

Child Development in Micronesia and the US Micronesian Migration Diaspora: Through the Lens of Bronfenbrenner's Theoretical Structures

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Decisions made by the United Nations regarding the Pacific Islands at the close of World War II set in motion the terms for not only the future governance and protection of these small islands, but also for significant waves of future out-migration. This report will address the state of Micronesian migration and the associated status of child development research in the Micronesian region and the US Micronesian diaspora. Particular attention is given to the potential utility of Urie Bronfenbrenner's theoretical structures for organizing Micronesian migration research design and outcome analysis.

The purposes of child development research in the Micronesian Region, and also in the US Micronesian migration communities, align with the traditional purposes of the social sciences (i.e., to understand, to predict, and to support positive development or to ameliorate problems and suffering). Needs are acute for research regarding the migrating children and youth of Micronesia because their home island cultures and circumstances are often in sharp contrast compared to those of other ethnic and cultural groups in the US. Research on Micronesian children's development – whether on the home island or in the diaspora – is scarce and often difficult to locate. US educators, social workers, health professionals, and community leaders seek the assistance of social science to better understand their new Micronesian Compact of Free Association residents. These US community leaders often ask for more knowledge of Micronesian home island traditions in order to create effective relations with the new migrants.

Similarly, they seek analysis of how effective their receiving strategies are proving to be, what the gaps are, and how further improvement can be affected (e.g., Pinhey & Spencer, 1996; Smith, Smith, Aguilar, Coulter, Woo, & Spencer, 1997). Studies on education have received some investment attention, often in the course of faculty and graduate student research, and also because federal funds to alleviate migration impact come with financial accountability requirements. For several reasons, research on Micronesian adoption is also somewhat prominent. It is a topic of historic interest to anthropology (e.g., Carroll, 1970; Goodenough, 1970). Further, there is a high rate of adoption among Micronesian families, and legal issues arise as adopted children and their adopted families attempt to migrate across international borders (e.g., Rauchholz, 2008). So far, research on child development in Micronesia has rarely been considered from a theoretical view. After grounding readers in the history and status of Micronesia's Pacific Island context, and in extant research on children and families in the Micronesian region as well as in migration locations, the author examines the merits of using Bronfenbrenner's ecological theory (e.g. 1979, 1986, 1992,

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1994, Bronfenbrenner & Morris, 1998) as an organizing tool to consider the current body of research, and as a heuristic tool for designing new research with Micronesian children and families.

A review of some basic geographic, historical, and social arrangements within the Micronesian home islands will set the stage for readers' consideration of child development research and theoretical advances in Micronesia and also in migration communities. To borrow a definition from Father Francis X. Hezel (2013a, p. 1), a renowned scholar of Micronesian history, the term *Micronesia* "...would include the broad cultural expanse in the western Pacific north of the equator, comprising everything from Palau to the Marshall Islands, including the four states and multiple culture-language areas found in what is now the Federated States of Micronesia." Guam and the Commonwealth of the Northern Mariana Islands (CNMI) are generally included in this regional designation, although their exposure to modernizing forces has been more extensive. Discussion here will focus on the US affiliated Micronesian areas of the Federated States of Micronesia (FSM), the Republic of Palau (RP), and the Republic of the Marshall Islands (RMI), and the modern migrations of their populations. Because of the historic British affiliations of the Micronesian countries of Kiribati and Nauru, they are better discussed within the context of the South Pacific.

Physical conditions and social/familial arrangements in the multiple cultures of Micronesia vary in complex ways. Moreover, home island cultures and conditions accompany Micronesian families as they settle into and make adjustments to their migration destinations. These circumstances have inspired new research productivity, some in the home islands (e.g., Spencer, 2012; 2015), by researchers near major migration centers such as Guam (e.g., Smith, 2014), Hawai'i (e.g., Ratliffe, 2010; 2011; 2013; Ratliffe, Rao, Skouge, & Peter, 2012), or Kansas City and Cincinnati metropolitan centers (Hubbard, 2018). This research energy suggests the need to consider the potential contributions of the theoretical constructs of Urie Bronfenbrenner's bioecological theory (e.g., Bronfenbrenner, 1979, 1986, 1992, 1994; Bronfenbrenner & Morris, 1998). The five ecological systems of Bronfenbrenner's theory (individual, microsystem, mesosystem, exosystem, and macrosystem) could be useful to the planning, design, and interpretation of future research and practice in Micronesian home islands and also in Micronesian migration settings.

Micronesia within the Pacific Island Context

Geographers view the Pacific Islands as consisting of three far-flung regions: Micronesia, Melanesia, and Polynesia (e.g., Rapaport, 2013). The forces of foreign invasion, war, political change, and modernization over the years have differentially influenced all of these regions. However, the many place-specific traditional cultures and societal structures still hold sway to greater or lesser degrees throughout. The extent of change depends largely upon the nature and force of colonial pressures applied since the beginning of external contact with the Pacific Islands. The Micronesian region's modern history flows through the sequential domination by Spain, Germany, Japan, and the Post-WWII US agreements. Guam, the largest of the Mariana Islands, was proclaimed a Spanish possession in the 1500's and was peacefully captured by the US during the Spanish-American War in 1898 (Sanchez, 1987, pp. 31; 70-78). In 1950, the US – Guam Organic Act was signed, granting US citizenship to Guam residents. In 1978, the Northern Mariana Islands became the US Commonwealth of the Northern Mariana Islands, with US citizenship. Three Micronesian trustees became self-governing entities in free association with the US: The FSM which was formed by Pohnpei, Kosrae, Chuuk, and Yap States in 1986; the many islands

and atolls of the Marshall Islands which formed the RMI in 1986; and the RP which was chartered in 1994 (e.g., US Department of the Interior, 2018).^{2, 3} The terms of the Compact of Free Association between the US and these entities conferred the rights to their citizens to enter, live, and work in the US.

In addition to the volatile histories of Micronesia's many home communities, the complicated physical and human landscape of Micronesia is characterized by a multitude of interrelated cultures, languages, and land forms. Across the 2,182 islands of FSM, RMI, and RP, with a combined land area of 700 square miles, within nearly 2 million square miles of Ocean, it is estimated that 11-17 languages are used (*Pacificrisa*, 2018; Pawley, 2013; *Worldstat*, 2018). Micronesian entities are separated by small to great physical distances. They differ from one another in family organizing traditions, social conditions, modes of political and economic function, and in the degree of absence or scarcity of modern conveniences (e.g., electricity, running water, plumbing, and sewage treatment). Other factors that vary across these entities include limitations in school and health services, resident and visitor housing, communication and digital technology, protection from typhoons, and reliable and affordable local and cross-region transportation.

² The terms of the US Compacts of Free Association with the Federated States of Micronesia (FSM), the Republic of Palau (RP), and the Republic of the Marshall Islands (RMI) were developed as the US-United Nations post-World War II Trusteeships were expiring. They provide reciprocal rights of most citizens of the US and the US-affiliated Micronesian entities to live and work in one another's countries. The compacts allow the US to have armed forces in the Compact entities. The US may also negotiate for land in the Compact countries for US military bases and exclude the militaries of other countries. The reciprocal US responsibilities (and also a US benefit) are to provide the Compact countries and their waters with military protection, and to administer international agreements. RP's Compact prohibits use of nuclear, chemical, or biological weapons. The RMI and FSM prohibit the storage of such weapons in peacetime. Many FSM, RMI, and RP citizens serve in the US armed forces (US Department of the Interior, 2018). As migration has progressed, many children have been born to Micronesian migrants living in the US; thus, many such families have children who are US citizens.

³ The United Nations assigned two other Micronesian entities, Nauru and Kiribati, to trustee status with Britain. Kiribati gained independence in 1979, and Nauru became independent in 1968.

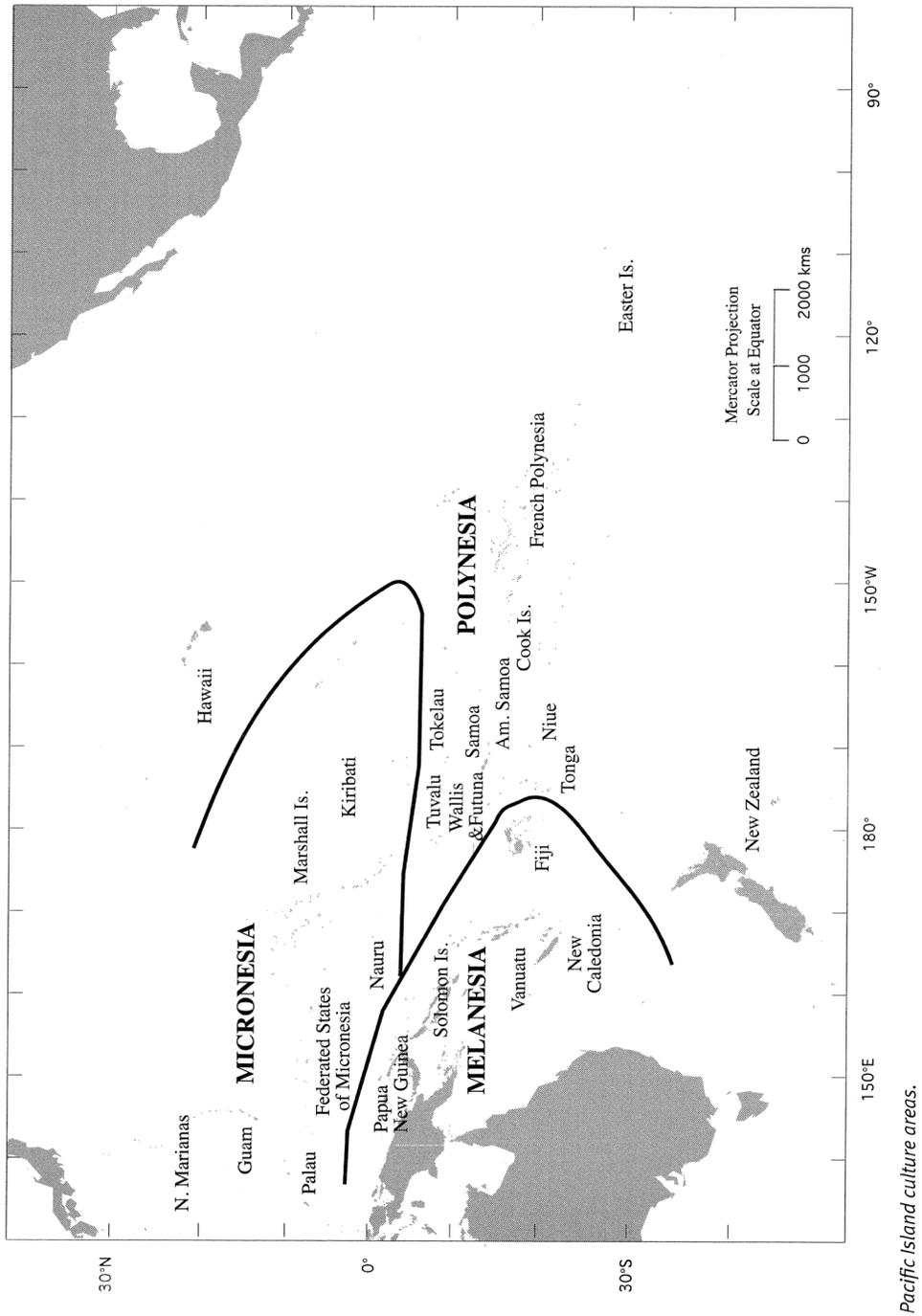


Figure 1. Map of Pacific regions. (Courtesy of University of Hawai'i Press)

Child and Family Development in Micronesia

Students of child and family development in Micronesia will find that access to research may require a deep search. Some important documentation was conducted immediately after WWII as part of the anthropological studies known as the US Coordinated Investigations of Micronesian Anthropology (overviewed by Kiste and Marshall, 2000), including foci on growing up in Palau (e.g., Barnett, 1979, pp. 4-10), and Romonum, Chuuk (Fischer, 1950). Developmental research in other Micronesian locations has appeared intermittently: Fais Island (Rubinstein, 1979) and Woleai Atoll (Douglass, 1999), in the outer islands in Yap State, FSM; Yap Proper (Lingenfelter, 1981; Lettiere, 1987); Nomonuito (Thomas, 1978) and Pulap Atolls (Flinn, 1982; 1992a; 1992b, 2010), in the outer islands of Chuuk State in the FSM; and briefly for Kosrae, FSM (Lewis, 1949; Wilson, 1968). More recently, the daily lives of Romonum, Chuuk children in the Chuuk Lagoon were documented at school and in their home domains (Spencer, 2015). This included 12 extensive case studies of children, with coordinated interviews of key people in their lives (parents, teachers, community members). Recent ethnographies of Pohnpeian life on the home island and in post-migration settings in Kansas City and Cincinnati (Hubbard, 2013, 2016, 2018), have added limited information on the lives of children of Pohnpei, FSM to other historical and cultural studies (e.g., Hanlon, 1988). Information on the lives of Marshallese children and families is not extensive (e.g., Alkire, 1977, pp. 68-77; Kiste, 1967). International information on infant mortality rates illustrates relevant health concerns for Micronesian children compared to those of the state of Hawai'i (UNESCAP, 2011): Hawai'i: 6.5 per thousand; CNMI: 5 per thousand; Guam: 8 per thousand; Palau: 20 per thousand; RMI: 21 per thousand; FSM: 32 per thousand).

The lives of individual Micronesian children and families will be shaped by some of the following interrelated factors: 1. The specific nation (i.e., the Marshall Islands, the FSM, or the RP); and the island group within it. For example, in FSM, Yap is one of four states. Yap Proper has four high volcanic islands and 10 municipalities. A researcher might choose to focus on Colonia, the largest city, and/or a small village within Tomil, a municipality toward the east. Deciding on a research site includes careful consideration of whether the researcher wishes to observe life on a high island or on an isolated low-lying atoll because of the differential life experiences and cultures of each context; 2. The degree of remoteness of the area will affect the range of experiences and opportunities of family members; 3. The specific Micronesian culture of a community is a critical factor; e.g., Palauan, Marshallese, Kosraean, Pohnpeian, Mokilese, Pingalapese, Kapingamarangi, Ngatese, Chuukese, Mortlockese, Pulapese, Puluwatese, Yapese, Ulithian, Fais, Satawalese, Woleaian, Lamotrek, and others. Cultural factors such as matrilineal versus patrilineal descent factors, or social rank, will structure children's lives in important ways. Other factors would include considerations of gender; birth order; cultural attention to menstruation; adoption; access to education, preventative health care, and medical treatment resources; emotional factors (e.g., stress in the face of familial disharmony, abuse or violence, over-work, depopulation, exposure to high suicide rates, or untreated mental health concerns).

A brief overview is provided in the example below of the family context in Chuuk Lagoon, based on ethnographic research (Alkire, 1977, pp. 53-59; Goodenough, 1978; Spencer, 2015). The Chuukese matrilineal clans form the structure governing the ownership of the lands and other property. This structure influences the choice of marriage partners and residential decisions. Couples usually live with the wife's family in an arrangement including several sisters and their children, in-marriage husbands, and out-marriage males who have left to relocate to their own wives' lineage lands. The resulting family constellation lives in a group of adjacent dwellings built on lineage land. After marriage, a man has labor obligations to his wife's lineage as well as to his lineage and that of his sisters, all of which require him to be active between these two areas. The senior man of the lineage is the head of the group and is usually consulted on all major decisions. As the eldest daughter grows older, she assumes increasing responsibility for the younger members of the family and the clan as a whole; including matters concerning the family lands and other resources. Social class may also be a determiner of children's opportunities and this hinges on long established historical and hereditary lineage and clan ranking criteria. Daily life during a typical week will consist of all children contributing substantially to the subsistence labor of the family. Children will do their part by collecting fire wood from the beach and along the roads, tending the fire before and during food preparation, assisting in the distribution of food, sweeping and cleaning of all types, caring for and carrying babies. Boys may accompany adult males on fishing expeditions far into the lagoon or across the reef. Girls and young children will often assist women who are fishing near shore, or – on some islands – accompany them into the dense tropical portions of their land in search of breadfruit and coconuts. Childcare responsibilities are delegated in a major way to both girls and boys, sometimes even before they themselves are school age. This family dependence on sibling care may interfere with the older child's school attendance; yet it may also enhance the development of leadership skills. In many parts of Chuuk, a substantial portion of the school-aged children are not attending school regularly. Elementary school opportunities are generally available throughout Chuuk. Senior high schools are primarily available on Weno, the capitol city; and intermediate schools are on only a few islands. Therefore, most Chuukese children must leave their home island if they intend to attend junior or senior high school.

Different Paths of Micronesian Migration to the US

Even before Micronesian leaders signed the Compacts of Free Association between the US and FSM, RMI, and RP, Micronesians were finding ways to emigrate to the shores of US territories and protectorates, and to the US mainland, for health, higher education, and employment opportunities (e.g., Hezel, 2013b, p. 5-6). Hezel and Levin (1990, p. 58) estimate the total pre-Compact FSM emigration to the US to have been about 600-900 nonstudents. With the reciprocal signing of the Compacts of Free Association, the Micronesian migration stream became a steadily increasing flow of new and usually permanent residents to Guam, CNMI, Hawai'i, and the US mainland. For example, Hezel (2013b, p. 4) cited the number of people from FSM, one of the new Micronesian nations, who were living in the US, Guam, or CNMI as 50,000. This compared to the FSM home population in 2010 of 102,000.

Due to greater distances, migration from FSM to Hawai'i and the continental US developed somewhat more slowly than it did to Guam or CNMI; but it has now resulted in the establishment of many Micronesian communities in all of these areas. The extent and nature of these population movements have been the subject of much documentation and survey research with migrants and their leadership from all of the new Micronesian nations: FSM, RMI, and RP (e.g., Smith et al, 1997; Pinhey & Spencer, 1998). Hezel (2013b) presented a matrix of the studies of one Micronesian country's (FSM) migrant populations on Guam, CNMI, Hawai'i, and the US Mainland for 2012 (p. 24-25), resulting in a total estimate of 49,840 FSM people. He estimated that an additional 1,776 children were born to FSM migrants on Guam during a 5-year period. Hezel estimated the 2012 Micronesian population in CNMI to be 4,286, and 7,948 in Hawai'i. US Mainland rates of FSM migration were cited as 24,048 with the largest populations in Kansas City, Missouri and Portland, Oregon, each with approximately 4,000 FSM migrants (Hezel, 2012, p. 31). Hezel estimates that Micronesians reside in at least 34 states.

The cost of Micronesian migration to the receiving locations is high and is only partially compensated by the US Government. The Compacts of Free Association contain language indicating that the US government will cover these costs, but since costs outstrip federal compact budgets for receiving locations, the local governments have been forced to fund the gap in expenditures for FAS health and hospitalization, education, public housing and accommodations, labor and industrial relations, public safety, and incarceration. Homelessness was documented as a major problem on Guam from the very beginning of the Compact period. Hezel (2013b) reported that in 1992, 25% of approximately 5,000 migrants to Guam were living in shelters (p. 26); and in 2011, in the state of Hawai'i, 15% of all clients served by homeless shelters were from the FSM (p. 31).

Motivations for Migration

A US Government Accountability Office report on the impacts of the Compact of Free Association on Marshallese migration patterns (2011) suggests that approximately one-third of the RMI population has left, with many having resettled in Hawai'i (e.g., Carruci, 2008) and the state of Arkansas (Watts, 2011). For Marshall Islanders, health care is a particularly salient motivator for migration due to the negative health impacts of the US atomic bomb testing in parts of the Marshall Islands (e.g., Niedenthal, 2001; Duke, 2014). Besides needs for medical care, the report cited needs for improved education, economic conditions, and employment as leading stimuli to Marshallese out-migration. In a study of the reproductive lives of Chuukese women in health

service settings on Guam and in Chuuk, Smith (2014) pointed out that the migration motivation of FSM Chuukese women seeking reproductive health care for themselves and their babies continues to be strong (e.g., Haddock, Whippy, Talon, & Matano, 2009; Pobutsky, Buenconsejo-Lum, Chow, Palafox, & Maskarinec, 2005; Yamada & Pobutsky, 2009). Challenges remain – both at home in Chuuk as well as on Guam.

Investigation has found that education is a strong motivator for migration. In 1972 a US regulation declared Micronesians eligible for Pell Grants for college attendance (e.g., Hubbard, 2018, p. 66). In 1970, the number of Micronesians abroad for college was about 200. By 1978, the number had increased to 2,400 (Hezel and Lewin, 1990). The vigorous pre-Compact migration of Palauans to Guam, CNMI, and Hawai'i, often for the purpose of seeking educational opportunities, began at the end of WWII. This may account for the early development of stabilizing skills among later Palauan migrants (e.g., Johaneck, 1984).

For Palauan migrants to Guam, opportunities for initial employment, and especially for jobs and careers with higher economic returns have been key migration motivators. In a study by Pinhey and Spencer (1998) of Palauans who had migrated to Guam, low income was shown to be a problem for about 13% of their families several years after migration, but at a rate comparable to families in many areas of the United States. The majority of Palauan study participants over 16 years of age (69%) reported being employed, most in the private sector, with the Government of Guam and the US Federal Government ranking second and third as employers. The same study found that the majority of Palauans on Guam spoke a language other than English and almost all of those reported that language to be Palauan; however, over 90% reported being able to read and write in English, a favorable factor for economic advancement.

Considering Bronfenbrenner's Ecological Theory within Micronesian Contexts

Urie Bronfenbrenner's bioecological theory of child development provides a useful conceptual framework for considering the migration experiences of Micronesian families and communities, and the reciprocal experiences of originating and receiving communities (e.g., Bronfenbrenner, 1979, 1986, 1992, 1994; Bronfenbrenner & Morris, 1998). Bronfenbrenner's theory provides five ecological systems to describe the individual and group experiences of child development and later life transitions. When these are applied to the overall process of Micronesian migration toward Guam, CNMI, and the US mainland, a multigenerational and multidimensional international process appears, and the variables and forces involved may be identified and explored.

A benefit of applying Bronfenbrenner's ecological concepts to the complex Micronesian home context, as well as to the migration process, is that the model is suitable for explanatory expansion as the body of migration research grows and history develops. The ecological schema aids researchers' rationales for the design of future research, and readers' development of a better understanding of the identity of, and connections between levels of analysis. Research-based examples are developed below as a means of illustrating the basic fit of Bronfenbrenner's ecological principles to the home island and migration realities.

Microsystem

A microsystem is the smallest, closest level having immediate and direct influence on a child's development; e.g., family, friends, peers, school, church, and neighbors. Researchers of

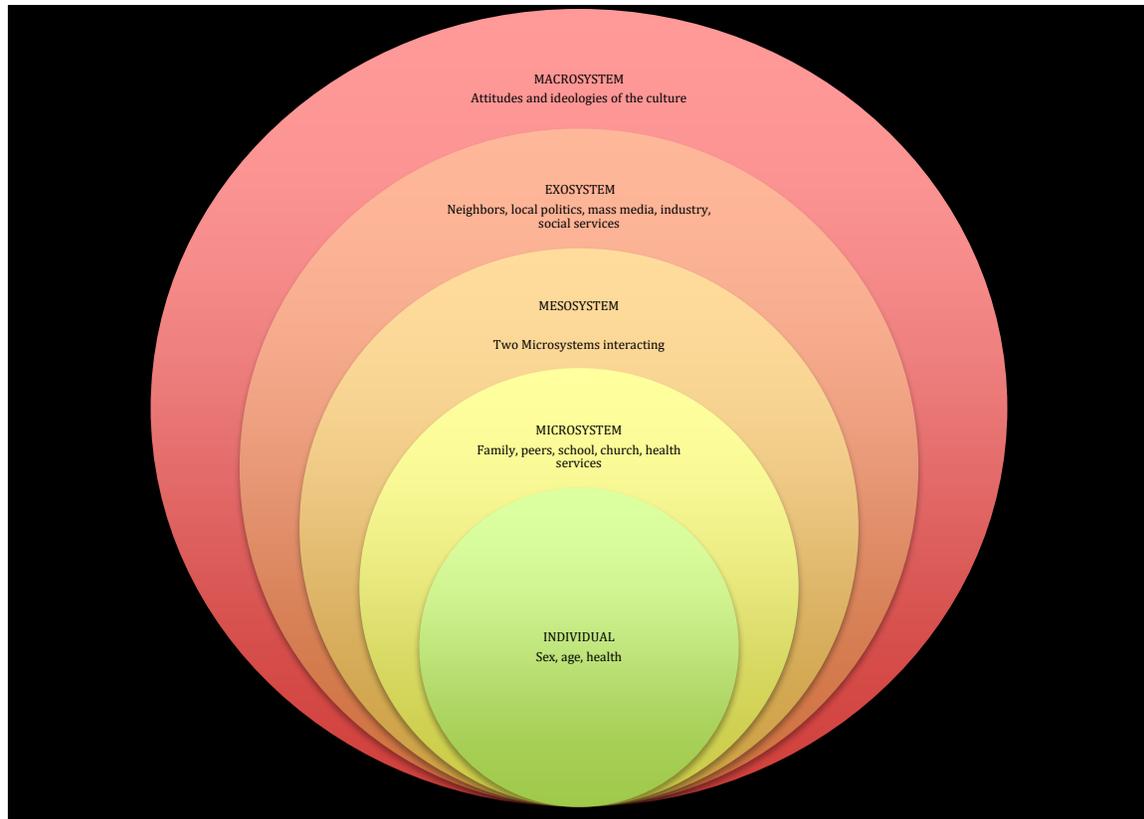


Figure 3. Schematic view of Bronfenbrenner's bioecological systems theory.

Micronesian child development may begin by conducting research with one or more children who live in the Micronesian region homes and compounds of their respective birth parents (i.e., the microsystem). For example, the daily home and school activities of a Chuukese child were documented on Romonum Island (Spencer, 2015).⁴ The child's daily activities were influenced considerably by her grandmother, who is the matrilineal family leader of her lineage. Her mother, her mother's brother, her maternal grandfather, and her siblings and cousins all exerted influence on the child. When she went to school, she was influenced by her principal and one or more of her teachers. Close neighbors (who may also be family members) and a church leader all had some direct influence on her.

Adoptive family situations in Micronesia would usually be examples of the microsystem. Because of the very high rate of adoption by both relatives and individuals outside the immediate family, any child of interest may be an adoptee. In addition, many children have been permitted by parents to migrate away from the home island with siblings, aunts or uncles, or other relatives or friends (often to locations as far away as Guam, CNMI, or any of the US states). Some return, but many do not. Although Bronfenbrenner may not have anticipated this particular situation, the ecological schema makes consideration of it possible. He suggested that the paired comparison of brothers and sisters brought up in adoptive versus biologically related families might permit a clear

⁴ Romonum, Chuuk examples were taken from observation data and field notes on child development (Spencer, 2015).

analysis of biological versus environmental influences on child development (Bronfenbrenner, 1986). But with the high frequency of adoption in Micronesia, especially those involving close relatives, there could be reliability and validity problems with such comparisons if a child chosen for study shares much of the genetic make-up of other study children living with different families.

Microsystem settings in post-migration home and educational situations in Hawai'i are beginning to receive attention. In Kaneshiro and Black's study (2012), the strengths and resources of Micronesian students in a Hawai'i middle school reflected the direct influences of the school on the child's development. Talmy's (2006; 2009) systematic observations of multiple Micronesian migrant groups in a Honolulu high school share vivid and troubling examples of student-faculty/administrator interpersonal environments. The closest people influencing the Micronesian child in the migration home may be the same type as those in his home island, but the probability of fewer close family relatives and of more unrelated, newly met adults and children of different ethnicities is high (e.g., in an apartment complex serving families of Chuukese, Pohnpeian, Kosraean, and Marshallese migrant families; or school personnel local to Hawai'i of multiple cultures such as Hawai'ian, Japanese, Chinese, Samoan, Filipino, African American, or Caucasian). This may add to the child's sense of isolation and homesickness. Heightening this is the pressure to speak English in all domains outside of the home and often for children to take on the role of interpreter and translator for the family. On the other hand, the author has observed at least some Micronesian migrant children reveling in new friendships and in the context of well-resourced classrooms on Guam and in Hawai'i.

Mesosystem

Bronfenbrenner's mesosystem is the influence of two microsystems interacting; e.g., parents with teachers. In a home island example of this, the principal of the Romonum School in Chuuk, FSM, held a meeting of parents and also visited homes of school age children who were not enrolled in school (Spencer, 2015). His goal was to persuade them to allow their children to attend school. This effort led to the enrollment of some children, but some other parents felt it was more important for their children to join the father and uncles, or mothers and aunts, to learn traditional skills such as fishing in either the ocean or the lagoon, and learning how to tend to important subsistence gardening. Similar mesosystem influences may occur in the post-migration site. For example, Iding, Cholymay, & Kaneshiro (2009) obtained recommendations from migrant Micronesian families on how Hawai'i schools could improve student adjustment and progress via improved teacher expectations and attitudes, stimulating more positive peer relations; lessening prejudice; and expanding family involvement. On Guam, certain mesosystem situations were documented in research on the influences and interactions of local public health provider systems with migrant Micronesian family members. Health employee reception and treatment behaviors with Micronesian parents appeared to create barriers to their children receiving health care (Smith, S.A., 2014).

Exosystem

An exosystem refers to environmental settings in which a child is not actively involved, yet which exert influences over the child; e.g., an education or health administration system that does or does not adequately support the education or health of children. In parts of Micronesia, health and special needs assistance are scarce. For example, on Romonum, in the FSM state of

Chuuk, the author has observed a teenage boy with severe hearing deficiency who had never received diagnostic or developmental assistance from public or private resources. In the absence of such assistance, his parents created their own sign language and taught it to him, an instance in which the microsystem substituted for gaps in the official health exosystem (Spencer, 2015). In related but separate research in Micronesia, Ratliffe, Rao, Skouge, & Peter (2012), documented access to assistive technology resources by two FSM individuals with disabilities. Collaboration among community organizations, government agencies, and families was shown to be essential.

Another important instance in Micronesia of the exosystem concept is the *remittance* process in which family members in the home island receive money and other resources sent by individuals who have migrated away from the island. Family leaders on home islands then distribute the funds and material gifts among the home island family members, including children. This activity is so important that economists couple it with the other two key economic engines of small islands: aid and bureaucracy; thus, the acronym: MIRAB for Migration, Remittance, Aid, and Bureaucracy (e.g., Ogden, 1994; Bertram & Watters, 1986).

In an exosystem example in the post-migration adjustment process of Micronesians on Guam, Walter, Salas, and Li (2011) conducted a needs assessment study among Micronesian migrants, and documented specific perceived needs regarding education, housing, and other public services – exosystem domains. The priority of expressed concerns (e.g., discrimination) and needs (education) created awareness among Guam’s community leaders. In another example, exosystem activity occurred in Hawai’i’s post-migration environment when a state-based non-profit health consortium responded to the needs of migrant families for immunizations, diagnoses, referrals, health emergencies, and on-site medical care in housing or community locations. In a recent example of the consortium’s activity, they conferred with educators on a neighboring island in which the absenteeism of Micronesian migrant children is high due to health problems.

Macrosystem

The macrosystem of Bronfenbrenner’s ecological system is the actual culture of the individual – the common heritage or identity, political and social beliefs, and group traditions. The macrosystems of Micronesia were systematically and intensely researched by American anthropologists toward the end of World War II and shortly after the United Nations placed the region in the US Trust. The post-war Chuuk, FSM culture of Romonum was documented by several anthropologists (e.g., A. Fischer, 1950; Gladwin and Sarason, 1953; R. Goodenough, 1970; W. Goodenough, 1978, 2002; and LeBar, 1964). Other studies of Micronesian sub-regions were also conducted by US scholars (e.g., Weckler, 1949 in Mokil; Barnett, 1949 in Palau; Lewis, 1949, in Kosrae; J. L. and A. M. Fischer, 1957, in Pohnpei; and Kiste, in the Marshall Islands, 1967 and 1976). These studies provide important baseline information for that time period that is relevant to the macrosystem, and the chronosystem. However, little information on child behavior and development was reported.

Research on Micronesian cultures in post-migration settings has been largely missing until very recently. However, Pohnpeian culture in both the home island and the migration communities of Kansas City and Cincinnati have now been documented and analyzed by Hubbard (e.g., 2013, 2016, 2018). Over 1,000 Pohnpeians have established a Pohnpeian sociopolitical system in Kansas City, MO, and Kansas City, KS, with the cultural endorsement of a paramount chief of Pohnpei, FSM. The Kansas City section chief accords chiefly titles, sponsors tribute feasts, conducts official business with the Pohnpei FSM base, and maintains the Pohnpeian culture and language in the

Kansas City diaspora. Thus, official clan membership and authority lines of Pohnpei have been seeded in the macrosystem of a major American city. Hubbard identifies the development of some cultural contrasts across the home island and the diaspora that are beginning to appear for both children and adults; however, the consistencies across the two vastly distanced locations are substantial. The full story of child development in these US Pohnpeian communities is yet to be discovered.

To build on Hubbard's exploration of a particular Micronesian culture in US migration sites, one fruitful future research pursuit would be documentation of new microsystems and macrosystems within each Micronesian migration community. It is likely that the portions of the cultural research base identified for the home island macrosystem will have been substantially transmitted to the migration sites. An emerging example of interest would be observations and structured interviews with Micronesian migrant families who have US-born children, or both Micronesian- and US-born children. In the author's experiences in Hawai'i schools and community organizations, interesting contrasts often appear between Micronesia-born and US-born children of Micronesian migrant families. For example, among Micronesian families with whom the author is acquainted through the activities of the Big Brothers Big Sisters organization in Maui, HI, children in a single Micronesian family may have significantly different fluency levels in their cultural language, or in their first-hand experience on the home island with cultural expectations for a range of interpersonal behaviors (e.g., mutual avoidance of the opposite sex) or participation in culturally based ritual experiences (e.g., Palauan first birth celebrations). On some occasions, siblings and age-mates can be heard arguing about their relative social status based on being the one in the group who has been in Hawai'i the longest; or conversely, the one who lived longest in the Marshall Islands and is therefore the greatest cultural expert among the children.

Chronosystem

A chronosystem in Bronfenbrenner's bioecological theory consists of major life transitions, environmental and historical events that occur during development and tend to impact or change the child's future. Examples of chronosystem factors include adoption, migration, or major changes in nation or community status. The Micronesian region has experienced multiple major chronosystem events in the 20th and 21st centuries: The sequence of German, Spanish, Japanese, and US occupations all continue to have minor to major impacts and influences on the cultures, environments, and everyday lives of Micronesian families.

As a chronosystem element, adoption maintains its traditional cultural forms in Micronesia (Marshall, 1999; Carrucci, 2008), and has exceedingly high incidence in some locations (e.g., Rauchholz, 2008). Carrucci described various forms of adoption as it is practiced in the Marshallese home islands, finding it to be a very significant event in child development, and typically changing the child's future; but usually not in a debilitating manner (2008). Over 80% of Carrucci's pre-WWII Marshallese sample were adoptees, with 20-35% reporting strong or consistent relationships. Rauchholz, on the basis of over 200 structured interviews with relatives and friends of adopted people from multiple Chuuk villages, found that most adoptions were between close relatives. He concluded that most of the adoptees in his study reported emotional struggle associated with their adoptions. He reported that between 10 - 90% of specific Chuukese island populations may have been adopted. Adoption follows Micronesian children through migration movements, and often occurs because an adult member of a family who intends to migrate is entrusted with a relative's child as a means of giving the child the perceived advantages of

migration. The child's natural parents may also be hoping for future remittances from the child. Carruci (2008) studied adoption of Marshallese migrants on Hawai'i Island, where he found that the incidence of adoption is high and household size is large (e.g., 13-32).

Contemporary Micronesian migration is another forceful chronosystem element, requiring a multitude of long-term family and child adjustments, as well as many potentially beneficial opportunities. For example, at the encouragement of a former Peace Corps volunteer to Romonum Island, Chuuk, a segment of the island population moved to Milan, Minnesota – an agricultural area of Norwegian heritage - to explore economic and educational opportunities. The Milan Chuukese community has told about their challenges, adjustments, and successes in a video produced with grant funds that they and Milan friends secured (Video.Pioneer.Org: Postcards-Micronesian-Culture-Milan, 2018). In another example, after decades of affiliation with the people of Namoluk Atoll in the southeastern portion of Chuuk, Marshall (2004) traced the history of seven waves of Namoluk migration to Guam, CNMI, Hawai'i, and the US mainland. Their stories bear witness to the long-term ups and downs and directional changes associated with the migration chronosystem experience.

In their study of Marshallese and Chuukese children who migrated to Honolulu, Kaneshiro and Black (2012) conducted one of the first studies of Micronesian migrants that draws directly on Bronfenbrenner's constructs. The study illustrates the life transitions of migrating Micronesian children by examining the processes and impacts experienced in family, home, and school situations in the Marshalls and Chuuk home islands, as well as in Honolulu. Using qualitative case study methods with four children – two Marshallese and two Chuukese, they were able to link their findings to Bronfenbrenner's key concepts. This study is also one of the first to conduct research in the home island, the migration homes, and also church contexts of the participants. Their results identified overlapping themes of "...culture, relationships, transitions, and cooperation" (p. 60). They made recommendations of two types for the migration educational settings: The incorporation of technology learning in instruction, and enhancement of teacher perception in the service of student academic success. The latter recommendation arose from their observation that:

“...many current educational practices are deficit-based.”

“In summary, we found that the participating students had many strengths and supports that schools do not traditionally recognize. The students had good family and community support. They were responsible, resilient, caring young adolescents who valued their relationships with others.” (p. 63)

Implications for the Work Ahead

In this and other writing, the author has argued for the importance of growing the research base on both pre-migration and post-migration development of Micronesian children, and to do so across the range of Micronesian entities. As a relatively remote and economically developing region of the world, and one in which the US literally prohibited entry by non-military visitors for decades (e.g., Stephenson and Spencer, 2018, pp. 3-35), the body of Micronesian child development research in the home islands is sparse. Research in the post-migration sites is only beginning. Many gaps regarding the documentation and interpretation of developmental

experiences in children's familiar settings in both home and migration settings, and across the bioecological systems, remain. The full range of research support and dissemination, and also more guidance and participation of Micronesians are needed. These needs can be illustrated with a simple compound example of home island-to-migration site microsystem behavior with which Micronesian migrant children must frequently cope. In the author's volunteer work with Guam and Hawai'i schools on behalf of Micronesian migrants, one of the most common concerns voiced by teachers is: "Micronesian children will not make direct eye contact with me." From her research and experience in the outer islands of Yap, Hasuguluyag (an indigenous Ulithian woman scholar) explained this behavior to professionals working with Micronesian children (2018):

Showing respect for an authority figure is important and often manifests as classic respect avoidance, which includes refraining from or limiting one's speech when in the presence of an authority figure and intentionally avoiding direct eye contact. Although in more Western societies this type of body language is often misinterpreted as disrespect, in Ulithi it is a show of respect; in essence, it is an acknowledgment, through one's body language, that one is not on the same level as the authority figure (Hezel, 2013; J. Figirliyong, 2018).

Thus, rather than being disrespectful as her teacher believed, a Micronesian child observed by the author in a Guam classroom was demonstrating a high degree of respect for the teacher by keeping his eyes lowered (Spencer, 2012).

One fruitful future research pursuit would be the documentation of new or varied microsystems and macrosystems within each Micronesian migration community and how they compare to the traditional forms of their home islands. Relative to macrosystems, culture has only rarely been deeply researched in post-migration Micronesian settings. Although the sample size is small, the Kaneshiro and Black (2012) study is a good example of one approach for achieving this goal. Hubbard's studies (2013, 2016, 2018) of Pohnpeian communities in Pohnpei, FSM, and the US metropolitan areas of Kansas City and Cincinnati, are also notable examples. Basic observation and descriptive reports from any of the key migration locations, and across the bioecological systems would be useful. Priorities for research and assistance include: Certain needs (e.g., housing, health care, food security, education, assistive technology), threats (violence, child abuse, lack of medical care, homelessness, children not attending school), methods for addressing them, as well as examples of positive adjustment and problem solving. The level of current information and analysis reflects progress when compared to the complete void of a decade ago, but research questions and analyses need to be on a path to deeper and more coordinated answers. For example, are responses by community organizations and public agencies maturing? Are there lines of communication for sharing best practices across professionals and migration sites? Are the lives of migrating Micronesian children and youth improving? Are they prospering in their new schools, graduating with literacy, numeracy, and science backgrounds that support their post-secondary goals and vocational pursuits? Has their incidence of high probability maladies (e.g., diabetes) abated? Do the indicators of social adaptation and productivity point in positive directions (i.e., increasing high school and college graduation rates; examples of positive family and community participation and contributions; increasing income levels; declining rates of incarceration or deportation for criminal behavior)? Finally, activities to engage Micronesians as well as

professional communities and public agencies in the utilization of research findings is essential to promoting healthy environments for children.

Conclusions

Researchers of Micronesian childhoods may find that Bronfenbrenner's bioecological model of the child development landscape can lend order to research design work in the multifaceted historical, cultural, and political situations of both the Micronesian region and the immigration sites. It allows us to take stock of our inventory of research on the various microsystems, as they are nested within the various macrosystems of the region, and also across the growing and connected diaspora of Micronesian migration. This exercise better prepares us to identify gaps in our knowledge, by topic, cultural group, and across the geography of the region and the world; thus improving the decisions of researchers and policy makers as they select research priorities. For example, in Spencer's examination of existing research conducted for the post-migration home settings of Micronesian children (Spencer, 2018a, b), only one study was found (Kaneshiro & Black, 2012). Recently, Hubbard's studies (e.g., 2018) offered indirect views into migrating Pohnpeian children's home lives. Few studies have been conducted in post-migration school settings (e.g., Talmy, 2006; 2009) or in neighborhoods. The church context, which is prominent in the lives of Micronesian children and families, is a desirable but neglected research context. The author has previously noted the important role that churches in Micronesia play in the development of literacy in both the indigenous language and in English (Spencer, 2018a;b).

Whether the research aims are focused on problem-solving/benefit-maximizing applications, or basic research objectives, improvements in the conceptualization of regional research programs can potentially enhance the efficient and effective use of scarce research resources. Results of studies of Micronesian migrant children and families have the potential for improving the understanding by local leaders in Micronesia of the needs of children in their own far-flung communities and schools. Greater understanding by indigenous home island leadership has the power to boost their efficacy in identifying resources to meet these needs, and to better counsel Micronesian families contemplating migration. Improved understanding of the connection between information needs and regional research with Micronesian children is also important to institutions of higher education because they receive these children as college students, prepare the teachers who will teach them throughout the region, support the academic units in which professional researchers will conduct research with Micronesian families, and often provide expertise and facilities throughout the region for carrying out research and related services that have been sponsored by government agencies and foundations.

Finally, the information provided above about the growing Micronesian migrant communities in the United States should awaken readers and their professional affiliates to an existing and increasing wave of Pacific Islanders from a multitude of Micronesian origins, to all parts of the United States. Their successful relocation in places as different as Guam, Minnesota, Arkansas, Kansas, Missouri, Washington, Oregon, California, and Hawai'i raise new research questions and may expand the application of Bronfenbrenner's schema to new avenues of inquiry.

It is very definitely time to re-examine existing policies that govern the health, education, and economic welfare of the US Micronesian diaspora, and to develop new policy where gaps exist. Public attitudes in the US toward migration have been in a serious state of turmoil throughout the first two decades of the 21st century. In contrast, the *Lau v Nichols* 1974 Supreme Court case,

which found in favor of San Francisco Chinese-American students who claimed violations of their civil rights to education due to English-only school policies, provided the stimulus for state and national bilingual education opportunities for several decades. Key to implementation of the resulting policies was the Bilingual Education Act of 1968. In spite of progress made in many schools throughout the country, counter forces have succeeded in recent years, through a series of new laws, to dismantle much of the educational progress made in the US for minority language children (e.g., Patrick, 2015). Remarkably, several new developments in the Pacific region signal grass roots persistence regarding cultural and linguistic maintenance in education. With both public and private support, indigenous language charter schools have been opened by Native Hawai'ians on several islands in the State of Hawai'i. A publicly supported Chamoru language charter school has been opened by indigenous Chamoru educators on Guam. Examples such as these involve policy development as well as policy implementation. They deserve study of their operational histories, and analysis of factors contributing to their difficulties as well as to their achievements. Bronfenbrenner's theoretical structures could provide a useful organizing framework for the research that will underlie culturally oriented educational improvement efforts throughout the Micronesian region.

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