

Instrumentality, Empiricism, and Rationality in Nuosu Divination

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Abstract

We offer an in-depth ethnographic exploration of Nuosu divination, examining their underlying rationale from cognitive perspectives and highlighting their instrumental and empirical components in everyday contexts, such as the clients' skepticism and diviners' attempts to signal their integrity and transparency. Challenging suggestions made by some cultural anthropologists, we argue that the Nuosu primarily regard divination as tools and methods that generate information for subsequent decision-making, and place considerable weight on the accuracy of information yielded. We conclude by positing that the question of "why divination" remains and merits further cognitive and cultural evolutionary investigations.

1. Introduction

Ever since the time of Tyler (1871) and Frazer (1890), much anthropological effort has been devoted to understanding the rationale of magico-religious practices in small-scale, traditional societies. Noteworthy examples include Levy-Bruhl's conjectures regarding the thought patterns of indigenous peoples (1926), Malinowski's reflections on the interplay between magic, religion and science (1925/1992), and Evans-Pritchard's (1937) extensive study of magic and witchcraft among the Azande. Evans-Pritchard's research has proved particularly influential, representing one of the first systematic explorations of the underlying logic of practices that might appear irrational from a Western perspective. This work has catalyzed further inquiries not only within anthropology, but also related disciplines such as sociology (Barnes, 2013), psychology (Ohreen, 2007), history (Thomas, 2003), and philosophy (Triplett, 1988). Later scholarly discussions have been characterized by a divergence of opinions regarding the nature of magical-religious beliefs and practices of the non-western societies. With the caveat of over-simplification, there were scholars who largely continued Tyler and Frazer's projects to understand the logical and psychological basis of magical-religious beliefs and practices such as Horton (1967, 1968), Agassi and Jarvie (1973, 1967). These scholars are often labeled "intellectualists" (Stocking Jr, 1986), meaning that they take means-ends rationality seriously, and suggest that human beings apply their cognitive faculties to make sense and explain their world (Eames, 2016). Therefore, to fully explain a particular magico-religious practice (or any cultural practice in general) we need to reconstruct what the actors believe about it, what they think it does. Horton makes the more explicit point that magico-religious practices are genuine efforts to explain, predict, and control

worldly events in a way qualitatively similar to scientific endeavors in modern societies (Horton, 1967).

Now, to a certain degree, this “intellectualist” interpretation may seem self-evident, but some anthropologists vehemently reacted against it. In Horton (1968)’s own words:

“To the layman, this intellectualist approach is likely to seem self-evidently sensible. To the orthodox social anthropologist, however, it is misguided in the extreme. For the anthropologist, it is the height of error to take pre-literate religious belief-statements at their face value. Such statements may be many things; but they are not really attempts at explanation, and should not be analyzed as such.”

What, then, are the alternative explanations? The typical “symbolic” explanation is that magico-religious actions create and express meanings in some symbolic way, often serving hidden functions. Let’s take magical chanting as an example. In many traditional societies chanting is required when planting seeds (Demange, 2002). From an intellectualist viewpoint, the practice stems from the belief that successful planting requires supernatural intervention and therefore they chant to invoke supernatural assistance. This is, incidentally, the explanation that the practitioners themselves would offer if asked. A symbolic interpretation, in contrast, would suggest that the chanters are quite aware of the fact that chanting does not cause crops to grow; rather it is about investing the agricultural with a sense of its social importance, warranting a collective ceremony (Jarvie, 2018). Another topic on which the symbolist interpretation is frequently employed is rain-making (Hong, Slingerland & Henrich, forthcoming). Wittgenstein (1967) famously think that rainmakers don’t really try to make rain. Echoing this sentiment, Chaves (2010), in the presidential address to the Society for the Scientific Study of Religion in 2009, began by citing a presumably indigenous rainmaker who, when asked to perform a rain-making ceremony during the dry season, retorted: “don’t be a fool, whoever makes a rain-making ceremony in the dry season?”¹ The message is clear enough: magico-religious beliefs are not what they appear to be and it is the job for anthropologists to discover their hidden meaning and functions.

Much contemporary anthropology may be characterized by the critical rejection of Tyler’s intellectualism, and Frazer has been viewed as an “embarrassment” for many anthropologists today (Strenski, 2006). Their successors such as Horton have not been received favorably either. In Horton (1993b) own words, his 1967 paper on the continuity between African traditional thought and western science “has enjoyed a certain notoriety. Some few scholars have agreed enthusiastically with part or all of it. Others, more numerous, have been affronted ... All in all, the responses to the article have been predominantly unfavorable.” Interested readers may also take a look at all the critical commentaries to Jarvie (1976)’s target article *On the Limits of Symbolic Interpretation in Anthropology* published in the leading anthropology journal *Current Anthropology*.

But let us take one step back. Ultimately, the intellectualist approach is a kind of cognitive approach to human belief and actions (Jong, 2017), as it takes seriously people’s mental

¹ Chaves was quoting Tambiah (1990), who attributed to the anthropologist Meyer Fortes. However, it is very likely that they misinterpreted Meyer’s original ethnographic description.

representations of the world and the ways in which they affect behaviors. Many cultural and social anthropologists not only omit in their studies to take into account the workings of the mind, they are actively hostile to any attempt to do so (Bloch, 2012). We believe this is unfortunate for many reasons, the full exploration of which is beyond the scope of this paper. But for one thing, it distances anthropology away from neighboring disciplines such as psychology, sociology and economics by (among other things) abandoning the belief-desire framework that has been immensely successful in explaining human actions in the social sciences (Sinhababu, 2013; Wellman & Woolley, 1990).

In the present article, we embrace the classical intellectualist approach and offer a detailed ethnographic examination of Nuosu divination (a type of magico-religious activity broadly speaking), highlighting both its cognitive and sociocultural dimensions. Our aim in this paper is twofold. First, by carefully describing Nuosu divinatory practices in their natural context, we wish to draw the attention of scholars in different disciplines to Nuosu divination in hope of inspiring further theoretical and empirical investigations; second, we will use Nuosu divination as a case study to illustrate some of the key features that have not been sufficiently appreciated in contemporary anthropological literature, in particular the instrumental nature of divination (broadly defined) and the empiricist attitude that people exhibit in utilizing various divination methods to generate information. In doing so we will also contrast our cognitive approach to the more mainstream cultural anthropological perspective that woefully overlooks the instrumentality of divination as well as the empiricism involved.

2. Ethnographic context

The Nuosu are an ethnographically famous people located in the southwest of China, and have been the subject of extensive study by anthropologists (Bamo, 1994; Harrell, 1990; Lin & Pan, 1947). According to the official ethnic designation of China, the Nuosu represent the largest division of the “Yi” ethnic minority group, with a total population of over 2.3 million (Zopqu & Harrell, 2019). Predominantly, the Nuosu inhabit Liangshan Prefecture, known as the “cool mountains,” a terrain where travel from one place to another remained a challenge until recently, when the government exerted significant intervention to enhance the transportation infrastructure (Zhou et al., 2018). Such geographical isolation has played a vital role in preserving Nuosu’s cultural distinctiveness. Consequently, the Nuosu have retained much of their traditional culture, in contrast to other ethnic groups where the influence of the mainstream Han culture is more pronounced (Harrell et al., 2000).

The Nuosu society is highly patriarchal and people identify strongly with their kinship groups². Such social structure is reflected in their belief systems: like many other traditional, small-scale societies, the Nuosu maintain a polytheistic worldview, though ancestor worship occupies the most significant role (Hong, 2022a). The practical manifestation of the centrality of ancestors is the belief that illnesses are mostly caused by the ghosts of dead blood relatives (never deceased

² It is said that in the old times, when two Nuosu men met as strangers, they would recite their genealogies to determine their genealogical relationship (Hill & Diehl, 2001). Our own fieldwork in Liangshan (2019-2022) shows that even today, being able to recite the names of one’s patrilineal ascendants is deemed as a valuable skill.

strangers) and occasionally animated spirits³. These ghosts are collectively referred to as *nuci*, and are believed to haunt the living, causing all sorts of problems from illness to financial misfortune (Bamo, 2003). One common explanation for the presumed behavior of ghosts is that they are looking for food and shelter (Bamo, 1999). Indeed, this is reflected in exorcist rituals: ritual specialists often “lure” the ghosts out of the patients’ body by the smell of food (in practice, this is often done by dripping sheep fat onto red-hot stones). Typical of animistic belief systems, the ancestral ghosts cannot only be supplicated and petitioned, but also deceived, threatened and coerced. Often, ritual specialists will utilize a combination of techniques to get the troubling ghosts out of the patient or haunted household⁴.

Nuosu ritual specialists are of two kinds, which have been extensively characterized in the existing literature (Mose, 1996; Zhang et al., 2008) and we’ll only give a very brief introduction here. The main type of ritual specialists is known as *bimo*, or “master of rituals”. These individuals are almost always male, typically literate and are capable of conducting most rituals by reciting scriptures, and are regarded by the broader the community as important transmitters of traditional Nuosu knowledge (Harrell, 2001, pg. 181). *Suni*, on the other hand, are predominately illiterate and may be either male or female. One can only become a *suni* via spirit possession, and they typically exercise their power during trance states (Yueqi, 2021). These ritual specialists are typically compensated with a fee for their services, and they may work both within their local communities and travel to other villages to conduct rituals.

None of the above descriptions are particularly surprising from a comparative anthropological perspective. It is well-known in medical anthropology that spirit aggression is perceived as one of the primary causes of illness in traditional societies, and conducting exorcist rituals is often seen as the most natural response to a malignant spirit (Murdock, 1980). All human societies have their healing specialists to confront the inevitability of illness and other forms of misfortunes; indeed, the role of shamans as professional healers has been suggested as a possible human universal (Singh, 2017). Recent cognitive studies of religion have additionally shed light on the psychological underpinnings that give rise to religious beliefs and practices. Our “theory of mind” ability (understanding and attributing mental states such as belief and desires to other people) and mind-body dualistic thinking (positing mind and body as separate, distinct ontological entities) make certain religious concepts such as superhuman agency and reincarnation easy to grasp, and these cognitive predispositions also render religious practices such as praying to deities intuitively sensible (Bloom, 2007; McCauley, 2000). On the other hand, concepts like ghosts and spirits with properties that violate our ontological expectation (e.g., going through physical obstacles instantaneously) enjoy a memory advantage during the transmission of cultural information (Boyer & Ramble, 2001), contributing to their cross-cultural occurrence and persistence.

³ This point that has been overlooked by many ethnographic accounts, e.g., Bamo (2000), Swancutt (2012, 2016).

⁴ This is also clearly shown by the content of ritual specialists’ chanting, e.g., “the skin of sheep is soft, the human skin is hard, the blood of sheep is sweet while human blood is bitter, humans have no flesh on the bones while sheep’s meat is abundant...”, “...ghosts, if you do not leave we shall beat you, go back to your own territory...” (Vermander, 2004)

In the present article, we will focus on the diagnostic procedures in these rituals, which fall within the larger category of divination. How do the Nuosu understand these procedures?? To what extent do they care about the accuracy of ritual specialists' diagnosis? What actions do they take to "ensure" that these diagnostic procedures yield the correct information? Much contemporary anthropological work focusing on divination either dismissed these crucial questions or simply ignores them. Symbolist interpretations suggest that divination's purpose lies beyond its apparent claim of truth-seeking, often framing it as functional, expressive, or manipulative. Divination as a general category has been described as a means to claim political legitimacy and power (Flad, 2008; Park, 1963), to reduce anxiety (Chuang, 2011), to resolve dispute (Burkert, 1985), or to express intuitions (Struck, 2016). Indeed, as Myhre (2006) insightfully comments, divination has been characterized as "a means for providing emotional reassurance, a tool for restoring and sustaining a social structure, an instrument for making decisions...", in short, everything one could think of, except as an attempt to acquire accurate information about some matter of interest (Boyer, 2020). Similarly, Tedlock (2006) similarly complains that "most research to date has rationalized divination after the fact, explaining what it accomplishes for individuals and societies without fully revealing that divination is a form of intentional shared social action."

In medical diagnosis settings, scholars are much more likely to treat diagnostic divination (mostly involving identifying the illness-causing agents) as well as healing rituals (getting rid of the ghosts/spirits) as instrumental and empirical. In fact, much medical anthropology describes prognostic divination exactly in this way (Nichter, 1991; Sargent, 1982; Young, 1977), as one of the key tasks of medical anthropology is to evaluate efficacy of traditional health care practices (Anderson, 2021). Divination as a medical prognostic procedure could indeed "work", in particular if we take into account the placebo effect (De Craen et al., 1999; Hong, 2021) and the fact that many illnesses are self-limiting (Young, 1977).

But anthropologists in general do not always appreciate the instrumental and empirical characters (Young, 1981). Victor Turner (1968)'s renowned ethnography of the Ndembu in Zambia, for example, described Ndembu medical action as a ritual behavior mediating socially divisive and ontologically threatening conflicts between the egoistic and collective values in Ndembu social organization. Mary Douglas (Douglas, 1966) in her major work *Purity and Danger* also suggests that some medical practices persist because they function as anxiety-alleviating rituals that ameliorate chronic but asymptomatic anxieties that are unrelated to the medical object of the practice. More recently, Holbraad has responded quite angrily to Matthews (2022)'s target article in *Current Anthropology* where Matthews suggests that divination is best understood as a technique for gaining information about the world: "... taking diviners as putative providers of accurate information is plainly wrong..." because we should provide more charitable interpretations of diviners' actions so that they don't appear to be doing "bad science".

It is not our intention here to provide a comprehensive response to the mainstream anthropological interpretations of divination. Rather, we seek to contribute to this discourse by zeroing in on the ethnographic details of everyday divination practices within Nuosu society, paying special attention to how clients evaluate divination's efficacy, how diviners signal their competence and reliability, and the efforts taken to improve the accuracy of divination.

Between 2019 and 2022, we carried out the bulk of our fieldwork in Meigu county, the heartland of Liangshan with the best preservation of traditional folk religious practices (Figure 1). Culturally, what distinguishes Meigu County from other Nuosu communities within the Liangshan Prefecture is the intensity of these practices. Often referred to as the "homeland of the *bimo*," Meigu boasts an impressive density of professional diviners. Earlier estimates suggested that *bimo* constituted over 10% of the total male population in the area⁵ (Mose, 1996). When considering *sun*, another prominent category of traditional healers, the total count of divination specialists in the community becomes even more remarkable. The notable presence of divination specialists not only reflects the richness of traditional beliefs and practices in Meigu County but also underlines the integral role that divination continues to play in the everyday lives of its inhabitants.



Figure 1. Geographic location of our primary field site in southwest China. Star represents Meigu county in Liangshan Prefecture. Left: Sichuan province; right: People's Republic of China.

Like "religion" and "magic", to provide a precise definition of divination is an onerous task, and we shall focus on examining the specific practices themselves. Within the context of the Nuosu community in Meigu County (hereafter, "Nuosu" refers specifically to this community unless otherwise stated), there are two terms that roughly align with the concept of divination: "*kusi*" and "*demu*." *Kusi* literally means "fate calculation", and is essentially a set of relatively fixed rules that could be used to predict one's fate based on her demographic information such as one's date of birth and the mothers age at birth (Yueqi, 2021), or to check the auspiciousness of significant life events such as marriage and ancestor worship rituals (Zhang, 2015). *Demu*, on the other hand, concerns the identification of the causes of illnesses (Cai, 2006; Jiaba, 2021) and is more prevalent in the everyday life of the Nuosu.

Here, we will primarily focus on *demu*, particularly as it relates to illness diagnosis, for two important reasons. First, illness is an extremely common type of misfortune that everyone must deal with, and as such illness diagnoses occur at sufficiently high frequencies for reliable anthropological observation; second, illness diagnosis is a high-stakes activity and people often

⁵ This proportion has definitely dwindled in more recent years (Bamo, 2010). However, the documented numbers may be underestimated due to unregistered and semi-professional traditional healers.

exhibit considerable seriousness when engaging in it, making it an ideal case to examine the instrumental and empirical components in Nuosu divination.

3. Nuosu divination in action: instrumentality and empiricism

For the sake of analysis, we distinguish three primary types of Nuosu illness-diagnostic divinations: 1) identification of the specific ghosts or spirits responsible for the illness; 2) assessment of whether a particular sacrificial animal will satisfy the illness-causing ghosts or spirits, thereby effectively driving them away; and 3) determination of the physical location of the illness-causing agents. While this categorization is not exhaustive, it encompasses the majority of routine divinatory practices and gives readers a good sense of the breadth and depth of Nuosu diagnostic methods.

3.1. Identifying the causative ghosts: egg divination

When human individuals experience physical or mental discomfort, they naturally seek to uncover the underlying causes. This inclination is well-established in psychology, and constitutes a specific instance of the more general phenomenon of explanation seeking (Frazier et al., 2009; Lombrozo, 2006). In polytheistic belief systems where illnesses are frequently attributed to supernatural entities, correctly identifying the causative ghost or spirit becomes a crucial task to be addressed by various divination techniques. Such endeavors form a pattern that reliably occurs in many human societies. For the ancient Babylonians, for example, knowing the name of the divine sender of illness was essential in order to directly address the appropriate god for healing the patient (Heeßel, 2004). Among Igala and Yoruba in Nigeria, the famous Ifa divination can be similarly applied to pinpoint the specific spiritual entity causing the illness, guiding the way to the correct spiritual intervention (Ajala, 2013; Boston, 1974).

The Nuosu diviners are no exception, and their main technique of ghost identification is through the examination of egg yolk dropped in a bowl of water. This method of divination is extremely common and widespread in Liangshang and has been thoroughly detailed by ethnographers (Bamo, 2003; Swancutt, 2021). In Meigu county where we conducted our fieldwork, this is referred to as “*vaqihe*” (literally, see the egg) and is the preferred method for illness diagnosis. Not a single Nuosu person we met was unfamiliar with it. Indeed, most have personal experiences with such egg divination, and its mechanism and function are generally well-understood in the local community. The core concept is that by rubbing the egg over the patient's body, the physical condition is “transferred” to the egg. The diviner then interprets the shape and distribution of bubbles created by the egg yolk dropping into water to reveal the patient's symptoms⁶ as well as the underlying illness causes⁷ (Hong, 2022a). Although the interpretation of bubbles is theoretically guided by general principles, our field observations suggest that diviners often lean on personal intuition, which many would openly acknowledge. Besides occasional soul-loss diagnoses in which case a soul recall ritual is needed, most diagnoses involve identifying specific ancestor ghosts and recommending exorcist rituals.

⁶ It is worth noting that almost all illnesses observed in the field that required egg divination are (often minor) physical discomforts that look nothing like “being possessed”. This is quite unlike some societies where therapeutic divination is employed only when the patient suffers serious illness (Ajala, 2013).

⁷ In practice, diviners often create more bubbles by scooping up the egg-water mix from the bowl using broken eggshells and pouring it back into the bowl.

For the most part, egg divination is a low-key, private activity, which may involve as few as two individuals – the diviner and the client. The client does not even need to be the patient (family members can act on the patient’s behalf); what’s essential is that the egg needs to be rubbed over the patient’s body. In Nuosu villages, diviners (*bimo* and *suni*), also being ritual specialists, perform rituals frequently, so those needing divination can simply prepare the egg and wait for a *bimo* or *suni* in the vicinity. These sessions typically last no longer than 10 minutes and are free of charge. Egg divination can also take place in commercial settings. For example, diviners (mostly *suni*) might set up a small street stall at regularly rural markets, staying for either a morning or an afternoon, specifically performing egg divinations for passersby (Figure 2). These commercial sessions typically last longer, and the fee ranges from 10 to 20 *yuan* (approximately 2-3 US dollars).

we wish to highlight the close analogy between visiting an egg diviner and going to a hospital for illness diagnosis. In fact, the Nuosu themselves recognize the resemblance between modern medical diagnosis and traditional egg divination, often resorting to both simultaneously if the patients’ condition is sufficiently severe. In both scenarios, the manifestations of the patient’s symptoms are carefully examined, solutions are offered, and the ultimate decision of whether to pursue a particular treatment rests with the patient or their family. Just as a patient may seek a “second opinion” from multiple doctors, additional diviners may be consulted if there are reservations about the initial diagnosis. Like doctors, diviners also have reputations and famous diviners charge (sometimes significantly) more than their mediocre counterparts. Diviners’ reputations are primarily established via interpersonal recommendations, word-of-mouth, and demonstrated success in previous divinations. This mirrors the way doctors’ reputations are often built on patient testimonials, success rates, and referrals from satisfied patients.

During the divination session, the diviner may employ various methods to signal their competence, especially in commercial settings. Between 2021 and 2022, we recorded 23 egg divination sessions (12 commercial, 11 non-commercial sessions), and in 17 of these, the diviner offered diagnoses of the patient’s symptoms based on egg yolk readings. Unlike ghost identification, which is difficult for the client to verify (since it’s hard to know whether a deceased relative has turned into a troublesome ghost or not), physical symptoms are easy to confirm. In our data, the diviners offer an average of 2.06 ± 0.90 symptom diagnoses, with a success rate of $46.1\% \pm 22.1\%$. “Success” here is defined by the clients’ explicit approval of the diviners’ symptom diagnoses. In commercial sessions, most diviners are *suni* who, during the divination, are said to send benevolent spirits possessing them (called *asa*, see Yueqi 2021) to the client’s household to examine the situation, and then return to the diviner with client-specific information⁸. As such, commercial diviners can also “predict” rather personal details of the client and their family. In 10 out of the 12 commercial sessions, the diviner explicitly predicted demographic information and/or important life events, such as deaths and births of family members, marriage status or number of marriages⁹, relocation events, the geographical surroundings near the residence, what objects are in the home, how they are arranged, etc. The

⁸ Such divination goes beyond the reading of egg-water mix and may be classified as “possession divination” in Plato’s terms (Flower, 2008).

⁹ It is not uncommon for Nuosu women to remarry, especially after their husbands pass away.

success rate for such personal detail predictions (55.3% ± 35.2%) is comparable to that of symptom predictions.

Some readers may wonder how commercial diviners, being strangers to the clients, could achieve such a substantial percentage of predictive success. Analyzing the content of their predictions reveals that they are not necessarily remarkable. The predicted symptoms and life details are often sufficiently common in Nuosu society (e.g., having headaches, occasionally dreaming of deceased individuals, having a family member of a particular generation on either the father or mother's side who has passed away). Furthermore, there can be a lot of flexibility in a diviner's predictions, seemingly "designed" to evade potential refutations. For example, the diviner may ask if a certain relative has a child who died young; if the client says "no," the diviner might respond that a child who died in the womb (an aborted child) counts as well. The diviner could also reinterpret a denied prediction about something that has happened into a statement about the future (claiming it is destined to happen soon if it hasn't already). This convenient invocation of supplementary hypotheses undoubtedly enhances diviners' predictive success, which lay Nuosu individuals take as signs of professional competence. From the client's perspective, they may also be reluctant to directly refute the diviner's predictions, especially in semi-public settings with street onlookers.

However, this is not to say that lay Nuosu are completely credulous towards diviners' tricks. One of our informants (a 24-year-old male) explicitly doubted the credibility of Nuosu diviners:

"[diviners' correct predictions] could just be a matter of lucky coincidences. The diviner could say 'you probably have a headache' or 'there is a piece of red clothes or white clothes in your house'. Who doesn't have red clothes! Who does not have headaches occasionally! If I were a *bimo*, I would know if they are intentionally deceiving people. It could be that these *bimo* are sharing each other's deceptive tricks, or it could be that they are so immersed into their practices that they believe the tricks themselves."

Suspicion towards fraudulent diviners and charlatans go back at least to the time of Pliny the Elder (Hankinson, 1988) and is widely documented in the historical and ethnographic records (Homola, 2013; Hong & Zinin, 2023). It is important to point out, however, that such suspicion is typically directed toward individual diviners rather than the fundamental validity of divination. Indeed, it is often diviners themselves who decry the charlatantry that tarnishes the reputation of the entire profession.

In general, to what extent do clients trust the diviners' diagnoses? This is a difficult thing to assert definitively, as private doubts and publicly professed certainty can be difficult to tease apart (Boyer, 2020). In our experience, many Nuosu individuals maintain at least a partial belief¹⁰ regarding the efficacy of egg divination, which is often enough to motivate them to seek consultations. Similar to a doctor's preliminary diagnosis, the identification of potential ghosts or

¹⁰ It is possible that patients or their family members traditional healing when modern medicinal measures fail, using it as a last resort (Munthali et al., 2014). However, most Nuosu people would turn to an egg diviner first when they fall ill. The preferential consultation with diviners may be partly contributed by easier access to diviners in the community, but it also reflects their substantial confidence in the efficacy of traditional healing (Hong, 2022a).

spirits believed to cause the illness serves as the essential first step toward subsequent treatments.



Figure 2. Egg divination in noncommercial (left) and commercial (right) settings.

3.2. Selecting the appropriate sacrifices: sheep scapula divination and twig divination

Once the causative ghosts or spirits are identified, one needs to decide how to get the ghosts/spirits to leave the patient, and there are a number of possibilities here. In most exorcist rituals some sacrifice is offered, and diviners would specify particular types of animal¹¹ to be sacrificed. In practice, the animals used are exclusively domesticated chicken, piglet, sheep and/or goat. Among these, chicken and piglets are relatively inexpensive (roughly 20-60 US dollars) but the price of sheep and goats can be as high as 500 US dollars. As such, the overall cost of performing sacrificial rituals can be large, which quite a few of our informants privately complained to me. Nuosu diviners apparently know this: they appear very cautious when recommending sacrificing expensive animals such as sheep and goat for fear that the patient may not recover after the ritual sacrifice. As such, both diviners and clients are incentivized to come up with additional measures to ensure that the recommended sacrificial animal may satisfy the ghosts/spirits, and there are generally two ways to do this. The first is through the use of sheep scapula. The general idea is very straightforward: the diviner asks a question “will sacrifice X sufficient to drive away the ghost” in a ritualized form, and then produces an answer by manipulating the sheep scapula¹². Effectively, the diviner takes dried grass powder and rolls it into a small ball, placing it on the sheep. He¹³ then lights it (usually with a cigarette end) and lets it burn slowly. After the all the dried grass is burnt, the diviner examines the cracks on the backside and interprets its auspiciousness (Figure 3).

In principle, sheep scapula divination can be employed to ask any “yes/no” questions. In practice it is often utilized to ascertain the auspicious date and the appropriate *bimo* suitable to perform the exorcist ritual in addition to the type of animal to be sacrificed. Compared to egg divination,

¹¹ Unlike some therapeutic divinatory session in some societies where diviners would propose herbal recipes (Owumi & Okewole, 2017), Nuosu’s diviners’ resort entirely to animal sacrifices.

¹² This divination method is reminiscent of the oracle bone divination in early China (Keightley, 1985) and other ethnic groups in southwest China (Lin, 1963).

¹³ This procedure is always performed by *bimo* who can only be males.

sheep scapula divination occurs less frequently, possibly due to a lack of the raw material required. A more common method of determining the types of animals to sacrifice is by using *Artemisia* twigs. Like sheep scapula divination, this is a rather general way to ask “yes/no” questions and can be performed by both ritual specialists and lay people who master the technique (Figure 4). In this method, the person asking the question chants the query and carves curls of wood shavings onto a thin twig (ideally *Artemisia* twig, but other kinds of sticks will do as well) using a small knife, ensuring they remain attached. When the carving is finished, they randomly¹⁴ cuts away two of these wood curls, dividing the shavings on the stick into three sections. they then count from the bottom to the top to determine whether the number of shavings is even or odd, which is then interpreted regarding whether a proposed action is auspiciousness or not (Ma, 2011). Unsurprisingly, the interpretation of the “signs” (parity of number of shavings in the three sections) in twig divination is highly anthropomorphic. In this context, specific combinations of “even” and “odd” are seen as indicators of auspiciousness and inauspiciousness, and an inauspicious sign is interpreted as “the ghost/spirit is unwilling to accept the sacrifice”. In response, another offering (typically more valuable) is proposed.

A critical observation across both divinatory methods is the ability to pose the same question multiple times until consistent answers emerge. Paradoxically, this repetition acts as a safeguard against outcomes being merely attributed to “chance”, a common finding in ethnographic and historical studies of divination (Bohannon & Bohannon, 1969; Jordan, 1982; Nadel, 1954).



Figure 3. A bimo performing sheep shoulder blade divination to determine whether a particular animal sacrifice will satisfy the ghosts/spirits. An egg divination was performed before beforehand for ghost identification. Left graph: a bimo burns dry grass powder to produce the first answer. Right graph: the bimo produces the third answer in the same divinatory session.

¹⁴ It is well understood by the Nuosu that this method will not work if one intentionally divides the shavings to get a favorable sign. When picking the two wood curls to remove, they have to rely on their “gut feelings”.



Figure 4. A person (non-ritual specialist) performing twig divination. Left graph: the diviner creates the wood curls; Right graph: the diviner counts the number of wood curls in the same session.

3.3. Locating the physical embodiment of ghosts: the search for cremation residues of deceased relatives

The above two kinds of therapeutic divination (egg divination and sheep scapula/twig divination) together provide a complete diagnosis, which the patient or their family could use as the basis for subsequent ritual treatment (Hong, 2022a). In this section, we will delve into another form of divination aimed at identifying the tangible manifestation of the ailment-causing agent, which is subsequently ritualistically discarded.

The illness-causing agent in this context is called *xiguxiji*, the cremation residues¹⁵ (e.g., teeth, fingernails, charcoals) of deceased relatives. It's believed these residues can physically "return" to a household, secluding themselves underground and afflicting the living with illnesses. The key problem thus becomes locating these underground residues. If the existence of *xiguxiji* is suspected (as determined by egg divination, for example), a diviner is invited to the house to find the cremation residue. In contrast with previous divinatory practices that primarily involve the interpretation of publicly observable signs, the detection of *xiguxiji* is almost entirely based on the diviner's personal intuitions. After invoking their benevolent spirit for guidance, the

¹⁵ Like many other ethnic groups in southwest China, the Nuosu practice funeral cremation.

diviner may utilize one of two methods to indicate the residue's position: by tossing a knife or bowl towards the presumed location or by directing a long wooden or bamboo stick towards it. Why resort to these implements? Many diviners admit it's to preempt accusations of deceit. Theoretically, a diviner could conceal an item, like bone fragments or fingernails, and surreptitiously place it at the indicated site, which the patient's family or assisting neighbors would subsequently "unearth". Hence, indicating *xiguxiji* from a distance functions as a signaling method, demonstrating that the diviner isn't manipulating the divination results.

Historically, excavating within a residence was straightforward due to mud and dirt flooring. However, the contemporary shift towards modern housing means that most Nuosu dwellings now have concrete floors, making excavation more laborious. To address this challenge, some Nuosu have ingeniously integrated modern tools like electric drills (Figure 5), although more often, large hammers and lengthy nails suffice. It's noteworthy that this adaptability underscores the instrumental nature of *xiguxiji* excavation, as one of the key features of instrumental practices is outcome-oriented innovation as environmental circumstances change (Jagiello et al., 2022).



Figure 5. An electric drill is being used to dig a hole in the concrete floor to retrieve *xiguxiji*.

Once the excavation is complete, all the excavated material, including soil and concrete debris, is meticulously gathered. The patient's family and assisting neighbors then unite to sift out the *xiguxiji* (Figure 6). This could comprise various human remnants, from fingernails and teeth to residual burnt bones, but frequently includes charcoal residues. It's crucial to highlight that diviners abstain from this phase to avoid suspicion.



Figure 6. People trying to pick out *xiguxiji* in a pile of dirt and concrete debris.

More often than not, *xiguxiji* is discovered, typically in the form of burnt charcoal. This finding is hardly surprising, considering that people historically burned firewood on the ground for cooking. The Nuosu are cognizant of this historical practice and always judge a diviner that locates actual human remains as more impressive¹⁶. Nevertheless, at times, isolating tiny black fragments from a vast mound of soil can be challenging. To simplify this process, the Nuosu employ a creative method: they pour all the concrete debris and soil into a water-filled basin, allowing the charcoal residues to float (Figure 7). As the majority of concrete debris sinks in water, this method facilitates the easier detection of potential charcoal residues. Once the *xiguxiji* is identified, it is discarded from the household, symbolizing the expulsion of the illness-inducing agent.



Figure 7. After the *xiguxiji* digging, the helpers poured the concrete debris and dirt into water to identify charcoal residues.

¹⁶ One may wonder how the diviners achieve this other than by chance. A systematic examination is beyond the scope of this paper, and interested readers maybe consult Hong (2022a) for some relevant social and psychological explanations.

4. Discussion

As we have argued elsewhere, there is little doubt that the Nuosu approach such divination practices instrumentally, viewing them as means to achieve specific ends (Hong, 2022a; Hong & Henrich, 2021). Although lay people may only possess a vague and partial understanding of how these divinatory rituals work, they nonetheless believe in the rituals' capacity to provide fairly accurate diagnostic information and trust that there are ritual experts (e.g., *bimo*) in the community who possess the causal knowledge (Hong, 2022b). This is not very different from the modern medical setting where the average patient and their family members often know little about the exact mechanistic details of how CT scans or blood tests work, yet typically trust that professional doctors understand their craft. Indeed, Indigenous scholars have argued that traditional therapeutic divination should be viewed through the same lens as modern medical technologies (Abbo et al., 2019; Ajima & Ubana, 2018; Ndubani & Höjer, 1999; Owumi & Okewole, 2017).

Divination is sometimes argued to provide psychological comfort or relief (Fortes, 2018; Mason, 1993), and we do not doubt that this is occasionally the case. In the illness diagnosis context, for example, a diviner's diagnosis that suggesting the presence of a minor ghost which can be easily satisfied with a chicken is surely comforting, but much like in modern medical contexts, there is always the possibility that the underlying cause of illness is severe. For the Nuosu, divination session in particular can be a great source of anxiety. Many of our Nuosu friends have expressed their reluctance to consult a diviner for fear of receiving an unfavorable diagnosis, in a way very similar to how people in contemporary, modern societies would avoid accurate medical diagnosis in the spirit of "blissful ignorance" (Lupton et al., 1991). Some commercial diviners would also offer the unsolicited prediction of the age at which someone is fated to die¹⁷, and, if they somehow escape it, a later age of their destined passing¹⁸. For the Nuosu, investing time and money in a session where the diviner provides only comforting but false information makes little sense. Often, clients are aware that diviners may selectively downplay or overlook negative information and can instruct diviners to be forthright and avoid sugarcoating: "don't hide anything, just tell it as it is".

This ethnography shows emphatically that clients and diviners maintain a very empiricist mindset where predictive accuracy is always the primary concern. There is a large literature in ethnomedicine showing that people turn to traditional methods for illness diagnosis because they are perceived as accurate (Chapin, 1997; Harrell, 1974; Owumi & Okewole, 2017). It is a truism that traditional medicine's effectiveness should be understood within the context of cultural meaning, experience and social systems (Kleinman, 1980), but such emphasis on cultural specificity risks propagating a misconception that in comparison to modern societies, individuals in traditional, small-scale societies employ fundamentally different criteria in distinguishing effective diagnoses and treatments from ineffective ones. Regrettably, much contemporary anthropological writing simply sidesteps the issue of objective and subjective (perceived)

¹⁷ Such "life span divination" is also found in nearby ethnic groups, such as the Tibetan (Gerke, 2012).

¹⁸ The psychological impact that such "death prediction" produced is also in sharp contrast with some contemporary divinatory practices which are viewed as a form of entertainment (Lupton et al., 1991; Miller, 2014).

efficacy altogether. Swancutt (2021), for example, describes Nuosu egg divination as “creative ways of engaging with the world” without a single mention of accuracy or efficacy. When the pursuit of truth and accuracy is acknowledged, it is often misinterpreted as indigenous people seeking the functional consequence of some alternative truth. In commenting on basket divination in northwest Zambia where people would engage in a variety of efforts to ensure that the diviner does not know the client before divination sessions, Silva (2016) suggests that “...true knowledge is not always scholarly knowledge produced in an ivory tower. Not only does divination show that true knowledge has a special place in everyday life, but the materialization of that knowledge facilitates coping and decision-making...by seeing their lives reshuffled in a basket, and revisiting past events in the material form of divinatory pieces, many consultants make sense of painful experiences, gain resolve, and take concrete steps toward some form of resolution”, effectively reducing the significance of divination to psychological consulting.

Like other ritual specialists, Nuosu diviners have reputations which are mostly built upon delivering precise and accurate predictions. On the other hand, they face reputational risks not only from incorrect diagnoses but more significantly when deception is uncovered. In anticipation of allegations of deception, Nuosu diviners have instituted measures (as in the *xiguxii* excavation rituals) to underscore their integrity and transparency. From a cultural evolutionary perspective, diviners might not even need a conscious understanding of these measures' rationale. Selective retention processes naturally favor cultural practices deemed more appealing – in this instance, practices that appear less likely to be influenced by an interested party (Singh, 2022). However, in our observation among the Nuosu, both diviners and clients understand the purpose of these measures.

During specific divination sessions, diviners often provide predictions that clients can readily verify, as exemplified in Nuosu egg divination. Such predictions bolster the diviners' credibility while allowing clients to assess the accuracy of a diagnosis. Everyone recognizes that misdiagnoses occur, much like in contemporary medical settings. As a result, it's entirely acceptable for individuals to consult multiple diviners and take the advice (ritual recommendations) of the one who best captures the patient's symptoms. Broadly speaking, the Nuosu community operates with a level of "epistemic vigilance," a cognitive safeguard against accidental or intentional misinformation (Henrich, 2009; Sperber et al., 2010).

In illness diagnosis, the instrumental mentality is particularly prominent; from the patients' and their families' perspective, the primary (and sometimes sole) purpose of consulting a diviner is to accurately determine the causes of illness for subsequent treatment. A similar instrumental mentality is observed when people turn to twig divination to locate lost items, though this happens less frequently among the Nuosu. In contrast, there are some rituals that are less instrumental in nature. For instance, the Nuosu partake in regular, general safekeeping rituals called “*xiaobu*” to pro-actively protect their homes from malicious spirits and spells (Hong & Henrich, 2021). These rituals are less instrumental and invoke less epistemic vigilance because 1) it's often not immediately apparent whether these rituals are successful, and 2) some Nuosu explicitly recognize their social functions, such as enhancing family cohesion, as all members need to be present and participate in collective activities during the ritual. But even in these less instrumental rituals which occur at fixed times throughout the year, it is not uncommon for

people to attribute blame to the specialist overseeing the ritual if a significant misfortune transpires shortly after the performance of *xiaobu*.

Evans-Pritchard's probing question remains: "why doesn't common sense prevail over superstition?" (Evans-Pritchard, 1937, p. 193). Again, we'd like to stress that this is not because certain "religious" beliefs inherently differ from everyday factual beliefs and are thus not evidentially vulnerable, as some scholars suggest (Van Leeuwen, 2014). As Horton (1993) has noted, for most magical-religious practices, empirical failures need to be accounted for, and there is usually great anxiety in searching for explanations for negative results. Evans-Pritchard himself provides some insightful reasons -- skepticism is often directed at particular practitioner, and never challenges the premises of the belief system itself, and in a series of previous studies, we've highlighted a number of social and cognitive factors that could bias the perception of effectiveness of divination, most notably selective recall and reporting of predictive successes which may result in an inflated belief in the efficacy of divination practices. (Hong, 2022a; Hong & Zinin, 2023; Hong, Slingerland & Henrich, forthcoming).

Here we shall propose another factor that affects the perception of divinatory diagnosis' efficacy. Nuosu divination for illness diagnosis is rarely evaluated on its own, but as part of an integrated process along with other procedures, most notably the exorcist ritual. As such, if a patient does not recover, it becomes ambiguous whether the initial diagnosis or the subsequent treatment was flawed. Often, the exorcist ritual bears the blame by ascribing failure to the whims of spirits or inescapable fate in a post hoc fashion.

We wish to clarify that our analysis does not exclude the possibility that these divination practices may have non-instrumental effects (especially at the group level), such as political power manipulation (Flad, 2008) and group affiliation/cohesion (Jagiello et al., 2022; Xygalatas, 2019). However, we wish to emphasize the primacy of the instrumental interpretation. Consider divination again as an example; many of the non-instrumental effects depends on at least a portion of the population believing in their efficacy. A politician's use of divination to legitimize his power would be futile if few of their subjects hold any faith in the validity of divination. Similarly, the potential of public divination to enhance community cohesion would be significantly diminished if the majority perceive it as a trivial or meaningless ritual.

Ultimately, the persistence of divination and people's confidence in its efficacy rest on a multitude of factors, yet Evans-Pritchard's question remains pertinent, especially in an era of rapid social, economic and cultural transformation in many traditional, small-scale societies. In particular, how a shift in people's epistemic orientation and worldview may challenge the theoretical plausibility of divination (Hong & Henrich, 2021). It is our hope that this short ethnographic exploration may spark further interest in the cognitive and cultural evolutionary studies on divination, both in medical contexts and beyond.

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