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The Impact of Primary Schools on the Differential Distribution of Samoan Adolescents' Competence with Honorific Language

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In the Western Polynesian society of Samoa, cultural learning and the acquisition of competency in many domains is substantially influenced by the hierarchical structure of social relations and interactions. From a population-level perspective, this pattern of intergenerational transmission of culture can generate differential distributions of competencies in many domains of cultural knowledge on the basis of children's relative household rank. However, because the local primary school provides children with opportunities to learn without regard to their household rank, the possibility exists that it may act as a countervailing force in the distribution of cultural competency. This report examines this possibility through an analysis of children developing competency with the Samoan honorific lexicon, a basic yet important element of the larger category of respectful behavior that all adults in this culture are expected to acquire. A multiple-choice test of the Samoan honorific lexicon was administered to a sample of early adolescent schoolchildren aged 10–14 years ($n = 64$) at a single rural primary school. Analysis of this data set supports the interpretation that the primary school functions to reduce the levels of variation in competencies across the population of children and thus operates as a leveling mechanism in this domain of cultural knowledge.

It is widely acknowledged in anthropology that culture, in the forms of conceptual knowledge, embodied skills, affective orientations, and patterns of belief, is differentially distributed across populations (Barth 2002; Romney, Weller, and Batchelder 1986; Sperber 1985; Swartz 1991). What remains less well specified are the various sociocultural processes by which particular patterns of differential distribution are generated in a given population. The purpose of this article is to provide a case study of some of the processes structuring the dissemination of cultural knowledge in Samoa that examines the influence of rural primary schools in the distribution of competencies in the Samoan honorific lexicon across a population of adolescents.

Competence with the Samoan honorific lexicon (*'upu*

fa'aaloalo) is considered to be a basic element of the larger category of respectful behavior, which all adult Samoans are expected to employ in their interactions with social superiors, particularly village chiefs (*matai*) and pastors (Duranti 1992; Keating and Duranti 2006; Milner 1961; Shore 1982). Although all adult speakers possess some basic command of the lexicon, a greater level of competency can be a source of prestige for the individual and their descent group and can be a criterion for receiving a chiefly title (Shore 1982:64–66). Despite the importance of this body of knowledge, however, the intergenerational transmission of competence in this particular domain of cultural knowledge is neither formalized nor straightforward. As I will describe below, the opportunities for Samoan children to learn the honorific lexicon are substantially structured by the local hierarchical order of their village. Consequently, relative household rank is a key organizing factor and a driving force behind the differential distribution of competence in this particular domain of cultural knowledge.

Given the role that hierarchy plays in structuring opportunities to learn the honorific lexicon in Samoa, the contribution of formal schooling is of particular interest, as primary schools provide children with opportunities to learn respectful speech without recourse to household rank, gender, or other demographic variables. I hypothesize that village primary schools serve as a “leveling mechanism” that reduces the differential distribution of competencies across the population of village youth. I examined this possibility by administering a multiple-choice test of the Samoan honorific lexicon to a sample of early adolescent (10–14-year-old) schoolchildren ($n = 64$) at a rural primary school. Test scores were analyzed, using linear regression, to compare the number of years of life with the number of years of schooling to determine the impact of these factors on the competencies of early adolescents. The findings of these analyses support the interpretation that the primary school does indeed function to reduce the level of variation in competencies across the population of village children in this particular domain of cultural knowledge. I begin by briefly discussing the Samoan honorific lexicon, the hierarchical nature of cultural learning in Samoa, and how the village primary school might serve as a countervailing force to this pattern of distribution, and then I discuss the study and its findings and limitations.

The Samoan Honorific Lexicon (*'Upu Fa'aaloalo*)

In many languages, social relationships among participants can be marked in a speech act by the use of special morphemes that convey respect for the addressee, the occasion, or even bystanders (Agha 1994; Irvine 1985). Linguistic anthropologists have long been interested in these honorifics, because studying them reveals not only how semiotic resources can be used to pay respect to others but also how they can be used to negotiate shared understandings about ranked relationships between in-

dividuals and groups (Agha 1994; Beeman 1986; Dunn 2005; Errington 1988; Keating and Duranti 2006; Levinson 1983). Although most honorifics come in the form of specialized pronouns or terms of address, a number of genetically unrelated languages, including Hindi-Urdu, Lhasa Tibetan, Burmese, Thai, Tamil, Zuni, Nahuatl, Javanese, Korean, Japanese, Tongan, and Samoan, have far more numerous and elaborate semiotic resources that can be used for these purposes. Although the Samoan language has a range of different phonological, morphological, and grammatical elements that can be used to mark differences in rank and status (Keating and Duranti 2006), the honorific lexicon is arguably the most prominent and important of these resources.

Lexemes drawn from the honorific lexicon are employed by speakers to express deference and respect for others by replacing everyday lexemes in speech (see table 1 for examples). For example, the everyday word for “know,” *iloa*, can be replaced with a marked honorific form, *silafia*, to show respect for a particular addressee or bystander. As Keating and Duranti (2006:149) note, speakers can also signal rank and status differences by using the everyday lexemes to humble themselves or other and thus implicitly elevate another (for comparable usage in Japanese, see Dunn 2005). Although extensive, the Samoan honorific lexicon focuses on the possessions, bodies, mental states and cognitions, and activities of highly ranked persons (Duranti 1992; Keating and Duranti 2006; Shore 1982). Prototypically, respectful speech and the honorific lexicon are employed in interactions with chiefs and pastors, but they are also frequently used with anyone of relatively higher rank, including church deacons, teachers, carpenters, and unfamiliar adults. The honorific lexicon can also be employed with untitled persons to whom a particularly important request is directed (Ochs 1988:58).

The Samoan honorific lexicon does not merely contrast high and low rank but also makes status distinctions within the high-rank category by having a subset of honorific lexemes that refers to high chiefs (*ali'i*) and another that refers to orator chiefs (*tulafale*). The bottom half of table 1 includes examples of lexical distinctions made for these two different, high-ranking social statuses. Generally speaking, the former tend to outrank the latter, although there are extremely high-ranking and influential orators who can outrank lower-ranked high chiefs. More precisely, however, these two high-ranking statuses should be viewed as complementary, as they possess paired roles in ritual activity and behavioral expectations (Shore 1982:241–246).

Although all Samoans should have a basic level of competence in the honorific lexicon, and in respectful speech more broadly, competence in this domain should really be viewed as a continuum, with far greater levels of sophistication possible, particularly with regard to metalinguistic knowledge of how to employ the honorific lexicon tactically. Although native speakers stressed the compulsory nature of the honorific lexicon to me and to other researchers (e.g., Keating and Duranti 2006:156), its use is not strictly obligatory. In practice,

honorifics can be employed with great creativity in the negotiation of social relationships. For example, speakers can use honorifics to transform less formal social contexts into more formal ones, or vice versa, for specific communicative purposes (Duranti 1992). Speakers can also demonstrate knowledge and experience with the use of rarer honorific forms or by using honorific forms in particularly nuanced and eloquent ways in the context of formal oratory.

There are clear reasons why individuals would be motivated to acquire greater levels of competence. Greater skill in respectful language, as well as greater knowledge of the chief system and its various ritual practices (e.g., gift presentations, kava ceremonies), can be a way to gain prestige and status in one's household, descent group, and larger community. An individual's relative level of competence in these areas is also one of many factors that are considered in title succession decisions (Shore 1982:64–66). Although females are not frequently candidates for chiefly titles (only about 10% of chiefly titles are held by women [Meleisea 1987]), skill with the honorific lexicon is also important for women, and it can be a source of prestige in a range of contexts, including the village's Women's Committee, various church organizations, and in urban workplaces.

Cultural Learning in Samoa and the Hierarchical Flow of Cultural Knowledge

Although cultural learning always involves a combination of various different modes of social learning (e.g., imitation, peer learning, observational learning, structured instruction by more experienced others), cultural values, social practices, institutional norms, and patterns of interaction tend to promote certain forms of social learning as “appropriate,” “right,” and “proper” while marginalizing others as less appropriate in a particular sociocultural context (Odden 2007; Odden and Rochat 2004). In Samoa and much of Polynesia, the most culturally promoted form of social learning is to learn through the careful observation of the actions and behaviors of others who are more experienced and more knowledgeable (Borofsky 1987; Howard 1970, 1974; Morton 1996; Odden 2007; Odden and Rochat 2004; Toren 1990). The characteristic pattern of social learning in a given context is relevant for the larger question of differential distribution of cultural knowledge, because these patterns of learning influence the opportunities made available to different subpopulations to learn.

There are a number of factors that contribute to the promotion of observational learning as a privileged form of social learning in Samoa, but two are particularly important. First, Samoan ethnotheories of learning explicitly associate knowledge and its possession with previous firsthand observation (Shore 1982:168–169). In interviews and responses to questionnaires, Samoan parents and caretakers explicitly point to the importance of children observing the actions of their elders (Odden 2007; Odden and Rochat 2004). When caretakers discuss their relative contributions to teaching children, they

Table 1. Samoan honorific lexemes and their everyday equivalents

Everyday lexeme	Honorific lexeme	English gloss	
<i>iloa</i>	<i>silafia</i>	know	
<i>mata</i>	<i>fofoga</i>	eye	
<i>ma'i</i>	<i>gasegase</i>	sick	
<i>mana'o</i>	<i>finagalo</i>	want/desire	
	High Chief (<i>ali'i</i>)	Orator (<i>tulafale</i>)	
<i>tautala</i>	<i>saunoa</i>	<i>fetalai</i>	speak
<i>fale</i>	<i>maota</i>	<i>laoa</i>	house
<i>to'alua</i>	<i>faletua</i>	<i>tausi</i>	spouse/wife
<i>māufaufau</i>	<i>utaga</i>	<i>tōfā</i>	wisdom/judgment

usually present it in terms of how they serve as exemplars by modeling good behavior and avoiding negative behaviors such as swearing, rather than by actively directing or promoting a child's efforts. Such ethnotheories of learning set up expectations and guide caretakers' socialization practices, which eventually guides a child's particular approach to learning from others (which Gregory Bateson termed "deuterolearning" [Bateson 2000:159–176]). The Samoan association of knowledge with observation can also be seen in the common Samoan word "iloa," which denotes both "know" and "see" or "notice." As Koskinen (1968) noted long ago, this association of visual perception with knowledge is found across the majority of Polynesian languages.

A second factor that promotes observational learning in Samoa is the heightened sensitivity to relative rank that is characteristic of this pervasively hierarchical society. Considerations of relative rank provide structure to the majority of social institutions and a wide variety of practices (Duranti 1994; Ochs 1988; Shore 1982, 1996*a*), including social learning. As Ochs (1988) has noted, higher-ranking parents and caretakers initiate, control, and regulate interactions with their lower-ranking children and charges. Although they will occasionally correct a child's errors, adults tend to not follow into the attentional focus of children and actively instruct them, because this is widely perceived to be demeaning and damaging to the respect and dignity associated with an adult's overall higher rank vis-à-vis children. Samoan logic dictates that it is the task of the relatively lower-ranking party to attend to and perceive the needs and wishes of the higher-ranking party, well before they are actually articulated (Ochs 1988: 162). Learning from similarly ranked peers in Samoa can also prove to be contentious, as claims of the possession of expertise and knowledge is frequently seen as a grab for status, which other relatively similarly ranked children tend to strongly resist (on a similar dynamic in Hawaiian children, see Boggs 1978). Observational learning avoids both of these pitfalls by neither threatening the ranks of social superiors such as family elders by asking them to lower themselves to the level of novices in order to actively teach, nor creating friction with similarly ranked peers.

One key consequence of a reliance on observational learning in acquiring the honorific lexicon is that relative proximity

to chiefly activity (i.e., contexts and events where honorific language is regularly and frequently employed) emerges as a crucial factor in the differential distribution of competence. Put simply, a child must have access to contexts in which the honorific lexicon is being used in order to learn it, because he must be in a position to observe and overhear its use. Children with greater proximity to contexts in which honorific language is employed will have greater opportunities to learn, and presumably will have higher levels of competence.¹

Although honorific language is used in a range of different speech events on any given day, it is used with far greater frequency when one is in proximity to chiefs (*matai*) and their activities, as the chief is the paradigmatic referent and addressee in the honorific lexicon. Consequently, an individual's relative proximity to chiefly activity, which varies according to household rank, emerges as an important axis of variation along which levels of exposure to honorific speech (and respectful behavior in its more elaborate forms) varies. Children of higher-ranking households will have more regular contact with persons with which respectful speech will be used and from whom they can learn, while children of relatively lower-ranking households will tend to have far fewer opportunities to do this. As higher-ranking households tend to be clustered around the center or residential core of the village, while lower-ranking households are arrayed more on the periphery (Shore 1982, 1996*b*:270–273), children of rank will also be far more likely able to observe the use of respectful behavior in the vicinity of their residences than will lower-ranking children. Moreover, important social and ritual events, such as funerals, gift exchanges, entitlement ceremonies, and so forth, in which respectful speech and formal oration are frequently used, are held almost exclusively in the households of the chiefs of descent groups (who live in the residential core of the village), even when they focus on the life-stage transition of a person who resides in a lower-ranking household. In sum, this pattern of variations in exposure

1. Observational learning also motivates an individual to learn a crucial issue once basic levels of competence have been acquired. Children of high-ranking households, for example, can fail to take advantage of the greater exposure afforded them, and more motivated children of lower-ranking households may strive to take advantage of their more limited opportunities. This important factor is not addressed by this project.

translates into population-level differences in competence with the honorific lexicon, because greater opportunities to learn usually translate into greater competence. In this way, a cultural promotion of observational learning as a preferred and valued form of social learning advances a hierarchically organized, intergenerational transmission of competence in this particular domain of cultural knowledge.

The Village Primary School as a Leveling Mechanism in the Distribution of Competence

When considering the ways in which a particular dimension of social practice and organization—in this case, the hierarchical ranking of village households—acts to generate a differential distribution of cultural competence, it is crucial to examine the possibility that other social institutions and patterns of practice might contravene or undercut that effect. In the Samoan village, the primary school represents such a possibility by providing the entire local population of village children with an opportunity to learn respectful language, regardless of one's household rank, gender, or social class or any other demographic variable. Primary schools are ubiquitous in Samoa and can be found in even the smallest and most rural of villages. Samoan government data from 2001 indicated that 95% of 10–14-year-old boys and 98% of 10–14-year-old girls attend school full time (see table 16 in Government of Samoa 2001). Such a high percentage means that whatever skills that are taught, attitudes that are inculcated, and knowledge that is transmitted in these schools have the potential of being very broadly disseminated across the population of children. Consequently, the village primary school could function as a leveling mechanism in the differential distribution of competence in Samoa's honorific lexicon.

The concept of a leveling mechanism has been used by various authors, most typically with reference to social, economic, or ecological factors that serve to reduce differences in wealth or sociopolitical hierarchy in a given society (Boehm 1993). Fried (1967:34), for example, argued that the exigencies of nomadic hunting, which required relatively small group sizes and high levels of interpersonal cooperation, barred some members of the group from accumulating far more material wealth and power than others. The role of witchcraft accusations in preventing community members from straying too far from community norms, particularly in the accumulation of wealth and possessions, has been asserted in the literature, from a study by Kluckhohn (1967) to Evers' (2002) more recent work among the Betsileo of Madagascar. Lee's (2003) accounts of the practices of ridiculing the spoils of hunting (i.e., "insulting the meat") and sharing arrows among hunters to confuse the issue of who actually killed a given animal are examples of practices employed by the Dobe Ju/'hoansi to restrict the ascendancy of any individual adult male in hunting in this egalitarian society through skill. Finally, in his cross-cultural survey of egalitarian societies, Boehm (1993) points to a wide range of different leveling mechanisms, in-

cluding criticism and ridicule, disobedience, and even the killing of individuals deemed to be excessively domineering or aggressive or who are repeated violators of important social norms.

My use of the concept of a leveling mechanism in this context is in line with that of other authors in that I focus on sociocultural practices and institutions that serve to prevent or reduce the development of disparities in a population. Yet, my interest here is not in inequalities in political or economic power but rather in the differential distribution of cultural knowledge and levels of competence. Consequently, I use the term "leveling mechanism" in this context to refer to a pattern of social practice, social institution, or ecological variables that serves to widely disseminate knowledge and cultural competence and undercut more restrictive forms of intergenerational transmission. In the case described here, primary schools operate as leveling mechanisms if evidence can be found that these institutions broadly disseminate cultural knowledge without recourse to household rank, providing children of lower- and mid-ranking households with opportunities to learn what might otherwise be primarily the province of higher-ranking individuals.

There are two important issues to note when considering the local primary school as a leveling mechanism. First, the view of primary schools as providing roughly equivalent educational opportunities for all children may appear to run counter to a considerable body of scholarship that has pointed to the powerful ways in which schools can function to replicate an existing system of inequality in the industrialized West (Bourdieu and Passeron 1990; Bowles and Gintis 1981; Heath 1983; Ogbu 1982). There does appear to be movement in this direction in Samoa, and there is an increasing number of private schools, with more experienced teachers and qualitatively better resources, that are available to children from wealthier families and the expatriate community, who are able to pay the markedly higher tuitions² to obtain this institutionalized form of cultural capital (Bourdieu 1986). This study does not and cannot address this larger question, as it focuses on children from a single rural village rather than a larger, more socioeconomically diverse sample. It is entirely possible that we could see rural schools function to reduce differences in competency within different individual villages while simultaneously, on a national level, exclusive private schools provide the children of urban elites with greater opportunities and advantages than other children have. Thus, my analysis here should not be seen as a rebuttal to this other line of scholarship.

Second, it is important to note that there are likely several different leveling mechanisms operating in the context of rural Samoan villages that provide children with exposure to the

2. In 2003, annual school fees for year 1 at Robert Louis Stevenson Primary School in Lotopa, one of the best private primary schools in Samoa, were more than 85 times higher than the cost of attending the rural primary school described in this report (30 Western Samoan tala [~USD 7] vs. 2,600 Western Samoan tala [~USD 962]).

honorific lexicon in addition to the primary school, including most notably, broadcast media (radio and TV) and the church. Regular attendance at church services, Sunday school, and varied church events, for example, can provide children with exposure to the honorific lexicon, as it is regularly used in interactions with pastors and other church officials and appears in the Samoan translation of the Bible. I will discuss these other leveling mechanisms in greater detail in "Limitations."

Formal and Informal Honorific Language Instruction in the Primary School

For a social institution to operate as a leveling mechanism, it not only must be widely accessible but must also disseminate the body of knowledge in question. The village primary school does both, through formal and informal means. With regard to formal education, Samoan language and culture is a required topic of study in primary and secondary schools, and is given the same status as English, social studies, and mathematics in terms of both the amount of class time devoted to the topic in a given week and its inclusion in the year-end examinations. In primary schools, instruction in the potential broad topical area of "Samoan language and culture" is dominated by the study of Samoan grammar. Teachers' lessons are largely derived from the Department of Education's Primary School Curriculum Guide, which specifies the elements of grammar that are to be taught at the different grade levels. There is no specific mention, however, of honorific lexicon in the primary-school curriculum guide. Interviews with teachers and administrators have revealed that although some very basic elements of the respect lexicon are included in instruction during primary school, it is not a focus of the Samoan language curriculum. Students in the lower grades learn some of the honorific terms for common everyday words, such as house and spouse, for example, and students in the higher grades may learn the different formal greetings made to visitors (*susu mai*).

Although formal instruction in the honorific lexicon may not be extensive at the primary-school level, these schools do provide students with informal exposure to the honorific lexicon, and respectful behavior more generally, in two specific ways. First, a child's exposure to teachers and school administrators represents one of an individual's first most intimate and regular encounters with unrelated, relatively high-ranking adults. In most other instances in which young children are in close physical proximity to unrelated adults, there is frequently little actual interaction, as children and their actions tend to be ignored by adults. In the context of the school, however, children and unrelated adults are brought into regular interaction, and over the course of these interactions, children are expected to demonstrate respectful behavior in the form of behavioral restraint and deferential postures and seating positions, which allow the higher-ranking person to initiate and control the flow of social interaction (Ochs 1988) and the use of respectful speech. Consequently, school pro-

vides a more intensive training ground for the refinement and development of a child's competence in respectful behavior of all sorts, including to some extent the honorific speech.

A second informal way by which Samoan primary schools provide students with opportunities to learn about honorific language and respectful behavior is through their participation in "Samoan culture days," beauty pageants, and other events held by schools that frequently include performances of assorted cultural routines such as dances, songs, and rituals. For example, children may dress up in the elaborate costume of a *taupou* (ceremonial village princess) and demonstrate how to mix the ritual drink kava (*Piper methysticum*), or a child may recite the village's *fa'alupega* (ceremonial address). The school's master of ceremonies and occasionally the children themselves will use the honorific lexicon as a part of their presentations. These school events are also frequently attended by the local pastor and his wife, the district school inspector, and the village chiefs on the local school committee, as well as by community and family members. Given the presence of these highly ranked individuals, school administrators and the local chiefs will always engage in some formal oratory to acknowledge the presence of honored guests and to thank them for their attendance, and the speeches and presentations include elements drawn from the honorific lexicon. Consequently, these school events provide children with considerable exposure to various forms of respectful behavior, including concrete examples of honorific language use.

In summary, the local primary school's contribution to a child's competence in the honorific lexicon is complex. There is the contribution of formal instruction through the Samoan language curriculum, although specific instruction in the honorific lexicon may be somewhat limited until secondary school. Beyond formal instruction, however, there are a number of informal means by which children may gain greater proficiency in the honorific lexicon: through intimate and regular interactions with higher-ranking, unrelated adults and by participating in and observing cultural performances held at the school. In terms of the larger question of this study, the school does provide multiple opportunities for children to observe and occasionally employ the honorific lexicon.

Method: Honorific Lexicon Test

To gauge the relative impact of the village primary school on the differential distribution of competence in the Samoan honorific lexicon in early adolescents, I designed a multiple-choice test of the honorific lexicon and administered it to the entire body of sixth-, seventh-, and eighth-grade students ($n = 76$) who were present at a rural primary school in March 2003. The vocabulary test consisted of 20 multiple choice questions in which the child was asked to select the everyday equivalent of an honorific lexeme out of a set of four possible answers. When creating the test, I began with a list of over 200 words taken from conversations with village chiefs and a review of Samoan-language reference books (Murdock 1965;

Milner 1993). During a consultation with a set of titled and untitled adults, this initial list was reduced to 20 items on the basis of the criteria of common usage and breadth of different categories (see table 2). The draft version of the vocabulary test was pretested on 20 titled and untitled adults and older adolescents (aged 18 years and older) in the village, all of whom scored at or near perfect, with scores of 95% or better.

There are obvious limitations in the use of a multiple-choice test of this kind to gauge a child's relative competence with respectful speech. The most obvious objection is that a child's knowledge of the meaning of a decontextualized written word cannot be taken as a direct measure of his ability to employ that word or understand its use in a speech event. I agree with this, but I would also counter that knowledge of the meaning of a respectful word is a basic requirement to be able to comprehend or use it. Although it is not sufficient, knowledge of the meaning of respectful vocabulary items is a necessary basis for a child's developing competence, and I believe it can be taken as a proxy for competence in this domain. Certainly an oral examination in which children must both recognize and produce honorific speech would have been a superior test. Unfortunately, strict time constraints on test administration in the school and fear of substantial variations in oral administration across students and classes led me to view the multiple choice test as the best option.

The test was administered on a single morning, during regular school hours, in March 2003. Teachers of the sixth-, seventh-, and eighth-grade classes distributed the test and explained it to the students in Samoan. I was present during the test's administration to provide assistance to the teachers and to answer any questions. Students had a full hour to complete the vocabulary test and a second test of similar length, which is not discussed in this article. The majority of students completed both tests in approximately 30 minutes, and only a handful used the entire hour. Twelve tests were excluded from further analysis either because the demographic questions of gender and age were not answered or because the test could not be scored (e.g., all answers were circled), which left completed tests from a total of 64 individuals. Respondents ranged in age from 10 to 14 years of age, with a mean of 11.47 years ($SD = 1.02$). A total of 51% were female; 38% were sixth-grade students, 39% were seventh-grade students, and 23% were eighth-grade students. More than 90% of students enrolled in these three grades completed the test.

Analysis

Item-total score correlations for two of the 20 test items were negative (-0.03 , -0.14), and so those two items were removed from further analysis (see table 2). Scale analysis of the remaining 18 test items exhibited a high level of internal consistency ($\alpha = .84$). These questions were consolidated into a one-dimensional, simple cumulative index for the sake

Table 2. Honorific lexeme test

Category, honorific lexeme	English gloss
Exchange goods:	
<i>manu papalagi</i>	cow
<i>moe pi'ilima</i>	cooked chicken
<i>agatonu</i>	kava (<i>Piper methysticum</i>) root
<i>alafā^a</i>	(large) pig
Social roles:	
<i>fa'afeagaiga</i>	pastor
<i>tausī</i>	spouse of orator chief
<i>fetalaiga</i>	orator chief
<i>matua o faiva^a</i>	carpenter
Activities:	
<i>maleifua</i>	wake up
<i>māimoa</i>	watch
<i>taumafa</i>	eat (speaking of orator chief)
Personal hygiene:	
<i>tatafi ou 'a'ao</i>	wash one's hands
<i>fa'afuga le ao</i>	cut one's hair
Body parts:	
<i>fofoga</i>	face
<i>laualo</i>	stomach/abdomen
Mental states:	
<i>to'atama'i</i>	angry
<i>silafia</i>	know
Other:	
<i>maota</i>	house of high chief
<i>utaga</i>	decision/opinion of high chief
<i>tu'umālō</i>	funeral of high chief

Note. In the test, the lexemes were presented either with the nominative particle and the singular indefinite article (e.g., "o se alafā," "a large pig") or with an appropriate verb tense particle (e.g., "ua to'atama'i," "he/she is angry").

^a Items dropped from the final analysis due to low item-total score correlations (see "Analysis").

of simplicity and analytic clarity. All statistical analyses were conducted with SPSS, release 16.0 (SPSS 2009).

An initial but crucial question is, on what basis is it possible to assess the impact of schooling on a child's developing competence given an analysis of these test scores? I argue that we can do so by comparing the relative contribution of schooling (in terms of years of formal education [i.e., grade level]) to the contribution of age (in terms of years of life) to a child's competence in respectful language. Such a comparison requires that age and grade exhibit some independence from one another, and in rural Samoa this is the case. Although governmental regulations require a child's school attendance through the eighth grade or age 14, it is not uncommon for children to be held back from starting school or to stay out of school for a year or more to help the family with agricultural work or child care. Consequently, there is a wide range of ages at each grade level (see table 3).

In the industrialized West, where there tends to be tighter restrictions regarding school attendance, a relatively small proportion of children are either ahead or behind the normal age for a particular grade. Cliffordson (2010) reports that less than 4% of a sample of 8,865 Swedish sixth-, seventh-, and eighth-grade students were either ahead or delayed by one or

Table 3. Distribution of number of children by age across different grades

Grade	Age, years					Mean age (SD)
	10	11	12	13	14	
6	10	11	3	0	0	10.71 (.14)
7	1	10	10	2	2	11.76 (.19)
8	0	2	9	3	1	12.20 (.78)

more years from the normative age for each of these three grade levels. Similarly, Luyten, Peschar, and Coe (2008:325) reported that only 2.5% of a sample of 6,327 British secondary-school children were either delayed or accelerated by a year. In contrast, in the Samoan sample here, 12.5% of the children in grade 6 and 20.0% of the children in both grades 7 and 8 were outside of the expected age range for their particular grades.³

As for the analytic question of whether a regression analysis using age and grade level would be biased by a strong correlation between these two variables (i.e., multicollinearity), I completed correlation and coefficient diagnostics. Although the correlation of age and grade level is statistically significant, the coefficient is only of medium strength ($r_{62} = 0.59$, $P < .001$), and it is below a level that would suggest a problem of multicollinearity (e.g., $r \geq 0.80$; see Field 2005:174–175). Collinearity diagnostic tests, including of variance inflation factor (VIF) and tolerance, also suggest that the correlation of age and grade is not sufficiently strong to bias the regression model (VIF, 1.52; tolerance, 0.66).

Students' honorific lexicon test scores were submitted to linear regression analyses of four models: (1) age in years, (2) grade level in years, (3) a multivariate model including both age and grade, and (4) a model of the interaction between grade and age. The fourth model looked at the potential interaction between age and grade level, examining the possibility that age may moderate the impact of grade, with older children being able to acquire relatively more from a given grade level than relatively younger children at the same grade level (see Smith 2009 for a recent analysis of this phenomenon). Results of these analyses can be seen in table 4.

There are two findings of particular interest in table 4. First, a comparison of the unstandardized coefficient (B) of the first three models reveals a more substantial contribution of each additional year of primary education than of each additional year of life. (A direct comparison of these coefficients in the first three models is possible because both age and grade increase in single-year increments.) Comparing age and grade (models 1 and 2) suggests a more substantial contribution to

honorific lexicon test scores by each additional year of school ($B = 3.51$) than by each year of life ($B = 1.85$). Multivariate regression including both age and grade (model 3 in table 4) provides the opportunity to disentangle the relative contribution of these two variables to a child's test performance. In this model, grade continues to contribute a significant amount to a child's performance ($B = 3.24$), while the contribution of age is sharply reduced to only 0.42, a statistically insignificant amount. This result supports the interpretation that age functions largely as an index of a child's grade level and does not contribute directly and independently to one's lexicon test scores.

Further support for the notion that schooling is the more important contributor can be seen in the amount of variation in the independent variable that is explained by the different models. Although age explains 20% of the variance, grade explains more than two times as much ($R^2 = 0.41$). Again, the multivariate model (model 3 in table 4) allows us to disambiguate these contributions. This model explains 42% of the variance in the honorific lexicon test scores, supporting the idea that age and grade do not contribute in a strictly additive manner. Instead, we see that the multivariate model explains essentially the same amount of variance as grade did alone (42% and 41%, respectively), which supports the interpretation that age makes little independent contribution to a child's developing competency in the honorific lexicon as measured by the test. Model 4, which modeled the possible interaction of age and grade, explained slightly less of the variation ($R^2 = 0.38$) than did grade alone (model 2), suggesting that age also does not moderate the impact of grade in any substantial way.

The regression analyses can be profitably complemented with an examination of measures of dispersion, particularly standard deviations, in children's test scores by grade and age. Descriptive statistics, including means and standard deviations of the honorific lexicon test scores, are reported in table 5. Children's performances on the lexicon test, as arranged by grade, exhibit a pattern whereby standard deviations systematically shrink as the number of years in school increases. The range of scores in grade 6 includes some of the very highest and the very lowest across the entire population of students. In grade 7, this range is sharply reduced, and by grade 8, students are clustering

Table 4. Linear regression of honorific lexicon test by age, grade level, and age + grade level

Model	B (95% CI)	β	R^2	F
1: Age	1.85 (.90, 2.81)	.44 ^a	.20	15.07 ^a
2: Grade	3.56 (2.49, 4.64)	.64 ^a	.41	43.81 ^a
3: Age + grade:				
Age	.42 (-.59, 1.42)	.10	.42	22.13 ^a
Grade	3.24 (1.91, 4.57)	.59 ^a		
4: Age \times grade	.19 (.13, .25)	.61 ^a	.38	37.44 ^a

Note. CI, confidence interval.

^a $P < .001$.

3. The expected or normative ages for grades 6, 7, and 8 in the Samoan academic system are 10, 11, and 12 years of age, respectively. The exam was administered in the middle of the academic year, which means that a proportion of the children would be 1 year older. The comparison group here for children of the expected age for a specific grade was then calculated by combining the normative age and the next higher age. Thus, the proportion of children outside of the expected age reported here are children outside of this 2-year span.

Table 5. Means and standard deviations (SD) for honorific lexicon test by age and grade

	Mean (SD)	Range	N
Grade:			
6	7.17 (3.99)	1, 17	24
7	12.48 (2.86)	7, 17	25
8	13.93 (2.09)	9, 17	15
Age (years):			
10	8.36 (4.48)	2, 17	11
11	9.04 (4.63)	1, 16	23
12	13.14 (2.61)	8, 17	22
13	12.40 (2.97)	9, 17	5
14	14.00 (2.00)	12, 16	3

around a fairly narrow range of scores (mean [standard deviation (SD)], 13.93 [2.09]; range, 9–17). Although the larger trend is similar, we see a far less consistent reduction in the standard deviations of test scores by age. There are even increases in standard deviation from ages 10 to 11 (4.48 to 4.63) and from 12 to 13 (2.61 to 2.97). Consequently, in terms of a pattern of decreasing dispersion in test scores, the relative number of years in school appears to be more predictive than the number of years of life.

It is important to note that this reduction in dispersion is not an artifact of the test, with increasing numbers of students simply answering all of the test questions correctly. None of the students at any grade level answered all of the 18 test questions correctly. Rather, this progressive narrowing of the dispersion of honorific lexicon test scores should be viewed as a reduction in the diversity of competencies over increasing years of schooling. Children entering grade 6 with relatively little competence are elevated to the level of being far more competent by grade 8. Conversely, children who enter grade 6 with fairly high test scores seem to not experience comparable improvements; this allows the dispersion of scores to narrow substantially by grade 8. Such an interpretation is completely in line with a view of the school as a leveling mechanism in the dissemination of cultural knowledge.

Limitations

There are a number of limitations to this study, several of which I mentioned earlier. First, only longitudinal data assessing changes in an individual child's developing competency over time can really tell us whether these developmental trajectories actually match the interpretation presented here (Miller 1977; Mishler 1996). Second, children's test scores on the honorific lexicon test are only a proxy for their actual competencies in this aspect of the Samoan language. Their relative skills in the comprehension, production, and proper contextual use of these lexical items may not be accurately represented by their test scores. As I argue earlier, however, knowledge of the honorific lexicon likely does represent a basic requirement for these communicative skills.

Third, this study examined the students of a single rural

school and may not be representative of other primary schools. Fourth, the specific curriculum in Samoan public schools is substantially guided by the Department of Education's curriculum guides. A revised curriculum guide was implemented in 2003, the academic year following the one in when this research was conducted. Any shift in the degree to which honorific language is taught in the primary school or included in the annual exams will obviously have an impact on the role and relative impact on the dissemination of competence in this domain of cultural knowledge.

Fifth, and perhaps most importantly for understanding the contribution of the primary school to children's relative competence, the analysis here does not assess the possible effect of other potential leveling mechanisms operating in Samoan society, that could provide children with additional exposure to the honorific lexicon. As I noted earlier, the most obvious are broadcast media (radio and TV) and church-related activities. Both local radio and TV broadcasts include honorifics in announcements and as part of broadcast interactions with individuals of rank (e.g., in an interview with the Minister of Health). Presumably, then, a child's relative access to radio and television and level of media consumption could influence his developing competence with the honorific lexicon, but only further research will be able to confirm this possibility.

Regular attendance at church services, Sunday school, the Pastor's school (*A'oga a le Faifeau*), and other church-related events may also serve as additional leveling mechanisms, as all of these contexts provide many opportunities for informal and formal learning of the honorific lexicon. The pastor is among the very highest-ranking individuals in the village, and any context in which he is present is approached with pronounced levels of respect, deference, and behavioral restraint (Odden 2007; Shore 1982). As expected, the honorific lexicon is regularly used in interactions with pastors, church deacons, and other high-ranking church officials, and children attending any activity at which these individuals are present would be able to observe this usage. Moreover, contexts such as Sunday school, church youth groups, and the Pastor's school, where the pastor takes a direct hand in teaching, would provide a context in which youth would be able to interact more directly with someone of high rank and begin to employ the honorific lexicon themselves (analogous to the opportunities provided by the primary school to interact with teachers and the principal). Additionally, the Samoan translation of the Bible uses the honorific lexicon extensively, and so readings and discussions of passages would also provide some exposure. Finally, the Pastor's school, which historically was a precursor of formal education but now provides education in skills narrowly related to Bible study,⁴ offers some limited formal education in the honorific lexicon.

4. Before the introduction of formal schooling, the Pastor's school focused on teaching village children skills in literacy and numeracy. The contemporary version is more focused on teaching skills useful for Bible study (e.g., roman numerals, literacy) as well as a variety of additional skills, including lessons on the honorific lexicon, and it blurs the line between Bible study and primary school.

Being able to observe community members interacting with the Pastor, deacons, and other church officers while using such pronounced forms of respectful behavior, including the honorific lexicon, is surely an important way by which children and adolescents acquire competence in this domain of cultural knowledge. Previous research, however, questions the overall effect of these church-related contexts on children's developing competencies. For example, Odden (2007) found that most children at these ages tended to "compartmentalize" the honorific lexicon they learned in the context of the church as referring only to church-related persons or activities, and interviews suggested that they did not realize that these honorific lexemes could be used to refer to secular activities or persons such as chiefs. Similarly, interviews regarding curriculum and observations of the Christian Congregational Church's Pastor's school suggests that the formal instruction in the honorific lexicon has limited impact, as the list of words being taught is quite short (approximately 10 words in total per grade level) and is frequently below the level of competency children exhibit at these ages.

Further research examining this fuller range of potential leveling mechanisms will be necessary to give a more robust and systematic understanding of the transmission of cultural knowledge and the various forces that promote a wider or narrower dissemination of that knowledge. The larger point, however, is that the best way to understand leveling mechanisms in a given society is as a part of a larger system that includes other leveling mechanisms as well as mechanisms that restrict the dissemination of cultural knowledge.

Conclusion

The statistical analyses described above support the interpretation that the village primary school serves as a leveling mechanism in the differential distribution of competencies in the Samoan honorific lexicon. The impact of the school's formal and informal instruction in this domain appears to reduce the diversity of levels of competency across the population of children attending the school. This would effectively erase some of the gaps in competence in the population of children that may have been created through differential exposure to honorific lexicon by virtue of a child's relative household rank. In this way, the primary school appears to serve as a countervailing force to the hierarchically organized intergenerational transmission of cultural knowledge, at least in the domain of honorific lexicon. Of course, it is important to recognize that these findings are based on a relatively small sample drawn from a single school. Only future research with a larger and more diverse sample will be able to determine whether the study's findings are representative of a more general phenomenon.

There is some irony to the finding that a substantial amount of the learning of the honorific lexicon by some children can be attributed to the primary school. A majority of Samoan parents perceive that the primary task of the Western-derived

schools is to teach skills that will increase children's chances of gaining lucrative employment in the capital city or overseas (e.g., English language, mathematics, and reading). The school is largely seen as a route to success in the "Westernized" sector of Samoan society, rather than in the more "traditional" sector dominated by village chiefs. Only 23% of parents and caretakers who completed a parental belief and practices survey ($n = 149$) indicated that children learned the honorific lexicon in school, and fewer than 10% pointed to the school as a context where children could learn Samoan culture more generally (Odden 2007:292). Contrary to these widespread perceptions, however, children do indeed seem to be acquiring some important elements of Samoan culture that may benefit them in far more immediate and local ways. Moreover, the R^2 statistic of the regression analyses suggests that a substantial amount of the variance in children's test scores (approximately 41%) can be explained by the number of years of schooling. That such a great deal of the variance in test performance can be explained by this one variable is surprising, and it suggests the importance of further research focusing on the transmission of traditional cultural knowledge and practice within Western-derived institutions of formal schooling.

It is hoped that this study also demonstrates the analytic value of examining the transmission of cultural knowledge from a population-level perspective that explores questions about the differential distribution of that knowledge across a given population. Anthropologists and cultural psychologists examining cultural learning have tended to focus at the micro level when analyzing how individual children learn in a specific sociocultural context or activity (e.g., Lancy 1996; Rogoff 1990). These are presented as somewhat idealized representations of how many if not most children in these specific contexts learn (e.g., "how Samoan children learn"). Although such a perspective is enormously valuable, it must be complemented by an anthropology of knowledge that considers the possibility and impact of variations in how cultural knowledge is transmitted and disseminated (Barth 1987, 2002). As differences in competency and the associated cultural capital can be associated with different individual outcomes and trajectories, and even with the replication of larger systems of inequality, it is important that such a population-level perspective be considered.

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