



Universiteit
Leiden
The Netherlands

Bargaining and interdependence: common parent-offspring conflict resolution strategies among Chon Chuuk and their implications for suicidal behavior

Syme, K.L.; Hagen, E.H.

Citation

Syme, K. L., & Hagen, E. H. (2023). Bargaining and interdependence: common parent-offspring conflict resolution strategies among Chon Chuuk and their implications for suicidal behavior. *American Anthropologist*, 125(2), 262-282. doi:10.1111/aman.13821

Version: Not Applicable (or Unknown)

License: [Leiden University Non-exclusive license](#)

Downloaded from: <https://hdl.handle.net/1887/4252546>

Note: To cite this publication please use the final published version (if applicable).

Bargaining and interdependence: Common parent-offspring conflict resolution strategies among Chon Chuuk and their implications for suicidal behavior

Kristen L. Syme^{1,2,3}  | Edward H. Hagen¹

¹Department of Anthropology, Washington State University, Washington, Vancouver, USA

²Department of Experimental and Applied Psychology, Vrije Universiteit Amsterdam, Amsterdam, the Netherlands

³Institute of Security and Global Affairs, Leiden University, The Hague, Netherlands

Correspondence

Kristen L. Syme,
Institute of Security and Global Affairs, Leiden University, The Hague, the Netherlands.

Email: klsyme@gmail.com

Abstract

The anthropology of Pacific cultures spotlights social conflict as a proximate cause of suicide. Ethnographic accounts suggest that suicidal behaviors are high-cost conflict-resolution strategies. We investigate parent-child conflicts and the strategies adolescents and young adults use to resolve them, using concepts from human behavioral ecology to interpret results from in-depth, semi-structured interviews with 58 Chon Chuuk participants. One strategy for resolving conflicts in one's favor is to impose costs through the threat or use of violence, but an alternative strategy for those who lack social power or formidability involves social withdrawal, or withholding cooperation, until the interdependent parties reach an agreement. The Chuukese term *amwunumwun* refers to a spectrum of social withdrawal, including avoidance, running away, and suicide. Strategies involving withholding cooperation were the most reported child behavioral response. As predicted, low-cost strategies, such as negotiation, were associated with nonsevere conflicts (e.g., playing with friends), whereas high-cost withholding cooperation, such as running away, was associated with severe conflicts (e.g., labor exploitation). Importantly, withholding cooperation was often, but not always, associated with outcomes favoring the child. We propose that withholding cooperation is a culturally ubiquitous strategy, ranging from avoidance to suicidality, used by the powerless to achieve more favorable outcomes. [*adolescence, parent-offspring conflict, suicide, Micronesia*]

Resumen

La antropología de las culturas del Pacífico ilumina el conflicto social como una causa próxima del suicidio. Narrativas etnográficas sugieren que los comportamientos suicidas son estrategias de resolución de conflictos de alto costo. Investigamos los conflictos padres-hijos y las estrategias que adolescentes y adultos jóvenes utilizan para resolverlos, usando conceptos de la ecología de la conducta humana para interpretar los resultados de entrevistas en profundidad, semiestructuradas con 58

This is an open access article under the terms of the [Creative Commons Attribution](https://creativecommons.org/licenses/by/4.0/) License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

© 2023 The Authors. *American Anthropologist* published by Wiley Periodicals LLC on behalf of American Anthropological Association.

participantes de Chon Chuuk. Una estrategia para resolver conflictos en favor de uno es imponer costos a través de la amenaza o el uso de violencia, pero una estrategia alternativa para aquellos que carecen de poder social o magnificencia envuelve el aislamiento social o el negarse a cooperar hasta que las partes interdependientes logran un acuerdo. El término chuukense *amwunmwun* se refiere a un espectro del aislamiento social, que incluye la evasión, el escape y el suicidio. Las estrategias que envuelven el negarse a cooperar fueron la respuesta conductual infantil más reportada. Como predicho, estrategias de bajo costo, tales como negociación, fueron asociadas con conflictos no severos (p. ej., jugar con amigos), mientras que el negarse a cooperar de alto costo, como escapar, estuvo asociada con conflictos severos (p. ej., explotación laboral). Significativamente, el negarse a cooperar fue a menudo, pero no siempre, asociado con resultados que favorecían al menor. Proponemos que el negarse a cooperar es una estrategia culturalmente ubicua que varía desde la evasión hasta el intento de suicidio, utilizada por el que no tiene poder para obtener resultados más favorables. [adolescencia, conflicto padres-hijos, suicidio, Micronesia]

INTRODUCTION

Conflicts between parents and children are not unique to any culture, but among Chon Chuuk, conflicts between younger and elder kinsmen, usually children and parents, are the leading precipitant of suicide death (Hezel, 1984, 1987, 1989). This article draws from in-depth, semi-structured interviews with 58 Chon Chuuk informants living or visiting family on the United States mainland about conflicts with their parents during adolescence and young adulthood to investigate the strategies adolescent and young adult children use to resolve these conflicts. Chon Chuuk (“The People of Chuuk”), also called “Chuukese” (or in older literature, “Trukese”), are an Austronesian-speaking population of approximately 50,000 people native to the Caroline Islands in Chuuk State, Federated States of Micronesia (FSM). In recent decades, Chon Chuuk have become a transnational population, as many seek job and educational opportunities in the United States.

Kaylyn, a 16-year-old Chuukese girl who was living in Hawaii with her family at the time of the following events¹ reported that the conflict with her parents began when she started coming home late after school. Her parents feared that she was having sex with a new boyfriend and would become pregnant before graduating. When Kaylyn had not returned home one night, her mother discovered that Kaylyn was with her boyfriend. Kaylyn’s mother began texting her to come home immediately. Embarrassed and afraid of a confrontation, Kaylyn did not return home for several days. Because Chon Chuuk often interpret running away from home as a suicide threat, her parents, fearing the worst, called the police.

Running away—as Kaylyn did—is one behavior on a spectrum of behaviors described by the Chuukese term *amwunmwun*. Ranging from avoidance to suicide threats and attempts, *amwunmwun* behaviors can be used by Chon Chuuk youth in conflicts with parents and elder kinsmen. As a strategy for resolving the conflict she and her parents had over her having a boyfriend, *amwunmwun*, which we frame as “bargaining,” proved to be effective.

When Kaylyn finally returned home, she found her extended family gathered there awaiting her return. She was forced to apologize to her parents and to each member of her family, one by one. However, Kaylyn’s parents stopped scolding her for coming home late and permitted her to continue seeing her boyfriend. Although she was relatively powerless, Kaylyn was able to get what she wanted by escalating the conflict to one where her parents feared for their child’s life. In Kaylyn’s words, “They let me do what I want.”

This story is one of many we analyzed to investigate relationships between parent-child conflict, conflict-resolution strategies, and suicidality (threats, attempts, and deaths). We propose that withholding cooperation is a culturally ubiquitous bargaining strategy that encompasses a spectrum of behaviors ranging from avoidance to suicidality used by the powerless to achieve favorable outcomes in conflicts with powerful individuals with whom they are interdependent and that in exceptionally severe conflicts can lead to suicidality.

The Problem of Youth Suicide among Chon Chuuk and Other Populations

In the second half of the twentieth century, Chon Chuuk had one of the world’s highest youth suicide rates (Ran, 2007). During the peak of the suicide epidemic, in the 1980s, there were almost 40 suicides per 100,000 people in Chuuk State, and over half of all suicides were males between the ages of 15 and 24 (Hezel, 1989). By comparison, there were about 11 suicides per 100,000 people in the United States during that period (Lindsay Lee and Ortiz-Ospina, 2019). Suicide rates and their time trends in Chuuk are comparable to those observed across Oceania (Lowe, 2019a; Ran, 2007).

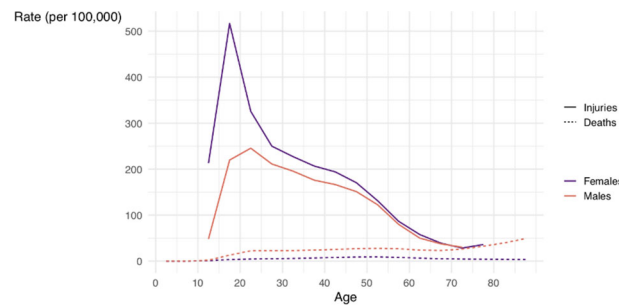


FIGURE 1 Rates of suicide attempts (injuries, based on hospital reports) and completions (deaths) in the United States by age and sex. (Data from the CDC WISQARS (2001–2019): <https://www.cdc.gov/injury/wisqars/index.html>) [This figure appears in color in the online issue]

Social conflicts among Indigenous youth, high rates of suicide, and psychosocial stress are linked to the effects of colonization and modernizing social change in the Pacific, North America, Australia, and elsewhere (Dinges and Duong-Tran, 1992; Harlow, Bohanna, and Clough, 2014; Wexler, 2009). However, there are ongoing theoretical debates about the specific psychosocial mechanisms at play. Explanations specific to Indigenous youth in the Pacific context include the loss of traditional men's roles (Rubinstein, 1992), the nuclearization of the family and centralization of parental authority (Hezel, 1987), blocked opportunity (e.g., thwarted social mobility) (Macpherson and Macpherson, 1987), socialization ambiguity due to culture change (i.e., inconsistent expectations of proper social behavior) (McDade and Worthman, 2004), and lifestyle incongruence (i.e., inconsistency between material lifestyle and socioeconomic status) (Lowe, 2019b; McDade, 2001).

Suicidal behavior among adolescents and young adults, however, is not unique to Chuuk, Pacific cultures, or other colonized populations. In the United States, for example, there is a dramatic spike in nonlethal suicidal behavior in adolescents and young adults (see Figure 1).

Durkheim's ([1897] 1951) study of suicide, a founding text in sociology, had a profound influence on anthropology and other social sciences. More than a century later, though, the problem of suicide is far from solved. Anthropological studies of suicide, many conducted in the early twentieth century in small-scale societies, in our view provide five key insights into the social roots of suicidal behavior in Chuuk and beyond.

First, suicidal behavior is best understood not as a property of a society as a whole, contra Durkheim, but as an individual response to (mainly) interpersonal conflicts. Firth (1961, 131), for example, in a study of suicidality in Tikopia, remarked that "Durkheim misses an important point: that some conflict of obligations is usually involved... Out of such situations of conflict the suicidal intent and much of the drama of the event arise."

Second, suicidal behavior is often a means to punish or pressure others in disputes. Malinowski (1916, 360) noted that suicide "is performed as an act of justice, not upon oneself, but upon some person of near kindred who has caused offence." Billaud (2012) reported witnessing back-to-back suicide attempts of two Afghani sisters in conflict with their parents over their participation in athletics and musical performance. Their parents feared that the girls' activities would harm the reputation of the family and, in turn, the father's ability to maintain a job. After swallowing a cocktail of tablets, one of the sisters stated, "They have to understand ... that we are not bad girls or bad Muslims. If they cannot get this, then there is no point for me to live either" (276).

Third, victims are relatively powerless. Counts (1980, 346), in a study of suicide among the Kaliai of Papua New Guinea, observed, "In this egalitarian society in which power is not equally distributed, and where women are not accorded the same rights as men, suicide provides a realistic alternative for those who are shamed, abused, and powerless. It permits them to shift the burden of shame from themselves to their kin and tormentors."

Fourth, victims often experience improved social outcomes if they survive. Firth (1961, 136–37), recounting instances of suicide voyages among the Tikopia, reported that "since a returned adventurer becomes the centre of attention, a certain premium is attached to attempting a dramatic sea flight of this kind. The stakes are high: they involve a real gamble with death. But if a man can go out, stay away for a while, and then return, he has a wind-fall gain in immediate social status."

Fifth, suicidal behavior is the extreme end of a spectrum of strategic responses to a spectrum of conflicts. Fei (1946, 49) described the courses of action a woman in a rural Chinese peasant village might take if her in-laws prevented her from obtaining a divorce: "The positive action open to her is desertion of the home. She may run away to the town, where she can find a job to maintain herself until a compromise becomes possible. If ... there is no hope of reconciliation, she may take a more desperate course: committing suicide." These five characteristics of suicidal behavior have widespread support in the ethnographic record (Syme, Garfield, and Hagen, 2016).

Fitness Interdependence and Conflict

In this article, we use a combination of concepts and methods from human behavioral ecology (HBE) and cultural anthropology to investigate social conflicts involving adolescents and young adults and how common conflict-resolution strategies, such as social withdrawal, might escalate to much

rarer suicidal behavior. We propose that social withdrawal and the five characteristics of suicidal behavior described above are both explained by a critical feature of human sociality: *positive fitness interdependence*. Humans are unique among primates in being highly interdependent with others for survival and reproduction (Aktipis et al., 2018; Balliet, Tybur, and Van Lange, 2017; Roberts, 2005; Tomasello et al., 2012). That is, over human evolutionary history, the survival and reproductive output of one individual (i.e., biological fitness) depended on the survival and reproduction of others. Relative to nonhuman primates, humans exhibit a high degree of cooperation and interdependence in the fitness-relevant domains of alloparenting (Hrdy, 2011; Meehan, 2009), collaborative subsistence (Kraft et al., 2021; Tomasello et al., 2012), social learning (Garfield, Garfield, and Hewlett, 2016; Henrich and McElreath, 2003), and risk-pooling (Cashdan, 1985). A high level of interdependence creates the risk of exploitation—that some individuals contribute substantially to the fitness of others without gaining fitness benefits themselves (Hagen, 2002, 2003). Husbands could seek other partners while their wives raise their offspring, for example (Hagen, 1999), or arranged marriages could benefit the parents but not the betrothed daughters or sons (Apostolou, 2007, 2013). Some individuals could contribute substantially to family subsistence but receive inadequate portions of food or other resources in return.

Parent-Offspring Interdependence and Conflict

There are several derived features of human life history, including a long period of juvenile dependency (Kaplan et al., 2000), cooperative child-rearing (Kramer, 2009, 2014), and lifelong cooperative relationships between parents and children, that increase fitness interdependence but also increase the scope for parent-offspring conflict (for a review of the ethnographic evidence on childhood, see Lancy, 2022). Humans typically form long-term pair bonds and jointly raise offspring. Hence, the fitness of mothers and fathers is highly interdependent (Gurven et al., 2009; Hagen, 1999). In HBE, parents and offspring are conceptualized as cooperating to ensure the offspring's successful development and survival. Humans also engage in substantial alloparenting beyond biparental care: grandparents, aunts/uncles, siblings, and other kin usually help the mother care for young offspring (Kramer, 2009, 2010, 2014; Kramer and Otárola-Castillo, 2015), which also creates fitness interdependence. Children, for example, care for younger siblings (Kramer, 2014; Turke, 1988; Weisner et al., 1977), which has been shown to have a positive impact on child health and survivorship (Helfrecht and Meehan, 2016; Sear and Mace, 2008). Children in some ecological contexts even begin contributing resources to the household through foraging as early as ages five to seven (Bird and Bird, 2005; Tucker and Young, 2005).

Despite high levels of positive fitness interdependence, there is also scope for considerable conflict between parents and children. In sexually reproducing species, offspring inherit half their genes from each parent. Each offspring, therefore, shares 100 percent of its genes with itself, half with its full siblings, and one-quarter with its half-siblings. Hence, the distribution of resources and other investment that maximizes a parent's biological fitness² does not necessarily maximize the fitness of each offspring, and vice versa, a situation known as parent-offspring conflict (Trivers, 1974). Parent-offspring conflict in humans can entail conflicts over the time and resources parents allocate to offspring, as well as the time and resources offspring allocate to the family, for example, as "helpers at the nest" (Turke, 1988).

Conflicts between parents and children can occur during any stage of human development, so long as they maintain a cooperative relationship. Human parents invest in offspring into adolescence and adulthood, and this can affect adult status and reproductive outcomes (Scelza, 2010; Shenk and Scelza, 2012), including arranged marriages (Agey et al., 2021; Walker et al., 2011) and grandparental assistance in childcare (Hawkes et al., 1998; Hrdy, 2011). Parental influence on children's marriages is widespread across cultures and can be a source of disagreement because marriages that are ideal for parents might be less than ideal for their children (Apostolou, 2007, 2013; Chagnon et al., 2017; Van den Berg et al., 2013).

Overt behavioral conflict involves both conflicts of interest (i.e., when a benefit to one party comes at a cost to another) and differences in knowledge. Parents often have information about the culture and environment that children have not yet acquired, creating a knowledge gap. When knowledge gaps and conflicts of interest are present in a situation, then parents and children have reason to mistrust verbal communication; therefore, both parties are predicted to use a combination of verbal and nonverbal strategies to influence outcomes.

Interdependence, Power, and Conflict in the Chuukese Family in the Transition to Adulthood

Chuukese parents, like other parents in Micronesia, direct children to participate in tasks and chores, including childcare, that contribute to the well-being of the family (Fischer, 1950; Gladwin and Sarason, 1953; Lowe, 2003; Rubinstein, 1995; Spencer, 2019; Weisner and Lowe, 2005). Parents, in turn, are expected to provide for the material needs of their child as an expression of love (*ttong*) (Lowe, 2002). Nevertheless, this division of labor might sometimes favor parents over children. Age is a primary determinant of status in the Chuukese family. All elder kin, including siblings, are a class of highly respected persons. As such, children are expected to show respect (*sufen*) and deference to their parents. Lowe (2003, 193) observed,

the reciprocation of respect in these hierarchical relationships is often unbalanced, with the lower status person expected to comply on an almost everyday basis, while the higher status person reciprocates with only occasional, though usually more valuable, forms of support.

Lowe's study, which examined 40 cases of interpersonal conflicts in Chon Chuuk adolescents, found that conflicts in the family often involved a family member refusing to provide for the material needs of its members and incongruence between youth status-building activities and the needs of the family, among others.

A lower-status person, such as a child, is discouraged from expressing disagreement or anger toward the higher-status person, such as a parent. Children, however, are not passive in their relationship with their parents but demonstrate their agency in myriad ways (Korbin, 2003). These points raise the question: How, and under what conditions, do children, and the powerless more generally, resolve conflicts in their favor?

Conflict-Resolution Strategies

When conflicts arise in highly interdependent relationships, exploited individuals can potentially improve their situations by threatening to withhold their essential contributions until their social partners agree to more equitable terms, a strategy of delay or resistance that economists term "bargaining." Labor strikes and collective bargaining are important examples (Kennan and Wilson, 1993). Striking workers withhold their labor, imposing a cost on the employer but also on the workers, who forego their salaries. The willingness of workers to forego their (small) salaries is a credible signal that salaries are too low, whereas employers' willingness to endure a strike, thereby foregoing profits, is a credible signal that they cannot afford to pay more. Assuming no outside influence from third parties to tip the scales of power, such as governments, strikes resolve after a period of delay that credibly reveals both parties' valuations, thus enabling an agreement on mutually beneficial terms (Kennan and Wilson, 1993).

Because parents depend on the assistance of younger and older children for childcare and other household labor (Kramer, 2009, 2014; Turke, 1988), children might be able to resolve conflicts in their favor by withholding their cooperation until other parties make concessions.

Amwunmwun as Bargaining

Rather than resorting to direct confrontation in emotionally charged situations, Chon Chuuk often use a strategy of social withdrawal termed *amwunmwun* to manifest anger and release negative emotions (Hezel, 1987). *Amwunmwun* is a spectrum of behavioral strategies, including refusing to eat or speak, running away, and, in the most extreme cases, suicidal threats, attempts, and death (Hezel, 1984, 1987). *Mwun* (or *mwún*) is a "feeling of being overruled or rejected, of unrequited love; hurt at being abandoned; parents experience *mwún* when their children run away, and a husband feels it when his wife leaves him" (Käser, 2016, 153). *Amwunmwun* is an act that triggers *mwún* and thus is a way to evoke a specific type of remorse (Käser, 2016). *Amwunmwun* is not principally an act of revenge, but it can have this effect (Hezel, 1987).

The social withdrawal in *amwunmwun*, like a labor strike, can be conceptualized as withholding cooperation, because by withdrawing, one is not around to assist in tasks, big or small, or even to share information through chitchat or to keep someone company. The use of social withdrawal as a response to conflict is not unique to Chuuk. Samoan youths who are dissatisfied with the outcome of a conflict can express their discontent by becoming *musu*, which, like *amwunmwun*, is a state of social withdrawal that motivates the antagonist to seek a resolution (Macpherson and Macpherson, 1987). Hollan described a similar state of sullenness and withdrawal among Indonesian Toraja that can motivate others to make amends for perceived wrongs (Hollan, 1990). Although *amwunmwun* does not directly translate into English, there are terms, though pejorative, that correspond to many of the states and behaviors along the *amwunmwun* gamut, such as "moodiness," "sulking," and "pouting."

By running away, Kaylyn was withholding assistance from her family and raised concerns about her safety. Upon returning home, her family then permitted her to see her boyfriend. Comparable forms of social withdrawal or withholding cooperation are documented as means of social influence in diverse societies, including Navajo (Kluckhohn, 1944), Burmese (Spiro, 1977), and Tukano (Goldman, 1963). However, running away in Chuuk also evokes concerns that the individual will attempt suicide.

Suicidality as Bargaining

Suicidal behavior, which numerous ethnographic accounts link to conflict and powerlessness (e.g., Brown, 1986; Counts, 1980; Firth, 1961; Malinowski, 1916; Syme, Garfield, and Hagen, 2016), threatens to permanently remove oneself as a source of benefits to others and thus can serve as an extreme form of bargaining to resolve conflicts in interdependent relationships (see also Manning, 2012). Much as workers can only afford to go on strike if their salaries are too low, individuals can only afford suicidal behavior if they perceive that their fitness prospects are grim. As Brown (1986, 321) described among Aguaruna (Jivaroan people of the Peruvian Amazon), a woman's suicide would raise suspicions that her husband was abusing her, angering her kin and thus discouraging abuse; it would also deprive her husband and other family members of her services:

More important than the possibility that a woman's suicide will destroy her husband's relations with his affines or compromise his personal safety is the certainty that it will deprive him of her services, which are essential to the maintenance of a household in which

he can offer hospitality to allies.... Likewise, an unmarried woman who kills herself after an altercation with her father or brothers denies them both her labour and the opportunity to create strategic alliances through her marriage.

Aguaruna women are well aware of the hardships they can inflict on men through suicide, and they often use threats of suicide as leverage in domestic confrontations. When, for example, a woman decides that she wants to marry a man who is not to her father's liking, she may threaten to kill herself if her wishes are not heeded. A man contemplating a polygynous marriage must assess the likelihood that his first wife will kill herself in return; the possibility of her suicide serves as a powerful deterrent. If he establishes a plural marriage, his senior wife uses the threat of suicide, either implicit or explicit, to ensure that he gives her equal attention.

Thus, in putting one's life at a genuine risk of death, individuals can compel interdependent social partners to change their behaviors in ways that improve the suicidal individual's circumstances (Gaffney et al., 2022; Syme, Garfield, and Hagen, 2016; Syme and Hagen, 2019b). The phenomenon of interest, we argue, is therefore not suicide deaths but the spectrum of costly behaviors, including refusing food (e.g., Placek, under review), running away, and suicidal threats and attempts, which are far more common (Figure 1). From this perspective, suicide researchers err on focusing on suicide deaths, which in our account are the relatively rare but inevitable consequence of risky suicide attempts (see also Firth, 1961).

Hezel (1984, 1987) proposed that suicidality was an extreme form of *amwunumwun*. For parents, children represent their biological fitness: if their children do not survive and reproduce, parents' fitness declines. If suicidal individuals survive, they often succeed in altering social arrangements in their favor. We have therefore framed suicidality as a bargaining strategy (Syme, Garfield, and Hagen, 2016; Syme and Hagen, 2019b).

Suicidality motivated by protest, revenge, and appeal is reported in diverse regions, including the Middle East (Billaud, 2012), Papua New Guinea (Counts, 1980), the Americas (Brown, 1986), South Africa (Niehaus, 2012), and East Asia (Lee and Kleinman, 2003), among others (see also Syme, Garfield, and Hagen, 2016). Shostak (1981), for instance, described how a young !Kung woman can use suicide threats to mobilize social support to escape an unhappy marriage, though there were no known cases of suicide death in living memory. A !Kung woman might also run away at dusk to spend the night in the bush to communicate "the strength of her feelings" (134). Chon Chuuk similarly relate running away to suicidality, interpreting it as a suicide threat (Fischer, 1950). As we will show, running away often does include putting oneself in risky situations, although to a lesser degree than most suicidal behaviors.

Critical to understanding the connection between family conflicts, which are extremely common, and youth suicidal behaviors, which are rare, is understanding the range of strategies that adolescents and young adults are likely to use to resolve conflicts. If suicidality is the extreme end of a spectrum of "strategic"³ responses to conflict, then understanding suicidality requires investigating not only the social processes leading to suicide but also the spectrum of strategies that vary in the degree to which they withhold cooperation deployed against the spectrum of conflicts that vary in severity.

Study Aims

Studies of suicide deaths in Chuuk and other Pacific Island populations are relatively straightforward because such deaths are recorded over many years and may be widely known in these small communities (e.g., Hezel, 1984, 1987). Studying nonlethal suicidal behavior (e.g., attempts) is much more difficult, however, because such behavior, though more common than suicide deaths (Figure 1), is still relatively infrequent and might only be known to a few close family members or friends. These facts, combined with the stigma of suicidal behaviors, mean that individuals are reluctant to discuss their own or family members' suicide attempts. We therefore focus on common nonsuicidal responses to conflicts with parents during adolescence and early adulthood—that is, from puberty (or just before) to emerging adulthood. These behavioral responses appear to comprise a spectrum of behaviors that, in the extreme, might lead to suicide.

Adolescence and early adulthood are of interest to this investigation for two reasons. First, these stages are associated with heightened risk for suicidal behaviors, substance abuse, and physical aggression among Pacific youth (Carucci, 2019; Hezel, 1987, 1989; Lowe, 2019a, 2019b; Marshall, 1979; Rubinstein, 1992; Weisner and Lowe, 2005), as well as in the United States and other populations (Figure 1). Second, Chon Chuuk youths, like youths across many societies, lack authority and power relative to older adults with whom they inevitably experience conflicts, ranging from trivial to severe. Historically, youth Chon Chuuk were not expected to be as economically productive as adults, and induction into adult roles was gradual (Gladwin and Sarason, 1953). Goodenough (1949), and later Marshall (1979), reported that many men's skills and esoteric lore, sources of status and prestige, were not learned until middle age, and young men were often dismissed as too preoccupied with alcohol and women to hold authority. Although previous studies have identified the sources of parent-child conflicts (Lowe, 2003), including those that precede suicide (Hezel, 1984, 1987), none have systematically investigated a broad spectrum of conflicts and associated conflict-resolution strategies.

The Study Population

Since the signing of the Compact of Free Association (COFA) in 1986 between the United States and three Pacific Island nations, including the FSM, Chon Chuuk and other FSM citizens⁴ have become a transnational population, with about 50,000 of the population migrating to the United States by 2012, roughly half to Guam and Hawaii, and the other half to the US mainland (Hezel, 2013). There are now about 270,000 individuals of Micronesian descent living in the United States (US Census Bureau, 2019), with a growing body of literature on their experiences (Collet and Berman, 2021; Drinkall et al., 2019; Heine, 2002, 2004; Kamstra, Molina, and Halliday, 2021; Raatiar, 2017; Smith, 2014; Spencer, 2012, 2019; Talmy, 2004, 2008, 2009, 2010).

All study participants were Chon Chuuk located in the Portland, Oregon, metropolitan area. Most Chon Chuuk living on the US mainland are located around Portland, Oregon, and Kansas City, Missouri (Hezel and Levin, 2012). There are approximately 6,000–8,000 Micronesians living in Oregon and 15,000–22,000 living in neighboring Washington (US Census Bureau, 2019). Migration patterns trace kin networks, with males typically moving first to find employment and sending for spouses and kin once settled. Parents often send their adolescent children to the United States for high school to get a better education; the children stay with relatives, who act as parental guardians. Movement is thus not unidirectional, and there is a steady flow of people, cash, goods, and information via these transnational family networks (Smith, 2014). Although job opportunities are more numerous in the United States compared to Chuuk, many islanders are limited to low-income wage work, such as caregiving, low-level airport jobs, and waste picking at recycling facilities. Due to economic hardship, it is not unusual for an extended family of six people to cohabitate in a two-bedroom apartment. Nevertheless, many Chon Chuuk send remittances to family members, evidencing the strength of family ties.

Chuukese culture displays continuity and change across time and space. Chon Chuuk were introduced to Christianity in the mid-nineteenth century, and today nearly all Chon Chuuk identify as Christian. In the mid-twentieth century, economic changes and increasing reliance on cash altered men's social roles, perhaps more than women's roles, in Chuuk and elsewhere in the Pacific (Hezel, 1987; Nero et al., 2000; Rubinstein, 1992). The mass migration of Micronesians to the United States since the signing of the COFA agreement is another source of culture change, but the youth generation coming of age on American soil is no less Chuukese than the generation that preceded them. Parents living on the US mainland are determined to impart Chuukese values to their children. Young Chuukese transitioning into adulthood are, therefore, confronted with values, norms, attitudes, and roles that conflict with those of their parents' generation, whether they grow up in the United States or in Chuuk, just like their parents and grandparents before them (Hezel, 1989). Although adolescents living in the United States are more directly exposed to outside cultural influences, the outmigration is so substantial that many Chon Chuuk are embedded in transnational kin networks (Smith, 2014), and in the age of social media, geographical remoteness does not preclude connectedness. The present generation of Chon Chuuk youth continue to negotiate their values, norms, attitudes, and roles in the context of rapid social change, and the aspects of Chuukese and American cultures that are accepted or rejected varies from person to person. One adolescent female interviewee who was raised in the United States stated, "I feel more Chuukese than American. I feel like we're the same [as Chuukese in Chuuk]. We eat everything the same. We do everything the same." But, she goes on, "Some people grow up here, and they're 'whitewashed.'" Nevertheless, there are differences in the dynamics of family relationships in the US context due to, for instance, competing obligations in work, education, and family life.

The Chuukese Family

Membership in the clan (*eterneges*) is based on matrilineal descent and was the basis of social organization and resource management, although some property rights were also passed through the patriline (Goodenough, 1951). The extended family includes father's kin and can extend to fifth cousins. Kinship terminology adheres to the Hawaiian system.⁵

Child adoption is a widespread practice across Micronesia and often occurs between kin (Betzig, 1988; Goodenough, 1970; Silk, 1980). Chuukese adoption (*mwúúmú*) serves a variety of social, political, and economic purposes (see Rauchholz, 2012). Guardianships are also common, but, unlike adoption, parents do not relinquish their authority (*nemeni*) (Goodenough, 1970). Based on observations made during the data-collection period, many parents send adolescent children to the United States to stay with extended kin who can act as their legal guardians while they complete their education.

METHODS

KLS recruited adolescent and adult Chon Chuuk participants (ages 15–62) from churches and high schools around Portland using snowball sampling. She then conducted retrospective interviews on the causes and outcomes of parent-child conflict during their adolescence and young adulthood (which KLS defined for participants as being between the ages of about 12 years old to age at marriage, or before the age of 25). All but two participants resided full-time on the US mainland at the time of interview. All interviews were conducted in English. The majority of interviews were

TABLE 1A Behavioral strategies and operationalizations. All variables were coded as follows. 1: Evidence for; 0: No evidence

Variables	Operationalization	Example of Evidence for Variable
Aggression	To display hostility or intimidation. Includes heated arguing, yelling, physical threats, and physical harm.	"Sometimes I yell back when they're yelling at me."
Withhold cooperation	To disrupt or place a cooperative endeavor at risk by reducing investment. Includes withdrawal, avoidance, breaking agreements, running away, and moving away. Low-cost withholding indicates that children used strategies such as temporary withdrawal, avoidance, or breaking cooperative agreements as a form of withholding cooperation. High-cost withholding indicates that the children ran away or moved away, placing the cooperative relationship at stake or putting themselves at risk of harm.	"I just never talk to them and avoid them."
Partner choice	To replace or threaten to replace a cooperative partnership with one individual or group with another individual or group.	"I made the decision to live with [maternal grandmother]... I'm free to have a girlfriend and have friends."
Acquiescence	To yield in a contest or conflict.	"I was like 'alright.' I'll ask the teacher for help [to get my grades up]."
Deception	To provide misleading information or to withhold information.	"I would go out without telling them... Sometimes say going to one place but go to another place."
Seek assistance	To seek out aid from a third party for advice, comfort, refuge, or to request intervention.	"[Maternal] uncles were neutral, that's why I'd stay with them when I ran away."
Negotiate/persuade	To provide information or reasoning to influence the decision-making process.	"I try to tell them to wait for me to die [in the video game]. They want me to finish the game. I try to explain how the game works..."
Apologize	To admit fault.	"I would [cook] rice [for her] and hold her hands and say 'I'm sorry.'"
High-cost strategy	The child uses either physical aggression against the parent, runs away, or moves away to express a desire for change in the relationship or to escape the relationship.	"I just walked out when everyone went to sleep and then I just kept on walking ... in the dark at night. It was cold and it was raining... It was 12:00 am. I stayed [with a relative] for [a period of time]."

TABLE 1B Conflict variables and operationalizations

Variables	Operationalization	Example of Evidence for Variable
High severity	Parent physically threatens child or child is exposed to violence at home, parent threatens to eliminate or drastically reduce investment, or parent causes child severe psychological distress or uncertainty. Including physical abuse, controlling behaviors, kicking out of home or family, labor exploitation, and parental absence.	"[My parent] said to take everything you have then go where you want to go. You want to be independent then go ahead, and I won't consider you my [child]."
Outcome favors	Parent or child: one party concedes or alters their expectations or behaviors in favor of the other party. Divided: both parties gain some benefits but lose others. Both: parties achieve a mutually beneficial outcome.	"There was nothing I could do to change my father's mind."—Outcome parent. "I'd get away with lying sometimes." (both parties gain and lose) "Then we woke up next morning [after he found out I was smoking] to do chores, and he ask me to do him favors... When he started asking me to do favors, I'll just enjoy doing whatever he asks... He said 'okay make sure you can afford your cigarettes.'" (both parties gain)

one-on-one, but seven interviewees asked a family member to help translate. The translators were current household members, such as spouses or nephews, who were not involved in the conflict.

Washington State University Institutional Review Board approved this study for human subjects, and all participants provided informed consent prior to starting the interview. Due to the sensitive nature of the interview, all participants were 15 years or older (but could report on conflicts that happened from around age 12 to 25). Interviews took place in homes, coffee shops, diners, and other locations convenient for the participants.

TABLE 2 Causes of conflicts

General Category	Specific Codes
Activities with friends	Play, hang out, substance use, friendships, peer acceptance, texting/social media/gaming, going to friend's house
Education	School choice, curriculum choice, skip school, education, academic performance, commute to school
Family or home tension	Competing family alliances, home stress, sibling rivalry, adoption/guardianship, parental absence, take too long to get ready, physical health, parent deception, physical abuse, parents arguing, feel exploited
Family responsibilities	Chores, childcare, caretaking
Fighting or aggression outside the home	Fighting, destroy property, public argument
Romantic relationship	Boyfriend/girlfriend, choice of spouse, arranged marriage, pregnancy
Religion	Church, religion
Resource allocation	Resource allocation (bed), resource allocation (goods), resource allocation (money), resource allocation (tv)
Safety	Safety (i.e., concerns about risks of bodily harm)
Social or cultural norms	Cultural norms, social role
Time away from home or family	Staying away from home, moving out, out too late, out too long
Work	Work (i.e., labor outside the home)

Participants were asked to recall a time during their adolescence or young adulthood when they experienced a conflict (*osukosuk*) either big or small (*wátte* or *ekis*) with one or both parents. Questions included: When did this conflict occur? Who were you in conflict with (mother, father, or both)? What was the conflict about? What emotions were you experiencing? Did you do anything to resolve the conflict in your favor?/What did you do? The phrasing and timing of the questions varied depending on the responses of the participant. Participants could report multiple conflicts if they wanted, and the semi-structured interview started over with each additional conflict. Semi-structured interviews lasted from 20 to 90 minutes. Interviews were conducted from August 2017 to June 2019.

KLS transcribed the interviews as they took place. KLS reviewed the transcript for errors within 24–48 hours, separated each transcript into distinct conflicts, if warranted, and then coded each conflict for the presence (1) or absence (0) of the variables using a combination of inductive and deductive coding (Bernard, 2017). Many of the variables, such as *aggression*, were determined a priori from parent-offspring conflict theory. Other variables, such as *prayer*, were created as they arose during data collection. Coding of conflict strategies was not mutually exclusive; conflict resolution could involve both aggression and apology, for example. See variable operationalizations in Table 1a1b.

Conflict Causes

KLS also coded each conflict for one or more causes, and then KLS and EHH aggregated these specific causes into more general categories. See Table 2.

Analyses were conducted in R version 3.6.2 (2019–12–12).

RESULTS

The sample comprised 58 participants (27 males and 31 females), with 6 participants born on the US mainland. Participants ranged in age from 15 to 62, and of those who were not born on the US mainland, half moved to the mainland between 1980 and 2006, and half after that. Ages at the time of the move ranged from infants to 54-year-olds, with a median age of 20 years.

Participants reported on 75 unique conflicts: 44 participants provided information on 1 conflict, 12 participants provided information on 2 conflicts, and 2 participants gave information on 3 or more conflicts. Ages at the time of conflict ranged from 10 to 25, with a mean age at time of conflict of 16. Conflicts that lasted less than a year might have been as brief as one afternoon or have lasted over several months. Conflicts that persisted over many years were either intermittent (e.g., coming home late from time to time) or chronic (e.g., physical abuse). There were 16 conflicts rated as having unambiguous evidence of “high severity.” Participants reported on conflicts that occurred between 0 and 49 years in the past, with a median of 9 years in the past (see Table 3).

TABLE 3 Summary statistics

Variable	Men/boys					Women/girls				
	N	Min	Max	Mean	SD	N	Min	Max	Mean	SD
Age at interview	27	15	62	37.00	17.00	31	15	61	29.00	15.00
Age migrated to mainland	25	0	54	24.44	13.8	27	1	54	18.41	14.38
Years since migration to mainland	25	1	38	13.68	9.33	27	2	26	11.04	5.79
Mean age at time of conflict	26	10	24	16.00	3.80	30	12	25	16.00	3.00
Total number of conflicts	27	1	2	1.10	0.32	31	1	4	1.50	0.72
Number of severe conflicts	27	0	1	0.24	0.42	31	0	1	0.19	0.36
Duration of conflict (years)	27	1	19	3.90	5.10	31	1	8	2.10	1.80



FIGURE 2 The year and location of each conflict. Each dot (low severity) or diamond (high severity) is one conflict. Chuuk and US mainland: conflict occurred exclusively in one of those locations. US Pacific Island: conflict occurred at least in part in Guam or Hawaii. Micronesia: conflict occurred exclusively in another part of Micronesia.

The data set consisted of 58 interviewees reporting on 75 unique conflicts, each of which was coded for 22 binary variables. The primary dataset therefore comprised a binary matrix with 75 rows and 22 columns. A “1” for *aggression*, for example, means that aggression occurred in that conflict. Note that a “0” for *aggression* does not mean that aggression did not occur in that conflict, but only that the participant did not mention aggression when describing the conflict.

At the time of the interview, participants had been living on the mainland for an average of 12 years, with a range of 1 month to 38 years since migration. Forty-one participants moved to the mainland from Chuuk and the rest from Hawaii or Guam.

All the conflicts took place over a 51-year time span (1968–2019) and occurred in either the Federated States of Micronesia (FSM) or the United States. Older adults tended to report conflicts occurring in Chuuk, since many of them were youths before the 1986 signing of the COFA agreement that allowed open migration. After 1990, the majority of the conflicts in the sample happened in the United States or its territories (see Figure 2).

The frequencies of the general causes of conflicts by location are depicted in Figure 3.

Heatmap of Causes

To obtain an overview of which causes were associated with severe conflicts, we generated a heatmap in which each conflict (columns) and the general causes involved (rows) were clustered (see Figure 4). Severe conflicts (red annotations in the top row) clustered mostly with family or home tension. Conflicts also often had multiple causes. The most common source of conflict was activities with friends, which often cooccurred with conflicts over time away from home and family and family responsibilities.

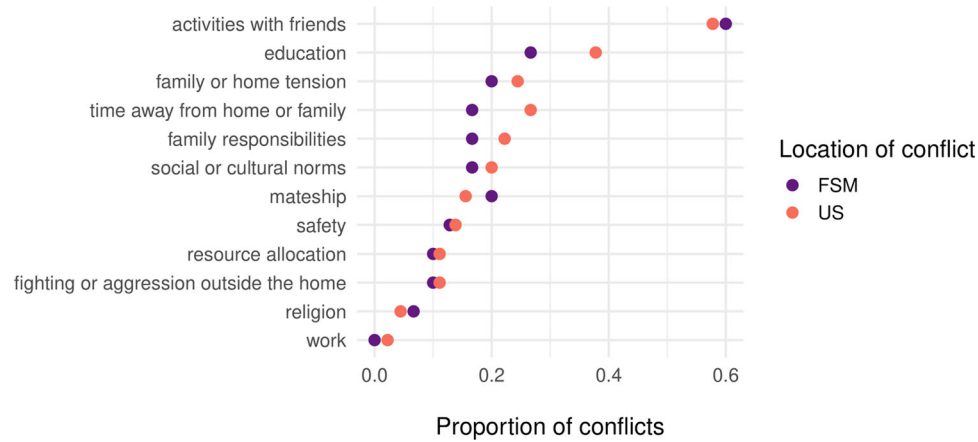


FIGURE 3 The proportions of general causes of conflicts, by location and year. Most conflicts had multiple causes so the proportions do not add up to 1. [This figure appears in color in the online issue]

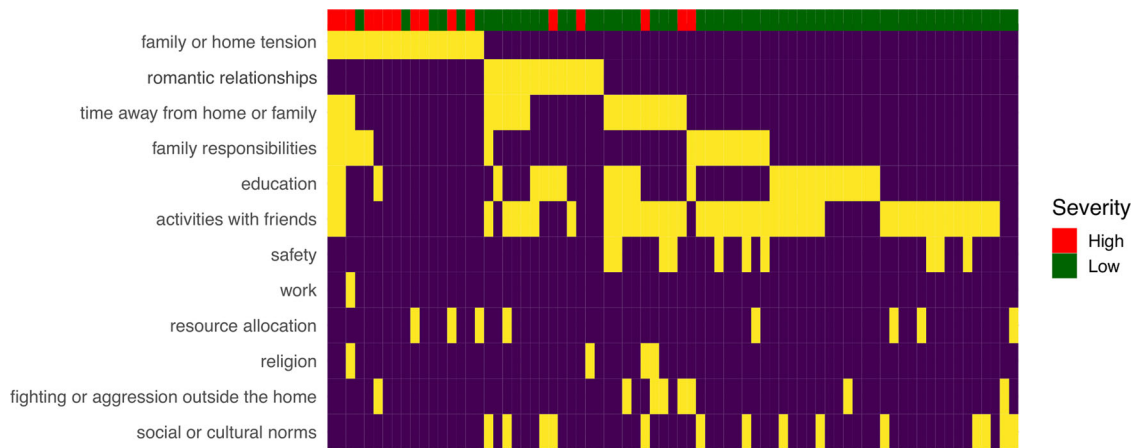


FIGURE 4 Conflicts and their causes. Each column is one conflict. Each row is the general cause of the conflict. Conflicts often had multiple causes. Yellow: indicates that a conflict involved that cause. Red annotations (top row): indicates a severe conflict. [This figure appears in color in the online issue]

Child Conflict-Resolution Strategies

To gain an overview of the relationships among conflict severity, child conflict-resolution strategies, and conflict outcomes, we plotted a heatmap of all conflicts vs. all child-resolution strategies. The number of strategies per conflict ranged from 1 to 5, with a median of 2 (see Figure 5).

There were two major clusters of conflicts. The smaller cluster (Figure 5, left-hand side) comprised mostly severe conflicts with outcomes that were either in the child's favor or mixed. Conflicts in this cluster tended to involve several strategic responses by the child. In particular, withholding cooperation and seeking assistance clustered together in severe conflicts with outcomes that tended to favor the child. Interestingly, children often reported apologizing even though they reported the outcome was in their favor.

Conflicts in the larger right-hand cluster comprised mostly less-severe conflicts that often resolved in the parent's favor or mixed and tended to involve fewer strategic responses by the child. These responses were often acquiescence and deception, which clustered together.

Exploring Predictors of High-Severity Conflicts

Based on the heatmap of conflict causes (Figure 4), high-severity conflicts were associated with family or home tension. In part, this is because we interpreted physical abuse as evidence for both high severity and for home or family tension. However, there were many cases of home or family tension that were not severe and many severe conflicts that did not involve home or family tension. Family or home tension included competing

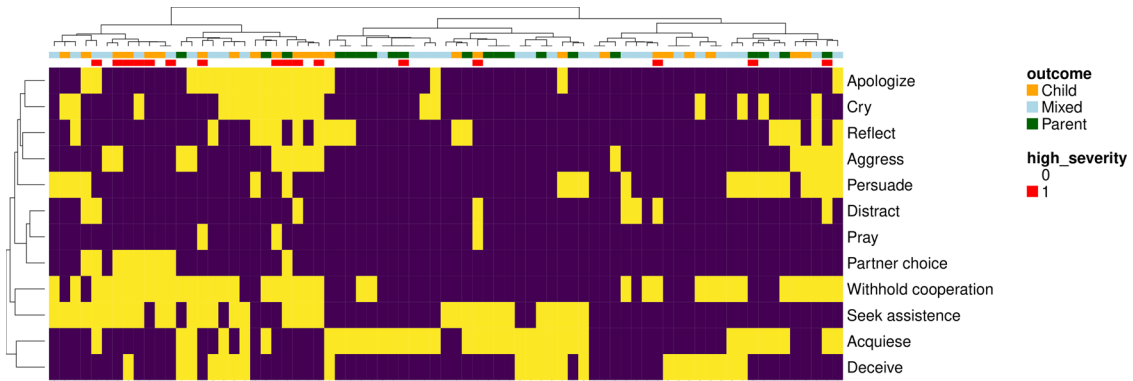


FIGURE 5 Conflicts and the child's response. Each column is one conflict. Each row is a child response to the conflict. Children often responded in multiple ways. Red annotations (top row): indicates a severe conflict. Rows and columns clustered using Ward agglomeration and Euclidean distance. [This figure appears in color in the online issue]

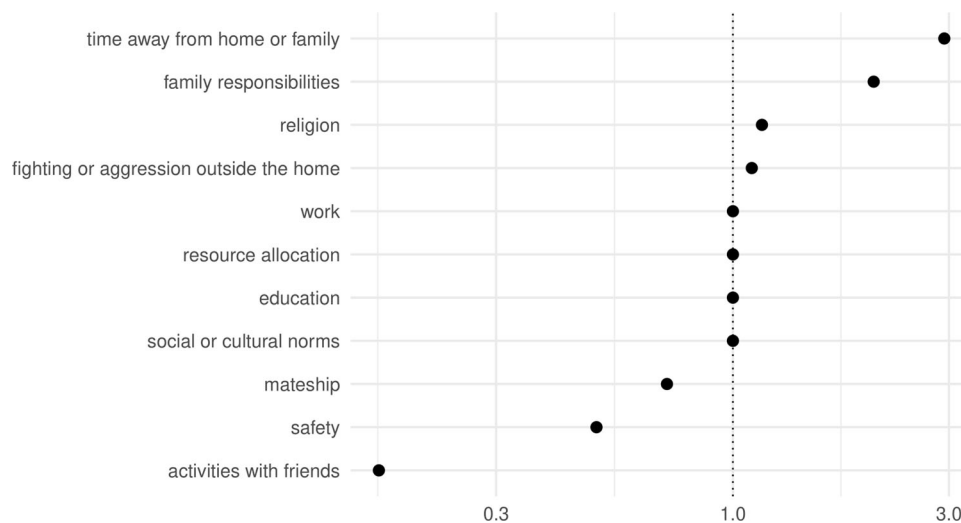


FIGURE 6 Predictors that a conflict was severe. Each row is a predictor from an elastic net logistic regression of conflict severity, with $\alpha = 0$ and λ chosen via cross-validation. Values are adjusted odds ratios.

family alliances, home stress (such as witnessing violence), sibling rivalry, adoption/guardianship, parental absence, physical health, parent deception, physical abuse, parents arguing, and feeling exploited (see Table 2).

Association of Conflict Causes with Severity

Because severity was partially confounded with home or family tension, we fit an elastic net logistic regression model of severity status as a function of all causes *except* home or family tension. This model revealed that activities with friends were strongly negatively associated with conflict severity, whereas spending time away from home or family and conflicts over family responsibilities were strongly positively associated with conflict severity (see Figure 6).

Association of Child Strategies with Severity

A priori, we predicted that withholding cooperation would be a child conflict-resolution strategy (see Table 1) that was closely associated with severe conflicts, and indeed it was, with high-cost withholding strategies more strongly related to severe conflicts than low-cost withholding strategies (see Figure 7).

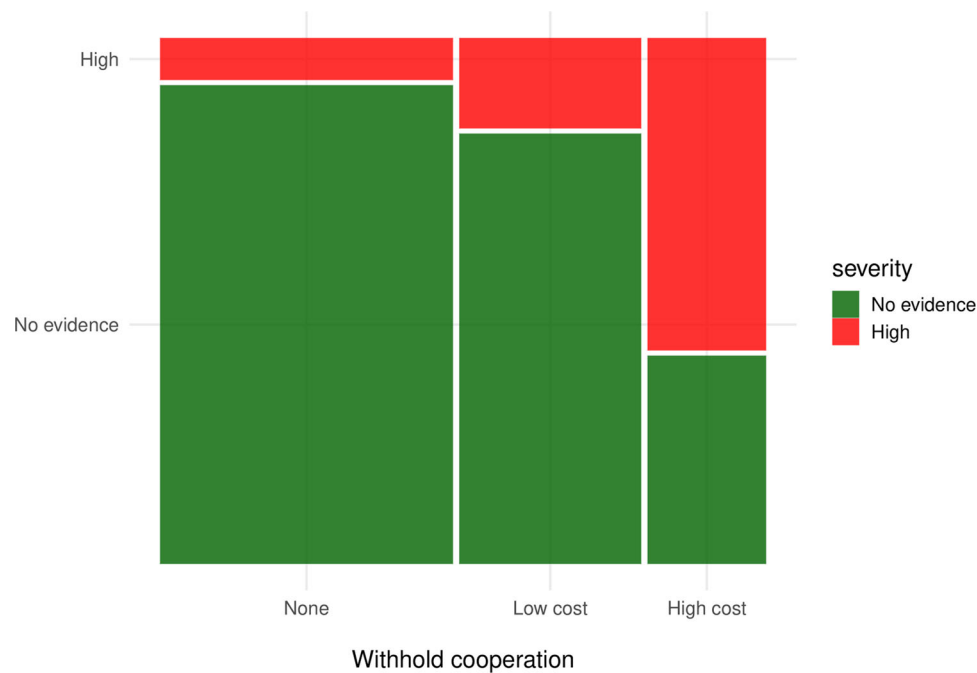


FIGURE 7 High-severity conflicts versus withholding cooperation and other responses to conflict. None: did not withhold cooperation. For operationalization of low versus high cost, see Table 3. The area of each rectangle is proportional to the number of conflicts. The total area represents 75 conflicts. [This figure appears in color in the online issue]

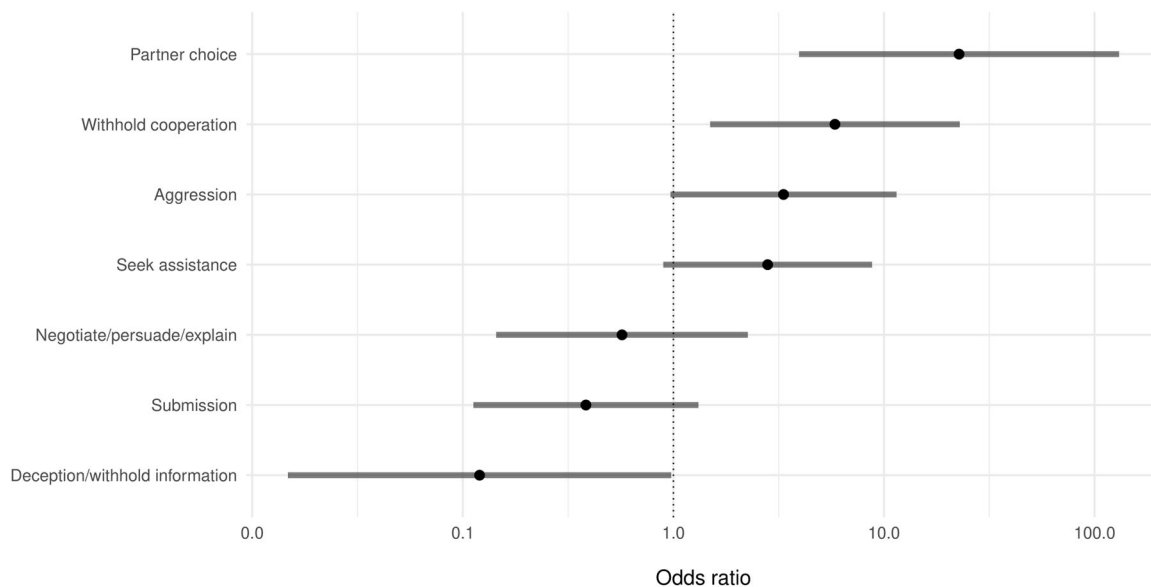


FIGURE 8 Logistic lasso regression of child use of a conflict-resolution strategy as a function of conflict severity. Values are odds ratios (95 percent CI).

We then fit an exploratory lasso regression of all child strategies as predictors of conflict severity.⁶ Partner choice, which may replace or threaten to replace a cooperative relationship, was the largest positive predictor, withholding cooperation was the second largest, and deception/withhold information was a negative predictor (see Figure 8).

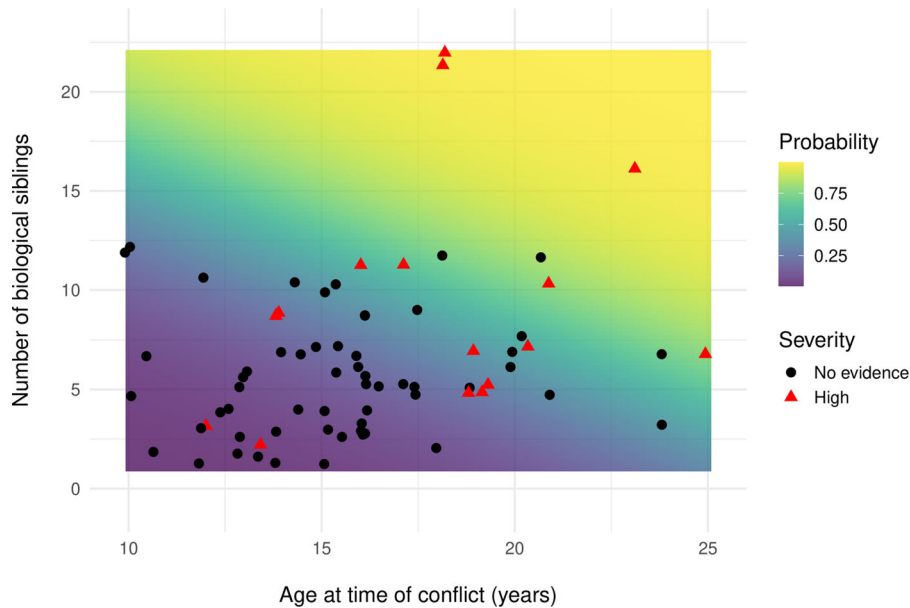


FIGURE 9 Conflict severity as a function of age at the time of conflict and number of biological siblings (controlling for age at time of interview). Background color represents the predicted probability of a severe conflict from a logistic regression model (see Table 4). Each dot is one conflict, color-coded by its actual severity (a small amount of jitter was added to reveal overlapping points). [This figure appears in color in the online issue]

TABLE 4 Logistic regression of conflict severity. Predictor variables are Z-scores and coefficients are odds ratios (95% CI)

Age at interview (Z)	0.422 (0.145, 1.01)
Age at conflict (Z)	2.5 (1.24, 5.8)
Number of siblings (Z)	3.86 (1.64, 12.6)
Observations	72
AIC	65.73
Tjur's D	0.27
Null deviance (df)	76.3 (71)
Residual deviance (df)	57.7 (68)
Chisqr	Chisq (3) = 18.6***

Sociodemographic Predictors of High Severity

To determine the best sociodemographic predictors of conflict severity, we fit logistic regression models of conflict severity as a function of theoretically motivated predictor variables, including age at the time of conflict, sex, number of siblings, duration of conflict, and the parent in the conflict (e.g., father or mother). In this exploratory analysis, the model with the lowest AIC score had three predictors—the number of biological siblings, mean age at the time of conflict, and age at interview—and a modest effect size (Tjur's D = 0.27). Figure 9 depicts this model with unscaled variables and overplotted with the actual data. Table 4 presents the coefficients from the same model as odds ratios, but with predictors converted to Z-scores. Hence, an increase of one standard deviation in the age at the time of conflict increased the odds that the conflict was severe by 2.5, and an increase of one standard deviation in the number of biological siblings increased the odds by 3.9.

Conflict Outcomes

We used elasticnet regression to explore which child strategies were associated with outcomes favoring the child (see Table 1). In this analysis, we omitted mixed outcomes, only comparing outcomes that unambiguously favored the child or the parent. We also omitted the acquiescence strategy,

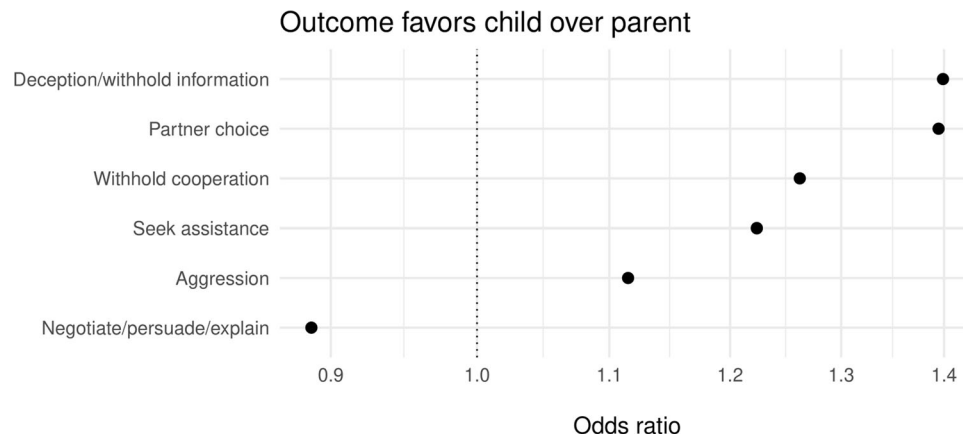


FIGURE 10 Elasticnet binomial regression coefficients of outcomes favoring the child vs. the parent as predicted by the different child strategies (mixed outcomes were omitted from this analysis). Coefficients are odds ratios.

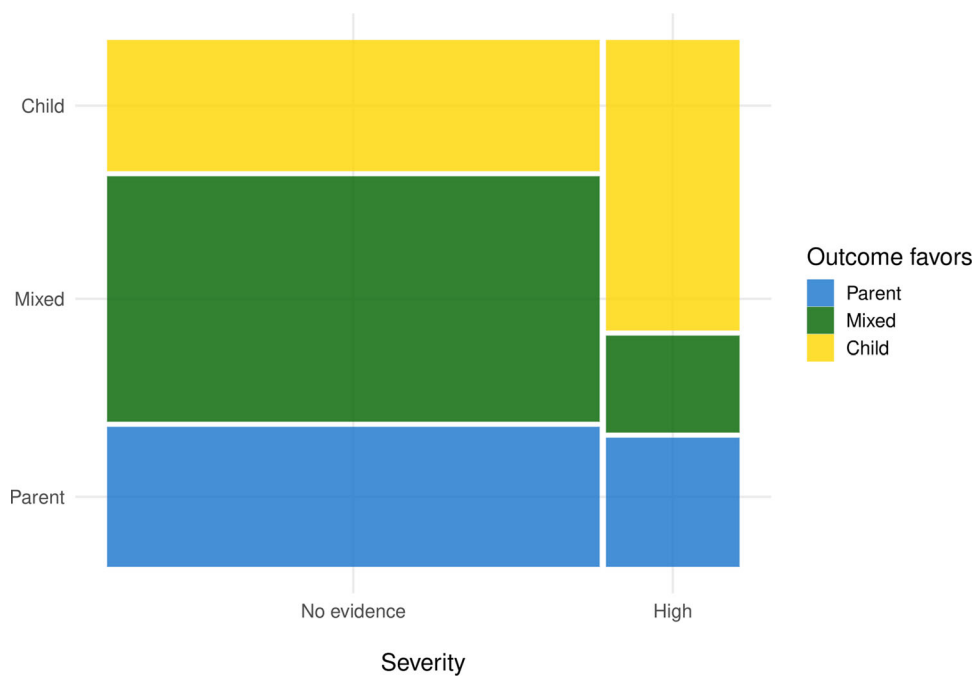


FIGURE 11 Conflict outcomes vs. conflict severity. [This figure appears in color in the online issue]

which almost always implied that the outcome favored the parent. Deception/withholding information and partner choice were positive predictors of the outcome favoring the child, and negotiate/persuade/explain was a negative predictor (see Figure 10).

Low-severity outcomes were relatively evenly distributed among those favoring the child, the parent, or mixed, whereas severe conflicts tended to favor one party or the other, and usually the child (see Figure 11).

Potential Self-Report Biases

We investigated potential reporting biases in our main outcome measure—conflict severity—by age and sex of the participant, parental status, number of children, location of the conflict (US mainland versus Pacific Island), and year of the conflict. We reasoned that juvenile participants' answers might reflect their current relationship with parents who were still caring for them, whereas older participants were more likely to be caring for their parents. We also reasoned that participants who were parents themselves might be more motivated to portray the parent-child relationship in ways that favored parents, whereas participants who were not parents would not be strongly motivated to do so. Finally, participants

whose conflicts were in Chuuk or other Pacific Islands, or that were in the more distant past, might be more likely to reflect traditional Chuuk parent-offspring roles.

We only found two potential sources of bias. First, individuals who were older at the time of the interview were more likely to report severe conflicts with their parents, which was the opposite of the bias we predicted, but the effect size was small (odds ratio = 1.27). This result was also contrary to a result we reported for age at the time of interview in a different regression model (where there was no significant effect of age at interview), but this model also controlled for age at the time of conflict. Second, year of conflict was positively associated with severity (i.e., more recent conflicts tended to be more severe), but again, the effect size was small (odds ratio = 1.27). We found no significant association between ratings of conflict severity and sex, parental status, number of children, or conflict occurring on the mainland versus a Pacific Island. For details, see the SI.

DISCUSSION

In severe conflicts with parents, Chon Chuuk youth often withheld substantial cooperation, or *amwunumwun*, and were frequently able to achieve outcomes in their favor. *Amwunumwun* may be an effective conflict-resolution strategy for Chuukese children.

Family Interdependence and Severe Conflicts

Chuukese children have important family responsibilities, such as childcare and cleaning, and, like children everywhere, they rely on their parents for material support. Severe conflicts could have concerned school, friends, or romantic relationships, which were common causes of mild conflicts, but they mostly did not. The frequencies of the general causes of conflicts by location are depicted in Figure 2.

Figure 4 indicates that, among conflicts involving spending time with friends, only those that explicitly involved spending time away from home or evading family responsibilities had a higher likelihood of being severe. This suggests that severe conflicts with parents often involve disagreements over time invested in the family versus time spent in activities outside the home. Young Chon Chuuk women, in particular, provide critical assistance in childcare and other household chores, but some youth felt that too much was expected of them. Tina, for instance, ran away from home many times to express discontent with her mother, who expected her to perform most of the housework.

Older age increased the odds that the conflict was severe (Figure 9). Older youths' investment in status-building activities can improve adult status as well as economic and marriage outcomes, but these activities can interfere with tasks that benefit parents (e.g., Lowe, 2003). Moreover, as children enter adulthood, they acquire greater dominance in terms of physical and social power and knowledge, which could lead to standoffs between parents and children. Theodore, who was 18 at the time of the reported conflict, punched his father, who he felt abandoned him in childhood. This act of aggression was the climax of months of building tension and was provoked by the father's insulting remarks about Theodore's maternal relatives. Theodore was physically overtaken by his older brothers, however, who pulled him away.

Severity was also associated with a greater number of biological siblings. If parents expect older siblings to help care for younger siblings, this might aggravate conflicts in larger families. It is also possible that in large families, parents are less able to invest in individual children, leaving some children without the social and material resources they need to succeed. Earlier accounts of youth conflict in Chuuk attest to the fact that a gain in social or material support to one sibling can be a loss to another sibling (Lowe, 2003).

In summary, these data suggest that conflict severity heightens when children enter early adulthood and have many siblings, perhaps because children are diverting their efforts away from their natal families and toward investing in local status competitions (Lowe, 2003) and romantic relationships.

Child Strategic Responses to Conflict and Conflict Outcomes

"Everyone was worried that I committed suicide. They were looking for me," stated Rosie about the effects of her running away after dark.

Withholding cooperation was the most common child behavioral response to conflict ($n = 38$; 51 percent of all conflicts). Low-cost strategies, such as temporary social withdrawal, were often motivated by a desire to be alone to collect one's thoughts and emotions. As one participant stated, "I always just go in the bathroom and cry, not sobbing. Just tears come down, letting everything out, and then I move on." Some interviewees discussed withdrawal as a means to escape the conflict, but in most cases, simply being alone was the motivation. Lowe (2003) described transitory withdrawal to manage negative emotions as a positive behavioral pathway Chon Chuuk youth use, and that was often the case in our data, too. Quiet contemplation led some to feel remorse and fostered motivations to reconcile. However, anything more than brief withdrawal can impose costs on both children and parents.

We predicted that high-cost forms of withholding cooperation, like running away and, in the extreme, suicidal behavior, would be associated with severe conflicts, and they were (Figure 7). We found that partner choice and withholding cooperation were strongly positively associated with conflict severity, whereas deception/withholding information was strongly negatively associated with conflict severity (Figure 8). Running away was the most common response to long-standing conflicts, and in several instances the act of running away put the child at risk of harm. Running away, staying with other family members for an extended time, or moving away from parents tends to signify that the parent-child cooperative relationship is in jeopardy. A common reason for young men to run away or move away from their family was substance use and activities with male peers. Young women likewise ran away for reasons such as peer activities and romantic relationships but also to protest the amount of housework they were expected to perform relative to other household members.

Running away is part of the spectrum of *amwunumwun* behaviors (Hezel, 1984, 1987) that we interpret as bargaining by withholding cooperation. The case of Kaylyn, the 16-year-old girl who ran away from home for several days after her mother discovered she was with her boyfriend, depicts a culturally patterned response to charged conflicts that in this instance concerned a romantic relationship. Similar strategies were also reported in response to conflicts over peer activities, physical abuse, and labor exploitation. Rosie reported that, as a youth living in Chuuk some 20 years before the interview, she ran off alone into the night after her father threatened to kick her out of the house. She transgressed in her father's eyes by repeatedly coming home late after church, where she was involved in teaching and peer activities. Following her return two days later, her father apologized and allowed her to continue her activities on the condition that she return home at a reasonable time. The accounts of Kaylyn and Rosie, separated by time and geography, share many of the same features. The youth's social activities outside the household sparked conflict that left the child feeling there was no option but to run off. In both cases, the girls' families were alarmed, family members were alerted, and in the end, the parents capitulated.

Partner choice is a high-cost form of withholding cooperation because an individual seeks to replace the cooperative relationship with another, or is threatening to, which signals the individual's low valuation of the relationship. This strategy is an effective means of bargaining with parents who typically would want to maintain the relationship. However, in some cases the child successfully established a relationship that replaced the parent, such as choosing to live with a family member instead of the parent, but this did not lead to the end of the relationship per se. Tina, who ran away from home more than once but garnered no concessions from her mother, eventually relocated to live with other kin to escape the perceived labor exploitation but maintained regular contact with her parents.

Seeking assistance was another common strategy ($n = 32$; 43 percent of conflicts) and cooccurred with withholding cooperation about half of the time. The assistance of siblings, extended kin, and parents (if conflict involved one parent) consisted of providing advice, comfort, mediation, or a place to stay. Rosie, for instance, was discovered in the bush by an aunt who walked back with her to her parents' house. "If parents see that auntie or uncle brought her back," Rosie said, "then parents have to accept her." Extended kin, in the most severe cases, even rescued nieces, nephews, and cousins from abusive households.

Aggression, which ranged from heated arguing to physical assault, was the least common strategy ($n = 15$; 20 percent of conflicts). Females reported using an aggressive strategy as often as males, but most cases involved heated arguing or yelling. Only two participants, one male and one female, reported threatening or using violence. Each aggressed against the same-sex parent in a high-severity conflict and achieved a favorable outcome.

Whereas the outcomes of nonsevere conflicts were evenly distributed among those favoring the child, parent, and both or neither, outcomes of severe conflicts tended to favor the child (see Figure 11). An exploratory logistic ridge regression found that deception/withholding information and partner choice were the largest positive predictors of outcomes favoring the child over the parent, and negotiation was a negative predictor of the outcome favoring the child (see Figure 10). Based on game theoretical models of bargaining, verbal persuasion alone is expected to be less effective due to the potential of deception in situations where trust is low. Nevertheless, reported deception was often effective among conflicts that were not severe. We suspect this is because there is little at stake in nonsevere conflicts, and parents might have been less vigilant. For instance, several adolescents sneaked away to hang out with friends while their parents were preoccupied with other tasks or stated they were going to one place but went to another.

In summary, our findings suggest that in severe conflicts with parents, Chon Chuuk children withhold contributions to the family to bargain for better terms that allow them to pursue extra-family relationships and activities. Numerous ethnographic accounts link conflict and powerlessness to suicidality (e.g., Brown, 1986; Counts, 1980; Fenton, 1941; Firth, 1961; Malinowski, 1916), which we have interpreted as an extreme form of bargaining to resolve conflicts in interdependent relationships (as most suicidal behavior is not lethal; see Figure 1). Syme, Garfield, and Hagen (2016) and Syme and Hagen (2019b) systematically coded 473 accounts of suicidality in the ethnographic record, finding that they were often preceded by adversity and conflict with important social partners and that victims were often relatively powerless but obtained important concessions if they survived. A recent study among Pacific Islander youth athletes found that balance between family support, reciprocity within the family, and personal development was perceived as key to maintaining mental health (Marsters and Tiatia-Seath, 2019). We propose that when family conflicts become exceptionally severe, there is a substantial increase in the costs adolescents are willing to pay to resolve the conflicts in their favor, including risky and suicidal behaviors, and that these strategies may be effective means of bargaining due to the high degree of fitness interdependence humans exhibit—that is, all humans rely on relationships involving mutual care and support to achieve positive fitness outcomes.

Limitations

The interviews were retrospective, and memories of events and their sequence can change over time. In addition, participant accounts likely had a self-presentation bias (see, e.g., Berman, 2018). Participants could discuss any conflict they wanted, and since many Chon Chuuk are reluctant to disclose events that might reflect poorly on their families, we assume reporting bias. Additionally, the sample size is insufficient to address generational, US versus Chuuk, or on-island versus off-island differences. Further research is needed to assess the generalizability of these findings. All interviews were conducted in English, which for most Chon Chuuk is their second language. This impacted recruitment, such that those who were not at least conversational in English would simply not respond when KLS approached them. KLS recruited seven individuals who were not proficient in English through family members. These seven interviewees required a family member to translate, which might have influenced their choice of conflict to report or how they reported it. Some of those individuals described events less vividly compared to others but still answered the questions in full. Finally, neither of the authors are Chuukese, and thus, this research entails the complexities of conducting research as cultural outsiders (see Merriam et al., 2001). For Micronesian perspectives on Chuuk and Micronesia, we refer readers to Raator (2017), Rayphand (2014), Peter (2017), and Heine (2002, 2004).

There are other conflict-resolution strategies documented among Chon Chuuk, such as spirit possession and drunken comportment, that show elements of bargaining (Hezel and Dobbin, 1995; Marshall, 1979) but were not reported by our participants. Because these strategies are associated with altered states of consciousness, they might not be recalled and reported the same way as those strategies that were reported.

CONCLUSIONS

Families and communities are highly interdependent and have been over the course of human evolution. When conflicts arise in interdependent groups, withholding cooperation creates a strong incentive to resolve them. Severe parent-offspring conflicts in our sample tended to involve long-standing home and family tension, and children were often able to resolve conflicts in their favor by running away, a form of *amwunmwun* that Chuukese interpret as a suicide threat, or by otherwise withholding cooperation. Severe conflicts often occurred among older children with many siblings, suggesting that these involved conflicts over whether investments in the family should more strongly benefit the parents or the child.

Hezel (1984, 197) reported that suicides in Chuuk often followed years of family turmoil, writing, "Micronesians themselves strongly assert that behind most of the trivial incidents that immediately preceded suicides lies a tale of long family tensions and conflict." Taken together, the patterns characterizing severe conflicts in our study might illuminate those conflicts that can lead to suicidality across cultures, namely, where there is a high degree of interdependence; as in most families in most societies, relatively powerless individuals can resolve conflicts in their favor by withholding their cooperation, sometimes by threatening to do so permanently by suicide. In the few cases in our study where powerless youths acquiesced in high-severity conflicts, they reported depression, panic, and seeking mental health resources. Many of the behaviors that people exhibit in the context of severe social conflicts are relevant to global mental health (Syme and Hagen, 2019a). Suicidal behavior might be used when children in severe conflicts with parents have exhausted all other strategies without obtaining any concessions.

ACKNOWLEDGMENTS

We thank Joe Enlet, the Enlet family, and members of Chuuk Logos Community Church for welcoming KLS to participate in activities associated with the church and the wider COFA community in and around Portland, OR that allowed her to build the trust and rapport that made this data collection possible. We thank all the participants who shared their stories. We also thank the Hagen lab group, Marsha Quinlan, Courtney Meehan, Roger Sullivan, Mary Shenk, and one anonymous reviewer for numerous useful comments and suggestions.

ORCID

Kristen L. Syme  <https://orcid.org/0000-0002-5601-8897>

ENDNOTES

¹ Name and details changed to protect confidentiality.

² Fitness is often operationalized as the number of offspring that survive and reproduce. It can also refer to inclusive fitness, which takes into account the contribution of one individual to the fitness of other individuals with whom they share genes by descent from a common ancestor. For discussion, see Queller (2011).

³ The use of strategy here refers to 'ultimate' evolutionary strategies that might or might not correspond to an individual's conscious or reported motives.

⁴ Micronesia refers to a geographical area that includes Federated States of Micronesia (Chuuk, Kosrae, Pohnpei, and Yap), the Marshall Islands, Palau, the Northern Mariana Islands, Guam, Nauru, Kiribati, and Wake Island. Here, Micronesians refers to people from this geographic region and their descendants.

⁵ The Crow system is also known but was perhaps more common in the past (Goodenough 1951, 1974).

⁶ Conventionally, predictors in regression models are conceptualized as causing the outcome. Here, though, the outcome variable, "severity", is conceptualized as causing each of the predictors (the child strategies). Regressions simply indicate associations, however. By reversing the convention, we can compare the associations of each strategy with severity in a single regression model.

REFERENCES CITED

- Agey, Elizabeth, Addison Morris, Maya Chandy, and Steven J. C. Gaulin. 2021. "Arranged Marriage Often Subverts Offspring Mate Choice: An HRAF-Based Study." *American Anthropologist* 123(4): 861–78. <https://doi.org/10.1111/aman.13656>.
- Aktipis, Athena, Lee Cronk, Joe Alcock, Jessica D. Ayers, Cristina Baciu, Daniel Balliet, Amy M. Boddy, et al. 2018. "Understanding Cooperation through Fitness Interdependence." *Nature Human Behaviour* 2(7): 429–31. <https://doi.org/10.1038/s41562-018-0378-4>.
- Apostolou, Menelaos. 2007. "Sexual Selection under Parental Choice: The Role of Parents in the Evolution of Human Mating." *Evolution and Human Behavior* 28(6): 403–9. <https://doi.org/10.1016/j.evolhumbehav.2007.05.007>.
- Apostolou, Menelaos. 2013. *Sexual Selection under Parental Choice: The Evolution of Human Mating Behavior*. London: Psychology Press.
- Balliet, Daniel, Joshua M. Tybur, and Paul A. M. Van Lange. 2017. "Functional Interdependence Theory: An Evolutionary Account of Social Situations." *Personality and Social Psychology Review* 21(4): 361–88. <https://doi.org/10.1177/1088868316657965>.
- Berman, Elise. 2018. "Force Signs: Ideologies of Corporal Discipline in Academia and the Marshall Islands." *Journal of Linguistic Anthropology* 28(1): 22–42.
- Bernard, H. Russell. 2017. *Research Methods in Anthropology: Qualitative and Quantitative Approaches*. Walnut Creek, CA: Altamira Press.
- Betzig, Laura L. 1988. "Adoption by Rank on Ifaluk." *American Anthropologist* 90(1): 111–19.
- Billaud, J. 2012. "Suicidal Performances: Voicing Discontent in a Girls' Dormitory in Kabul." *Culture, Medicine, and Psychiatry* 36(2): 264–85. <http://www.doi.org/10.1007/s11013-012-9262-2>
- Bird, Douglas W., and Rebecca Bliege Bird. 2005. "Martu Children's Hunting Strategies in the Western Desert, Australia." In *Hunter-Gatherer Childhoods*, edited by Barry S. Hewlett and Michael E. Lamb, 147–71. Piscataway, NJ: Transaction.
- Brown, M. F. 1986. "Power, Gender, and the Social Meaning of Aguaruna Suicide." *Man* 21(2): 311–28. <http://doi.org/10.2307/2803162>.
- Carucci, Laurence Marshall. 2019. "From Drunken Demeanour to Doping: Shifting Parameters of Maturation among Marshall Islanders." In *Pacific Youth*, edited by Helen Lee, 203–18. Acton: ANU Press.
- Cashdan, Elizabeth A. 1985. "Coping with Risk: Reciprocity among the Basarwa of Northern Botswana." *Man* 20:454–74.
- Chagnon, Napoleon A., Robert F. Lynch, Mary K. Shenk, Raymond Hames, and Mark V. Flinn. 2017. "Cross-Cousin Marriage among the Yanomamö Shows Evidence of Parent-Offspring Conflict and Mate Competition between Brothers." *Proceedings of the National Academy of Sciences* 114(13): E2590–E2607. <https://doi.org/10.1073/pnas.1618655114>.
- Collet, Vicki S., and Elise Berman. 2021. "'It Will Change Traditional School in a Very Positive Way': Educators' Perspectives of the Marshallese Experience during Spring 2020 Remote Learning." *Review of Education, Pedagogy, and Cultural Studies*:1–21. <https://doi.org/10.1080/10714413.2021.1873005>.
- Counts, Dorothy Ayers. 1980. "Fighting Back Is Not the Way: Suicide and the Women of Kaliai." *American Ethnologist* 7(2): 332–51. <https://doi.org/10.1525/ae.1980.7.2.02a00070>
- Dinges, Norman G., and Quang Duong-Tran. 1992. "Stressful Life Events and Co-Occurring Depression, Substance Abuse and Suicidality among American Indian and Alaska Native Adolescents." *Culture, Medicine and Psychiatry* 16(4): 487–502. <https://doi.org/10.1007/BF00053589>.
- Drinkall, Scott, Jackie Leung, Carl Bruch, Kapiolani Micky, and Sandi Wells. 2019. "Migration with Dignity: A Case Study on the Livelihood Transition of Micronesians to Portland and Salem, Oregon." *Journal of Disaster Research* 14(9): 1267–76. <https://doi.org/10.20965/jdr.2019.p1267>.
- Durkheim, Emile. (1897) 1951. *Suicide: A Study in Sociology*. New York: The Free Press.
- Fei, Hsiao-tung. 1946. *Peasant Life in China: A Field Study of Country Life in the Yangtze Valley*. New York: Oxford University Press.
- Fenton, William N. 1941. "Iroquois Suicide: A Study in the Stability of a Culture Pattern." *Bureau of American Ethnology Bulletin* 128(14): 79–137.
- Firth, Raymond. 1961. "Suicide and Risk-Taking in Tikopia Society." *Psychiatry* 24(1): 1–17. <https://doi.org/10.1080/00332747.1961.11023249>.
- Fischer, Ann. 1950. *The Role of the Trukese Mother and Its Effect on Child Training*. Washington, DC: The Office of Naval Research & The National Academy of Sciences.
- Gaffney, Michael R., Kai H. Adams, Kristen L. Syme, and Edward H. Hagen. 2022. "Depression and Suicidality as Evolved Credible Signals of Need in Social Conflicts." *Evolution and Human Behavior* 43(3): 242–56. <https://doi.org/10.1016/j.evolhumbehav.2022.02.004>.
- Garfield, Zachary H., Melissa J. Garfield, and Barry S. Hewlett. 2016. "A Cross-Cultural Analysis of Hunter-Gatherer Social Learning." In *Social Learning and Innovation in Contemporary Hunter-Gatherers*, edited by Hideaki Terashima and Barry S. Hewlett, 19–34. Tokyo: Springer Japan.
- Gladwin, Thomas, and Seymour B. Sarason. 1953. *Truk: Man in Paradise*. New York: Wenner-Gren Foundation for Anthropological Research.
- Goldman, Irving. 1963. *The Cubeo: Indians of the Northwest Amazon*. Urbana: University of Illinois Press.
- Goodenough, Ruth G. 1970. "Adoption on Romonum, Truk." In *Adoption in Eastern Oceania*, edited by V. Carroll, 292–313. Honolulu: University of Hawaii Press.
- Goodenough, Ward H. 1949. "Premarital Freedom on Truk: Theory and Practice." *American Anthropologist* 51(4): 615–20.
- Goodenough, Ward H. 1951. *Property, Kin, and Community on Truk*. New Haven, CT: Yale University Press.
- Goodenough, Ward H. 1974. "Changing Social Organization on Romonum, Truk, 1947–1965." In *Social Organization and the Applications of Anthropology: Essays in Honor of Lauriston Sharp*, 62–93. Ithaca, NY: Cornell University Press.
- Gurven, Michael, Jeffrey Winking, Hillard Kaplan, Christopher Von Rueden, and Lisa McAllister. 2009. "A Bioeconomic Approach to Marriage and the Sexual Division of Labor." *Human Nature* 20(2): 151–83. <https://doi.org/10.1007/s12110-009-9062-8>.
- Hagen, Edward H. 1999. "The Functions of Postpartum Depression." *Evolution and Human Behavior* 20(5): 325–59. [https://doi.org/10.1016/S1090-5138\(99\)00016-1](https://doi.org/10.1016/S1090-5138(99)00016-1).
- Hagen, Edward H. 2002. "Depression as Bargaining: The Case Postpartum." *Evolution and Human Behavior* 23(5): 323–36.
- Hagen, Edward H. 2003. "The Bargaining Model of Depression." In *Genetic and Cultural Evolution of Cooperation*, edited by Peter Hammerstein, 95–123. Cambridge, MA: MIT Press.
- Harlow, Alyssa F., India Bohanna, and Alan Clough. 2014. "A Systematic Review of Evaluated Suicide Prevention Programs Targeting Indigenous Youth." *Crisis* 35(5): 310–21. <https://doi.org/10.1027/0227-5910/a000265>.
- Hawkes, Kristen, James F. O'Connell, N. G. Blurton Jones, Helen Alvarez, and Eric L. Charnov. 1998. "Grandmothering, Menopause, and the Evolution of Human Life Histories." *Proceedings of the National Academy of Sciences* 95(3): 1336–39. <https://doi.org/10.1073/pnas.95.3.1336>.
- Heine, Hilda C. 2002. *Culturally Responsive Schools for Micronesian Immigrant Students*. Pacific Resources for Education and Learning. Honolulu: Pacific Resources for Education and Learning.
- Heine, Hilda C. 2004. "'Tuwaak Bwe Elimaajnono': Perspectives and Voices. A Multiple Case Study of Successful Marshallese Immigrant High School Students in the United States." PhD dissertation, University of Southern California.

- Helfrecht, Courtney, and Courtney L. Meehan. 2016. "Sibling Effects on Nutritional Status: Intersections of Cooperation and Competition Across Development." *American Journal of Human Biology* 28(2): 159–70. <https://doi.org/10.1002/ajhb.22763>.
- Henrich, Joseph, and Richard McElreath. 2003. "The Evolution of Cultural Evolution." *Evolutionary Anthropology: Issues, News, and Reviews* 12(3): 123–35. <https://doi.org/10.1002/evan.10110>.
- Hezel, Francis X. 1984. "Cultural Patterns in Trukese Suicide." *Ethnology* 23(3): 193–206. <http://doi.org/10.2307/3773746>.
- Hezel, Francis X. 1987. "Truk Suicide Epidemic and Social Change." *Human Organization* 46(4): 283.
- Hezel, Francis X. 1989. "Suicide and the Micronesian Family." *The Contemporary Pacific* 1:43–74.
- Hezel, Francis X. 2013. *Micronesians on the Move: Eastward and Upward Bound*. Honolulu, HI: East-West Center.
- Hezel, Francis X., and J. Dobbin. 1995. "Possession and Trance in Chuuk." *Isla* 3(1): 73–104.
- Hezel, Francis X., and Michael Levin. 2012. *Survey of Federated States of Micronesia Migrants in the United States Including Guam and the Commonwealth of Northern Mariana Islands (CNMI)*. Palikir: FSM Office of Statistics, Budget & Economic Management, Overseas Development Assistance and Compact Management.
- Hollan, Douglas. 1990. "Indignant Suicide in the Pacific: An Example from the Toraja Highlands of Indonesia." *Culture, Medicine and Psychiatry* 14(3): 365–79. <https://doi.org/10.1007/BF00117561>.
- Hrdy, Sarah Blaffer. 2011. *Mothers and Others: The Evolutionary Origins of Mutual Understanding*. Cambridge, MA: Harvard University Press.
- Kamstra, Joshua S. Ng, Teresa Molina, and Timothy Halliday. 2021. "Compact for Care: How the Affordable Care Act Marketplaces Fell Short for a Vulnerable Population in Hawaii." *BMJ Global Health* 6(11): e007701. <https://doi.org/10.1136/bmjgh-2021-007701>.
- Kaplan, Hillard, Kim Hill, Jane Lancaster, and A Magdalena Hurtado. 2000. "A Theory of Human Life History Evolution: Diet, Intelligence, and Longevity." *Evolutionary Anthropology: Issues, News, and Reviews: Issues, News, and Reviews* 9(4): 156–85.
- Käser, Lothar. 2016. *A Chuukese Theory of Personhood: The Concepts of Body, Mind, Soul, and Spirit on the Islands of Chuuk—An Ethnolinguistic Study*. Nürnberg, Germany: VTR Publications.
- Kennan, John, and Robert Wilson. 1993. "Bargaining with Private Information." *Journal of Economic Literature* 31(1): 45–104.
- Kluckhohn, C. 1944. "Navaho Witchcraft." *Peabody Museum, Harvard University* 22(2): 33–72; 145–50.
- Korbin, Jill E. 2003. "Neighborhood and Community Connectedness in Child Maltreatment Research." *Child Abuse & Neglect: The International Journal* 27(2): 137–40.
- Kraft, Thomas S., Vivek Venkataraman, Ian J. Wallace, Alyssa Crittenden, Nicholas B. Holowka, Jonathan Stieglitz, Jacob Harris Patton, et al. 2021. "The Energetics of Uniquely Human Subsistence Strategies." *Science* 374. <http://iastr.fr/pub/126282>.
- Kramer, Karen L. 2009. *Maya Children: Helpers at the Farm*. Cambridge, MA: Harvard University Press.
- Kramer, Karen L. 2010. "Cooperative Breeding and Its Significance to the Demographic Success of Humans." *Annual Review of Anthropology* 39:417–36. <https://doi.org/10.1146/annurev.anthro.012809.105054>.
- Kramer, Karen L. 2014. "Why What Juveniles Do Matters in the Evolution of Cooperative Breeding." *Human Nature* 25(1): 49–65. <https://doi.org/10.1007/s12110-013-9189-5>.
- Kramer, Karen L., and Erik Otárola-Castillo. 2015. "When Mothers Need Others: The Impact of Hominin Life History Evolution on Cooperative Breeding." *Journal of Human Evolution* 84 (July): 16–24. <https://doi.org/10.1016/j.jhevol.2015.01.009>.
- Lancy, David. 2022. *The Anthropology of Childhood: Cherubs, Chattel, Changelings*. Cambridge: Cambridge University Press.
- Lee, Sing, and Arthur Kleinman. 2003. "Suicide as Resistance in Chinese Society." In *Chinese Society*, edited by Elizabeth J. Perry and Mark Selden, 221–40. London: Routledge.
- Lindsay Lee, Max Roser, and Esteban Ortiz-Ospina. 2019. "Suicide." *Our World in Data*. <https://ourworldindata.org/suicide>.
- Lowe, Edward D. 2002. "A Widow, a Child, and Two Lineages: Exploring Kinship and Attachment in Chuuk." *American Anthropologist* 104(1): 123–37.
- Lowe, Edward D. 2003. "Identity, Activity, and the Well-Being of Adolescents and Youths: Lessons from Young People in a Micronesian Society." *Culture, Medicine and Psychiatry* 27(2): 187–219.
- Lowe, Edward D. 2019a. "Epidemic Suicide in the Context of Modernizing Social Change in Oceania: A Critical Review and Assessment." *The Contemporary Pacific* 31(1): 105–38. <https://doi.org/10.1353/cp.2019.0007>.
- Lowe, Edward D. 2019b. "Social Change and Micronesian Suicide Mortality: A Test of Competing Hypotheses." *Cross-Cultural Research* 53(1): 3–32. <https://doi.org/10.1177/1069397118759004>.
- Macpherson, Cluny, and La'avasa Macpherson. 1987. "Towards an Explanation of Recent Trends in Suicide in Western Samoa." *Man* 22(2): 305–30. <http://doi.org/10.2307/2802867>.
- Malinowski, Bronislaw. 1916. "Baloma; The Spirits of the Dead in the Trobriand Islands." *The Journal of the Royal Anthropological Institute of Great Britain and Ireland* 46:353–430. <https://doi.org/10.2307/2843398>.
- Manning, Jason. 2012. "Suicide as Social Control 1." *Sociological Forum* 27(1): 207–27. <https://doi.org/10.1111/j.1573-7861.2011.01308.x>.
- Marshall, Mac. 1979. *Weekend Warriors: Alcohol in a Micronesian Culture*. Palo Alto, CA: Mayfield.
- Marsters, Caleb, and Jemaima Tiatia-Seath. 2019. "Young Pacific Male Rugby Players' Perceptions and Experiences of Mental Wellbeing." *Sports* 7(4): 83. <https://doi.org/10.3390/sports7040083>.
- McDade, Thomas W. 2001. "Lifestyle Incongruity, Social Integration, and Immune Function in Samoan Adolescents." *Social Science & Medicine* 53(10): 1351–62. [https://doi.org/10.1016/S0277-9536\(00\)00414-7](https://doi.org/10.1016/S0277-9536(00)00414-7).
- McDade, Thomas W., and Carol M. Worthman. 2004. "Socialization Ambiguity in Samoan Adolescents: A Model for Human Development and Stress in the Context of Culture Change." *Journal of Research on Adolescence* 14(1): 49–72. <https://doi.org/10.1111/j.1532-7795.2004.01401003.x>
- Meehan, Courtney L. 2009. "Maternal Time Allocation in Two Cooperative Childrearing Societies." *Human Nature* 20(4): 375. <https://doi.org/10.1007/s12110-009-9076-2>.
- Merriam, Sharan B., Juanita Johnson-Bailey, Ming-Yeh Lee, Youngwha Kee, Gabo Ntseane, and Mazanah Muhamad. 2001. "Power and Positionality: Negotiating Insider/Outsider Status within and across Cultures." *International Journal of Lifelong Education* 20(5): 405–16.
- Nero, Karen L., Fermina Brel Murray, and Michael L. Burton. 2000. "The Meanings of Work in Contemporary Palau: Policy Implications of Globalization in the Pacific." *The Contemporary Pacific* 12(2): 319–48. <https://doi.org/10.1353/cp.2000.0062>.
- Niehaus, Isak. 2012. "Gendered Endings: Narratives of Male and Female Suicides in the South African Lowveld." *Culture, Medicine, and Psychiatry* 36(2): 327–47. <https://doi.org/10.1007/s11013-012-9258-y>.

- Peter, Joakim M. 2017. "A Cross-Case Analysis of Migrant Chuukese Families in Hawai'i and Their Children with Special Needs." PhD dissertation, University of Hawai'i at Mānoa.
- Placek Caitlyn D. Under review. "Are Rituals Causally Opaque? The Case of Ritual Fasting and Drug Use."
- Queller, David C. 2011. "Expanded Social Fitness and Hamilton's Rule for Kin, Kith, and Kind." *Proceedings of the National Academy of Sciences* 108(2): 10792–99.
- Ran, Mao-Sheng. 2007. "Suicide in Micronesia: A Systematic Review." *Primary Psychiatry* 14(11): 80–87.
- Raator, Vidalino S. 2017. "Successful Practices of Micronesian College Students in Hawai'i: Utilizing Positive Deviants to Develop Strength-Based Student Support Services in Higher Education." PhD dissertation, University of Hawai'i at Mānoa.
- Rauchholz, Manuel. 2012. "Discourses on Chuukese Customary Adoption, Migration, and the Laws of State." *Pacific Studies* 35(1): 119–43.
- Rayphand, L. J. 2014. "Tūúttūnnāpen Chuuk: Retelling Chuukese Stories in the Digital Age." PhD dissertation, University of Hawai'i at Mānoa.
- Roberts, Gilbert. 2005. "Cooperation through Interdependence." *Animal Behaviour* 70(4): 901–8. <https://doi.org/10.1016/j.anbehav.2005.02.006>.
- Rubinstein, Donald H. 1992. "Suicide in Micronesia and Samoa: A Critique of Explanations." *Pacific Studies* 15(1): 51–75.
- Rubinstein, Donald H. 1995. "Love and Suffering: Adolescent Socialization and Suicide in Micronesia." *The Contemporary Pacific* 7(1): 21–53.
- Scelza, Brooke A. 2010. "Fathers' Presence Speeds the Social and Reproductive Careers of Sons." *Current Anthropology* 51(2): 295–303. <https://doi.org/10.1086/651051>.
- Sear, Rebecca, and Ruth Mace. 2008. "Who Keeps Children Alive? A Review of the Effects of Kin on Child Survival." *Evolution and Human Behavior* 29(1): 1–18. <https://doi.org/10.1016/j.evolhumbehav.2007.10.001>.
- Shenk, Mary, and Brooke Scelza. 2012. "Paternal Investment and Status-Related Child Outcomes: Timing of Father's Death Affects Offspring Success." *Journal of Biosocial Science* 44(3): 549–69. <https://doi.org/10.1017/S0021932012000053>.
- Shostak, Marjorie. 1981. *Nisa: The Life and Words of a !Kung Woman*. Cambridge, MA: Harvard University Press.
- Silk, Joan B. 1980. "Adoption and Kinship in Oceania." *American Anthropologist* 82(4): 799–820. <https://doi.org/10.1525/aa.1980.82.4.02a00050>.
- Smith, Sarah Ann. 2014. "The Reproductive Lives of Chuukese Women: Transnationalism in Guam and Chuuk." PhD dissertation, University of South Florida.
- Spencer, Mary L. 2012. "Paths of Central Caroline Island Children during Migration and Times of Rapid Change." *Pacific Asia Inquiry* 3(1): 7–29.
- Spencer, Mary. 2019. "Child Development in Micronesia and the US Micronesian Migration Diaspora: Through the Lens of Bronfenbrenner's Theoretical Structures." *Pacific Asia Inquiry, Multidisciplinary Perspectives* 10(1): 22.
- Spiro, Melford E. 1977. *Kinship and Marriage in Burma: A Cultural and Psychodynamic Analysis*. Berkeley: University of California Press.
- Syme, Kristen L., and Edward H. Hagen. 2019a. "Mental Health Is Biological Health: Why Tackling 'Diseases of the Mind' Is an Imperative for Biological Anthropology in the 21st Century." *American Journal of Physical Anthropology* 171:87–117. <https://doi.org/10.1002/ajpa.23965>.
- Syme, Kristen L., and Edward H. Hagen. 2019b. "When Saying 'Sorry' Isn't Enough: Is Some Suicidal Behavior a Costly Signal of Apology?" *Human Nature* 30(1): 117–41. <https://doi.org/10.1007/s12110-018-9333-3>.
- Syme, Kristen L., Zachary H. Garfield, and Edward H. Hagen. 2016. "Testing the Bargaining vs. Inclusive Fitness Models of Suicidal Behavior against the Ethnographic Record." *Evolution and Human Behavior* 37(3): 179–92. <https://doi.org/10.1016/j.evolhumbehav.2015.10.005>.
- Talmy, Steven. 2004. "Forever FOB: The Cultural Production of ESL in a High School." *Pragmatics, Quarterly Publication of the International Pragmatics Association (IPrA)* 14(2–3): 149–72. <https://doi.org/10.1075/prag.14.2-3.03tal>.
- Talmy, Steven. 2008. "The Cultural Productions of the ESL Student at Tradewinds High: Contingency, Multidirectionality, and Identity in L2 Socialization." *Applied Linguistics* 29(4): 619–44. <https://doi.org/10.1093/applin/amn011>.
- Talmy, Steven. 2009. "A Very Important Lesson: Respect and the Socialization of Order(s) in High School ESL." *Linguistics and Education* 20(3): 235–53. <https://doi.org/10.1016/j.linged.2008.10.002>.
- Talmy, Steven. 2010. "Becoming 'Local' in ESL: Racism as Resource in a Hawai'i Public High School." *Journal of Language, Identity & Education* 9(1): 36–57. <https://doi.org/10.1080/15348450903476840>.
- Tomasello, Michael, Alicia P. Melis, Claudio Tennie, Emily Wyman, and Esther Herrmann. 2012. "Two Key Steps in the Evolution of Human Cooperation: The Interdependence Hypothesis." *Current Anthropology* 53(6): 673–92. <https://doi.org/10.1086/668207>.
- Trivers, Robert L. 1974. "Parent-Offspring Conflict." *Integrative and Comparative Biology* 14(1): 249–64.
- Tucker, Bram, and Alyson G. Young. 2005. "Growing up Mikea: Children's Time Allocation and Tuber Foraging in Southwestern Madagascar." In *Hunter-Gatherer Childhoods*, edited by Barry S. Hewlett and Michael E. Lamb, 147–71. Piscataway, NJ: Transaction.
- Turke, Paul W. 1988. "Helpers at the Nest: Childcare Networks on Ifaluk." In *Human Reproductive Behavior: A Darwinian Perspective*, edited by L. Betzig, M. Borgerhoff Mulder, and P. Turke, 173–88. Cambridge: Cambridge University Press.
- US Census Bureau. 2019. "American Community Survey 1-Year Estimates." <https://data.census.gov/>.
- Van den Berg, Pieter, Tim W. Fawcett, Abraham P. Buunk, and Franz J. Weissing. 2013. "The Evolution of Parent-Offspring Conflict over Mate Choice." *Evolution and Human Behavior* 34(6): 405–11. <https://doi.org/10.1016/j.evolhumbehav.2013.07.004>.
- Walker, Robert S., Kim R. Hill, Mark V. Flinn, and Ryan M. Ellsworth. 2011. "Evolutionary History of Hunter-Gatherer Marriage Practices." *PLOS ONE* 6(4): e19066. <https://doi.org/10.1371/journal.pone.0019066>.
- Weisner, Thomas S., and Edward D. Lowe. 2005. "Globalization, Childhood, and Psychological Anthropology." In *A Companion to Psychological Anthropology*, edited by Conerly Casey and Robert Edgerton, 315–36. Oxford: Blackwell. <https://doi.org/10.1086/201883>.
- Weisner, Thomas S., Ronald Gallimore, Margaret K. Bacon, Herbert Barry III, Colin Bell, Sylvia Caiuby Novaes, Carolyn Pope Edwards, et al. 1977. "My Brother's Keeper: Child and Sibling Caretaking [and Comments and Reply]." *Current Anthropology* 18(2): 169–90.
- Wexler, Lisa. 2009. "The Importance of Identity, History, and Culture in the Wellbeing of Indigenous Youth." *The Journal of the History of Childhood and Youth* 2(2): 267–76. <https://doi.org/10.1353/hcy.0.0055>.

How to cite this article: Syme, Kristen L., and Edward H. Hagen. 2023. "Bargaining and interdependence: Common parent-offspring conflict resolution strategies among Chon Chuuk and their implications for suicidal behavior." *American Anthropologist* 125: 262–282. <https://doi.org/10.1111/aman.13821>