

“Literacy is Functional for the State. Society Does Not Need Literacy”

Bureaucratic Encounters and (Il)Literacy in El Alto¹

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Abstract

This paper examines how adults with little or no competence in reading and writing engage with bureaucratic paperwork in El Alto, Bolivia. Residents of El Alto complain about having to deal with excessive bureaucracy in state institutions such as municipalities, police, and courts when they apply for pensions, file for divorce, or struggle through judicial processes. Although oral and textual practices other than standard literacy dominate in many everyday settings (such as markets or artisans' workshops) in El Alto, people must engage with documents and paperwork when they encounter bureaucracy. Following the experiences of some participants in my fieldwork in El Alto, I focus on literacy demands experienced in highly emotional proceedings within the justice system and ask how people with little or no literacy confront a literacy-oriented bureaucratic state. How do they deal with various public

¹ The quote belongs to Daniel Eduardo Pereira Otálora, participant in our February 2022 research workshop in El Alto. This article is the outcome of research conducted within the Africa Multiple Cluster of Excellence at the University of Bayreuth, funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) under Germany's Excellence Strategy—EXC 2052/1—390713894.

authorities to pursue their aims and claims? Are there certain strategies for confronting different literacy challenges and bureaucratic procedures? Which kinds of patterns and processes of unlearning and learning literacy ("illiteracizing" and "literacizing") can be identified? It is in just such highly emotional proceedings that research participants have also acquired reading and writing abilities. I ask whether literacy, in Bolivia at least, might be not an end in and of itself but rather a means to act in relation to the state.

Keywords

Literacy abilities, illiteracy, learning processes, bureaucracy, bureaucracy studies

Resumen

Este artículo examina cómo los adultos con poca o ninguna competencia de lectoescritura enfrentan el papeleo burocrático en la ciudad de El Alto. Los residentes de El Alto lamentan tener que lidiar con una burocracia excesiva en instituciones estatales como municipalidades, policía y tribunales cuando solicitan pensiones, tramitan divorcios o procesos judiciales. Aunque en muchos entornos cotidianos alteños (como mercados o talleres de artesanos) se pueden percibir prácticas orales y textuales distintas de la alfabetización estándar, los encuentros burocráticos demandan el manejo de documentos y papeles. Siguiendo las experiencias de algunos participantes en mi trabajo de campo en El Alto, me centro en las demandas de alfabetización experimentadas en procedimientos altamente emocionales dentro del sistema de justicia e investigo cómo actúan las personas con poco o ningún conocimiento de lectoescritura frente a las exigencias de la burocracia estatal. ¿Cómo se relacionan con las diversas autoridades públicas para lograr sus objetivos y reivindicaciones? ¿Existen estrategias para enfrentar los diferentes desafíos de la lectoescritura y los procedimientos burocráticos? ¿Qué tipo de patrones y procesos de desaprendizaje y aprendizaje de la alfabetización ("literalización" e "illiteralización") pueden identificarse? Precisamente en estos procesos altamente emotivos los participantes en la investigación adquirieron habilidades de lectoescritura. Me pregunto si la alfabetización, al menos para muchas personas en Bolivia, podría no ser un fin en sí misma sino más bien un medio para actuar en relación con el Estado.

Palabras clave

Capacidad de literalización, analfabetismo, procesos de aprendizaje, burocracia, estudios de burocracia

Introduction

My son was falsely accused of being the murderer of a girl. He wasn't, of course. I stood up for him; we spent about three years in legal proceedings, and I didn't have any formal schooling. I cried when I had to manage all the paperwork, and I sorted out the papers: this one is for the trial, that one for the mayor, they explained to me. At least I won in the proceedings. Because I invested a lot of money, I saved my son from prison. I knew some of the letters [of the alphabet], of course, and during the procedures, I learned by effort; by effort, it took me time. In this way, I also struggled. Well, I read it, I knew the first letter, and the next was difficult, this other letter is that; in this way I succeeded. Sometimes I was wrong: no, this is another letter, this should be that letter, I said. I suffered, but as I know how to work there was no lack of money. Work dominates, money dominates.

Interview with Jairo, May 3, 2022, El Alto.²

Jairo had never gone to school, but he started to independently literacize (learn literacy) himself as he struggled to help his son in his legal proceedings. I met him during participant observation in a literacy class for older people on the outskirts of El Alto,³ which he was attending more than two decades after experiencing bureaucracy in the judicial system. Despite little knowledge of reading and writing, he managed to earn sufficient money to support his family through farming, trading, and driving. He constantly traveled between El Alto and his original village for business.

Like Jairo, many people who have little or no formal schooling or literacy skills negotiate these fields quite successfully. Aymara traders, for example, can become rich. Leaders of social organizations, who had little schooling experience, enhance their achievements during their terms.⁴ Many residents

² All names of people interviewed for this research are pseudonyms. Translations are mine.

³ Located to the northeast of Bolivia's capital, La Paz, the city of El Alto developed as a migrant settlement mainly inhabited by Aymara from Altiplano (highland) villages. El Alto gained official status as a city in 1988. The population is now quite heterogeneous and has grown to 1.3 million, greater than that of La Paz itself. Most inhabitants still identify with the Aymara ethnic group, but the city is characterized by multilingualism in Spanish, Aymara, and, to some degree, Quechua.

⁴ Concerning the roles and practices of social organizations (different from social movements) see Lazar. In general, such organizations are not conflict-free networks, as the experiences of our protagonists also reveal.

of El Alto organize their work and daily activities without regard to or outside standard literacy. Therefore, the city is characterized by social and economic spaces in which (standard) reading and writing activities are largely irrelevant. In fact, these spaces of multilingual oralities⁵ rely on non-alphabetic symbols and textualities⁶ and, in daily life and everyday activities, a lack of formal education is rarely perceived as a deficiency.

This oral everyday life contrasts with a state materialized in and manifested through bureaucracy. The state administrates relations between society and individual citizens mainly through documents and files—that is, by means of literacy—and the need for literacy seems to arise specifically when citizens encounter the state bureaucracy. In this article, I examine the strategies of people with little or no formal schooling and, specifically, their processes of self-literacizing to deal with bureaucratic challenges and in bureaucratic contexts.

To explore these learning processes, which are embedded in the peculiar relationality between the state and unschooled or illiteracized people, I ask how such people respond to a highly (standard) literacy-oriented state and how they manage to deal with various public authorities and still pursue their aims and claims. Do they have certain strategies to confront various literacy challenges and bureaucratic procedures? What exactly motivates adults who had little or no schooling and who can manage their everyday affairs without literacy to make the effort to acquire reading and writing skills? What meanings do they apply to literacy? Is literacy in Bolivia not an end in and of itself but rather a means to act in relation to the state?

I will reconstruct and analyze interviews in which my partners commented on their (somewhat dramatic) experiences and show their agency during legal proceedings and actions. For instance, my research partner Catalina grew up in La Paz and El Alto and attended school for less than two years. From the age of twelve onward, she did handicrafts, laundry, and care work at a girls' shelter. As an adult, when her daughter went missing, she struggled for seven years to get officials to investigate. As part of her own struggle and to help others in a similar position, she cofounded an organization for parents of missing children

⁵ Of course, different types of oralities also coexist, not only in terms of language but also context and genre (public speaking, vending, in religion and rituals, etc).

⁶ Non-alphabetic communication and writing refers to various methods of transmitting specific information through visual symbols that are called *ch'impus* (an Aymara word for a kind of sign that marks an important point) and that place or call attention to something.

and their supporters. Another research partner, Eloisa, also went to school for about one year in a small Aymara highland village. After her move to El Alto, where she sold fried fish at a market, she joined and became a leader of several social organizations. Today, she leads a women's organization that she cofounded. Due to fraud during her term as president of a *junta vecinal* [neighborhood association], she was prosecuted and extended court case. Jairo, who grew up in the Yunga valleys, learned to grow fruits and vegetables and worked as a machine operator and public bus driver. He now serves as a groundskeeper at a seniors' association, where he also makes wooden benches and boxes to sell at a market.

Jairo, Catalina, and Eloisa found their experiences difficult and stressful, and they strove to promote their claims, which were relevant to processes of self-literacizing. As Eloisa elaborated: "Due to illiteracy, I suppose, I was defrauded." Their experiences represent different aspects of processes of (self-)literacizing—the acquisition of literacy and the meaning they ascribe to it. All experienced legal and bureaucratic proceedings as highly relevant and invested much effort in them.

I begin by framing my data and defining the terms I use for (il)literacy and related processes. Next, I turn to the debates on the role of paperwork and clients' involvement in bureaucratic contexts and describe state-provided literacy training, whose outcome only marginally meets the state bureaucracy's own requirements. Then, I focus specifically on bureaucratic practices in the city of El Alto and the experiences of research participants to contextualize their ways of dealing with literacy demands. My main observations follow processes of literacizing in bureaucratic contexts, specifically legal procedures. Finally, I will discuss the ambivalences of those learning processes and examine the role of literacy in relations between the state and its citizens.

Research Methodology and the Concepts of Literacizing and Illiteracizing

My data is derived from nine months of field research in La Paz and El Alto (October 2021–February 2022 and September 2022–December 2022), which built on ethnographic work by two assistants who accompanied illiteracized people for several months during the COVID-19 pandemic. I continued their work with some of these participants and began further collaboration with others, too, meeting regularly for interviews and activities. In addition to mostly informal interviews with individuals, I conducted

participant observation in various social microfields, including the offices of state institutions, such as the ombudsman and civil registry, and public spaces, such as cemeteries, bus stations, and chaotic mini-bus departure points (October 2021–February 2022 and September 2022–December 2022). I also examined practices in various street markets—including the vast, sprawling *Mercado 16 de Julio*, the colorful produce market in Villa Dolores, and temporary markets such as the one held on All Saints Day in Rio Seco—to observe the role of literacy and the ways people handled literacy-oriented tasks in those spaces. Furthermore, I conducted informal interviews with lawyers and notaries who practice at the El Alto courthouse and did participant observation in other public places where bureaucratic encounters took place. In addition, I participated in literacy and basic education courses for adults, held mainly on the outskirts of El Alto, to follow the practices of teachers and participants in other settings.

By following my research partners and examining microfields, I consider the practices of people whose lives were developed and embedded in a world of globalized schooling and literacy. I thus take into account that “illiteracy” is not a mere historical phenomenon but an ongoing one that is reproduced through universal literacy standards. Through analyzing the statistics on literacy and illiteracy rates, I aim to identify methods and strategies for dealing with different challenges and to examine literacy’s role over the lifespan in specific social settings.

Instead of conceiving of illiteracy or literacy as static or dichotomous phenomena, I focus on the processual character of learning and unlearning literacy that takes place throughout one’s lifetime. Such processes are neither linear nor unidirectional but connected to incidents and demands; whereas people acquire literacy competence at certain periods of life, at other times these abilities are unlearned again. These processes do not take place at discrete moments but over time and in different contexts. Related processes of learning and unlearning can also take place simultaneously, interact with each other, and become entangled.

To communicate this processuality and relationality of learning and unlearning literacy, I use the concept of literacizing and illiteracizing. This means my research partners are both literacized and literacize themselves and that they are also illiteracized and illiteracize themselves, all in rather complex and intertwined ways and, of course, with deep interactions within their lifeworlds and the chances and limitations these provide.

People who acquired literacy on their own may still self-identify as illiterate. As a result, when enrolling participants in literacy courses, the categories that come into play alongside possible processes of illiteracizing are not always clearly defined. For instance, I met people in literacy programs who had attended school for several years or even received a bachiller (high school diploma), as is often the case when courses are organized by and for heterogeneous groups. Moreover, some discourses can equate or confuse lacking a formal school degree with lacking literacy skills. In El Alto, however, so few social spaces require literacy that such deficiency is not visible. The same is true of the rarely observed processes of self-literacizing, and neither people nor institutions take this significant learning into account. Therefore, processes of different external attributions and self-attributions also contribute to blurring the supposedly clear-cut boundary between illiteracy and literacy.

Furthermore, and beyond the experience of success in learning and solving problems outside of literacy, at other moments internalized discourses arise in which people deprecate themselves or their lack of standard school skills or ascribe specific difficulties to those shortcomings. Thus, processes of literacizing and illiteracizing are perceived differently depending on the specific circumstances, and their interrelationships also change over time.

Theoretical Perspectives on Literacy and Literacy Practices in Bureaucratic Contexts

The following section aims to shed light on anthropological discussions about paperwork and its role in bureaucratic encounters by examining various perspectives on and approaches to clients' involvement in bureaucratic encounters and their contexts, as well as documents' impact on them, their responses to these challenges, and the role their literacy abilities play. However, these topics are still undertheorized in studies of bureaucracy. According to Bierschenk and Olivier de Sardan, most studies pay little attention to paperwork at the front line in bureaucratic contexts or even to clients' positions and experiences. Instead, studies focus on how documents are produced and the roles they play within and for linking institutions (Bierschenk and Olivier de Sardan 2021). Other studies have explored the role of formal elements, informal actions, and the alternation between them (Bierschenk and Olivier de Sardan 2019, 251). This has doubtless had an impact on the use of paperwork on behalf of, with, and by clients; one can discuss whether and how coexisting formal and informal practices or paradoxes of bureaucratic rule

influence bureaucratic encounters and how arbitrariness is enhanced. Although it is clear that bureaucratic institutions cannot simply be reduced to writing, literacy and documents are considered the lynchpin of bureaucracies and bureaucratic activities (Riles; Gupta; Hull; Muzzopappa and Villalta).

Ambivalences and ambiguities of documents and their impact on state institutions and official relations with clients come into play on several levels, depending on the context. Some scholars focus on the oppressive facets of bureaucracy and documents in bureaucratic practice (Mattusov and St. Julien; Graeber 2017, 100f). In his review of anthropological studies on the materiality of documents and encounters with them—which focus on problems of administrative control and the construction of entities, and variously emphasize aesthetics, emotions, or signs—Hull (201, 254f) argues that they are strongly linked to power relations. Nevertheless, as Gupta contends, structural violence in bureaucracy is not a mere matter of documents and literacy. Though paperwork is essential to the rural north Indian bureaucrat Gupta observed, they did not use literacy to exert their power over a population with a high degree of illiteracy. In contrast, Graeber (2012) relates structural violence to asymmetric cultural and symbolic capital (Gupta 190). Although other authors refer to protective aspects of bureaucracy and claim to account for both protective and oppressive elements by viewing relationships within bureaucratic structures and outside them as arenas where strategic groups pursue their interests (Bierschenk & Olivier de Sardan 2021, 7, 15), I would argue that both protective and oppressive aspects of documents are the product of power relations.

Documents do not reflect an objective reality, but they do produce an official one (Bierschenk and Olivier de Sardan 2021, 15). It is this knowledge and its form that contribute to administering citizens and society. Written documents contain knowledge about clients that officials, such as police officers and social workers for the judicial system, produce. But at the same time, clients are not granted access to the content of their files, the text produced about their cases, nor the path these documents take through various institutions, other than, in some cases, through an approved lawyer. Furthermore, the power derived from this knowledge comes into play when officials make decisions about individuals of whom they know nothing but the contents of their files, as described by Gupta. The documents and knowledge contained in such files make subjects legible (interpretable) to the state and institution; meanwhile, clients must deal with an opaque bureaucracy rendered illegible by paperwork (Das & Poole). Gupta (188) also emphasizes

that information about applicants is easier to compare and quantify when arranged in forms. It is not only decisions and processes for administering of citizens that can remain opaque to clients but also the "official reality" constituted by the ideas, facts, and concepts produced by officials about them.

Bierschenk and Olivier de Sardan point out that official documents turn people into subjects, which allows people to complain (2021, 15)—in other words, to communicate or engage with the state. Even though bureaucratic institutions can temporarily or permanently render concerns or bodies invisible by withholding documents, this can be countered by producing imitation documents or reproducing real ones (Gupta). Faced with processes of subjugation and denial, specifically in the context of migration, people rely on brokers and mediators (Alpes 270f) to obtain unofficial papers and pursue their interests within bureaucratic structures. In her book *Domesticating democracy: The politics of conflict resolution in Bolivia*, Ellison explores the production of meaning in legal-style documents in so-called conflict resolution centers in El Alto. There, the imitation and materiality of written accords, through the mediation of an actual state institution, is seen as capable of reordering ethical and financial claims and relationships. Moreover, people do not only imitate documents but also sometimes use them differently from how their producers intended (Cabot) by reinterpreting them.

One situation where clients can produce scripts and in which literacy may be demanded of them is when making formal complaints about officials' decisions and practices. Bierschenk and Olivier de Sardan (2021, 15, with reference to Feest & Blankenburg, 197) emphasize that such complaints must be based on written documents, as it is the text that clients can contest. In practice, rules narrowly limit such appeals and require substantial legal literacy, and the written text becomes ambiguous. Complaint procedures are often opaque to clients. Both this lack of procedural knowledge and problems concerning the various literacy demands made during bureaucratic encounters are often associated with insufficient legal knowledge (Pohn-Weidinger 287) rather than writing and reading skills. Difficulties arise, for example, when specific procedures require citizens to present documents in a particular format or manner, as seen in Pohn-Weidinger's (296) description of bankruptcy proceedings in France, in which citizens often submitted documents different from those specified. The author postulates that a recent relaxation of the law gave rise to a new dilemma: it offered people more possibilities but also made documenting their eligibility more complicated. This law failed to consider these citizens' daily lives, which could not be documented in the manner

specified by the law. The members of an association that offers support with such proceedings make significant efforts to compensate for this by adapting documents and providing them with evidentiary value. Pohn-Weidinger argues that these dynamics produce rights and laws within legal and administrative procedures.

Both officials and other actors, such as the association Pohn-Weidinger mentioned, often follow their own convictions or interests when mediating in bureaucratic encounters: they do not simply help out people with low (legal) literacy. Göpfert's study of Nigerian police stations describes how Nigerian police officers write down accused peoples' statements, not just to compensate for their inability to write a statement themselves, but also, to some degree, to serve their own self-interest, given that the description and analysis in subsequent legal actions will be based on the officers' perspectives. As in the Nigerian case, when officers carry out literacy work in place of their clients who have low or no literacy, power relations again come into play.

Decisions about literacy tasks sometimes do not relate to literacy abilities. Dealing with such contexts and situations and assuming responsibility for dealing with bureaucratic challenges may also be related to factors other than the mere literacy competence their effectiveness and give place to other strategies. Beblo, Becker, and Grotlüschen explore task sharing of paperwork based on data from the LEO Study⁷ on low literacy in Germany, whereby the family member appointed to solve administrative problems is related less to actual literacy abilities than to gender. I thus conclude that negotiations about the distribution of such responsibilities is based on the relationship between gender and the specific topic and (self-)attributed formal or informal knowledge on institutions and procedures (Beblo, Becker, and Grotlüschen). In other cases, power relations themselves may alter the relative significance of literacy abilities. For people with low literacy in rural northern India, complaint procedures imply trouble with officials and the state—something people aim to avoid—rather than concern about literacy or literacy abilities (Gupta).

As I have demonstrated, various factors such as the materiality of paperwork and the complexity of procedures, interests, and strategies shape practices and modes of dealing with literacy in bureaucratic encounters. It is important to also consider the specific power relations in which those encounters are embedded. Bureaucratic procedures entail different tasks that

⁷ For further information see: <https://leo.blogs.uni-hamburg.de/first-results-of-the-leo-survey/>

are assumed and performed in different ways in different contexts. Officials and actors such as the legal support association mentioned by Pohn-Weidinger often follow their own interests and convictions when mediating in bureaucratic encounters. In such cases, the importance of literacy itself depends on context and specific bureaucratic practices. Literacy is deeply intertwined with legal and procedural knowledge. Nonetheless, Gupta is unusual in taking into account illiteracized people's actions⁸ during bureaucratic encounters. Further insights on their dealing with bureaucratic encounters could help in understanding the implications and dynamics of literacy within the state, as well as its relationality to citizens.

Context of Literacy/Illiteracy in Bolivia

Despite the Bolivian state's claim to have eradicated illiteracy in 2008, the number of inhabitants with marginal or no reading and writing skills remains significant. In 2006, the *Movimiento al Socialismo* (MAS) [Movement Toward Socialism] government initiated a nationwide literacy campaign, the Cuban program "Yo, sí puedo" [Yes, I can], which offered basic literacy classes to adults of all ages and aimed to end illiteracy entirely within thirty months. After only two years, the United Nations and the Bolivian state declared that illiteracy had been eradicated. However, its impact was questioned by several NGOs and scholars (Hernani-Limarino et al., 142) due to the evaluation methods used for generating statistics on illiteracy. Stefanoni observed a significant level of "functional illiteracy" remained hidden behind the certificates and statistics, which my research confirms. Indeed, the national director of the literacy and basic education program concurred, based on the 2012 census, in which the number of people who self-reported as illiterate increased. A few success stories about people who first completed the literacy course, then a high school diploma, and finally a university degree may have also overshadowed how many adults of all ages never achieve those goals.

Nevertheless, to this day a follow-up campaign continues providing instruction in basic literacy competence and primary school subjects.⁹ The state thus acknowledges that its success was both relative and incomplete and

⁸ Gupta refers to "restricted literacy."

⁹ Those courses are encouraged and supervised by the Viceministerio de Educación Alternativa y Especial [Vice Ministry of Alternative and Special Education] but run by volunteer teachers and hosted by separate groups or organizations.

resulted in the need for additional literacy competency.¹⁰ The basic literacy courses aimed (and aim) to teach the letters of the alphabet and basic reading and writing—especially, the ability to sign and write one's own name—as this is where the state defines the threshold between literacy and illiteracy. In fact, the ability to sign and to write one's name is often perceived as a prerequisite for navigating the state bureaucracy and the state-regulated sectors. In wider Bolivian society, people also commonly link literacy capacities and literacy to the ability to sign and write one's name. Furthermore, teachers and NGOs enhance this sentiment by describing the ability to sign documents and manage payments as an important tool—for women in particular—for becoming independent and participating in society. Once again, literacy promoters equate the ability to satisfactorily act autonomously within legal-bureaucratic contexts with being able to sign one's own name.¹¹

In bureaucratic encounters, it is clear that the ability to sign documents also requires knowledge about their appearance and structure; people sometimes need to be shown where exactly on the paper to put their name and the signature. This hints at the material and aesthetic aspects of documents, which play a relevant role in bureaucracy (Riles; Hull); and yet, instruction about the structure of documents is not explicitly addressed in courses, textbooks, or workbooks not practiced in class. Interestingly, however, the workbook used in the Bolivian campaign provided a line for the signature of the learner on every page.¹²

Thus, an imprecise definition of literacy seems prevalent in Bolivia. Despite the state narrative on the eradication of illiteracy, officers, lawyers, notaries, and security guards regularly deal with people they identify as incapable of meeting the literacy competency demanded by official procedures. However, some people attribute such examples exclusively to the elderly or to those with language difficulties or blame them entirely on

¹⁰ Interview with the Director General of the Programa Nacional de Post Alfabetización (PNP) [National Post Literacy Program], Lic. Ramiro Tolaba, November 18, 2022.

¹¹ Raquel, a literacy promoter in a basic literacy course for seniors on the outskirts of El Alto, repeatedly emphasized that the ability to write one's name will was essential to one's autonomy and reading competence, as well as to avoiding becoming victim of frauds, whether as an individual or as part of a group or community (personal communication, September to December 2022).

¹² Participant observation of basic literacy courses in El Alto, October to December 2021 and September to December 2022.

illegibility in terms of both typeface and content.¹³ In conjunction with the state narrative, this blurs ideas about the phenomena of low literacy and illiteracy and consequently renders illiteracizing and nonstandard literacizing invisible.

I argue that the social relativization of literacy and illiteracy is also linked to the many social spaces where social and economic activities take place outside standard literacy. Although these areas are largely unregulated by the state, people can manage their lives and arrange their own affairs without standard competencies, as I noted in the introduction. Therefore, little importance is given to standard literacy in daily practices. While some areas of El Alto seem to be characterized by complementary orality or literacy practices outside standard literacy, in other areas oralities and non-alphabetic literacy dominate. However, when people from these areas encounter the state or state-regulated institutions, they must deal with the associated literacy demands.

Contextualizing Bureaucratic Encounters

To shed light on the bureaucratic practices and encounters in the city of El Alto and contextualize our protagonists' modalities of dealing, I will next describe three main features that define bureaucratic encounters for my research participants and other service seekers. First, mistrust is central to the relationship between service seekers and officials. Second, many encounters were and are deeply marked by discrimination. Third, when it comes to submitting payments, records, and so on, people complain about contradictory rules and a lack of transparency.

Service seekers experience much mistrust: of the quality of officials' work, of their own interest, and of the compromise with their tasks (Ellison 197f). Participants in my research claimed that officials often make errors that people must correct themselves. For instance, Catalina accused the state of failing to carry out its responsibilities in both her own case and those of innumerable others. As a result, people with low literacy, especially seniors, distrust the information on new identification cards, for example, and ask third parties to check them.

¹³ Informal interviews with different actors in El Alto, October 2021 to February 2022 and September to December 2022.

Aymara inhabitants of El Alto have often experienced discriminatory practices in public offices (Wanderley; Bohrt). Like Catalina's experiences, my observations demonstrate how ethnic identity, gender, class, and language in many cases operate intersectionally and contribute to the production of social difference. Despite Bolivia's multilingual majority, as well as its often unproductive or incoherent efforts to cope with such multilingualism, the state still presents itself as mainly monolingual, leading to discriminatory practices at many public offices (Wanderley 68, 71; Bohrt).¹⁴ In fact, many Aymara inhabitants acquired informal Spanish language competence only after moving to El Alto (Wanderley; Albó). Moreover, "white" elites¹⁵ and officials still associate ethnic characteristics with a lack of formal education and illiteracy. Although the degree of ethnic discrimination is generally lower than it was before the implementation of the new constitution, and many descendants of Aymara or Quechua families have achieved formal degrees and positions in state or private institutions, discrimination persists in subtle forms. For example, I observed one doctor at a public health clinic in El Alto repeatedly express his disdain for the Aymara language, the city of El Alto, and the followers of MAS in front of patients. He considered the typical El Alto resident ignorant, but he was still respected for his responsibility in examining and treating patients. In some offices, including branches of the state-owned bank Banco Union, however, officials are unwilling to speak Aymara with elders or other native Aymara, despite a law that guarantees everyone the right to communicate in their *lenguas originarias* [first languages].

Discriminatory practices often are accompanied by a lack of transparency, and public officials refuse services, dismiss service seekers, or give them the run-around, and demand additional fees. People also experience demands for further documents as discriminatory, even when required by law, as not everyone can obtain them. For example, to obtain a national identity card, a school enrollment certificate must be submitted. This is impossible for many older people (and others who never attended school), as one woman offering a money transfer service in El Alto explained to me. In addition, officials are not disposed to help people in cases of specific difficulties, and service seekers are

¹⁴ Bohrt traces the systematic exclusion of nonwhite people from government and bureaucracy from the foundation of the Republic until the beginning of the MAS government as a means of control over resources and politics by an ethno-racial bureaucracy.

¹⁵ I refer less here to physical features than to identities related to (post)colonial power structures.

sent away to gather further evidence and copies of documents. Service seekers often perceive such bureaucracy as dysfunctional, but obtaining documents and completing paperwork seem to be preconditions for registration and getting support from public offices and institutions (Wanderley 70f). However, several participants explained that when tracking down documents, literacy skills are actually less important than procedural knowledge and perseverance.

In (shared) narratives and local discourses, these practices are linked to historical, colonial, and postcolonial contexts.¹⁶ Literacy is perceived as having been a colonial instrument for the governance and domination of Indigenous population, which the white political elite used to enact power and promote exclusion (Ellison 199).¹⁷ Arnold and Yapita emphasize that though other textualities and forms of accounts such as *kipus* coexisted with alphabetic writing in administrative spaces at the beginning of the colonial period, Spanish authorities later attempted to suppress them and indoctrinate Andean people by means of the Bible and catechism (Arnold and Yapita, 81).

Bureaucratic encounters that demand literacy are characterized by mistrust, discrimination, and lack of transparency. In other words, when service seekers complete literacy tasks, they approach procedures and relations with caution because they confront both the power enacted by racializing them and an arbitrariness that cannot always be differentiated from contradictory procedures. Consequently, most people with low literacy navigate everyday bureaucracy and bureaucratic encounters in other ways, such as by relying on mediators.

Strategies and Practices for Dealing with Bureaucratic Challenges

I will now focus on different strategies and learning processes concerning bureaucratic demands that become visible in legal proceedings, which are often lengthy and complex. Multiple authorities are involved, and people attempt to influence procedures and exert pressure to gain control by using multiple strategies at once or sequentially. Those I observed were part of highly

¹⁶ It is thus very common to recall the exclusion from education before the 1952 Revolution and the punishments inflicted on literacized Indigenous people.

¹⁷ Between other features of colonial legacy of arbitrary violence, she describes actas certifying good conduct and the efforts made to obtain them (Ellison 199).

emotional struggles within the justice system, and when participants referred to them, they repeatedly emphasized the experience of literacizing.

Mediators—family members, lawyers, or NGO staff—take on different literacy tasks. They write letters; they translate between Spanish and Aymara; they read and explain or fill out forms.¹⁸ Sometimes this leads to alliances when mediators and illiteracized people are driven by the same aim and goals. Both sides profit from the collaboration. However, those relations are complex, and aspects of reciprocity come into play that depend on the mediators' status. At the same time, illiteracized people also take on the role of mediators as they work to find solutions for others. Therefore, a complex network of mediation tasks and mediators seems to surround bureaucracies. Nevertheless, it is also clear from our cases that the people they represent critically observe mediators' work and achievements. Sometimes, for example, they are disappointed with the mediation, are disturbed by mediators who seek financial profit or to further their own reputations, or criticize unsuccessful mediators. Mistrust and impatience come into play.

Another way to deal with literacy demands is financial in nature. To make or to obtain money at certain moments is seen as crucial for advancing legal procedures. Jairo described how he could generate the funds he needed to defend his son in court. Others went into debt. Catalina also invested a lot of money in finding her daughter by paying lawyers and corrupt police, and so on. In such circumstances, we can consider money another instrument by which to influence outcomes.

Furthermore, people may seek religious and local rituals when they need advice and certainty. In some cases, they may consult a *yatiri*, an Aymara shaman and religious mediator who reads coca leaves to predict and influence the future. For instance, when a *yatiri*'s predictions for Catalina did not come true, she went to church for further guidance.

Research participants also described how, in many situations, it was important to assert oneself with officials by showing up in person—rather than sending a written letter—and speaking up to further their claims. Only then would officials issue documents, look up information, and so on. As Catalina

¹⁸ However, it is not only people with low literacy who rely on literacy mediators. In the La Paz city center, near the ministries, city hall, and other offices, a man sits on the sidewalk with an old-fashioned typewriter. People ask him to type official letters, applications, responses, and so on. This means they can act quickly rather than losing time going home to write a letter and then having to come back and deliver it.

emphasized, one cannot be shy or too polite but must express oneself forcefully and directly.

As I have shown, people do not rely on one strategy alone. Mistrust, failure, disappointment with services or mediators, in addition to the desperate quest for justice, and sometimes the lack of money, lead to many intertwined strategies for dealing with and influencing procedures in legal or bureaucratic contexts. Therefore, a desire to gain further control, a need to understand relevant procedures, and an implicit sense of mistrust are central to processes of literacizing.

Literacizing in the Context of Bureaucratic Procedures

Many people realize that they need to be able to read when they face bureaucratic paperwork during highly emotional legal proceedings¹⁹ and find that the strategies they had used on other occasions and in oral contexts are no longer sufficient. The different dimensions of literacy that surface in those moments thus require new actions. As Catalina explained:

Reading is important because you have to understand all the notifications, requests, reports, etc. Paperwork is so important. You have to pay for everything; you have to make efforts yourself. If you don't, nobody will help you. Therefore, you have to buy law books. Those little books with articles and clauses on family law [and] human trafficking in order to understand what lawyers say. I save[d] some money to buy updated law books [and] to be informed also on amendments. I do not use the Internet. I merely read the books. Before, I couldn't read. However, since my daughter disappeared seven years ago, I learned to read gradually. Moreover, I slowly started to grasp the significance of [various] terms. I continue to read, always, that helps me not to forget. (Interviews with Catalina, 2021, 2022, El Alto)

Catalina has learned to read (though not so much to write) in order to advance the case of her disappeared daughter. She aims to take advantage of any opportunity to find her daughter and to know what she can demand and

¹⁹ The cases presented seem somehow dramatic; however, in the context of my research, and, with relation to bureaucratic encounters, they were the cases in which significant self-literacizing took place.

expect of state authorities.²⁰ As a result, she has built expert knowledge and invested significant time, money, and energy in this learning process. The hope of finding her daughter or those responsible for her disappearance motivates Catalina to make such effort. In turn, her explicit knowledge of articles and clauses and her certainty that she can understand the contents of official documents enhances her self-confidence and self-reliance. It has become possible for her to influence the proceedings, to take positions, and to legitimize and argue for her demands. In addition, she follows changes to relevant laws, in which she again invests time and money. In doing so, she confronts the state and authorities across various institutions who do not comply with and do not care about the law, a point she consistently highlights.

Literacizing is perceived as an instrument that helps individuals to strike back at the bureaucratic state, which materializes itself in and exercises power by literacy. It is about a specific kind of literacy on which state decision-making and judgment is based that veils rights and justice behind complex scripts in order to regulate relationships between people or other entities and the state. Individuals' ability to access these specific contents and texts thus seems illusory. However, it also seems paradoxical that the state produces and performs law through literacy and then impedes this very law's application with literacy-based bureaucratic practices. From Catalina's point of view, the law (and specifically that on human trafficking) is provided by the state in written form but then, in certain circumstances, the state (or those who perform the law) impedes its application with paperwork, such as by delaying procedures or closing files prematurely.

In Eloisa's case, a different dilemma led to another kind of literacizing process. On one hand, she successfully led a neighborhood organization (*junta vecinal*); on the other, she was the victim of fraud²¹ based on literacy at the intersection of bureaucracy between state and social organizations. As the

²⁰ Human trafficking is quite present in Bolivia. Between 2018 and 2019, more than 1,100 reports were filed under Law 263 against human trafficking. Two people (of all ages) become victims almost every day. See

<https://www.defensoria.gob.bo/noticias/defensoria-del-pueblo-evidencia-que-victimas-de-trata-quedan-sin-posibilidad-de-recuperarseante-la-falta-de-atencion-y-proteccion-estatal>

²¹ It is a widespread discourse that literacy abilities protect one from fraud, but this places the responsibility for evading fraud on the low literacized/illiteracized victims themselves. Conversely, one judge emphasized that it is exactly these "low" literacy capacities that expose people to accusations of fraud when they sign documents without understanding their content (interview with a judge at La Paz court, November 2022).

representative of a *junta vecinal*, Eloisa was urged to sign a document authorizing the sale of a property. Only later did she become aware that she had been involved in an illegal acquisition—her own house was attacked with fire. The real owners of the property that had been sold took vengeance by involving her in a legal proceeding. Eloisa explained that the ability to read would have protected her from that fraud: "I could not understand all that paperwork; I could not write, as well" (Interviews with Eloisa. El Alto 2021, 2022).

Eloisa only attached importance to literacy after that experience. Until then, she had successfully led the *junta vecinal* without a need for literacy. Such organizations are characterized by orality internally, but they also function as a link between neighbors and state institutions and, at that juncture, bureaucracy in the context of specific competencies and jurisdictions come into play. The control mechanisms within the responsible state authority did not work in this instance. Literacized procedures also failed, as the fraud was not detected. However, Eloisa did not raise this issue in the forthcoming legal proceedings; if she had wanted to, she would have had to invest much more money in the case. Nevertheless, she blames herself and ascribes the situation to her low literacy abilities. She has since redoubled her efforts to learn to read and write and has not given up, despite the great difficulty of continuing at the adult education center during the COVID-19 pandemic. As Eloisa's experience shows, bureaucratic and literacy practices seem to—paradoxically—inform motivations to self-literacize. People with low literacy, such as Eloisa, apprehend these practices intuitively and try to literacize themselves to be able to control procedures, protect themselves, and hold their ground.

Whereas Eloisa is taking formalized courses that include broad reading and writing tasks, Catalina has focused on the issues related to court files and laws concerning the disappearance of her daughter; she clearly feels the need to acquire specific knowledge in order to engage with officials in a competent way. Similarly, Jairo's learning experience was temporally related to the period in which he encountered court procedures, as he struggled to decipher legal texts letter by letter. Later, his interest in reading and writing decreased. Literacizing and illiteracizing are interconnected insofar as the experience of being illiteracized in bureaucratic encounters and procedures leads not to self-literacizing as an ongoing process but to a flexible approach to acquiring competencies as needed. However, this does not exclude the possibility of applying these competencies in other situations. For example, Catalina takes advantage of the flyers found in streets and other public places as a chance to

practice reading; Jairo sometimes deals with paperwork in his work for the seniors' association and also participates in a small, informal Bible study group that occasionally assigns short readings.

Beyond the differences I have described, in these cases literacizing clearly focuses on the ability to read, whereas the ability to write seems less significant; it seems more important to be able to understand written documents than to produce letters and documents oneself. Catalina, for instance, delegates writing tasks to a lawyer who is searching for a missing daughter of her own. Consequently, little effort is directed toward learning to write, either as a means of influencing others through writing or as an end goal in and of itself.

Evaluation of Self-Literacizing

Although processes of literacizing are regarded as crucial to understanding legal procedures, the competencies gained are not themselves perceived as significant. For example, Jairo never mentioned his literacizing process and always referred to himself as an "uneducated," illiterate person. It was only after many meetings that I learned about his literacizing and literacy practices. As such, though learning is recognized, its results are not appreciated and are mostly downgraded by the learners themselves.

In contrast, people regard knowledge acquired through experience or (self-)literacizing differently. Catalina knows very well that she possesses significant competencies, which she appreciates and shares with others. In addition, students and professionals look to her for advice:

Life taught me a lot. It is not the only important thing, to obtain school and university degrees. Sometimes I know more than the law students who I used to help since I often spend night and day in the courts. I memorized everything; I know what is important. I only lack writing. Everything else is stored in my head. (Interviews with Catalina, El Alto 2021, 2022)

Catalina, Jairo, and others organize their daily lives and work in the context of social spaces that rely very little or not at all on literacy. The goal of literacizing, therefore, is not the ability to read texts such as magazines or books for pleasure or for any other purpose. Neither does it relate to a specific ideal, given that the participants did not conceive of reading and writing as having intrinsic value. Instead, for participants, literacizing simply served as a

means to better understand the legal proceedings they encountered during a specific period in their lives.

Ambivalences of Literacizing

Eloisa displays a firm conviction that reading and writing capacities offer protection against (at a minimum) being defrauded by means of literacy. This belief also implies a connection to accountability. Reading and writing, in this understanding, are abilities that people must care about and, relatedly, that it is their own fault if they become victims of literacy-based fraud.

Catalina attributes a slightly different meaning to literacizing. For her, it is not sufficient to only be able to read and write; only their combination with expert knowledge or a law degree can ensure success in one's legal case. In contrast, Jairo is pleased with the success of his legal procedures but ascribes this not to the reading abilities he acquired but rather the financial resources he could generate.

While the participants' experiences motivated self-literacizing, their learning processes resulted from the need to solve urgent problems. Participants prioritized grappling with such highly emotional and existential problems during the period of bureaucratic proceedings, and, specifically under those conditions of high pressure, they made efforts to acquire literacy competencies.²² Nevertheless, there remains the expectation to be able to manage challenges within bureaucracy.

However, this does not mean that there is a long-term movement toward continuous literacizing processes that begins at a certain point with an explicit decision. Although Eloisa is convinced that her inability to read and write was the reason she was defrauded, and despite her decision to study and obtain a diploma, it is her experience over time—not merely at a certain point—that led her to an adult education program. These reflections are embedded in a process in which the need for literacy arose step by step rather than at a unique temporal, singular moment, and thus may end when the need is resolved. Such was the case for Jairo, who paid no further attention to literacy after the

²² Beyond those bureaucratic contexts, people also reported on self-literacizing within Pentecostal churches: almost no congregations offer literacy course, but they expect members to read the Bible. There is also a kind of social pressure to acquire the competence to read the Bible; nevertheless, many argue that it is a major wish to read the Bible oneself. Success in learning is mainly attributed to the Holy Spirit. Others literacized themselves by learning with their school-aged children.

conclusion of his legal proceedings, at least for many years, and illiteracized himself again.

Moreover, the literacizing found in such experiences is not voluntary. Bureaucratic challenges necessitated literacy abilities and impelled their learning processes. The often-repeated expression “learning it the hard way” [*aprender a la fuerza*], literally “forced learning,” connects the reasons for such autodidactic learning to the effort it requires. The same is true for those who learned Spanish language skills after migrating from Altiplano villages to El Alto. Due to discriminatory experiences related to low language skills—and, I suppose, to a lack of support in those processes—such learning is embedded in stressful experiences. In contrast, people do not assign this metaphor to other (autodidactic) skill-acquiring processes such as learning a trade. Under different conditions, such learning processes might not have taken place.

Conclusion

I have shown how literacy is perceived as relevant to procedures of control in bureaucratic contexts. People believe that their own literacy abilities allow them to monitor bureaucratic procedures better, as many do not trust and (often impatiently) criticize the help and work of mediators. Literacizing is not intended to contribute to more autonomy, self-education, or otherwise transforming oneself, and it is not about becoming autonomous and independent; on the contrary, it enables people to successfully engage in discrete bureaucratic relations and situations. In fact, literacizing is thus embedded in a further set of strategies, whereby the power ascribed to literacy is that of a specific instrumental technique that enables people to confront the state and claim their rights.

Literacy campaigns and programs have been provided by the Bolivian state, but not only did not reach the whole population (as the state claimed), they also did not enable people to develop a reading capacity in order to deal competently with bureaucratic demands for literacy.

Based on this analysis, I conclude that binary and linear conceptions of literacy and illiteracy are obsolete. This is also true for contexts in which a script- and literacy-based state bureaucracy confronts a predominantly orally organized everyday life. Literacizing and illiteracizing are densely interwoven in often-paradoxical bureaucratic contexts. Furthermore, literacizing goes hand in hand with acquiring literacy-based knowledge, legal literacy, or bureaucratic procedures. Literacy in El Alto, it is clear, is perceived as an

instrument through which the state performs itself and with which it regulates its relations with citizens and those between citizens. It is also an instrument that, in specific situations, people seek to acquire in order to influence complex bureaucratic procedures. Therefore, what Daniel Eduardo Pereira Otálora remarked at the end of our participant research workshop in Bolivia seems most straightforward: "Literacy is functional for the state. Society does not need literacy."²³

Works Cited

ARNOLD, Denise Y., and Juan de Dios Yapita. 2000. *El rincón de las cabezas. Luchas textuales, educación y tierras en los Andes*. La Paz: Universidad Mayor de San Andrés, Facultad de Humanidades y Ciencias de la Educación. Translated as *The metamorphosis of heads: textual struggles, education, and land in the Andes*. Pittsburgh: University of Pittsburgh Press, 2006.
[\[https://digital.library.pitt.edu/islandora/object/pitt:31735062136316\]](https://digital.library.pitt.edu/islandora/object/pitt:31735062136316) downloaded June 6, 2024.

ALBÓ, Xavier. 2006. "El Alto, La vorágine de una ciudad única." *Journal of Latin American Anthropology* 11(2): 329-350.

ALPES, Maybritt Jill. 2017. "Papers that Work: Migration Brokers, State/Market Boundaries, and the Place of Law." *PoLAR: Political and Legal Anthropology Review* 40(2): 262-277.

BEBLO, Miriam; Dennis Becker, and Anke Grotlüschen. 2023. "Wer macht den Papierkram? Die Rolle von Literalität, finanzieller Kompetenz und Geschlecht bei der administrativen Aufgabenteilung im Haushalt." Anke Grotlüschen, Klaus Buddeberg und Heike Solga. *Interdisziplinäre Analysen zur LEO Studie 2018 - Leben mit geringer Literalität. Vertiefende Erkenntnisse zur Rolle des Lesens und Schreibens im Erwachsenenalter*. Springer Fachmedien Wiesbaden GmbH.

BIERSCHENK, Thomas, and Jean-Pierre Olivier de Sardan. 2021. "The Anthropology of Bureaucracy and Public Administration." *Oxford Research Encyclopedia of Politics*. Oxford University Press.

---. 2019. "How to study bureaucracies ethnographically?" *Critique of Anthropology*. 39(2): 243-257.

BOHRT, Marcelo A. 2020. "Racial Ideologies, State Bureaucracy, and Decolonization in Bolivia." *Bolivian Studies Journal*. 25. 7-28.
[\[https://doi.org/10.5195/bsj.2019.200\]](https://doi.org/10.5195/bsj.2019.200) downloaded May 23, 2024.

²³ Similarly, Akhil Gupta argues that writing in Indian state offices is inflationary, and there is no way that every text that is produced can ever be read. So, Gupta posits that literacy in Indian bureaucracy is an end in and of itself (233).

CABOT, Heath. 2012. "The Governance of Things: Documenting Limbo in the Greek Asylum Procedure." *PoLAR: Political and Legal Anthropology Review* 35(1): 11-29.

DAS, Veena, and Deborah Poole. 2004. *Anthropology in the Margins of the State*. Santa Fe, N.M.: School of American Research Press.

DEFENSORÍA DEL PUEBLO. 2020. "Defensoría del Pueblo evidencia que víctimas de trata quedan sin posibilidad de recuperarse ante la falta de atención y protección estatal." <https://www.defensoria.gob.bo/noticias/defensoria-del-pueblo-evidencia-que-victimas-de-trata-quedan-sin-posibilidad-de-recuperarseante-la-falta-de-atencion-y-proteccion-estatal>

ELLISON, Susan Helen. 2018. *Domesticating Democracy: The Politics of Conflict Resolution in Bolivia*. Durhan, NC.: Duke University Press.

FEEST, J., & Blankenburg, E. 1972. *Die Definitionsmacht der Polizei. Strategien der Strafverfolgung und soziale Selektion*. Düsseldorf: Bertelsmann Universitätsverlag.

GÖPFERT, Mirco. 2013. *Bureaucratic aesthetics: Report writing in the Nigérien gendarmerie*. *American Ethnologist* 40(2): 324-334.

GRAEBER, David. 2017. *Bürokratie - Die Utopie der Regeln*. München: Goldmann Verlag.

---. 2012. "Dead zones of the imagination - On violence, bureaucracy, and interpretive labor." *HAU: Journal of Ethnographic Theory* 2(2): 105-28.

GUPTA, Akhil. 2012. *Red Tape: Bureaucracy, Structural Violence, and Poverty in India*. Durhan, NC., Duke University Press.

HERNANI-LIMARINO, Werner L., et al. 2015. "¿Libres de Analfabetismo? Evaluando la Experiencia Boliviana con el Programa Nacional de Alfabetización 'Yo Sí Puedo.'" *Revista Latinoamericana de Desarrollo Económico*. 13. 149-232. [<https://lajed.ucb.edu.bo/a/article/view/e109>] downloaded May 23, 2024.

HULL, Matthew S. 2012. "Documents and Bureaucracy" *Annual Review of Anthropology* 41(1): 251-267.

LAZAR, Sian. 2008. *El Alto, Rebel City. Self and Citizenship in Andean Bolivia*. Durhan, NC., Duke University Press.

MATUSOV, E., and J. St. Julien. 2004. "Print Literacy as Oppression: Cases of Bureaucratic, Colonial, and Totalitarian Literacies and their Implications for Schooling." *Text - the Hague Then Amsterdam Then Berlin* 24(2): 197-244. [<https://ematusov.soe.udel.edu/vita/Articles/Matusov,%20St%20Julie,%20Print%20literacy%20as%20oppression,%20Text,%202004.pdf>] downloaded May 23, 2024.

MUZZOPAPPA, Eva, and Carla Villalta. 2011. "Los documentos como campo. Reflexiones teórico-metodológicas Sobre un enfoque etnográfico de archivos y documentos estatales." *Revista Colombiana de Antropología* 47(1): 13-42. [<https://revistas.icanh.gov.co/index.php/rca/article/view/897>] downloaded May 23, 2024.

POHN-WEIDINGER, Axel. 2017. "Akten Und Fakten: Zur Konstruktion von Beweisen Im Kontakt Zwischen BürgerInnen Und BehöRden." *Österreichische Zeitschrift Für Soziologie: Vierteljahresschrift Der Österreichischen Gesellschaft Für Soziologie* 42(3): 281-299.

RILES, Annelise. 2006. *Documents: Artifacts of Modern Knowledge*. Ann Arbor, MI.: University of Michigan Press.

STEFANONI, Pablo. 2011. "Bolivia hoy: rupturas, inercias y desafíos." *Bolivian Studies Journal* 18. 23-48.
[<https://bsj.pitt.edu/ojs/index.php/bsj/article/view/28>] downloaded May 23, 2024.

WANDERLEY, Fernanda. 2009. "Prácticas estatales y el ejercicio de la ciudadanía: encuentros de la población con la burocracia en Bolivia (Dossier)." *Íconos. Revista de Ciencias Sociales* 34. 67-79.
[<https://iconos.flacsoandes.edu.ec/index.php/iconos/article/view/334>] downloaded May 23, 2024.



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