majority Aymara with important Quechua and Trinitario populations and some Moseten presence. In contrast to Santa Ana, residents of Puerto rarely belong to any indigenous political organization (Von Stosch, 2010).

Residents of Santa Ana and Puerto are currently undergoing a period of severe economic stress. The COVID-19 pandemic, exacerbated in Bolivia by political instability and protests, has led to disruption in the distribution and sale of crops in addition to reducing productivity and increasing medical costs for affected individuals and families. Furthermore, since 2016, residents of both villages have been facing a virulent papaya disease that has destroyed much of their most important cash crop. These catastrophes act as natural experiments to further test whether intermarriage helps buffer against risk.

#### 22. Project Description Question 2:

How does your research draw inspiration from existing scholarship in anthropology and other disciplines? Whose findings will you be building on? Give specific examples of the various lines of work with which you are in dialogue and which you are seeking to advance.

Exogamy [vs. endogamy] (Durkheim, 1896; McLennan, 1865) – the practice of marrying outside one's natal group [vs. inside] – is an important dimension of marriage systems. It fundamentally alters kinship

networks, and is a crucial determinant of relatedness within groups, and cultural and genetic exchange between populations (Bailey et al., 2014; Brown, 2016; Knipper et al., 2017, Salali et al., 2016). In the 19th century, exogamy was viewed primarily as a result of mate scarcity in small-scale societies (McLennan, 1865), a way to forge and maintain relationships between groups (Tylor, 1888), or as a means of avoiding incest (Morgan, 1871; Westermarck, 1934). In the early to mid 20th century, academic interest was extended to intermarriage between individuals from different ethnic, religious and racial backgrounds, motivated by the question of whether minorities would assimilate to the predominant group, or integrate with one another, in countries with high levels of immigration and a history of slavery, such as the United States (e.g. Drachsler, 1920; Kennedy, 1944) and Brazil (Arteaga, 2017; Telles, 2004). Intermarriage has become more common in many regions of the world in recent decades (Crespin-Boucaud, 2020; Wang, 2012; Waters & Alba, 2010). This increase has been attributed to urbanization and globalization (Brettell, 2017), greater liberalization of attitudes towards ethnic and religious minorities in democratic countries (Hu & Lee, 2018), and the rise of online dating as a primary means of meeting prospective partners (Ortega & Hergovich, 2017). However, attempts to empirically research the drivers of intermarriage in smaller-scale societies with more limited reliance on the market remain scarce. The hypotheses put forward in this project to explore the function(s) of intermarriage are derived from several social science disciplines, and will be tested among small-scale farmers undergoing rapid socioeconomic change.

#### Hypergamy (H1)

When selecting a marriage partner, an individual's preference is constrained by their own desirability on the marriage market (Becker, 1973). This desirability can be determined by their embodied capital (i.e. age, health, education), social capital (i.e. connections or social status), or material capital (i.e. wealth, income, arable land). Individuals may compensate for the lack of one trait or resource by offering other desirable traits or resources to prospective partners. While the nature of these dynamics varies greatly with the role women play in society, youth and associated fertility tend to be highly valued for women, while status and material resources tend to be highly valued for men (Buss et al., 1990). Hypergamy – the pattern of marrying up in social or economic class – can lead to intermarriage when wealth, status, and resource access vary between groups (Dribe & Lundh, 2010; Kalmijn, 1993,1998; Takeuchi, 2014).

#### Risk-buffering (H2)

Another function of exogamy is to smooth the risk from exogenous shocks to food production (Kramer & Greaves, 2011; Wiessner, 2002). Exogamous norms and inter-community marriage are more common in the ethnographic record under conditions of greater ecological unpredictability (Dow et al., 2016; Kelly, 1995). Exogamous norms lead to societies with "extensive" kinship networks, in which individuals rely on broad and diverse social ties to help buffer risk (Goody 1975, Shenk et al., 2016, Walker and Bailey,

2014). Individuals who marry outside their natal group can broaden their support networks since their spouse is more likely to know people previously unknown to them. Diversifying one's support network may protect against shortages from localized natural disasters that affect members of the same network (i.e. aggregate shocks), and provide novel information, resources and opportunities from individuals who are less exposed to similar shocks (Granovetter, 1973). Among Ju/'hoansi foragers, marrying to a family with access to a different waterhole allows them to forage at both waterholes, protecting them against either one drying up (Lee, 1984). Among South Indian farmers, families similarly use inter-community marital arrangements strategically to reduce the variance in production associated with weather variability (Rosenzweig, 1989). In multiethnic societies where ethnicity is linked to different occupations, production strategies, and social networks, marriage between individuals of different ethnic origins may play a similar role.

#### Intergroup relations (H3)

A longstanding idea in anthropology is the importance of exogamy in fostering reciprocity between groups. Alliance theory (Lévi-Strauss, 1949) suggests that the reciprocal exchange of marriage partners is the foundation of amicable relationships between previously unrelated groups, reducing intergroup violence and linking together various groups as one interdependent whole: "the society". Chagnon (1968) and Rodseth & Wrangham (2004) also emphasized the role of exogamy in maintaining kinship ties across groups. Chapais (2008, 2013) has more recently argued that pair-bonding and the agnatic relationships that follow were the crucial features that led hominin lineages to diverge from other great apes; and suggested our capacity for affinal relationships may have contributed to our species penchant to profit from cooperation between strangers. In multiethnic societies, intermarriage can help create bridges that foster intergroup cooperation and social cohesion. This relationship is likely bidirectional as the presence of a few intermarried couples could lead to greater interdependence between groups (Goldstein, 1999; Kearns & Leonard, 2004), and therefore more opportunities for intergroup interactions and more intermarriage.

#### Fallback strategy (H4)

Individual preferences for prospective marriage partners are constrained by the composition of the marriage market in which they are seeking a spouse. Members of numerically smaller groups are less likely to meet marriageable partners from the same group, and are consequently more likely to marry-out (Blau et al., 1982). Small group size is associated with higher exogamy rates in the Standard Cross-Cultural sample (Dow et al., 2016), and individuals from smaller racial minorities are more likely to marry-out in the United States (e.g. Harris & Ono, 2005). Imbalances in sex ratios within a group may also drive individuals to seek marriage partners from different groups (Angrist, 2002; Davin, 2007). Intermarriage can therefore occur primarily as a fallback strategy, in the absence of suitable co-ethnic

marriage partners. If so, people may be more likely to intermarry if they are themselves locally perceived as less attractive (e.g. if they are older, less successful economically, or have previously been married and/or have children from a prior relationship).

#### 23. Project Description Question 3A:

**3A. Research methodology: Plan A**. What evidence will you need to collect to answer your research question? How will you go about collecting and analyzing this evidence? Here, we are interested in the best-case scenario: a description of the research activities you will use if you are able to travel and meet with research participants and collaborators safely and ethically in person.

Data will be collected over a ten-month period, July 2021–May 2022, with the help of four research assistants in two open-air research stations.

#### SAMPLE SIZE

Individual interviews will be conducted with each of the ~525 adult residents of Santa Ana and Puerto. These targets exceed the minimum required as revealed from power analyses (294 adults) to achieve a moderate effect size (0.5) and acceptable level of power (>80%) for most empirical tests. While the allotted timeline and the help of research assistants should allow me to reach my target sample size, I will prioritize interviewing intermarried individuals to maximize their representation. The interview will be administered in one single session (~1.5-2 hours) and will include the following components:

#### (1) ETHNIC IDENTITY AND ORIGINS

Ethnic identity is not always easy to elicit in the study communities. Younger adults in particular, often espouse plural cultural identities. In Santa Ana, they may identify with the majority ethnic group (Moseten) regardless of ethnic origin. In Puerto they may identify as intercultural, a superordinate identity common throughout the Alto Beni. Therefore, ethnic identities will be elicited in two different ways: self-report and family migration history. Both identities will be used as independent variables and compared in the analyses. For instance, self-reported ethnic identity(ies) may have a greater effect on participant's support networks than ethnic origins (H2), but the latter may be more tightly linked to their age at marriage (H1, H4).

#### (2) WEALTH, AND LAND OWNERSHIP

Household formation and access to land follow marriage in the study communities. Therefore, some

questions in this section will be reserved for household heads, while others will concern all participants. Household heads will be inquired about land ownership, access to drinking water and electricity, and household assets. Assets will be inventoried by asking whether households own any of a 15-item set (e.g. fridge, television). All participants will be asked questions aimed at estimating annual income from activities other than agriculture (e.g. wage labor, profit from store or taxi) as these may vary between household members. They will also be inquired about personal possessions (e.g. cell phones, computers). Market value of household and personal items will be estimated using local prices. Intermarried individuals will be compared to endogamously married co-ethnics to assess whether intermarriage and/or dual ethnicity are associated with greater wealth (H1).

#### (3) RESILIENCE TO SHOCKS

Household heads will be inquired about the number and area of crops cultivated currently and prior to the papaya disease. Objective (e.g. "How many papaya trees have you lost to the disease?") and subjective questions (e.g. "Compared to other households in your community, how many papaya trees did you lose to the disease?") about the impact of crop loss will follow (e.g. whether it has led any household members to migrate). All participants will be inquired about the extent to which they were affected by the papaya disease and COVID-19, how they are coping, and any changes in their production strategies that resulted from adjusting to these two shocks (e.g. a change in occupation). Participants will also be inquired about food and nutrition security currently and before COVID-19 and the papaya disease. The goal of this section is to assess whether intermarriage and/or dual ethnicity provide access to more alternative coping strategies in times of need (H3).

#### (4) SOCIAL NETWORKS

Relational data will be collected for all participants to generate a complete network of social ties in the two villages. For each network question, participants will be requested to list up to ten alters. I will include questions eliciting affective ties (e.g. "With whom do you share personal matters?), but will focus on more practical support relationships, and recall of past behavior directly tied to the COVID-19 pandemic and the papaya infection. I will elicit "bridging" ties, for instance acquaintances who may be helpful in finding new opportunities to compensate for income or harvest loss, or who have access to unique information such as government sponsored programs that could help reduce food insecurity. These data will be used to test whether intermarried individuals have access to more diverse social ties (H2), and whether they act as "bridges", connecting individuals of different ethnicities and improving intergroup tolerance (H3).

#### (5) TOLERANCE OF LARGEST MINORITY GROUP

Adult residents who belong to the ethnic majority in Santa Ana (i.e. Moseten) and Puerto (i.e. Aymara and

Quechua) will be inquired about how accepting they would be of someone from the largest ethnic minority becoming a village leader, marrying their son or daughter, opening a shop in the community, or moving in as a neighbor. These questions will be used to generate a tolerance score, used with network data to test whether closeness to intermarried individuals is associated with greater tolerance and trust of individuals from different ethnicities (H3).

#### (6) MARITAL HISTORIES OR AMBITIONS

In order to test the non-functional explanation that intermarriage may be a fallback strategy (H4), married individuals will be asked about their age at marriage, previous relationships, and children from previous unions. Unmarried participants will be inquired about their romantic aspirations and ambitions, as well as their perceived options with co-ethnics and members of different ethnic groups.

#### **ANALYSES**

Data will be analyzed using general linear models and mixed models, in the open-source statistical software program R (R Core Team, 2017). R packages igraph (Csardi & Nepusz, 2006) and statnet (Handcock et al., 2003) will be used to visualize networks. Path and mediation models will be used to test whether the predicted resilience of intermarried individuals and ethnically heterogeneous households is mediated by their broader social networks and/or more diversified income sources.

#### OTHER FUNDING

While other funding (NSF Dissertation Improvement Grant) has been secured for international travel expenses and part of the research assistance and participant compensations, additional funds are requested to cover lodging in the study communities, the purchase of equipment, local travel, additional necessary research assistance and participant compensation, and costs resulting from protocol changes due to COVID-19 (i.e. Personal Protective Equipment, establishing open-air remote research stations, COVID-19 test kits, cleaning supplies, shipping costs).

#### 23. Project Description Question 3B:

**3B. Research methodology: Plan B.** In addition to the plans laid out above, we need to know you have developed a strategy that will allow you to address your research questions should the pandemic continue or worsen. If you are unable to travel or meet in person with research participants and collaborators, how will address your research questions? What methods will you use to ensure that your research is safe and ethical should Covid-19 restrictions remain in place?

#### **CURRENT SITUATION IN THE STUDY COMMUNITIES**

As of writing, international flights to Bolivia remain suspended, while regional and local transportation are limited as a result of the COVID-19 pandemic. The local health center shared by the two study communities reported 28 positive cases in September, and 5 more cases since the beginning of October. One elderly resident of Puerto died of COVID-19 related complications, but no other deaths were reported in Puerto or Santa Ana. The Tsimane Health and Life History Project (THLHP) – co-directed by my advisor Dr. Michael Gurven and Dr. Hillard Kaplan – has been providing free medical care to Moseten communities since 2015 (Gurven et al., 2017). In July 2020, the THLHP helped equip the local health center with two oxygen concentrators, COVID-19 test kits and medicine. THLHP physicians provided specialized training to local physicians and nurses, and helped hire a team of local contact-tracers. As a member of the THLHP, I have been in charge of recruiting and training local contact-tracers, and I continue to be in charge of overseeing contact-tracing and patient management efforts in the study communities. I am also involved in similar COVID-19 mitigation efforts with the Tsimane (see Kaplan et al. 2020), an indigenous population from the Beni region, which is linguistically and culturally related to Moseten.

#### CONTINGENCY PLAN

My contingency plan involves setting-up remote and open-air research stations in the event that I am unable to travel to Bolivia. I designed this plan with the advice and consent of community members and leaders, who helped me develop a viable strategy for data collection during this pandemic. I will also receive logistical support from the THLHP project and its contact-tracing team in the study communities, the local health center staff, and community leaders.

I will be renting two large yards in Santa Ana and Puerto, where local research assistants (RAs) can setup open-air research stations within easy walking distance to study participants. I will hire an additional
RA to compensate for my physical absence and reduce the burden associated with adjusting to the
COVID-19 protocols described here. Protocols for data collection are compliant with the UCSB COVID-19
IRB requirements. There will be two to three RAs working in each research station simultaneously. Two to
three participants will also be able to enter and leave simultaneously in each research station while
maintaining a safe distance from each other and from the RAs. RAs will be equipped with Protective
Personal Equipment (PPE), hand sanitizer, cleaning supplies, a laptop, tablets and telephone/internet
cards (necessary for communication between the research team and for uploading data to a server).
Participants will be asked to come at separate times during the day to the research stations for either
Zoom or in-person interviews conducted by RAs. Prior to being interviewed, participants will be required
to report any COVID-19 symptoms, recent trips outside the community, and close contact with infectious

individuals in the past 14 days. If participants show or report any symptom and/or if they have traveled outside the community in the past 14 days and/or identify as a close contact to a person with COVID-19, their interview will be postponed and they will be directed to the local health center to take a COVID-19 test. Face masks and hand sanitizer will be available for all participants upon arrival at the research stations, and will be regularly distributed to villagers thanks to the help of the THLHP contact-tracing team. RAs will be responsible for sanitizing the research stations between interviews, including cleaning surfaces with a bleach solution and wiping all electronics used with alcohol-based wipes. I will conduct all interviews myself initially via Zoom for the first month while training RAs, after which they will begin to conduct interviews with my supervision. Interviews conducted via Zoom will be recorded with the participants' permission. When I am confident in the research assistants' training, we will begin to conduct interviews in parallel.

Information about data collection will be broadcast every day through the communities' loudspeakers (located in a school building shared by residents of Santa Ana and Puerto). In addition to helping with recruitment, messages will aim at maximizing community awareness and participation at the lowest risk of transmission. For example, symptomatic individuals, individuals who identify as a close contact to a person with COVID-19, and individuals who have taken a trip to neighboring towns in the past 14 days will be asked to postpone their visit to the research stations by at least two weeks. If some participants feel uncomfortable being interviewed at the research stations and have access to a personal smartphone, they will be given the option to be interviewed by me or an RA via WhatsApp - a free messaging and media platform commonly used in Bolivia - and will be supplied with telephone/internet cards. The equipment needed to conduct research (a laptop, tablets, headphones, telephone/internet cards etc.) will be purchased in the neighboring town of Palos Blancos by one RA, or by THLHP office staff in the towns of San Borja and La Paz, who will then send it to the RAs in Palos Blancos. Buying or receiving equipment will require one or two trips to the postal office in Palos Blancos during which all precautions necessary will be taken (i.e. wearing masks, gloves, and disinfecting boxes upon reception and upon returning to the research stations). RAs who return from town will be required to quarantine for 14 days prior to resuming data collection. COVID-19 PCR test kits are also budgeted for regularly testing RAs to ensure they are not infectious with COVID-19. The purchase of PPE and COVID-19 PCR test kits will be coordinated by THLHP members residing in La Paz and the local contact-tracing team.

#### 24. Project Description Question 4:

Why are you the right person to carry out this project? We are interested in how you became

committed to doing this work. Describe your background and your relationship to the community or communities affected by your project. We are also interested in how you have prepared yourself for this research. 6Describe your language competence, technical skills, previous research, and any other relevant experience. Describe any work you have already done on this project and how this research relates to other research you have done. You may be working with academic collaborators. If so, please describe their role in this project and how it will relate to yours.

#### RELEVANT EXPERTISE AND COLLABORATORS

I have completed coursework in relevant disciplines, including all branches of anthropology, economics, demography, statistics, and social network analysis. In 2019, I completed an M.A. in Anthropology with a formal emphasis in demography. I have been an instructor at UCSB for an undergraduate course on methods and statistics for social and behavioral sciences, and a teaching assistant for numerous lower-and upper-division anthropology courses. I am fluent in Spanish and conversational in Moseten. Between 2014 and 2018, I spent a total of ten months in Bolivia living in Moseten and Tsimane communities, developing trusting relationships with people, and contributing to several THLHP endeavors. During this time, I collected and/or analyzed data that resulted in two first author publications and three co-authorships. In 2016-2017, I also set-up field sites and developed collaborations with researchers in Morocco – my home country – with the goal of exploring similar questions and conducting cross-cultural research in the next stages of my career. My advisor Dr. Gurven and Dr. Kaplan (committee member and co-director of the THLHP) have both conducted long-term fieldwork in Bolivia, and extensive research on the evolution of cooperation. They have provided support with study design and will continue to provide assistance with methodology and logistics. Dr. Lawson, committee member and applied anthropologist specializing in the study of human family and marriage systems has provided methodological assistance.

#### PRELIMINARY RESEARCH

This project has grown out of a pilot study I initiated in the village of Santa Ana in 2018. I conducted a community-wide census that includes information on the demographic composition of households and cultural identity. I also interviewed 98 adult residents of Santa Ana (59% women) about their marital history and what they perceived to be pros or cons related to intermarriage and cultural diversity. During that time, I visited Puerto multiple times, and informally discussed the topics of intermarriage and group relations with many of its residents.

Intermarriage was common in Santa Ana (42% of couples; n=134) and the pairings between individuals from the various ethnic groups were significantly different from what would be expected by random pairing (X2=69.7, p<0.001). Moseten women commonly married Aymara or Quechua men (16% of couples), consistent with focus group information suggesting that marrying a Moseten woman can help

non-Moseten gain access to arable land, and the reported preferences of Moseten women themselves, who viewed highlanders as more attractive partners than men from other groups. When asked about benefits of intermarriage, half of participants mentioned "getting ahead in life" when marrying highlanders, a quarter reported there were no particular benefits, 19% reported access to more opportunities in life, and others mentioned access to land. When asked about the disadvantages of intermarriage, 28% mentioned conflict due to different attitudes towards work and finances, 19% mentioned discrimination, 18% mentioned not getting along with in-laws, and 15% said there were no disadvantages. Others reported that marrying into a wealthier group could result in feeling inferior (11%), or increase the risk of spousal abuse (3%). To my surprise, only 6% voiced concerns about cultural or language loss among younger generations. Lastly, I elicited opinions about multiple ethnic groups by asking participants to describe up to five characteristics they like and five characteristics they dislike about each group. The perceptions elicited reflected common Bolivian stereotypes (Stearman 1985; Babel 2018; Lopez Pila 2014). Non-indigenous camba (mestizo lowlanders), Trinitarios and other lowland indigenous groups were said to be "friendlier" but "lazier"; Aymara and Quechua were perceived to be more "hardworking" and "successful" but "stingy" and "closed-off". Moseten and Lecos, who fall geographically at the intersection of the Andes and the Amazon were somewhere in between.

#### PERSONAL MOTIVATIONS

I have been a migrant, residing far from family in four different countries, since the age of sixteen. Like many youths from Morocco and other middle- and low-income countries, my upbringing and the culture I grew up in revolved around the idea that young people must seek opportunities abroad to improve the economic well-being of their families. Ever since, the majority of relationships I have developed have been with individuals from different cultural backgrounds, including my spouse and closest friends. Questions of identity, belonging, and social integration are important to me because I am well aware that being a migrant is costly and risky. For example, I have lived and paid taxes in the United States for ten years, yet I don't have the privilege to vote for or against laws that will determine the possibility of me having a future here. Many residents of Santa Ana and Puerto share similar concerns. While ethnic and cultural diversity are generally praised, native Moseten often express concerns about highlanders, sometimes referring to them as "colonizers". Highlanders, in turn, resent their lack of land rights, and disagreements between groups regarding issues of political representation and resource access and management are common. I chose to focus on intermarriage because it is the most intimate realm of intergroup relations, and it can have profound consequences on the local culture. Moseten have greatly benefited from exposure to a "highland's culture", including a more formal political organization and a greater emphasis on commercial as opposed to subsistence agriculture. As a result, they are wealthier and have received much greater investments from both governments and NGOs than many other indigenous groups in the Bolivian lowlands.

During my time in the study communities, I piloted all instruments, attended community meetings and celebrations, and visited house by house, building relationships with both leaders and community members. Since the summer of 2020, I have been working closely with the health center staff and supervising two research assistants in charge of contact-tracing in the communities. In collaboration with the THLHP, I also provided (and will continue to the best of my ability) financial and logistical assistance to families who needed to seek medical help in La Paz. The positive feedback I received about my project combined with my pilot study and familiarity with the logistics, make me confident that my study plan(s) are feasible.

#### 25. Project Description Question 5:

What contribution will your project make to anthropology? Please note that the Foundation's mission is to support innovative research and researchers. We are interested in funding scholars who will do more than simply add to an existing body of knowledge. Describe how your project will bring new insights to the field as a whole and help the discipline live up to its full potential.

The proposed project addresses theoretical issues in anthropology concerning the drivers of mate choice preferences, the functions of marriage and the evolution of kinship systems. There is little empirical research on cultural and ethnic identity as a feature of mate preference outside the psychological literature, which doesn't generally consider the constraints of marriage markets in non-industrialized settings. This research will test a long-standing idea in anthropology which posits that a primary function of marriage is to create cooperative relationships between different groups (Lévi-Strauss, 1949; Taylor, 1888). We will also extend this general hypothesis, incorporating other possible drivers of intermarriage including the potential for expanded support networks and increased access to opportunities for intermarried individuals and their families. These hypotheses will be tested in a naturalistic setting where we can measure people's responses to two ongoing exogenous shocks: a localized natural disaster (i.e. crop failure) and a global pandemic. The proposed project will identify coping mechanisms and riskbuffering strategies to problems commonly faced by rural households in low- and middle-income countries (i.e. crop failure and supply chain disruptions). As such, it will speak to decision-making in uncertain environments, an important issue in both human behavioral ecology and international development. Importantly, intermarriage plays a large role in shaping the meaning and significance of indigenous identity in the changing sociopolitical landscape of Bolivia, one of the most ethnically diverse countries in Latin America. In Bolivia, the inclusion and representation of indigenous populations remains

a major social and political issue, and cross-cultural cooperation is often critical for access to limited municipal and national funds. Therefore, focusing on intermarriage and group relations is of particular interest to cultural and applied anthropologists working in Bolivia and other culturally diverse countries, as well as the study communities themselves. Finally, a deeper understanding of the drivers of intermarriage should be of value to anthropologists from all branches and researchers across social and life science disciplines interested in social cohesion and integration, migration, as well as the diffusion of genes and culture between societies throughout human history.

#### CAPACITY BUILDING

The funds requested will support the doctoral training of a minority female graduate student, and capacity building of one (Plan A) or two (Plan B) Bolivian research assistant in data collection and computer skills valuable for future employment. I will also recruit a UCSB undergraduate student research assistant who will be trained in data management and data analysis.

#### **DISSEMINATION OF RESULTS**

I will present results to participants during community meetings in subsequent travels to Bolivia. Booklets summarizing research results in Spanish, Moseten, Aymara, and Quechua will be made available to participants, as well as the Organizacion del Pueblo Indigena Moseten (OPIM). Results will be submitted to high-impact journals in both anthropology and behavioral sciences to reach a broad social and life science audience. All publications will be accompanied by press releases and articles will be submitted to science outreach websites like Sapiens or the Conversation. I will present at anthropology (AAA, AAPA, SfAA), psychology (HBES) and population studies (PAA) conferences.

#### 26. Optional URL for access to figures

Add http://

(No response)

#### Please note:

When you click **Mark as Complete**, please wait until you receive confirmation of successful submission before you close this window.

# DF Application: Budget - Plan A (for COVID "Best Case" Scenario)

Completed - Nov 1 2020

A Dissertation Fieldwork Grant Application Budget Form must be completed as part of the official application.

Download the "<u>Dissertation Fieldwork Grant Application: Budget Form</u>", fill out, save and print to PDF format, then upload to complete this task.

Please note: the total amount of your request for your Plan A and B budgets must be the same.

#### **DF Application Budget A AlamiSarah**

Filename: DF Application Budget A AlamiSarah.pdf Size: 96.0 kB

# DF Application: Budget - Plan B (for COVID "Worst Case" Scenario)

Completed - Nov 1 2020

A Dissertation Fieldwork Grant Application Budget Form must be completed as part of the official application.

Download the "<u>Dissertation Fieldwork Grant Application: Budget Form</u>", fill out, save and print to PDF format, then upload to complete this task.

Please note: the total amount of your request for your Plan A and B budgets must be the same.

## **DF Application Budget B AlamiSarah**

Filename: DF\_Application\_Budget\_B\_AlamiSarah.pdf Size: 91.7 kB

## **DF Project Bibliography**

Completed - Nov 1 2020

(ten pages maximum)

#### PROJECT BIBLIOGRAPHY

Filename: PROJECT BIBLIOGRAPHY.pdf Size: 69.5 kB

## **DF Applicant's CV**

Completed - Nov 1 2020

(five pages maximum)

#### CV SarahAlami WG

Filename: CV\_SarahAlami\_WG.pdf Size: 135.0 kB

# **DF Supervisor's CV**

Completed - Nov 1 2020

(five pages maximum)

## **CV\_MichaelGurven\_WG**

 $\textbf{Filename:} \ \ CV\_Michael Gurven\_WG\_.pdf \ \textbf{Size:} \ 121.2 \ kB$ 

#### DISSERTATION FIELDWORK GRANT APPLICATION: BUDGET

Please provide an itemized budget for the requested funding (maximum \$20,000). Please round up to the nearest \$US. See a list of <u>allowable expenses</u>.

#### **TRAVEL**

	Description	Amount
1.	Lodging while in transit in Santa Cruz (\$60/night x 15)	<b>\$</b> 900
2.	Lodging in Palos Blancos (\$20/night x 10)	<b>\$</b> 200
3.	Local travel between the study communities and Palos Blancos (6\$ round-trip x ~ 25 trips)	<b>\$</b> 150
4.	Visa fees and related costs	<b>\$</b> 400
5.		\$
	Travel expenses subtotal	\$1650

## LIVING EXPENSES (food, lodging and other expenses may be listed separately)

	Description	Amount
1.	Lodging in the study communities/ Rent (\$275/month x 10 months)	\$2750
2.	Purchase of bed mattress and rent or purchase of other household necessities	\$1000
3.		\$
4.		\$
5.		\$
	Living Expenses subtotal	\$3750

#### OTHER COSTS ASSOCIATED WITH RESEARCH

Description	Amount
Research assistant salary	\$3650
Participants compensations	<b>\$</b> 1150
Broadcasting messages for participant recruitment	\$500
Rent of yard/ open-air research station (\$30/month x 10)	\$300
	Research assistant salary  Participants compensations  Broadcasting messages for participant recruitment

5.		\$
	Other Costs subtotal	\$5600

## **SUPPLIES & EQUIPMENT**

	Description	Amount
1.	5 x 2019 RCA Galileo Pro tablet for data collection (\$120)	<b>\$</b> 600
2.	5 x cell and phone/internet plans (~50\$/month x 10)	\$2500
3.	Hard drives and flash drives	<b>\$</b> 150
4.		\$
5.		\$
	Supplies & Equipment subtotal	\$3250

#### OTHER COSTS

	Description	Amount
1.	Personal Protective Equipment and hand sanitizer	\$1000
2.	65 x COVID-19 tests (\$70 each)	\$4550
3.	Cleaning supplies	<b>\$1</b> 50
4.		\$
5.		\$
	Other Costs subtotal	\$5700

	Amount
TOTAL BUDGET requested from Wenner-Gren*	\$19950

<sup>\*</sup>Please note: the total amount of your request for your Plan A and Plan B budgets must be the same.

#### **BUDGET JUSTIFICATION**

Provide a justification for these items, demonstrating why and how they will facilitate the project.

#### **TRAVEL**

Once in Santa Cruz (where I will land in Bolivia), I will be applying for a visa (valid for 1 year) that will allow me to reside legally in Bolivia for the duration of the study. The process should take ~ 10-15 days between the day I apply and the day I receive the visa. 900\$ are requested for lodging in Santa Cruz during that time and \$400 are requested to cover the visa application fee and related costs (i.e. the cost of transport in Santa Cruz, the cost of a required medical visit, official photos, photocopy and printing fees). \$150 are requested to cover transportation from the study communities to the neighboring market town of Palos Blancos every other week. These trips are necessary for purchasing groceries and other essential market supplies. Whether it is possible to travel to Palos Blancos from the study communities and come back in the same day depends on season, weather, and taxi availability. \$200 are budgeted for lodging in Palos Blancos for ~ 10 nights during the wet season (to cover the eventuality that I will find myself unable to travel). \$2,780 have been obtained from the National Science Foundation (NSF) to cover for international travel to Bolivia.

#### LIVING EXPENSES

\$2,750 are requested to cover lodging/the rent of a house in Santa Ana for the duration of the field work (the house is within walking distance from all houses in Santa Ana and Puerto). In addition to serving as my primary residence in Bolivia, the house yard will be transformed into an open-air research station where interviews can be safely conducted. \$1,000 are budgeted for the purchase of a bed mattress, bedding as well as the purchase or rent of other household necessities (e.g. butane tanks, a fridge, a desk/table, chairs, cooking utensils etc.). \$2,920 were obtained from NSF to cover food expenses for the duration of the study.

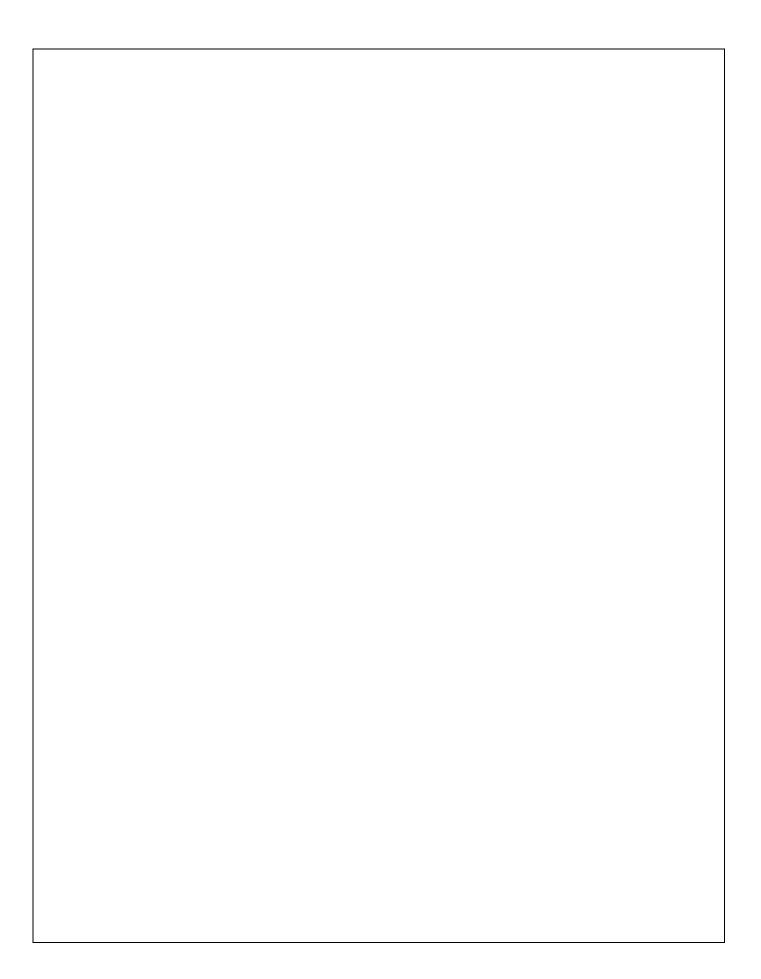
#### OTHER COSTS ASSOCIATED WITH RESEARCH

\$300 are budgeted for the rent of an additional yard to be transformed into another research station so that more interviews can be held simultaneously (2 interviewers per research station; ~ 4 interviewees/day for each interviewer). Research assistance is necessary given my relatively large sample size target (~525 participants) and long interview process (~ 1.5-2 hours). While I have obtained \$10,950 from NSF to cover the salaries of three research assistants, I am requesting \$3,650 to hire a fourth research assistant who will be crucial in helping me reach my sample size targets and will reduce the workload generated by adjusting to COVID-19 safety protocols (e.g. cleaning the research stations between interviews, asking participants about COVID-19 symptoms etc.). Each research assistant will be paid ~ 2\$/hour for 8 hours of work every weekday (Monday-Friday) for ten months. I have also obtained \$3,150 from NSF to compensate participants for their time and contribution to the study. But I have since expanded my interview to include questions related to social support and risk-buffering during the COVID-19 pandemic. Participants will also need to walk to the research stations (within walking distance from all houses in Santa Ana and Puerto) and comply with safety protocols (e.g. answering questions about COVID-19 symptoms) which will also require additional time. Therefore, I am requesting an additional \$1,150 to account for the fact that the interview process will take an extra 30-45 minutes to complete for each interviewee ( $^{1.5}$  – 2 hours for the entire process). Each participant will be paid  $^{5}$ 8 for their contribution to the study (instead of the original \$6 initially planned). \$500 are requested to broadcast a daily recruitment message via the loudspeakers of a school building shared between Santa Ana and Puerto. The money will be received by school officials and will go towards the purchase of school supplies and the maintenance of school facilities.

#### **SUPPLIES & EQUIPMENT**

Five 2019 RCA Galileo Pro tablets are budgeted for conducting interviews (one for each research assistant and one for myself). Surveys will be designed using the free and open-source software *Kobo toolbox*, which will save time, facilitate data collection and data entry, and save money on printing and photocopying interviews. Five cell phone plans are budgeted to allow for communication and coordination between the research assistants and myself. Messages and calls may also be used to schedule interviews with participants. Hard drives and flash drives are budgeted for data storage. No other funds were obtained to cover equipment expenses.

OTHER COSTS  Protective Equipment (i.e. face masks, goggles and gloves) and hand sanitizer are budgeted to protect the participants, research assistants and myself from COVID-19, which will likely remain prevalent in 2021-2022 despite the potential availability of a vaccine. Face masks and hand sanitizer will also be made available to residents of Santa Ana and Puerto in their shared local health center and school buildings. 50 COVID-19 PCR test kits are budgeted to check once a month (or if needed) that no field research team member is infectious with coronavirus. The Tsimane Health and Life History Project (THLHP) contact-tracing team will independently provide additional test kits to research assistants and participants if needed. If unused, test kits will be donated to the local health center. \$200 was obtained from NSF to cover the production of a few copies of a short booklet summarizing the results of the research for community members. Finally, \$5,200 was obtained from NSF to cover the indirect cost rate for off-campus research.



#### DISSERTATION FIELDWORK GRANT APPLICATION: BUDGET

Please provide an itemized budget for the requested funding (maximum \$20,000). Please round up to the nearest \$US. See a list of <u>allowable expenses</u>.

#### **TRAVEL**

	Description	Amount
1.		\$
2.		\$
3.		\$
4.		\$
5.		\$
	Travel expenses subtotal	\$0

## LIVING EXPENSES (food, lodging and other expenses may be listed separately)

	Description	Amount
1.		\$
2.		\$
3.		\$
4.		\$
5.		\$
	Living Expenses subtotal	\$0

#### OTHER COSTS ASSOCIATED WITH RESEARCH

	Description	Amount
1.	2 x Research assistant salary	<b>\$</b> 7300
2.	Participants compensations	<b>\$</b> 1150
3.	Broadcasting messages for participant recruitment	\$500
4.	Rent of two open-air spaces/research stations (2 x \$30/ month x 10)	\$600
5.		\$
	Other Costs subtotal	\$9550

#### **SUPPLIES & EQUIPMENT**

	Description	Amount
1.	Laptop computer	<b>\$</b> 1200
2.	2 x noise covering headphones (\$25)	<b>\$</b> 50

3.	5 x 2019 RCA Galileo Pro tablet for data collection (\$120)	\$600
4.	5 x cell and phone/internet plans (~50\$/month x 10)	\$2500
5.	Hard drives and flash drives	<b>\$</b> 150
6.		
	Supplies & Equipment subtotal	\$4500

#### OTHER COSTS

	Description	Amount
1.	Personal Protective Equipment and hand sanitizers	\$1000
2.	65 x COVID-19 tests (\$70 each)	<b>\$</b> 4550
3.	Cleaning supplies	<b>\$</b> 150
4.	Shipping costs	\$200
5.		\$
	Other Costs subtotal	\$5900

		Amount
TC	OTAL BUDGET requested from Wenner-Gren*	\$19950

<sup>\*</sup>Please note: the total amount of your request for your Plan A and Plan B budgets must be the same.

#### **BUDGET JUSTIFICATION**

Provide a justification for these items, demonstrating why and how they will facilitate the project.

#### OTHER COSTS ASSOCIATED WITH RESEARCH

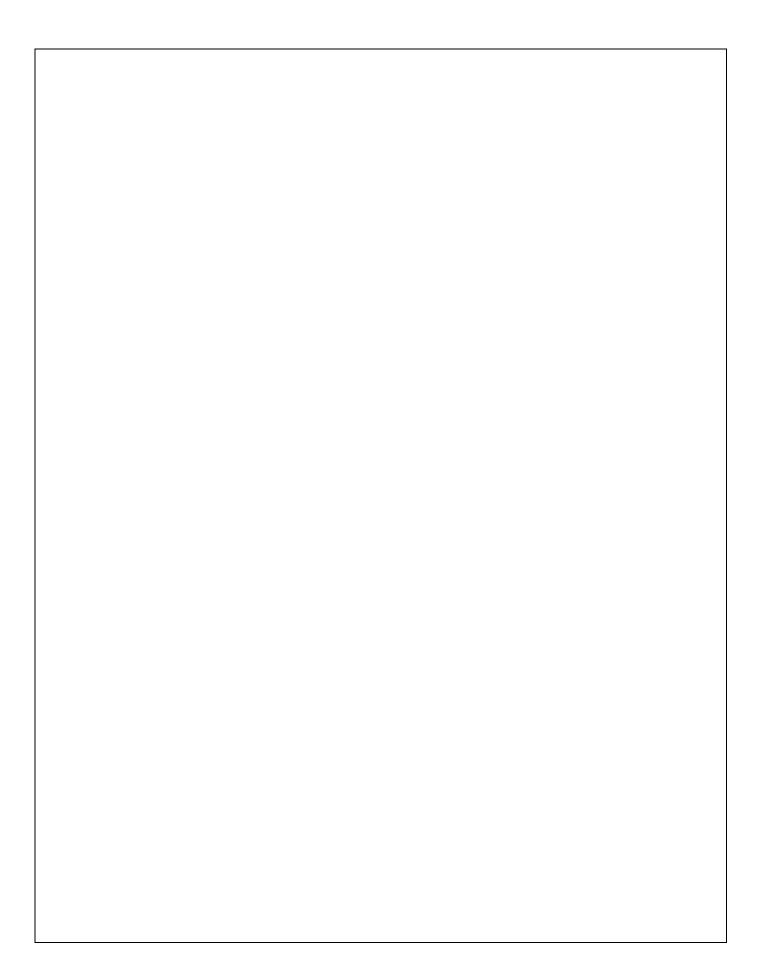
In the event I am unable to travel to Bolivia, funds are requested to rent two large yards in the communities of Santa Ana and Puerto and set-up remote research stations where interviews can be conducted with the help of research assistants. This will allow more interviews to be held simultaneously while ensuring the safety of participants and research assistants (2 interviewers per research station; ~ 4 interviewees/day for each interviewer). Research assistance is necessary given my relatively large sample size target (~525 participants) and long interview process (~ 1.5-2 hours). While I have obtained \$10950 from NSF to cover the salaries of three research assistants, I am requesting an additional \$7300 from the Wenner-Gren Foundation to hire two additional research assistants. Hiring additional research assistants will compensate for the fact that I will not be present physically while ensuring the safety and reducing workload generated by adjusting to COVID-19 safety protocols (e.g. cleaning the research stations between interviews, asking participants about COVID-19 symptoms etc.). I have also obtained \$3,150 from NSF to compensate participants for their time and contribution to the study. But I have since expanded my interview to include questions related to social support and risk-buffering during the COVID-19 pandemic. Participants will also need to walk to the research stations (within walking distance from all houses in Santa Ana and Puerto) and comply with safety protocols (e.g. answering questions about COVID-19 symptoms) which will also require additional time. Therefore, I am requesting an additional \$1,150 to account for the fact that the interview process will take an extra 30-45 minutes to complete for each interviewee (~1.5 – 2 hours for the entire interview process). Each participant will be paid ~\$8 for their contribution to the study (instead of the original \$6 initially planned). \$500 are requested to broadcast a daily recruitment message via the loudspeakers of a school building shared between Santa Ana and Puerto. The money will be received by school officials and will go towards the purchase of school supplies and the maintenance of school facilities.

#### **SUPPLIES & EQUIPMENT**

One laptop with a large screen and an integrated web camera is budgeted for conducting interviews over Zoom from the United States. It will be purchased in La Paz by THLHP staff and sent to research assistants in Palos Blancos. One of the research assistants will be in charge of setting-up Zoom meetings with participants and providing them with noise canceling headphones, also budgeted. Five 2019 RCA Galileo Pro tablets are budgeted for conducting interviews (one for each research assistant). Surveys will be designed using the free and open-source software *Kobo toolbok*, which will save time, facilitate data collection and data entry, and save money on printing and photocopying interviews in town. Phone/internet cards are budgeted to allow communication between the field research team, schedule interviews with participants, and remotely conduct interviews with participants who prefer to avoid traveling to the research stations (Provided they have access to a mobile phone). Research assistants will also use *Whatsapp* on their mobile phones to communicate daily with me. *Whatsapp* is a free mobile application, widely used in Bolivia. It allows sending messages and making voice and video calls for free (locally and internationally) so long as the parties involved have access to the internet on their mobile or tablet. Participants who prefer being interviewed via *Whatsapp* will be provided with telephone/internet cards. Hard drives and flash drives are budgeted for data storage. No other funds were obtained to cover equipment expenses.

#### **OTHER COSTS**

Protective Equipment (i.e. face masks, goggles and gloves) and hand sanitizer are budgeted to protect the participants, research assistants and myself from COVID-19. Face masks and hand sanitizer will also be made available to residents of Santa Ana and Puerto in their shared local health center and school buildings. 50 COVID-19 PCR test kits are budgeted to check monthly (or if needed) if field research assistants are infectious with coronavirus. The Tsimane Health and Life History Project (THLHP) contact-tracing team will independently provide additional test kits to research assistants and participants if needed. Funds are also requested to cover the purchase of cleaning supplies (e.g. bleach solution, disinfecting wipes, sponges, used between each interview). \$200 was obtained from NSF to cover the production of a few copies of a short booklet summarizing the results of the research for community members. Finally, \$5,200 was obtained from NSF to cover the indirect cost rate for off-campus research.



#### PROJECT BIBLIOGRAPHY

- Alba, R. (2009). Blurring the color line: The new chance for a more integrated America. Harvard University Press.
- Alba, R., & Islam, T. (2009). The case of the disappearing Mexican Americans: An ethnic-identity mystery. *Population Research and Policy Review*, 28(2), 109–121. https://doi.org/10.1007/s11113-008-9081-x
- Alba, R., & Nee, V. (2003). Rethinking assimilation. *Remaking the American Mainstream:* Assimilation and Contemporary Immigration, 1–16.
- Angrist, J. (2002). How sex ratios affect marriage and labor markets? Evidence from America's second generation. *Quarterly Journal of Economics*, (8042).
- Arteaga, J. S. (2017). Biological Discourses on Human Races and Scientific Racism in Brazil (1832–1911). *Journal of the History of Biology*, *50*(2), 267–314. https://doi.org/10.1007/s10739-016-9445-8
- Babel, A. (2018). Between the Andes and the Amazon: Lamguage and social meaning in Bolivia. University of Arizona Press.
- Bailey, D. H., Hill, K. R., & Walker, R. S. (2014). Fitness consequences of spousal relatedness in 46 small-scale societies. *Biology Letters*, *10*(5). https://doi.org/10.1098/rsbl.2014.0160
- Becker, G. S. (1973). A Theory of Marriage: Part I. *Journal of Political Economy*, 81(4), 813–846.
- Bereczkei, T., Gyuris, P., Koves, P., & Bernath, L. (2002). Homogamy, genetic similarity, and imprinting; parental influence on mate choice preferences. *Personality and Individual Differences*, 33(5), 677–690. https://doi.org/10.1016/s0191-8869(01)00182-9
- Blau, P. M., Blum, T. C., & Schwartz, J. E. (1982). Heterogeneity and Intermarriage, 47(1), 45–62.
- Bratter, J. L., & Eschbach, K. (2006). "What about the couple?" Interracial marriage and psychological distress. *Social Science Research*, 35(4), 1025–1047. https://doi.org/10.1016/j.ssresearch.2005.09.001
- Bratter, J. L., & King, R. B. (2008). "but will it last?": Marital instability among interracial and same-race couples. *Family Relations*, *57*(2), 160–171. https://doi.org/10.1111/j.1741-3729.2008.00491.x
- Brettell, C. (2017). Marriage and Migration. Annual Review of Anthropology, 46,81-97.
- Brown, K. A. (2016). Women on the move. The DNA evidence for female mobility and exogamy in prehistory. *Past Mobilities Archaeological Approaches to Movement and Mobility*, 155–174.
- Buss, D. M., Abbott, M., Angleitner, A., Asherian, A., Biaggio, A., Blanco-Villasenor, A., Bruchon-Schwetzer, M., Ch'u, H.Y., Czapinski, J., Deraad, B., Ekehammar, B. (1990). International preferences in selecting mates: A study of 37 cultures. *Journal of Cross-Cultural Psychology*, *21*(1), 5–47.
- Chagnon, N. (1968). Yanomamö: The fierce people. New York: Holt, Rinehart, and Winston. Chapais, B. (2008). Primeval kinship: How pair-bonding gave birth to human society. Harvard University Press.
- Chapais, B. (2013). Monogamy, strongly bonded groups, and the evolution of human social structure. *Evolutionary Anthropology*, 22(2), 52–65. https://doi.org/10.1002/evan.21345
- Crespin-Boucaud, J. (2020). Interethnic and interfaith marriages in sub-Saharan Africa. *World Development*, 125, 104668. https://doi.org/10.1016/j.worlddev.2019.104668
- Csardi, G., & Nepusz, T. (2006). The igraph software package for complex network research. Interjournal, Complex Sy, 1695. Retrieved from https://igraph.org/
- Davin, D. (2007). Marriage migration in China and East Asia. *Journal of Contemporary China*, 16(50), 83–95.
- De Miquel Luken, V., Lubbers, M. J., Solana, M. S., & Rodríguez-García, D. (2015). Evaluación

- de la integración relacional de los inmigrantes en uniones mixtas a partir del análisis de redes personales. *Revista Espanola de Investigaciones Sociologicas*, *150*, 151–172. https://doi.org/10.5477/cis/reis.150.151
- Dow, G. K., Reed, C. G., & Woodcock, S. (2016). the Economics of Exogamous Marriage in Small-Scale Societies. *Economic Inquiry*, *54*(4), 1805–1823. https://doi.org/10.1111/ecin.12321
- Drachsler, J. (1920). *Democracy and assimilation: The blending of immigrant heritages in America*. Macmillan.
- Dribe, M., & Lundh, C. (2010). Marriage choices and social reproduction: The interrelationship between partner selection and intergenerational socioeconomic mobility in 19th-century Sweden. *Demographic Research*, 22, 347–382. https://doi.org/10.4054/DemRes.2010.22.14
- Durkheim, E. (1896). La prohibition de l'inceste et ses origines. L' Annee Sociologique (1896/1897-1924/1925),1,1-70.
- Fabricant, N. (2012). *Mobilizing Bolivia's Displaced: Indigenous Politics and the Struggle over Land.* UNC Press Books.
- Godoy, R. A. (2015). A natural experiment in westernization: Of Faustian deals and the primitive. Center for Global Development and Sustainability, heller School for Social Policy and Management, Brandeis University, 2015-9.
- Goldstein, J. R. (1999). Kinship networks that cross racial lines: The exception or the rule? *Demography*, 36(3), 399–407. https://doi.org/10.2307/2648062
- Goody, J. (1975). The character of kinship (Vol. 17). Cambridge University Press.
- Granovetter, M. (1973). The strength of weak ties. *American Journal of Sociology*, 78(6), 1360–1380.
- Gurven, M., Stieglitz, J., Trumble, B., Blackwell, A. D., Beheim, B., Davis, H., ... Kaplan, | Hillard. (2017). The Tsimane Health and Life History Project: Integrating anthropology and biomedicine. *Evolutionary Anthropology: Issues, News, and Reviews*, *26*(2), 54–73. https://doi.org/10.1002/evan.21515
- Handcock, M., Hunter, D., Carter, T., Butts, C., Goodreau, S., & Morris, M. (2003). statnet: Software tools for the Statistical Modeling of Network Data. Retrieved from http://statnetproject.org
- Harris, D. R., & Ono, H. (2005). How many interracial marriages would there be if all groups were of equal size in all places? A new look at national estimates of interracial marriage. *Social Science Research*, 34(1), 236–251. https://doi.org/10.1016/i.ssresearch.2004.01.002
- Hu, F., & Lee, I. C. (2018). Democratic systems increase outgroup tolerance through opinion sharing and voting: An international perspective. *Frontiers in Psychology*, 9(NOV), 1–12. https://doi.org/10.3389/fpsyg.2018.02151
- ISEAT (2017). La historia oral Moseten sobre la lucha por el territorio.
- Kalmijn, M. (1993). Trends in Black / White Intermarage. Social Forces, 72(1), 119–146.
- Kalmijn, M. (1998). Intermarriage and Homogamy: Causes, Patterns, Trends. *Annual Review of Sociology*, *24*(1), 395–421. https://doi.org/10.1146/annurev.soc.24.1.395
- Kalmijn, M., de Graaf, P. M., & Janssen, J. P. G. (2005). Intermarriage and the risk of divorce in the Netherlands: The effects of differences in religion and in nationality, 1974-94. *Population Studies*, 59(1), 71–85. https://doi.org/10.1080/0032472052000332719
- Kaplan, H. S., Trumble, B. C., Stieglitz, J., Mamany, R. M., Cayuba, M. G., Moye, L. M., Alami, S., Kraft, T., Gutierrez, R.Q., Jaeggi, A., Thompson, R.C., Gurven, M. (2020). Voluntary collective isolation as a best response to COVID-19 for indigenous populations? A case study and protocol from the Bolivian Amazon. *The Lancet*, *395*(10238), 1727–1734. https://doi.org/10.1016/s0140-6736(20)31104-1
- Kearns, J. N., & Leonard, K. E. (2004). Social networks, structural interdependence, and marital

- quality over the transition to marriage: A prospective analysis. *Journal of Family Psychology*, 18(2), 383–395. https://doi.org/10.1037/0893-3200.18.2.383
- Kelly, R. L. (1995). *The foraging spectrum: Diversity in hunter-gatherer lifeways*. Smithsonian Institution Press Washington, DC.
- Kennedy, R. J. R. (1944). Single or triple melting-pot? Intermarriage trends in New Haven, 1870-1940. *American Journal of Sociology*, 49(4), 331–339.
- Kim, J., Park, S. H., Kim, M., & Kim, S. Y. (2017). Exploring issues and strengths of cross-cultural marriage among Korean immigrants. *Health Care for Women International*, *38*(10), 1095–1114. https://doi.org/10.1080/07399332.2017.1360301
- Knipper, C., Mittnik, A., Massy, K., Kociumaka, C., Kucukkalipci, I., Maus, M., ... Stockhammer, P. W. (2017). Female exogamy and gene pool diversification at the transition from the Final Neolithic to the Early Bronze Age in central Europe. *Proceedings of the National Academy of Sciences of the United States of America*, 114(38), 10083–10088. https://doi.org/10.1073/pnas.1706355114
- Kramer, K. L., & Greaves, R. D. (2011). Postmarital Residence and Bilateral Kin Associations among Hunter-Gatherers. *Human Nature*, 22(1), 41–63. https://doi.org/10.1007/s12110-011-9115-7
- Kusel, V. I. (2014). Gender disparity, domestic abuse, and the mail-order bride industry. *Alb. Gov't L. Rev.*, 7, 166.
- Lee, R. B. (1984). The Dobe! Kung. Holt Rinehart & Winston.
- Lehrer, E. L., & Chiswick, C. U. (1993). Religion as a determinant of marital stability. *Demography*, 30(3), 385–404.
- Lévi-Strauss, C. (1949). Les Structures élémentaires de la parenté. Paris/La Haye, Mouton.
- Lopez Pila, E. (2014). "We don't lie and cheat like the Collas do." Highland–lowland regionalist tensions and indigenous identity politics in Amazonian Bolivia. *Critique of Anthropology*, 34(4), 429–449. https://doi.org/10.1177/0308275X14543393
- McLennan, J. F. (1865). *Primitive marriage: an inquiry into the origin of the form of capture in marriage ceremonies*. A. and C. Black.
- Morgan, L. H. (1871). Systems of consanguinity and affinity of the human family. Systems of consanguinity and affinity of the human family (Vol. 218). Smithsonian Institution. https://doi.org/10.5962/bhl.title.29577
- Nemoto, K. (2006). Intimacy, desire, and the construction of self in relationships between Asian American women and white American men. *Journal of Asian American Studies*, 9(1), 27–54
- Ortega, J., & Hergovich, P. (2017). The Strength of Absent Ties: Social Integration via Online Dating. *Mimeo*. https://doi.org/10.2139/ssrn.3044766
- Qian, Z., & Lichter, D. T. (2007). Social boundaries and marital assimilation: Interpreting trends in racial and ethnic intermarriage. *American Sociological Review*, 72(1), 68–94. https://doi.org/10.1177/000312240707200104
- R Core Team. (2017). R: A Language and Environment for Statistical Computing. R Foundation for Statistical Computing. Retrieved from https://www.r-project.org/
- Rodríguez-García, D. (2015). Intermarriage and Integration Revisited: International Experiences and Cross-Disciplinary Approaches. *Annals of the American Academy of Political and Social Science*, 662(1), 8–36. https://doi.org/10.1177/0002716215601397
- Rodseth, L., & Wrangham, R. (2004). Human Kinship: A Continuation od Politics by Other Means? *Kinship and behavior in primates*, *389419*.
- Rosenzweig, M. R. (1989). Consumption Smoothing, Migration, and Marriage: Evidence from Rural India, 97(4), 905–926.
- Salali, G. D., Chaudhary, N., Thompson, J., Grace, O. M., van der Burgt, X. M., Dyble, M., ... Migliano, A. B. (2016). Knowledge-Sharing Networks in Hunter-Gatherers and the Evolution of Cumulative Culture. *Current Biology*, 26(18), 2516–2521.

- https://doi.org/10.1016/j.cub.2016.07.015
- Schwartz, C. R. (2013). Trends and variation in assortative mating: Causes and consequences. *Annual Review of Sociology*, 39, 451–470.
- Shenk, M. K., Towner, M. C., Voss, E. A., & Alam, N. (2016). Consanguineous Marriage, Kinship Ecology, and Market Transition. *Current Anthropology*, *57*(June), S000–S000. https://doi.org/10.1086/685712
- Smith, S., Maas, I., & van Tubergen, F. (2012). Irreconcilable differences? Ethnic intermarriage and divorce in the Netherlands, 1995--2008. *Social Science Research*, 41(5), 1126–1137.
- Smits, J. (2010). Ethnic intermarriage and social cohesion. What can we learn from Yugoslavia? *Social Indicators Research*, *96*(3), 417–432. https://doi.org/10.1007/s11205-009-9485-y
- Stearman, A. M. (1985). Camba and Kolla: migration and development in Santa Cruz, Bolivia. University of Central Florida Press Orlando.
- Takeuchi, K. (2014). Interethnic Relationships between Pygmies and Farmers. *In: Barry S. Hewlett ed. Hunter-Gatherers of the Congo Basin: Cultures, Histories and Biology of African Pygmies. Transaction Publishers, New Brunswick.*
- Telles, E. E. (2004). *Race in another America: The significance of skin color in Brazil.* Princeton University Press.
- Tylor, E. B. (1888). On a Method of Investigating the Development of Institutions; Applied to Laws of Marriage and Descent. *Source: The Journal of the Anthropological Institute of Great Britain and Ireland*, *18*, 245–272. Retrieved from http://www.jstor.org/stable/2842423
- Von Stosch, K. (2010). *Hochland-und Tieflandindigene im Konflikt: Land-und Ressourcen-Nutzung in Alto Beni/Bolivien.* Rheinisch-Westfälische Technische Hochschule Aachen.
- Walker, R. S., & Bailey, D. H. (2014). Marrying kin in small-scale societies. *American Journal of Human Biology*, 26(3), 384–388. https://doi.org/10.1002/ajhb.22527
- Wang, W. (2012). The Rise of Intermarriage. *Washington, DC: Pew Research Center.* Waters, M. C., & Alba, R. (2010). The next generation: The children of immigrants in Europe and North America.
- Westermarck, E. (1934). Recent theories of exogamy. *The Sociological Review*, 26(1), 22–40. Wiessner, P. (2002). Taking the risk out of risky. In *Risky transactions: Trust, kinship, and ethnicity*. Berghahn Books.

# **SARAH ALAMI**

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EDUCATION 2019- 2015-18 2012-14	PhD MA BA	Anthropology, University of California, Santa Barbara (UCSB) Anthropology with an emphasis in Demography, UCSB Anthropology, UCSB
2011-12	AA-T	Social and Behavioral Science, San Diego City College
PUBLICATIONS		
Peer-reviewed		
In press	D., Eid Suarez	n, M., Kraft, T., <b>Alami, S.,</b> Copajira Adrian, J., Cortez Linares, E., Cummings, l Rodriguez, D., Hooper, P., Jaeggi, A., Quispe Gutierrez, R., Maldonado z, I., Seabright, E., Kaplan, H., Stieglitz, J., Trumble, B. Rapidly declining core temperature in a tropical human population. <i>Science Advances</i> .
2020	Kaplar a horti	<b>S.</b> , von Rueden, C., Seabright, E., Kraft, T.S., Blackwell, A.D., Stieglitz, J., n, H., & Gurven, M. Mother's social status is associated with child health in iculturalist population. <i>Proceedings of the Royal Society B</i> , <i>287</i> (1922). 0.1098/rspb.2019.2783
2020	LM., A collect A case	In, HS., Trumble, BC., Stieglitz, J., Mamany, RM., Cayuba, MG., Moye, Ilami, S., Kraft, T., Gutierrez, RQ., Adrian, JC., Thompson, RC. Voluntary tive isolation as a best response to COVID-19 for indigenous populations? estudy and protocol from the Bolivian Amazon. <i>The Lancet</i> . 0.1016/S0140-6736(20)31104-1
2018	is asso Bolivia	<b>S.</b> , Stieglitz, J., Kaplan, H., & Gurven, M. Low perceived control over health ociated with lower treatment uptake in a high mortality population of an forager-farmers. <i>Social Science &amp; Medicine, 200, 156–165.</i> 0.1016/j.socscimed.2018.01.017
2018	leader	ueden, C., <b>Alami, S.</b> , Kaplan, H., & Gurven, M. Sex differences in political ship in an egalitarian society. <i>Evolution and Human Behavior, 39(4), 402-</i> 001: 10.1016/j.evolhumbehav.2018.03.005.
2018	Hitoko Romer in the	er, D., Xygalatas, D., <b>Alami, S.</b> , An, XF., Ananyeva, K. I., Fukushima, S., oto, H., Kharitonov, A. N., Koster, J. M., Onyishi, C. N., Onyishi, I. E., ro, P. P., Takemura, K., Zhuang, JY., Cosmides, L., & Tooby, J. Invariances architecture of pride across small-scale societies. <i>Proceedings of the nal Academy of Sciences</i> , 115(33), 8322–8327.

Sznycer, D., Xygalatas, D., Agey, E., Alami, S., An, X.-F., Ananyeva, K. I., Atkinson,

Q. D., Broitman, B. R., Conte, T. J., Flores, C., Fukushima, S., Hitokoto, H.,

DOI:10.1073/pnas.1808418115

2018

Kharitonov, A. N., Onyishi, C. N., Onyishi, I. E., Romero, P. P., Schrock, J. M., Snodgrass J. J., Sugiyama, L. S., Takemura, K., Townsend, C., Zhuang, J.-Y., Aktipis, C. A., Cronk, L., Cosmides, L., & Tooby, J. Cross-cultural invariances in the architecture of shame. *Proceedings of the National Academy of Sciences*, *115*(39), 9702–9707. DOI:10.1073/pnas.1805016115

## Manuscripts in preparation

n.d. **Alami, S.,** Seabright, E., Kraft, T.S., Kaplan, H., Gurven, M. The role of women's social support networks in determining post-marital residence patterns among bilocal forager-farmers. *Target journal: Evolution and Human Behavior*.

n.d. **Alami, S.**, Kraft, T.S., Seabright, E., Hooper, P., Beheim, B., Copajira Adrian, J., Cortez Linares, E., Eid Rodriguez, D., Quispe Gutierrez, R., Stieglitz, J., Trumble, B., Kaplan, H., Gurven, M. Abstract modeling and epidemiological reality of COVID-19 among Tsimane forager-farmers. *Target journal: Target journal: Proceedings of the Royal Society B.* 

n.d. Kraft, T.S., **Alami, S.**, Seabright, E., Beheim, B., Hooper, P., Copajira Adrian, J., Cortez Linares, E., Eid Rodriguez, D., Quispe Gutierrez, R., Stieglitz, J., Trumble, B., Kaplan, H., Gurven, M. Infectious disease transmission dynamics in small-scale rural societies. *Target journal: Proceedings of the Royal Society B.* 

#### **CONFERENCE PRESENTATIONS**

<u>2020</u>

Oct Symposium on the impacts of COVID-19, Broom Center for Demography, UCSB Talk: The dynamics of COVID-19 spread in a small-scale society. (Joint

procontation with Vraft T.S. 2. Sophright El

presentation with Kraft, T.S. & Seabright, E)

July California Workshop on Evolutionary Social Science, Virtual Workshop

Talk: Modeling the spread of SARS-CoV-2 among Tsimane forager-farmers. (Joint

presentation with Kraft, T.S. & Seabright, E)

April Network Epidemiology in the Time of Coronavirus, Virtual Workshop, University

of Maryland's COMBINE program

Flash-Talk: Epidemic ERGMs: How do social processes influence disease spread?

(Joint presentation with Kraft, T.S., Ren, S., Zhao, L)

<u> 2019</u>

April European Human Behaviour and Evolution Association, Toulouse, France

Talk: High social status is associated with child health among women, but not

men, in an acculturating horticulturalist population.

<u>2018</u>

Nov American Anthropological Association, San Jose, CA

Talk: Low perceived control over health is associated with lower treatment

uptake in a high mortality population of Bolivian forager-farmers.

<u>2017</u>

April Society for Applied Anthropology, Albuquerque, New Mexico

Talk: Evaluating the effects of women's political influence on child health in

Amazonian Bolivia.

**UCSB Anthropology Grad-Slam** Mar Flash-Talk: How to get people to see a doctor when they don't want to 2016 Nov American Anthropological Association, Minneapolis, MN Talk: Evaluating the effects of women's political influence on child health in Amazonian Bolivia American Anthropological Association, Denver, CO 2015 Talk: Gender and political leadership in an egalitarian society Nov **ACADEMIC HONORS & AWARDS** 2016 Best student paper award, Evolutionary Anthropology Society, American Anthropological Association 2014 City Club Prize (Awarded to women holding top six grade-point averages in the social sciences), UCSB Research Promise Award, Department of Anthropology, UCSB 2014 2014 Distinction in the Major & Academic Excellence Award, Department of Anthropology, UCSB 2014 Outstanding Senior Transfer Award, Department of Anthropology, UCSB **GRANTS & FELLOWSHIPS** 2020 **Doctoral Dissertation Improvement Grant** (\$25,200), National Science Foundation 2020 Multidisciplinary Research on COVID-19 and its Impacts minigrant (\$2,000), Graduate Division, UCSB 2019 Summer Research Grant (\$1,000), Integrative Anthropological Sciences, UCSB 2018 Summer Block Grant (\$2,000), Integrative Anthropological Sciences, UCSB 2018 Student Research Grant (\$2,000), Broom Center for Demography, UCSB 2017 Charles J. Erasmus Award (\$2,000), Department of Anthropology, UCSB 2016 Student Research Grant (\$2,000), Broom Center for Demography, UCSB 2015-21 The Chancellor's Fellowship (\$77,000), UCSB RESEARCH & FIELDWORK EXPERIENCE 2020 May-Currently assisting the Tsimane Health and Life History Project (THLHP) with COVID-19 contact-tracing and epidemiological modeling in Tsimane and Moseten Bolivian communities, USA (remote work). May-Sep Remotely trained and supervised THLHP personnel in data collection, entry and management, USA (remote work). 2018 Jul-Aug Conducted a pilot study on interethnic marriage in Santa Ana, Bolivia

Conducted basic laboratory work for and assisted the THLHP with cardiology CT

scanning campaign involving Moseten and Tsimane, Bolivia

June

2017

Jun-Aug	Scouted study villages, developed relationships with Moroccan researchers, Todgha valley, Morocco
<u>2016</u>	
Jun-Aug	Scouted study villages, collected data for a collaborative project on the evolutionary psychology of shame and pride, Todgha valley, Morocco
2015	
Sept	Assisted the THLHP with cardiology CT scanning campaign, Bolivia
Jul-Aug	Collected data on women's social status in a Tsimane village, Bolivia
<u>2014</u>	<b>3</b> /
Aug-Sep	Assisted the THLHP with cardiology CT scanning campaign, Bolivia
Jun-Jul	Collected data on women's social status in a Tsimane village, Bolivia
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PROFESSIONA	AL SERVICE
2020-	Reviewer for PLOS ONE
2019-	Reviewer for Evolution and Human Behavior
2019-20	Website manager, UCSB Anthropology Graduate Student Association
2018-19	Student representative for the Evolutionary Anthropology Society (EAS)
2018-	Reviewer for Social Science & Medicine
2018-	Session Chair, Social Capital in the face of uncertainty, 117 <sup>th</sup> Annual Meeting
	AAA, San Jose, CA
2017	Co-lead coordinator, 10 <sup>th</sup> Annual California Workshop on evolutionary Social
	Science (C-WESS), San Luis Obispo, CA
2016	Co-lead coordinator, 9 <sup>th</sup> Annual California Workshop on evolutionary Social
	Science (C-WESS), San Luis Obispo, CA
2016	Co-chair, UCSB Anthropology Graduate Student Association
TEACHING EX	PERIENCE
2020	
Oct-Dec	Teaching Assistant, Department of Anthropology, UCSB
	Course: ANTH 5 Introduction to Biological Anthropology
Apr-Oct	Workshop Instructor, Broom Center for Demography, UCSB
•	R workshop Series
2019	
Mar-Jun	Instructor, Department of Anthropology, UCSB
	Course: ANTH 9 Research Design and Quantitative Methods
Jan-Mar	Teaching Assistant, Department of Anthropology, UCSB
	Course: ANTH 171 Evolutionary Medicine
2018	,
Sep-Dec	Teaching Assistant, Department of Anthropology, UCSB
	Course: ANTH 161 Human Growth and Development
<u>2017</u>	22 martin 202 manuar oroman and bottorphilone
Jun-Jul &	Teaching Assistant, Department of Anthropology, UCSB
Jan-Mar	Course: ANTH 7 Introduction to Biosocial Anthropology
Mar-May	Teaching Assistant, Department of Anthropology, UCSB
a. Iviay	- Casama, adalatana, a aparament ar / main aparaby, acab

Course: ANTH 5 Introduction to Biological Anthropology

<u>2016</u> **Teaching Assistant**, Department of Anthropology, UCSB Sep-Dec Course: ANTH 5 Introduction to Biological Anthropology

#### LANGUAGES & RELEVANT SKILLS

Spanish Written, comprehensive, and spoken fluency

Moseten/Tsimane Conversational fluency

Darija/Moroccan dialect

Arabic

Written, comprehensive, and spoken fluency
Written, comprehensive, and spoken fluency
Written, comprehensive, and spoken fluency

German Beginner

Statistics Proficient in R statistical programming

#### MEDIA COVERAGE

2020 The UCSB current: "The Status of Women"

2018 NPR goats &soda: "How to get people to see a doctor when they don't want to"

2018 The UCSB Current: "A Pound of Cure"

#### MEMBERSHIPS/AFFILIATIONS

**National Science Foundation** 

UCSB Broom Center for Demography American Anthropological Association Evolutionary Anthropology Society

American Association of Physical Anthropologists

Society for Applied Anthropology

European Human Behavior and Evolution Association

#### PROFESSIONAL REFERENCES

PhD advisor Michael Gurven, PhD

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Doctoral committee member David Lawson, PhD

Associate Professor, Anthropology Department, UCSB

Email: dlawson@anth.ucsb.edu

Doctoral committee member Hillard Kaplan, PhD

Professor, Economic Science Institute, Chapman University

Email: hkaplan@chapman.edu

## Michael D. Gurven

Integrative Anthropological Sciences Department of Anthropology University of California-Santa Barbara Santa Barbara, CA, 93106-3210 Phone (+1) 805-893-2202 E-mail: gurven@anth.ucsb.edu

## PROFESSIONAL EXPERIENCE

2008-present	Chair, Integrative Anthropological Sciences Unit Department of
	Anthropology, University of California-Santa Barbara
2011-present	Professor, Level 9
	Department of Anthropology, University of California-Santa Barbara
2007-2011	Associate Professor
	Department of Anthropology, University of California-Santa Barbara
2001-2007	Assistant Professor
	Department of Anthropology, University of California-Santa Barbara

## **EDUCATION**

1998-2000	University of New Mexico, Ph.D. (with distinction) in Anthropology
1996-1998	University of New Mexico, M.S. (with distinction) in Anthropology,
	Human Evolutionary Ecology Program
1992-1996	Pennsylvania State University, B.A. in Anthropology, B.A. in Mathematics
	University Scholars Program, Highest honors in Anthropology

## RECENT RESEARCH GRANTS

2018	National Institutes of Health/NIA Grant. R01. \$2,902,118. "Brain atrophy, cognitive impairment and Alzheimer's in a low CVD-risk population". (Joint PI: Gurven, Kaplan, Finch, Thomas)
2018	National Institutes of Health/NIA Grant. Administrative supplement \$411,654.
	(Joint PI: Gurven, Kaplan, Finch, Thomas)
2018	UCSB Academic Senate. \$7,500. "Prevalence and correlates of vertebral fracture
	among Bolivian forager-farmers".(PI: Gurven)
2017	National Institutes of Health/NIA Grant. Administrative supplement. \$135,924.
	(Joint PI: Gurven, Kaplan, Finch, Thomas)
2017	National Institutes of Health/NIA Grant. R01. \$3,773,865. "Brain atrophy, cognitive
	impairment and Alzheimer's in a low CVD-risk population". (Joint PI: Gurven,
	Kaplan, Finch, Thomas)
2015	National Institutes of Health/NIA Grant. R56. \$590,660. (Joint PI: Gurven, Kaplan)
2015	National Institutes of Health/NIA Grant. Administrative Supplement. \$108,360.
	(Joint PI: Gurven, Kaplan)

#### SELECTED PEER-REVIEWED PUBLICATIONS (since 2015)

#### N=219; CITATIONS: 20,439; H-INDEX: 67, Google Scholar

- 2020 Gurven, M., Lieberman, D. WEIRD bodies? Mismatch, medicine and the future of human health. *Evolution & Human Behavior* 40:330-340.
- 2020 Gurven, M. Greater humility can help expand evolutionary social science. *Evolution & Human Behavior* 40:456-457.
- 2020 Kraft, T., Trumble, B., Kaplan, H., Garcia, A., Stieglitz, J., Gurven, M. Multi-system physiological dysregulation and ageing in a subsistence population. *Philosophical Transactions of the Royal Society B* 375:20190610
- 2020 Koster, J., McElreath, R., Hill, K., Yu, D., Shepard, G., van Vliet, N., Gurven, M., Trumble, B., Bliege Bird, R., Bird, D., Codding, B., Coad, L., Pacheco-Cobos, L., Winterhalder, B., Lupo, K., Schmitt, D., Sillitoe, P., Franzen, M., Alvard, M., Venkataraman, V., Kraft, T., Endicott, K., Beckerman, S., Marks, S., Headland, T., Pangau-Adam, M., Siren, A., Kramer, K., Greaves, R., Reyes-Garcia, V., Gueze, M., Duda, R., Fernandez-Llamazares, A., Gallois, S., Napitupulu, L., Ellen, R., Ziker, J., Nielsen, M., Ready, E., Healy, C., Ross, C. Life history of human foraging: cross-cultural and individual variation. *Science Advances* 6: eaax9070.
- 2020 Gurven, M., Davison, R., Kraft, T. The optimal timing of teaching and learning across the life course. *Philosophical Transactions of the Royal Society B* 375: 20190500.
- 2020 Kaplan, H., Trumble, B., Stieglitz, J., Mendez, R., Gutierrez Cayuba, M., Maito Moye, L., Alami, S., Kraft, T., Quispe Gutierrez, R., Copajira Adrian, J., Thompson, R., Thomas, G., Michalik, D., Eid Rodriguez, D., Gurven, M. Voluntary collective isolation as a best response to COVID-19 for indigenous populations? A case study and protocol from the Bolivian Amazon. *Lancet* 395:1727-1734
- 2020 Wood, J.K., Saucier, G., Gurven, M., Goldberg, L. Ubiquitous personality-trait concepts in 13 diverse and isolated languages: a cluster-classification approach. *European Journal of Personality* 34:164-179.
- Alami, S., von Rueden, C., Seabright, E., Kraft, T.S., Blackwell, A.D., Stieglitz, J., Kaplan, H., Gurven, M. High social status is associated with child health among women, but not men, in a horticulturalist population. *Proceedings of the Royal Society B* 287: 20192783
- 2019 Smaldino, P., Lukaszewski, A., von Rueden, C., Gurven, M. Niche diversity can explain cultural differences in personality structure. *Nature Human Behaviour* doi:10.1038/s41562-019-0730-3.
- 2019 Stieglitz, J., Trumble, B., HORUS, Finch, C., Li, D., Budoff, M., Kaplan, H., Gurven, M. Computed tomography shows high fracture prevalence among physically active forager-horticulturalists with high fertility. *eLife* 8:e48607.
- 2019 von Rueden, C., Redhead, D., O'Gorman, R., Kaplan, H., Gurven, M. The dynamics of men's cooperation and social status in a small-scale society. *Proceedings of the Royal Society B* 286:20191367.
- Scelza, B.A., Prall, S.P., Blumenfield, T., Crittenden, A.N., Gurven, M., Kline, M., Koster, J., Kushnick, G., Mattison, S.M., Pillsworth, E., Shenk, M., Starkweather, K., Stieglitz, J., Sum, C., Yamaguchi, K., McElreath, R. Patterns of paternal investment predict cross-cultural variation in jealous response. *Nature Human Behaviour* 4:20-26.
  2019 Borgerhoff Mulder, M., Towner, M., Baldini, R., Beheim, B., Colleran, H., Gurven, M., Kramer, K., Mattison, S., Nolin, D., Scelza, B., Schniter, E., Sear, R., Shenk, M., Voland,

- E. Differences between sons and daughters in the intergenerational transmission of wealth. *Philosophical Transactions of the Royal Society B* 374
- 2019 Gurven, M., Davison, R. Periodic catastrophes over human evolutionary history are necessary to explain the forager population paradox. *PNAS* 201902406. doi:10.1073/pnas.1902406116
- 2019 Martin, M.A., Blackwell, A., Kaplan, H., Gurven, M. Differences in Tsimane children's growth outcomes and associated determinants as estimated by WHO standards vs. within-population references. PLoS ONE14(4): e0214965.
- 2019 Cristia, A., Dupoux, E., Gurven, M., Stieglitz, J. Child-directed speech is infrequent in a forager-farmer population: a time allocation study. Child Development90(3):759-
- 2018 Kraft, T., Stieglitz, J., Trumble, B., Martin, M., Kaplan, H., Gurven, M. Nutrition transition in two lowland Bolivian populations. American Journal of Clinical Nutrition108(6):1183-1195.
- 2018 Klein, L.D., Huang, J., Quinn, E.A., Martin, M., Breakey, A., Gurven, M., Kaplan, H., Valeggia, C., Jasienska, G., Scelza, B., Lebrilla, C., Hinde, K. Variation among populations in the immune protein composition of mother's milk reflects subsistence pattern. Evolution, Medicine & Public Health 2018(1): 230-245.
- 2018 Gurven, M. Broadening horizons: sample diversity and socioecological theory are essential to the future of psychological science. Proceedings of the National Academy of Sciences 115(45):11420-11427.
- 2018 Venkataraman, V.V., Yegian, A.K., Wallace, I.J., Holowka, N., Tacey, I., Gurven, M., Kraft, T.S. Locomotor constraints favor the evolution of the human pygmy phenotype in tropical rainforests. Proceedings of the Royal Society B 285:20181492.
- 2018 Jaeggi, A.V., Gurven, M. Food sharing models. In: International Encyclopedia of Anthropology. H. Callan (Ed.). doi:10.1002/9781118924396.wbiea1655
- 2018 Stieglitz, J., Trumble, B.C., Kaplan, H., Gurven, M. Marital violence and fertility in a relatively egalitarian high fertility population. Nature Human Behaviour2:565-572.
- 2018 Costa, M., Trumble, B., Kaplan, H., Gurven, M. Child nutritional status among births exceeding ideal family size in a high fertility population. Maternal and Child Nutrition14(4): e12625.
- 2018 Ross, C.T., Borgerhoff Mulder, M., Oh, S-Y., Bowles, S., Beheim, B., Bunce, J., Caudell, M., Clark, G., Colleran, H., Cortez, C., Draper, P., Greaves, R., Gurven, M., Headland, T., Headland, J., Hill, K., Hewlett, B., Kaplan, H., Koster, J., Kramer, K., Marlowe, F., McElreath, R., Nolin, D., Quinlan, M., Quinlan, R., Revilla-Minaya, C., Scelza, B., Schacht, R., Shenk, M., Uehara, R., Voland, E., Willführ, K., Winterhalder, B., Ziker, J. Greater wealth inequality, less polygyny: rethinking the polygyny threshold model. J. Royal Society Interface 20180035.
- von Rueden, C., Alami, S., Kaplan, H., Gurven, M. Sex differences in political leadership in an egalitarian society. Evolution and Human Behavior39(4):402-411.
- 2018 Trumble, B.C., Stieglitz, J., Jaeggi, A., Beheim, B., Schwartz, M., Seabright, E., Cummings, D., Kaplan, H., Gurven, M. Parental hormones are associated with crop loss and family sickness following catastrophic flooding in lowland Bolivia. Physiology and Behavior193A:101-107.
- 2018 Alami, S., Stieglitz, J., Kaplan, H., Gurven, M. Low perceived control is associated with treatment seeking among high mortality Bolivian forager-farmers. Social Science and Medicine 200:156-165.

- 2018 Schniter, E., Wilcox, N.T., Beheim, B.A., Kaplan, H.S., Gurven, M. Information transmission and the oral tradition: evidence of a late-life service nichefor Tsimane Amerindians. Evolution and Human Behavior 39:94-105.
- 2018 Pisor, A., Gurven, M. When to diversify, and with whom? Choosing partners among outgroup strangers in lowland Bolivia. Evolution and Human Behavior39(1):30-39.
- Gurven, M., Stieglitz, J., Trumble, B., Blackwell, A.D., Beheim, B., Hooper, P., Kaplan,
   H. The Tsimane Health and Life History Project: Integrating anthropology and biomedicine.
   Evolutionary Anthropology 26:54-73.
- 2017 Gurven, M., Fuerstenberg, E., Trumble, B., Stieglitz, J., Davis, H., Kaplan, H. Cognitive performance across the life course among Bolivian forager-farmers with limited schooling. Developmental Psychology 53(1):160-176.
- 2017 Kaplan, H., Thompson, R.C., Trumble, B.C., Wann, L.S., Allam, A.H., Beheim, B., Frohlich, B., Sutherland, M.L., Sutherland, J.D., Stieglitz, J., Eid Rodriguez, D., Michalik, D.E., Rowan, C.J., Lombardi, G.P., Bedi, R., Garcia, A.R., Min, J.K., Narula, J., Finch, C.E., Gurven, M., Thomas, G.S. Coronary atherosclerosis in indigenous South American Tsimane: a cross-sectional cohort study. Lancet 389(10080):1730-1739.
- 2016 Pisor, A., Gurven, M. Risk buffering and resource access shape valuation of out-group and in-group strangers. *Nature Scientific Reports* 6:30435.
- Jaeggi, A., Hooper, P., Beheim, B.†, Kaplan, H., Gurven, M. Reciprocal exchange patterned by market forces helps explain cooperation in a small-scale society. *Current Biology* 26:1-8
- Jaeggi, A.V.†, Boose, K.J., White, F.J., Gurven, M. Obstacles and catalysts of cooperation in humans, bonobos, and chimpanzees: behavioural reaction norms can help explain variation in sex roles, inequality, war and peace. *Behaviour*. doi:10.1163/1568539X-00003347
- 2015 Pisor, A., Gurven, M. Corruption and the Other(s): Scope of Superordinate Identity Matters for Corruption Permissibility. *PLoS ONE* 10(12): e0144542.
- 2015 Gurven, M., Jaeggi, A.†, von Rueden, C., Hooper, P., Kaplan, H. Does Market Integration Buffer Risk, Erode Traditional Sharing Practices and Increase Inequality? A Test among Bolivian Forager-Farmers. *Human Ecology* 43(4):515-530.

#### RECENT FIELD RESEARCH

Michael Gurven

2019		
	Dec	Epidemiological surveys among Turkana pastoralists, Kenya
2018		
	June	CT campaign with Moseten and Tsimane, Bolivia; scouting Sirionó village, Ibiato
2017		
	Nov	CT campaign with Moseten, Bolivia
	Aug	Scouting study villages, Todgha valley, Morocco
	Feb	Assist with continuation of round 16 of data collection, team supervision and training, Bolivia
2015		
	Sept	Assist with cardiology CT scanning campaign, team supervision and training, scouting Moseten field sites, Bolivia

#### UNIVERSITY SERVICE

2017	Chair, Anthropology Development Committee
2017	Member, Faculty Legislature
2016-pres	Member, ISBER Advisory Committee
2017-pres	Member, Privileges and Tenure Committee
2016	Chair, Search Committee for IAS Biomedical Anthropology position
2015	Chair, Search Committee for IAS Ecological Anthropology position
2015	Chair, Anthropology Undergraduate Committee (one quarter)
2015-2017	Member, ISBER Grant Review Panel
2015, 2020	Chair, Plous Award Selection Committee
2008-pres.	Chair, Integrative Anthropological Sciences (IAS) Program
2011-2018	Director, Human Biodemography Laboratory
2011-pres.	Member, Broom Demography Center Advisory Committee
2011-pres.	Member, Broom Demography Seminar Committee

## SELECTED PROFESSIONAL AND OTHER SERVICE

2018-2020	Member, Wenner Gren Grant Review Panel, Biological Anthropology
2017	Participant, NSF Workshop for Diversifying the Social Sciences; Arlingon, VA
2017-pres	Member, UC Global Health Steering Committee
2014	Helped organize Tsimane Flood Relief Fund (raised \$22,600) to purchase shovels,
	machetes and axes, mosquito nets, and food
2006-pres.	Facilitator of primary and advanced health care for ~16,000 Tsimane and ~3,000
_	Moseten Amerindians

## SELECTED PRESENTATIONS

2019	Gurven, M. Limits of plasticity: evolutionary perspectives on mismatch, aging and chronic disease. Harvard University. Department of Human Evolutionary Biology. March 4, 2019.
2019	Gurven, M. Niche diversity helps explain cross-cultural variation in personality structure. World Personality Conference. Hanoi, Vietnam. April 2-6, 2019.
2018	Gurven, M., Alami, S., Kaplan, H., Stieglitz, J. Perceptions of control over health, not schooling, are associated with lower treatment uptake in a high mortality population. International Society for Evolution and Medicine Conference. Park City, UT.
2016	Gurven, M. Is cardiovascular disease inevitable? Insights from the Bolivian Amazon. British Association for Biological Anthropology and Osteoarchaeology Meeting. Canterbury, UK. Sept. 9-11, 2016.
2016	Gurven, M. High maintenance costs due to infection among neotropical forager-farmers. European Human Behaviour and Evolution Association Meeting. London School of Hygiene and Tropical Medicine. London, UK. April 5-8, 2016.
2015	Gurven, M., Trumble, B., Costa, M., Beheim, B., Kaplan, H. Costs of reproduction in a high fertility and mortality population. International Society for Evolution, Medicine and Public Health Inaugural Meeting. Tempe, AZ. March 19-21, 2015.