

Children's knowledge of a name-based avoidance register: A quantitative study among Datooga of Tanzania

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Abstract

Among Datooga pastoralists of Tanzania, an elaborate in-law naming taboo has led to the emergence of a conventionalized avoidance vocabulary used by married women. We report on a survey investigating Datooga children's knowledge of this special vocabulary. The questionnaire and our expectations were pre-registered and the results were analysed using regression analysis. Though use of the avoidance vocabulary is gender-specific, girls were only slightly more knowledgeable than boys about avoidance words. More predictive of children's responses was sociolinguistic environment: children from more 'traditional' backgrounds showed greater knowledge of avoidance words. Based on this finding, we discuss how social change may be affecting this particular kind of knowledge transmission. Low overall accuracy reveals the gradual nature of certain types of sociocultural learning.

Keywords: language learning; knowledge transmission; avoidance registers

Ikisiri

Katika jamiii ya wafugaji wa Wadatooga wa Tanzania, ufafanuzi wa mwiko wa uitaji

majina ya wakwe umesababisha kuibua desturi ya msamiati epukivu unaotumiwa na wanawake walioolewa. Tunatoa ripoti ya uchunguzi wa ufahamu wa watoto wa Wadatooga kuhusu msamiati huu maalum. Tuliandaa kabla hojaji na matarajio, na matokeo yalichanganuliwa kwa kutumia uchanganuzi batilifu. Ingawa matumizi ya msamiati epukivu ni mahususi kijinsia, ufahamu wa wasichana kuhusu misamiati epukivu ulizidi kidogo tu ule wa wavulana. Utabiri zaidi wa mwitiko wa watoto ulikuwa wa mazingira ya kiisimujamii: watoto kutoka familia zenye usuli wa 'kiutamaduni' walionesha ufahamu mkubwa wa maneno epukivu. Kulingana na matokeo haya, tumejadili namna gani mabadiliko ya kijamii yanavyoweza kuathiri aina hii ya uhawilishaji wa maarifa. Usahihi wa jumla unaonesha uasili wa polepole wa aina fulani ya ujifunzaji katika baadhi ya mambo ya kiutamaduni.

Maneno muhimu: ujifunzaji lugha; uhawilishaji wa ufahamu; rejista epukivu

1. Language learning in the context of name avoidance

Learning the Datooga language presents unusual challenges. Owing to an elaborate system of in-law name avoidance practiced by married women, almost all words in

Datooga can be replaced by conventionalized substitute forms. For example, speakers can avoid the word béega ‘water’ by using one of several accepted alternatives, including gárbàbánga, dálilóonga, hàlákka, and hàshàsánga. This practice of linguistic avoidance is known as gíing’áwêakshòoda and is understood as an expression of respect for women’s affinal kin. For women who observe gíing’áwêakshòoda, the use of avoidance words constitutes a more or less permanent feature of their speech. Knowledge of the Datooga language thus encompasses linguistic knowledge of multiple lexical items for the same concept as well as metalinguistic knowledge of the socio-culturally patterned co-existence of these items. How and when does this knowledge develop? To what extent are children familiar with linguistic avoidance practices? What factors affect children’s knowledge? Given that women make selective use of the avoidance vocabulary, only replacing words that resemble their in-laws’ names (see §3), by what processes do individuals acquire comprehensive knowledge of the community-wide avoidance vocabulary?

This paper begins to address these questions through quantitative investigation into what Datooga-speaking children in middle childhood know about linguistic avoidance practices, targeting in particular children’s familiarity with the avoidance vocabulary. We report on a survey conducted with 30 children aged 7–11 that tested comprehension and production of avoidance words. While this kind of decontextualized metalinguistic activity is ecologically odd, children do

have to frequently reckon with the fact that there are multiple words for the same referent (including their own names—see §6 for an example). We supplement our findings with ethnographic observations of everyday interaction. We are not aware of any existing studies that use quantitative sociolinguistic methods to test children’s understanding of name-based linguistic avoidance. Our study contributes to anthropological conversations about transmission and social learning in the maintenance of cultural variation, the development of social norms in childhood, and children’s understanding of linguistic variation—themes we now discuss in turn.

Taboo-driven linguistic repertoires are a prime example of the remarkable cultural diversity in human communicative practices. In-law name avoidance practices like those among Datooga speakers are rare but not unique: see Fleming (2014) for a useful overview and typology of affinal avoidance registers around the world. Such avoidance registers persist only as long as they are learned by, and remain meaningful to, new community members. Many documented avoidance registers, such as ballishsha in the Kambaata language of Ethiopia (Treis 2005), are no longer commonly used; in contrast, many young Datooga women in rural areas still practice gíing’áwêakshòoda. By assessing children’s knowledge of the Datooga avoidance register, our study sheds light on the transmission of linguistic avoidance customs, which in turn feeds into discussions of the long-term stability of linguistic and cultural variation, as well the role of children in the transmission of

cultural traits (Hewlett and Cavalli-Sforza 1986; McElreath 2004). Our results highlight the limited nature of children's knowledge of avoidance vocabulary in middle childhood, supporting the idea that certain types of language learning continue into adolescence and even adulthood (cf. Evans 2003). While we chose participants from rural environments in which women still regularly practice avoidance, our study nonetheless finds that children growing up in more multi-ethnic environments are less likely to know avoidance words.

In some Datooga communities, linguistic avoidance remains a highly normative practice guided by moral ideologies about respect and social order. For women who practice avoidance in earnest, transgressions of this social norm are negatively evaluated and potentially sanctioned. Though children do not actively partake in avoidance practices themselves, at some point they come to understand that avoidance practices are socially regulated and that societal expectations differ for men and women. The initial questions on our survey aimed to probe children's understandings of avoidance as a social norm. Work in the anthropology of childhood has shown that children demonstrate an increased awareness of gender-appropriate behavior in middle childhood (Lancy and Grove 2011); middle childhood is also identified as a key stage in which children acquire culture-specific sharing norms (House et al. 2013; House and Tomasello 2018). We know less about children's understanding of normative behaviors that do not yet apply to them, such as affinal avoidance practices and other taboo-motivated

behaviors, though highly relevant here is Lewis's (2008) work on the transmission of a taboo-related conceptual system known as *ekila* among Mbendjele forest hunter-gatherers. Lewis argues that knowledge of *ekila* "occurs through the experience of a series of bodily practices and proscriptions and the curiosity these provoke" (2008, 306). For instance, children are keenly aware of behaviors like food avoidances but do not yet have the ideological frameworks in which to interpret them. In our study, very few children articulated a coherent understanding of *gíing'áwêakshòoda* as a normative practice, though all knew at least a couple of avoidance words. Drawing on Lewis's ideas, we suggest that Datooga children's first engagement with *gíing'áwêakshòoda* comes in the form of awareness of linguistic differences, which then arouse curiosity as to why married women say one thing, and men and children another.

While Datooga avoidance practices result in an especially high degree of lexical variation across speakers, children everywhere must learn that there are different ways of communicating the same propositional content and that these differences are socially patterned. With respect to how children learn to associate language use with features of social context, Foulkes and Hay (2015) point out that this ability emerges extremely early: newborns can distinguish their mother's voice from other female voices (DeCasper and Fifer 1980). Smith, Durham, and Fortune (2007) show that children aged 2;6–4;0 in a rural part of Scotland shift between certain standard and dialectal variants in different interactional contexts,

thus revealing knowledge of the contextual patterning of different linguistic forms from a very young age. Our questionnaire depends on the ability to draw a metalinguistic distinction between “ordinary” and “avoidance” words, but it does not directly test children’s indexical associations with particular forms. Rather, we test children’s familiarity with items of the avoidance vocabulary and the factors affecting this knowledge. One crucial factor in learning linguistic variants of any kind is likely to be children’s experience with different speakers and sociocultural contexts. For example, Hollos (1977) showed that differential social networks can explain observed differences in rural vs. urban Hungarian children’s knowledge of pronouns. We investigated the role of children’s social networks through the proxy of ‘location’, on the basis that the villages in our study differ both demographically and in terms of routine patterns of social interaction. In addition, we test the effects of gender and schooling on children’s knowledge of the avoidance vocabulary. We hypothesized that girls would be more knowledgeable about *gíing’áwêakshòoda*, partly because they spend more time around women. Sherzer (1983, 223–224) notes in his ethnography of speaking of the Kuna of Panama that “[g]irls learn such women’s speech genres as lullabies and ‘tuneful weeping’ by listening to their grandmothers, mothers, aunts, cousins, and older sisters and then, at a very early age, trying them out themselves in actual contexts.” Our hypothesis about gender was also based on the more speculative idea that girls would pay more attention to *gíing’áwêakshòoda* on account of likely

future participation in this practice. As we discuss in §6, while girls did perform slightly better on our questionnaire than boys, no strong conclusions could be drawn about gender.

In what follows, we provide some brief linguistic and ethnographic background to our study (§2). We then describe *gíing’áwêakshòoda* in more detail in §3, where we also characterize adult-like knowledge of the avoidance vocabulary. The survey design, participants, and hypotheses are explained in §4 and results are reported in §5. In §6 we offer general discussion of our findings and reflect on how children’s knowledge of the Datooga avoidance vocabulary relates to patterns of socioeconomic change in contemporary Tanzania.

2. Linguistic and ethnographic preliminaries

Datooga people are traditionally semi-nomadic pastoralists, though these days many people who identify as Datooga are relatively settled and rely on subsistence agriculture as well as cattle herding. Datooga communities are concentrated in northern Tanzania but can be found in many different parts of the country as struggles over land use have led to internal migration. ‘Datooga’ is an umbrella ethnonym for around a dozen subgroups, including Barabaiga, Gisamjanga, Rootigeenga, and Bajuuta. Datooga (or *íitá Dàtóoga* ‘language of Datooga’) also refers to the language, or more accurately, language cluster: the subgroups speak different dialects of Datooga, which are referred to using the various ethnonyms.

The data for this study was collected during nine months of child-centred fieldwork in 2017 with speakers of Barabaiga and Gisamjanga Datooga, dialects that exhibit only minor linguistic differences. While the Datooga subgroups are to some extent geographically separated (see Rottland 1982), Barabaiga and Gisamjanga people have had substantial contact in the past decades, such that the villages and many of the households in this study cannot be strictly delineated by subgroup membership. We will use the umbrella term ‘Datooga’ to refer to ethnic identity and language in this paper, though we note that there may be regional variation in what we report. Here we provide some brief linguistic and ethnographic background to contextualize our study; see Klima (1970) and Blystad (2000) for in-depth ethnographic treatments of Datooga social life and Rottland (1982) for a grammatical overview of the Datooga dialects.

With respect to social organization, Datooga people belong to polygynous households headed by (and referred to by the name of) a senior man. All Datooga belong to patrilineal clans, which function like “mutual-aid societ[ies]” (Klima 1970, 39). Marriage is clan-exogamous, virilocal, and polygynous, and it brings with it various prohibitions affecting affinal kin relationships. These include an elaborate system of name avoidance, described in §3. Children typically grow up in their father’s or grandfather’s compound and spend most of their time with other children, playing, caring for younger siblings, herding small livestock, and running errands, if not at school. The villages where this research was

conducted are located in Hanang’ and Mbulu Districts in Manyara Region: Garawja and Getanyamba are located near the main road that runs between the small towns of Haydom and Basootu, whereas Eshkesh is more remotely situated in the Yaeda Valley. None of the villages had electricity at the time of the fieldwork. Residents of Garawja and Getanyamba have better access to water, transportation, consumer goods, schools, and churches than those in Eshkesh, where provision of all these services is limited. The ethnolinguistic make-up of Eshkesh is predominantly Datooga whereas Garawja and Getanyamba are more diverse. Children growing up in Eshkesh are less likely to attend school: 33% of the children interviewed in Eshkesh attend school versus 80% of the children from the other villages.

In terms of its linguistic profile, Datooga is a tone language with synthetic morphology and verb-initial word order (though word order is flexible). Tone serves grammatical functions such as case marking. Datooga has been classified as a Southern Nilotic language; its closest genetic relatives which are still widely spoken are the Kalenjin languages of Kenya. From an areal perspective, Datooga speakers are in contact with a variety of other languages. In recent history, the most significant linguistic (and sociocultural) contact for Barabaiga and Gisamjanga Datooga has been with Iraqw people, who speak a genetically unrelated Cushitic language. Swahili is another important contact language as the national language and language of education and wider communication. Nonetheless, many of the

children in this study, especially those in rural Eshkesh who did not attend school, were monolingual. In the other villages, children were more likely to hear Iraqw and Swahili but Datooga was still the predominant language of home. The limited extent of multilingualism among Datooga women is reflected in the composition of the avoidance vocabulary: only 5% of attested avoidance words are borrowings from other languages. In-law name avoidance has been reported among neighboring Iraqw speakers, who perhaps borrowed this custom from Datooga, where the practice is much more extensive. We now describe *gíing'áwêakshòoda* in more detail and discuss adult knowledge of the avoidance vocabulary.

3. *Gíing'áwêakshòoda*: In-law name avoidance in Datooga

The vocabulary items targeted in our survey form part of a highly conventionalized avoidance register. This vocabulary has developed out of strict prohibitions on women uttering the birth names of their senior in-laws. Datooga women avoid the names of many of their husbands' relatives in the first, second, and sometimes third ascending generations, both living and deceased, as an expression of respect for their husband's kin. Datooga names are meaningful and women also avoid the ordinary words from which the taboo names derive, as well as near-homophones of the names. For instance, a woman whose father-in-law is called *Gídároopta*, a name derived from the noun *róopta* 'rain', will avoid: (i) the name *Gídároopta* (regardless of its bearer); (ii) the noun *róopta* 'rain' and related verb *raab*

'rain'; and (iii) words beginning with *roob* such as *ròobádéeda* 'joint'. She will avoid these words at almost all times, in all places, irrespective of who she is talking to: linguistic avoidance becomes a habitual feature of her speech. This phenomenon is called *gíing'áwêakshòoda* in Datooga and is locally understood as an expression of respect for one's affinal kin. While the husband's father (including classificatory fathers) is the main target of avoidance, women typically also avoid the names of their mother-in-law and her sisters.

Strikingly similar in-law name avoidance phenomena have been documented in Xhosa and Zulu communities, where the phenomenon is known as *hlonipha* (Finlayson 2002; Luthuli 2007), as well as in Ethiopia (Treis 2005), Mongolia (Humphrey 1978), and elsewhere (see Fleming 2014). Like *hlonipha*, *gíing'áwêakshòoda* is not solely a linguistic behavior but rather a "somatic" phenomenon which, at least in the presence of senior male in-laws, involves avoidance of physical contact, downward gaze, and covering of the body (Irvine and Gunner 2018, 174). Here we only test children's knowledge of the vocabulary associated with avoidance. Unlike *hlonipha*, which could also be used by men to avoid the names of high status people such as kings (see Irvine and Gunner 2018), *gíing'áwêakshòoda* is normatively restricted to the speech of married women and strongly stereotyped locally as women's speech. Men do not say their mother-in-law's or daughter-in-law's name in her presence, but they do not avoid related or similar-sounding words. Men will on occasion make use of avoidance words,

often for comic effect, but *gíing'áwêakshòoda* is best characterized as a highly gender-specific practice.

To circumvent the naming taboos, women have developed an avoidance vocabulary (referred to as *gíing'áwêasta*) containing alternative words that conventionally replace taboo forms. For example, the conventionalized avoidance word for 'black' is *mísàna*, a word that ordinarily means 'dark'. Certain words are of unknown origin and, unlike the example just given, appear only in the context of avoidance, thus constituting rather salient, avoidance-specific vocabulary. Often there exists more than one alternative for each ordinary word since a conventionalized avoidance form could also be taboo given a particular woman's name-based

phonological constraints. Table 1 provides more examples of avoidance words. Mitchell (2015b) details the various linguistic strategies involved in deriving avoidance words; see Mitchell (2015a, 2018) for more detailed accounts of how the register is used in everyday life. Depending on the number of in-law relations a woman needs to avoid, *gíing'áwêakshòoda* can have a more or less dramatic effect on her speech. People with whom she interacts, both male and female, must be familiar with the avoidance vocabulary in order to communicate effectively. Before turning to children's knowledge of avoidance words, we briefly characterize the distribution of knowledge among adult Datooga speakers.

Table 1: Examples of conventionalized Datooga avoidance words

Ordinary word	Avoidance word	Source of avoidance word
bàláng'da 'salt'	múnyóoda	Borrowed from Rootigeenga dialect of Datooga
bárda 'knife'	dápta	Consonant replacement
béega 'water'	gárbábánga	Derived from gárbàbu 'cold'
	dáliilóonga	Derived from dálil 'all one color; clear'
	hàshàsánga	Derived from háshàs 'light'
dúu 'black'	mísàna	'dark'
faj 'run'	birish	'move fast [of small and light objects]'
ng'ádiida 'lion'	sêang'da	Unknown
róopta 'rain'	gírgírda	Unknown

3.1 Adult knowledge of the avoidance register

Mitchell's research on *giing'awêakshòoda* suggests that much of the avoidance vocabulary is highly conventionalized and widely known throughout Datooga-speaking communities. Over the course of interviews and elicitation sessions with dozens of women and several men, as well as informal conversations with many others, people cited the same avoidance words over and over again, though certain specific items are probably restricted to particular households. The (extremely limited) historical evidence available also points to remarkable stability in women's use of avoidance forms. In his fieldnotes on the Datooga language from the 1930s, Paul Berger records five items of the avoidance vocabulary, all of which remain in use today.¹ The highly conventionalized, shared nature of avoidance forms is what makes our survey possible. We chose relatively high frequency lexical items (see §4), whose replacement forms we expected to be widely known by adults.

Though avoidance forms themselves are in wide circulation, individual knowledge of these vocabulary items may differ from one adult to the next. In his work on honorific registers, Agha (1998, 157) notes that knowledge of honorific vocabulary is often distributed unequally within a society, such that one can talk of a "sociolectal distribution" of honorific forms. He lists birth, class, age, education, or profession as possible factors influencing knowledge. Irvine & Gunner (2018) comment on the sociolectal distribution of *hlonipha*, observing that "the distribution of

knowledge of particular items of *hlonipha* vocabulary seems to be uneven". In the case of *giing'awêakshòoda*, one might predict that adult knowledge would be distributed along lines of gender, given that women are the ones who use the special vocabulary. Though we have not systematically investigated knowledge of avoidance words across the adult population, such patterning is not strongly evident. In discussions with the first author, women could reel off long lists of avoidance words, but men typically know a great deal of the vocabulary too. Men's extensive knowledge of avoidance words is not surprising, given their daily interactions with married women. In fact, men may have greater exposure to a wider range of avoidance vocabulary items due to greater mobility and more time spent away from home. An elderly man, asked in an interview whether he would have problems understanding the speech of a woman he was meeting for the first time, explained the situation as follows: "If you meet a woman from someone's house and there are things she avoids, you will hear them and you will know them, because at your house too people are practicing avoidance".²

Despite most adults' extensive knowledge of avoidance words, confusion does arise in everyday interaction on account of people's differential familiarity with *giing'awêakshòoda*. We provide an example of such minor confusion from an extract of conversation between an old woman and several young men who were visiting from another village. The example not only illustrates the potential communicative problems caused by

linguistic avoidance but also attests to an instance of adult learning (or at least reinforcement) of an avoidance form. The extract is taken from a recording made inside a woman's house in Eshkesh in May 2016. The woman was sitting in the internal, private room of her house, talking through the (wattle and daub) wall to two young men who were sitting in the *dóodòoda*, the room at the entrance of her house. Two other men were sat outside nearby. Just prior to this extract, one of the

men outside asked whether the head of the household, who was away at a meeting, owns a calabash for brewing honey beer. After replying in the negative, the woman asked about the purpose of the brewing (line 1), using the conventionalized avoidance verb *qareer*, which in other contexts means 'cook; put pot on fire', in place of *rigiis* 'brew'. This usage appears to cause some problems:³

Extract 1

- 1 Woman *gàjàkárêershèesiin náa mâam?*
g-àjà-qáréer-shèesiin náa mâam
 AFF-2SG.FUT-cook-AP.TERM what maternal.uncle
 'What are you cooking [brewing] for, uncle?'
- 2 Man outside *ah?*
huh?
- 3 Woman *gàjàkáréershèesiin náa?*
g-àjà-qáréer-shèesiin náa
 AFF-2SG.FUT-cook-AP.TERM what
 'What are you cooking [brewing] for?'
- 4 Man outside *níi êa náa nìi*
níi êa náa nìi
 DEM.PROX COP what DEM.PROX
 'What is this?' [utterance indistinct; possibly directed to a child]
- 5 Man inside *g-ée-yíi g-à-á-kárêer-shi- g-à-á-kárêer-shèesiin náa bàab*
g-ée-yíi g-à-á-qáréer-shèesiin náa bàaba
 AFF-IMPRS-say AFF-2SG.FUT-cook-AP.TERM what father
 'She said, 'what are you cooking for?''
- 6 Man outside *bùng'eedá bùng'eeda!*
 'The funeral, the funeral!'
- 7 2nd man *àdà rìgíis-chèesiin nâa [laughs]*
 inside
 àdà rìgíis-chèesiin náa
 DSC brew-AP.TERM what
 'Oh, brewing for!'

8 2nd man àdà gíing'áwêakshòoda
 inside
 'it's giing'aweakshooda'

In line 2, the man indicates that he hasn't heard or understood the woman's question. She repeats it, and her addressee again indicates incomprehension, upon which one of young men inside (and nearer the door), repeats the question on her behalf. Interestingly, he also uses the verb for 'cook' rather than 'brew', probably because he had not recognized the act of avoidance, though possibly as a straightforward recycling of the previous utterance. The man outside then answers the question: the honey beer is being brewed for a funeral. For our purposes, especially interesting here is the metalinguistic commentary that follows from a third young man, also sitting inside. In line 7, he offers a "translation" of what the woman has said, using the ordinary form 'brew', and laughing gently, and in line 8 he categorizes her usage with the metapragmatic label *gíing'áwêakshòoda*. By providing a gloss for the word 'cook', he points to the use of this form as problematic, amusingly so, and he also explicitly links the two forms—*qareer* 'cook' and *rigiis* 'brew'—as paradigmatically related. As a result of his laughter and the subsequent elaboration in line 8, this linkage is presented as novel, or at least newsworthy. As such, his metalinguistic comment can be interpreted as an instance of adult learning: a verbalized piecing together of two linguistic items as metapragmatically related through the practice of avoidance.

The interaction transcribed in Extract 1 suggests that learning of the avoidance vocabulary is to some extent a lifelong process, with adults encountering new avoidance words with new conversation partners. But how much of the basic avoidance register is already acquired in childhood? And

what factors influence learning? To investigate these questions, we now turn to our survey.

4. Methods

4.1 Survey Design

The survey consisted of four sections. The first section asked for the following personal data: name, age, household, clan, level of schooling, gender, and home village. Age was usually estimated by the child's mother in consultation with other adults present and was given in years, not months. Mothers could often remember the year in which their child was born or estimate it relative to other siblings or neighboring children, though we are aware of the imprecision in our age data.⁴ We initially planned to record information on children's fluency in Datooga, where we would use a child's production of /r/ as [r] rather than [l] as a proxy for more adult-like speech, since this would be possible to assess from brief interaction with each child. In fact all of the children interviewed used /r/ correctly and we abandoned the 'fluency' data category. Another potential factor in children's knowledge of avoidance language is general cognitive ability. We did not collect any relevant information on this dimension, however, on account of the small scale of our study combined with the challenges of developing a culturally sensitive, culturally relevant measure of intelligence. The second section of the survey contained three questions relating to the concept of *gíing'áwêakshòoda* 'avoidance': "Do you know what *gíing'áwêakshòoda* is?"; "Does your

mother practice avoidance? Why/why not?"; "Does your father practice avoidance? Why/why not?". The last question was designed to test children's awareness of the gendered nature of avoidance practices, albeit only at the parental level. The third section contained ten avoidance words to be "translated" into ordinary Datooga. For each word in the list, children were asked, "Do you know what [avoidance word] is?", where the anticipated response was the ordinary Datooga equivalent or 'no'. The fourth section contained 20 ordinary Datooga words to be "translated" into the avoidance vocabulary. Children were asked, "If a person avoids [word], what do they say?". The survey was conducted orally in the Datooga language. The survey questions were read out either by a native speaker (see 4.2 for more details) or by Mitchell, who speaks Datooga, with native speakers present to repeat any questions that the child did not understand. Responses were immediately recorded in writing by Mitchell.

For the ten avoidance words that children were asked to translate into ordinary Datooga, we chose forms that constitute unique avoidance words, that is, they have no other meaning in the ordinary language. Except for one greeting phrase, these were all concrete nouns ('lion', 'flies', 'lake', 'tail', 'cloth', 'head', 'salt', 'girls', 'water'). For the twenty ordinary Datooga words, we chose basic vocabulary items that differed in their initial phoneme. We did this to increase the randomness of the words: since women's avoidance patterns are based partly on phonetic factors, having multiple words in the list that begin with the same sound would increase the likelihood that all those

words were avoided in a given participant's household. The list consisted of two adjectives ('small', 'white'), two verbs ('get up', 'run'), and 16 nouns ('milk', 'fire', 'house', 'beans', 'body', 'path', 'men's house', 'cat', 'donkey', 'sun/god', 'child', 'moon', 'ear', 'dog', 'chicken', 'rain'). The order of the words to be elicited was randomized in each survey.

4.2 Participants

The survey was conducted with 30 children (ages 7–11, estimated; 17 girls) from five locations: Eshkesh (nine children), Getanyamba (16), Garawja (three), Nyeamuusta (one), Maguugu (one). The two children from the last two locations completed the questionnaire in Getanyamba, where they had been living for several months. All children lived in households in which the primary or only language was Datooga, though those attending school would likely know some Swahili and some children may also hear Iraqw on a semi-regular basis (see §2 for brief discussion of language contact). We originally intended to gather data from two age groups (older and younger). This objective was abandoned as children above the age of 10 were difficult to recruit because they were often away from the household (e.g. out herding) and much younger children were likely to find the task too difficult. As a result, we decided to sample children from one age group, keeping the age range as narrow as possible (ages 7-11). Participants were recruited by means of a convenience sample. In Getanyamba and Garawja, Mitchell conducted the survey with the help of a local Datooga woman, Mama Happy, who recruited appropriate participants.

Mama Happy visited the participants' families on a previous occasion to explain the research and seek consent. In Eshkesh, where Mitchell lived for extended periods of time, Mitchell conducted the surveys with the help of a young woman called Udagawiischi, visiting children in households already known to her or to Udagawiischi. The consent process immediately preceded the survey. Of 22 households visited across all locations, two declined to participate. We excluded one child from the quantitative (but not the qualitative) data analysis, since we discovered that his clan practices avoidance for five generations, contrary to the norm of two to three.

4.3 Hypotheses

The design and the hypotheses were pre-registered (<https://osf.io/xfjgq>). We expected that girls would have a higher accuracy than boys, that older children would have higher accuracy than younger children, and that accuracy in the comprehension task would be higher than in the production task. After pre-registration, practical considerations made us opt for a more simplified sample in which age is by and large held constant; see §4.2 for explanation.

5. Survey results

Data and code are available in our online Supplement at <https://doi.org/10.5281/zenodo.3727560>.

5.1 General questions

Nineteen children (63%) claimed to know what *gíing'áwêakshòoda* is, with a higher proportion of girls claiming knowledge than boys (77% of girls vs. 46% of boys). These nineteen children were then asked to provide a definition of *gíing'áwêakshòoda*. Seven (37%) did not elaborate further; seven provided one or more examples of avoidance words; two (10%) referred to ordinary words that are avoided; and three (16%) mentioned people who are avoided. The most precise answer, given by an eight-year-old girl, fell into the latter category: "You don't say the names of senior people". Children more often chose to exemplify the phenomenon with items of the avoidance vocabulary, suggesting that in middle childhood lexical variation is the most salient aspect of the practice (rather than the expression of respect, which was adults' typical response to the same question in interviews conducted as part of an earlier project—see Mitchell 2015b).

The majority of children thought that their mother does avoid (25/30; 83%) and that their father does not avoid (22/30; 73%). No child had this distinction the other way round, though three claimed that both their mother and father avoid, and two claimed that neither avoid. This finding shows that children are generally aware of differences in the speech of their own mother and father. The narrow scope of the question means that we can only speculate as to whether children categorically extend this indexical association of avoidance language to all male and female speech.

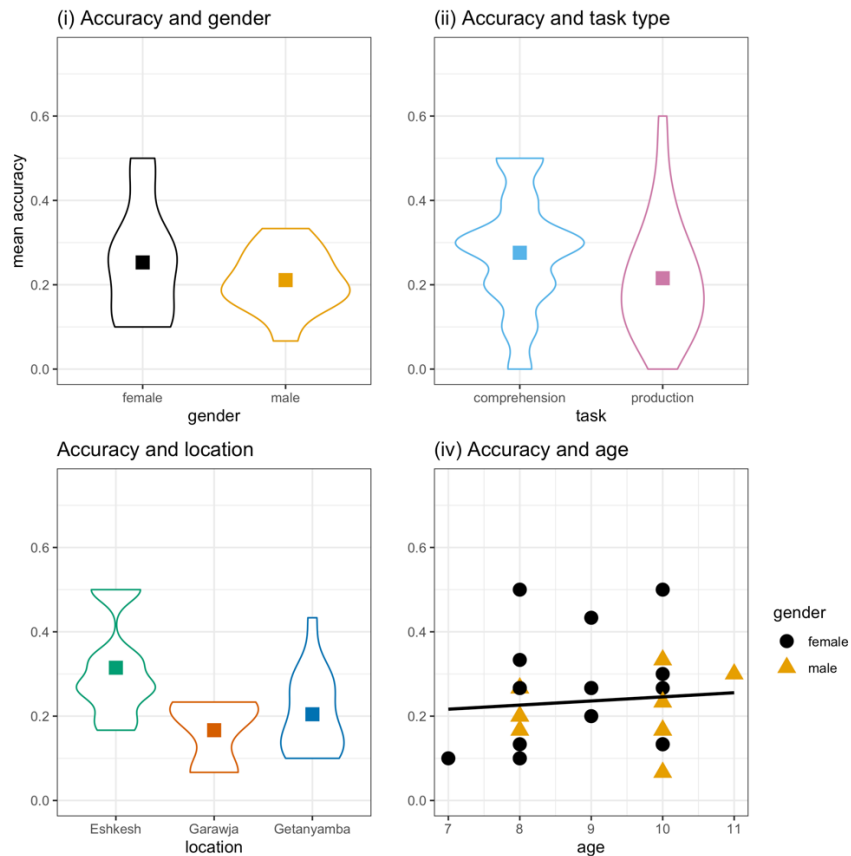


Figure 1: Participant mean accuracy across (i) participant gender, (ii) task type, (iii) location of data collection, and (iv) participant age. In the violin plots (i-iii), the violins show the distribution of participant means in groups. The solid blocks are the group means. In the dotplot (iv), each dot is a participant mean; black circles = girls and orange triangles = boys.

5.2 Vocabulary questions

5.2.1 Analysis

We used Bayesian generalized linear multilevel regression to model the vocabulary data. The outcome is a correct or incorrect form (for either an avoidance term or an ordinary term) provided by the child. The predictors are the child's age and gender, the child's time spent in school (as an ordered factor), location (where the child lives), and task type (comprehension, i.e., providing an ordinary term for an avoidance term, versus production, i.e., providing an avoidance term for an ordinary term). Responses are grouped

across children and survey words in the model.

We fit the model in R (R Core Team 2018) using brms (Bürkner 2017) and Stan (Stan Development Team 2018), specifying weakly informative Student-t priors (following Gelman et al 2008), a Bernoulli error distribution and a logit link function. Model fitting diagnostics followed Depaoli and van de Shoot (2017). We tested for an interaction of child gender and task type using information criteria and cross-validation. The interaction did not explain additional variation in the data and was discarded. Otherwise, results are reported from the full model. Below, we provide

coefficient estimates and error from the model as we discuss predictors in turn.

5.2.2 Results

We found evidence for the gendered and age-graded stratification of the knowledge of name avoidance terms. The situation, however, is complex.

Figure 1 shows the mean response accuracy across (i) participant gender, (ii) task type, (iii) participant location, and (iv) participant age. Overall, response accuracy is low (mean = 0.23). Accuracy for boys is lower than for girls (estimate = -0.73, error = 0.35, 95% CI [-1.42, -0.01], see (i)). However, this is a small observed difference (raw mean = 0.21 versus 0.25). Accuracy in production is worse than accuracy in comprehension, but this is not a robust effect (est = -0.33, e = 0.55, 95% CI [-1.46, 0.78]). This does not interact with gender: girls are not much better at production as opposed to comprehension than boys. Location is an important factor, with lower response accuracy in both Garawja (est = -1.06, e = 0.52, 95% CI [-2.08, -0.03]) and Getanyamba (est = -1.41, e = 0.47, 95% CI [-2.35, -0.46]) than in Eshkesh (see (iii)). (Only one child each was recorded from Maguugu and Nyeamuusta.) Finally, even in this narrow age range, we see a robust effect of age (est = 0.44, e = 0.18, 95% CI [0.08, 0.80], centered, see (iv)): older children are more accurate at the task. School attendance, in contrast, has no effect (est = 0.34, e = 0.63, 95% CI [-0.91, 1.56]).

As we expected, some words are easier than others (variance of the word random

intercepts is 1.35, e = 0.24, 95% CI [0.96, 1.91]). Easy words are more likely to be identified accurately by most children. If child A has lower accuracy than child B, both children are likely to accurately identify an easy word, but only child B is likely to accurately identify a hard word. Based on eyeballing the data, easiness correlates with familiarity. The three easiest words in the production task were èanóoga ‘milk’, dígèeda ‘donkey’, hùlánda ‘men’s house’. The three hardest words were àséeta ‘sun; god’, sáséeda ‘body’, and shéeda ‘moon’. We discuss the implications of this pattern and our other findings in the following section.

6. General discussion

We hypothesized that a child’s gender identity may affect their acquisition of avoidance words and thus predicted that girls would outperform boys in the vocabulary tests. Indeed, girls did perform slightly better overall. Girls were also more likely to claim knowledge of gíing’áwêakshòoda. There are several reasons why growing up as a girl might encourage learning of female-indexed language. Our hypothesis was partly based on the idea that girls may show more interest in, and pay greater attention to, avoidance practices, because they identify more with women. However, girls appear to be slightly ahead of boys in overall language abilities across languages (Eriksson et al., 2012), so general linguistic competence may account for the difference. Alternatively, the girls’ greater accuracy may be explained in terms of linguistic exposure. Girls typically spend more time around women due to the

division of labor in childhood: girls help with tasks in the company of women, such as cooking and looking after younger siblings, while boys are less bound to the domestic sphere, spending more time outside the compound herding young livestock and playing.

An interesting test case with respect to gender is a pair of eight-year-old boy/girl twins from Eshkesh. Though their sociolinguistic learning environment will have differed due to the differences in childhood activities just outlined, the twins are growing up in the same household, cared for by the same women, and are thus exposed to many of the same avoidance words. The boy twin knew the meaning of 2/10 avoidance words and knew the avoidance equivalents for 6/20 ordinary words. The girl twin knew 3/10 and 12/20, respectively. All but one of the responses answered correctly by the boy were answered correctly by the girl, so we see a large overlap in what they both know, with the girl familiar with almost twice as many words. This suggests that the twins are learning the same set of words but that the girl is learning faster and perhaps with more reflection—she claimed knowledge of *gíing'áwêakshòoda* while her brother did not. We cannot draw conclusions from a single case study, but it does show that

individual learning in the same environment can proceed rather differently, whether on account of factors relating to gender or other variables, such as cognitive differences.

As with the twins, across the whole sample of children we found overlaps in the words children were likely to know or not know. The consistent difficulty of responding to some words over others indicates that children are learning a set of frequency-related, community-wide linguistic norms—as opposed to haphazard words—from exposure in the ambient language. The significance of the ambient language is also apparent from the differences in individual knowledge that are predicted by the child's home environment.



Figure 2: Satellite images of Site 1 and Site 2.

Home environment appears to strongly differentiate individual learning of the avoidance vocabulary. Children growing up in the more rural, monoethnic setting of Eshkesh (Site 1) knew more about avoidance than those in the more urban, multiethnic Getanyamba (Site 2). In Figure 2 we show satellite images of parts of these villages to illustrate the different human geography of the two sites. Site 1 is less densely populated than Site 2, there are fewer roads, and less of the land is given over to farming. Most buildings have thatched as opposed to corrugated iron roofs. As mentioned in Section 2, children growing up in Eshkesh are less likely to attend school, will have less exposure to languages other than Datooga, and more exposure to traditional Datooga magico-religious beliefs. This complex of sociocultural and economic factors leads us to describe the Eshkesh site as more “traditional.” Interrelated with these factors is the extent to which women practice in-law name avoidance. Christian women do not typically practice *gíing'áwêakshòoda* and there appears to be a decline in the practice in less traditional areas in which Christianity and interethnic marriage are more common.

These sociocultural differences between the two locations lead to differences in children’s experience with *gíing'áwêakshòoda*, which in turn affects their performance in our survey. We can distinguish two dimensions of ‘experience’ with linguistic avoidance: first, the structure of a child’s social network, i.e., who they come into contact with; and second, the degree to which avoidance is practiced by the women in that network. In Eshkesh, children are more likely to encounter rural Datooga women who strictly adhere to avoidance norms—we describe two such encounters in the following paragraph. In Getanyamba, children’s social networks are ethnically more diverse and they have more contact with town-dwellers, schoolteachers, preachers, church-going Datooga, etc, none of whom will practice *gíing'áwêakshòoda*. Children growing up in Eshkesh are also more likely to interact with women who practice avoidance to an extensive degree. That degree of avoidance might affect knowledge was suggested by the responses of one particular child. In §4.2, we mentioned a boy who was excluded from our analysis because we discovered that his mother avoids five generations of her husband’s

relatives as opposed to the usual two or three. This more intensive avoidance practice is likely to have directly affected her son's knowledge of avoidance: he was a considerable outlier in comparison to the other boys in the survey and performed nearly as well as the highest-scoring girl.

Ethnographic evidence supports the idea that a child's social network is important for learning the avoidance vocabulary. Young children are initially exposed to the avoidance words used in their own household and reportedly do sometimes acquire their mother's avoidance words before they learn the ordinary counterparts. As children's social networks expand, through interactions with neighboring women and kin married into other families, children hear more and more of the avoidance vocabulary. As an illustration, Mitchell observed a six-year-old child's first encounter with the avoidance equivalent of his own name. The child was sitting inside his mother's house while his mother and a neighboring woman were talking. The neighbor lived around a mile away and was not an especially frequent visitor, but on this occasion was passing by on her way to a nearby well with her donkey. After some time, the neighbor addressed the boy with the avoidance equivalent of his name and asked him to go check on her donkey. The boy asked who this name referred to and his mother quickly responded, "you, boy!" This encounter with an unfamiliar name, and the metacommunicative clarification it led to, presented a language-learning opportunity for the child—though he may not yet have associated this variant of his

name with the metapragmatic act of avoidance.

A second example also demonstrates the significance of expanding social networks for children's learning of avoidance vocabulary. In Mitchell's host family's household, a young woman previously unknown to the household members came to stay for about a week while her husband negotiated some cattle-related business nearby. She was married into the family of the most important Bajujuta healer and avoided an enormous number of words, including her own name. At some point during her stay, she memorably told one of the household residents, a girl of about sixteen, *ábírbìr ámáng'úshéena* 'get up and wash'. This utterance contains two avoidance forms, neither of which were avoided by the women of the household: *ábírbìr* 'shuffle; rustle' for *ng'éadá* 'get up' and *ámáng'úshéena* (of unknown origin) for *áhúushèena* 'wash'. Even months after the guest had left, members of the household, but especially children, derived much pleasure in repeating the phrase *ábírbìr ámáng'úshéena*. This pleasure no doubt stemmed in part from the idea of ordering the girl to wash, but the two avoidance words seemed to add to the novelty and enjoyment of uttering this phrase. This example demonstrates how contact with non-household members expands children's knowledge of avoidance forms, whereby, in this case, learning was likely reinforced by the humorous nature of the episode.

Our finding that home location matters most in learning the avoidance vocabulary also highlights the ways in which

sociocultural change affects knowledge transmission. Social change brings about differences in children's social networks and patterns of interaction, which then results in variable knowledge of avoidance language. Children growing up in more rural Eshkesh appear to have greater access to certain types of linguistic knowledge than those in Getanyamba (but less access to other types, e.g., Swahili). The outcomes of social change may of course look different for different types of linguistic phenomena. For example, Odden (2011) tested Samoan children's knowledge of honorific words, an area of knowledge traditionally organized hierarchically, with children of higher-ranking households exposed to more honorific forms. He found that the institution of the primary school appears to level out children's knowledge of these forms. This levelling occurs partly on account of school events attended by highly ranked individuals, at which all children will be exposed to honorific words. In contrast, in our study, schooling had no effect, nor do we see any levelling of knowledge but rather the opposite, with children in less traditional settings acquiring fewer avoidance forms. Our findings of differential transmission are both diagnostic and result of sociocultural change in progress and present a familiar story of the loss of traditional knowledge through modernization. The current global disappearance of linguistic repertoires and varieties in contexts of rapid social change is well documented in the large literature on language endangerment (e.g., Nettle and Romaine (2000); Rehg and Campbell (2018)).

To conclude, this small-scale study has shown that children's knowledge of avoidance vocabulary was most strongly influenced by the area in which they were growing up. Though many girls will practice linguistic avoidance later in life, in middle childhood they do not know significantly more avoidance words than boys. We also found evidence that children were learning community-wide norms, rather than random avoidance words. While we find these results noteworthy, we should acknowledge the limitations of our study. First, the sample size is too small to make strong statistical claims. Second, our study investigates lexical knowledge and has much less to say about how children learn to associate forms with social contexts: we considered whether children could distinguish "ordinary" vs. "avoidance" words but we did not examine more specific indexical associations with avoidance words. For adults, avoidance language indexes femininity, marital status, and, most notably, respect—a concept not mentioned by any of the child participants. Future research might explore how children come to associate certain types of language with social demeanors such as respectfulness. Third, we did not conduct the survey with adults and therefore cannot make precise claims about the state of children's knowledge in comparison to adults'. Nonetheless, one clear finding of the data is how few avoidance words the average child knows. This finding demonstrates that the transmission of sociolinguistic knowledge can proceed rather slowly in early and middle childhood. Whether this type of knowledge acquisition continues at the same rate, or speeds up, in adolescence

and into adulthood is an open question (cf. Koster, Bruno, and Burns 2016).

A more challenging topic which our study has not addressed is how children learn to link linguistic and behavioral practices with the shared cultural and moral values that make them meaningful (cf. Lewis 2008). In the context of our survey, while all children knew at least a couple of avoidance words, very few demonstrated any coherent, explicit understanding of *gíing'áwêakshòoda* as a normative practice (see 5.1). For some of our participants, the experiences of school, church, and more nuclear family structures may preclude ever developing a rich, socioculturally embedded understanding of *gíing'áwêakshòoda*. 'Partial' transmission may then shift the interpretation of avoidance practices from 'natural' or necessary to anachronistic and even undesirable (cf. Finlayson (2002) on urban schoolchildren's attitudes to *hlonipha*). Such attitudes would in turn predict a rapid decline of this practice in the next generation.

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1. Thanks to Stefan Bruckhaus and Roland Kießling for sharing this data.
2. "Eara iiroonyeawi gatmooda qee siida akkwanda gida ang'awaas (.) eara ang'iing'i gajiinyi akkinali (.) aba gideaba eara aba qaheang'wa geeng'aweakshatchi."
3. We provide morphological glosses for readers interested in the linguistic details. Abbreviations used in the glosses are as follows: 2 'second person'; AFF 'affirmative'; AP 'antipassive'; COP 'copula'; DEM 'demonstrative'; DSC 'discourse marker'; FUT 'future'; IMPRS 'impersonal'; PROX 'proximal'; SG 'singular'; TERM 'terminal suffix'.
4. We became aware of Diekmann et al's (2017) more reliable method of estimating age in small communities only after we had finished our data collection.

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