

Sindhī Multiscriptality, Past and Present

A Sociolinguistic Investigation into Community Acceptance

by

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Droplet by droplet is the pond filled

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Abstract

This thesis is on the sociolinguistics of writing. It investigates the use of scripts for the Sindhī language of South Asia, both from a diachronic and synchronic perspective. The thesis first analyses the rich but understudied script history of the Sindhī language from the tenth century to modern times. In doing so, it investigates the domains in which certain scripts were used, and identifies definite patterns in their distribution. Particular attention is paid to Perso-Arabic and Devanāgarī, which emerged as the two most widely used scripts for the language in the twentieth century. The diachronic analysis draws on several linguistic, literary and other academic works on the Sindhī language and brings to the fore hitherto neglected data on historical script use for the language. The thesis then presents and analyses oral interview data on community opinion on the recent proposal to use the Roman script to read and write Sindhī. The synchronic analysis is based on original fieldwork data, comprising in-depth qualitative interviews with fifty members of the Indian Sindhī community of diverse backgrounds and ages from various geographical locations.

Empirically, this work is one of the first to provide a comprehensive diachronic and synchronic review and analysis of script practices in the Sindhī community specifically from a sociolinguistic perspective. It also provides revealing insights into the kinds of expectations an urbanised, highly educated and socioeconomically successful minority has of a writing system for its language. In doing so, the study challenges the prevalent simplistic claim in the literature that minority communities are desirous of seeing their language in writing. Most importantly, this work indicates the emergence of a so-called new variety of Sindhī phonology in India, which differs subtly from the old variety phonology. The implications of this subtle shift in phonology for Sindhī pedagogical material form a key part of the findings of this study.

Theoretically, this work contributes to the concept of orthographic transfer, which is the phenomenon of phoneme-grapheme correspondences in a particular orthography being inadvertently applied to another orthography. The study also affirms the presence of a scriptal diglossia, or digraphia, in script use for the Sindhī language, where the use of particular scripts for the language is implicitly determined by domain and context. The potential impact of orthographic transfer and digraphia on the pedagogy of lesser-learned languages is a key part of the study's findings.

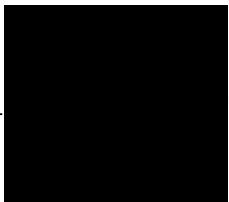
Methodologically, the juxtaposition of historical and present-day sociolinguistic factors at play offers a fresh and nuanced look at the rise and fall of scripts in the context of a language with a centuries-old written tradition.

The study concludes that usage of a particular script for a language is not the result of a simplistic binary opposition between authoritarian imposition and voluntary choice. Rather, it is a reflection of several pragmatic and symbolic considerations by the community in question. The thesis puts into perspective the various psychological, socioeconomic and cultural forces at work in determining script use for the Sindhī language. In doing so, the thesis makes several additions not just to the existing body of knowledge on the Sindhī language, but also to the fledgling field of inquiry that is the sociolinguistics of writing. These varied and unique contributions set the study apart from previous research on the subject.

Certification

I certify that the substance of this thesis has not been previously submitted for any degree and is not currently being submitted for any other degree or qualification.

I certify that any help received in preparing this thesis and all sources used have been acknowledged in this thesis.


Signature

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List of abbreviations and conventions

AIR	All India Radio
ASI	Archaeological Survey of India
H	‘High’ or prestigious variety of language or script
HREC	Human Research Ethics Committee, University of New England
IIS	Indian Institute of Sindhology
IPA	International Phonetic Alphabet
L	‘Low’ or nonprestigious variety of language or script
L1	First language (in a given context)
L2	Second language (in a given context)
NCPSL	National Council for Promotion of Sindhi Language
NRI	Nonresident Indian
obl.	oblique form
PNG	person-number-gender
RLS	Reversing Language Shift
RST	<i>Romanized Sindhi</i> Team
SOV	subject-object-verb
SLA	Second Language Acquisition
SLS	Same-Language Subtitling
§	reference to section
⟨ ⟩	orthographic transcription
//	phonemic transcription
[]	phonetic transcription, or explanatory text within quotes from the literature
{ }	explanatory text within interview excerpts
SMALL CAPS	key term of particular relevance in this work
<i>italics</i>	added emphasis, or non-English term appearing infrequently in this work
‘ ’	English gloss of non-English word, or specific or peculiar usage of a word
“ ”	verbatim quotation
. . .	omitted text from original quote or interview excerpt

Introduction and background

1.1 Introduction to the study

This study falls within the field known as the *SOCIOLINGUISTICS OF WRITING* (Bunčić, 2016b, pp. 27-30; Coulmas, 2002, p. 223; Sebba, 2007, p. 5), namely, the role that written language and writing play in society (Coulmas, 2013, p. ix). The study deals with the reciprocal relationship between the written form of a language and societal changes in a community, and how the language's use within the community is affected by these processes. This study also comes under the broader field of scripts or writing systems, which has been variously known as *GRAMMATOLOGY* (Daniels & Bright, 1996, p. xli; Gelb, 1952), *GRAPHEMICS* (Kurzon, 2010) and *GRAPHEMATICS* (Augst, 1986).¹ That said, the emphasis throughout the present study is on the sociolinguistic aspect of writing rather than on the graphematic one.

This study's focus on the written form of language, and in particular, the *sociolinguistics* of the written form of language, has been necessitated by the relative lack of inquiry into these aspects of language in modern times. While premodern linguistics or philology was primarily focused on written language, modern linguistics has seen a reversal, in that spoken language has become the main object of study (Pereltsvaig, 2011). This stems from the fact that human language in its spoken form emerges and evolves naturally, whereas writing is essentially an artificial invention (Daniels, 1996a, p. 1). While this line of argument cannot be faulted, it has inadvertently led to the neglect of the written form of language as a field of academic inquiry (Bunčić, 2016a, p. 17). Consequently, modern-day scholarly study of the written form of language has largely been restricted to matters of literacy and orthography. Against this

¹ This field has been known in German-language academia as *SCHRIFTLINGUISTIK* and *GRAPHOLINGUISTIK* since at least 1987 (Dürscheid, 2002, p. 14). An English version of this term, *GRAPHOLINGUISTICS*, has come to be used of late by German authors; see, for example, Neef (2015) and Meletis (2016).

background, the need for a balanced approach to studying language in both spoken and written forms has been well summarised by Evans (2013):

Premodern linguistics was obsessed with written language to the exclusion of the spoken; much modern linguistics has erred on the other extreme, treating writing systems simply as transcription methods. A more useful approach (and interesting from the point of view of incorporating writing systems as cultural innovations potentially impacting on other aspects of language) is to treat sound and written forms as partially independent but partially linked signifying systems . . .

(Evans, 2013, p. 238 fn.)

Evans' statements are also noteworthy for their characterisation of writing systems as “cultural innovations”. In other words, they call for writing systems to be investigated not only from a descriptive standpoint, but also from a cultural and social standpoint. Indeed, consideration of the sociolinguistic aspect of writing has received scant attention in the literature (Sebba, 2007), despite the key role that written language plays in society, especially in modern times. For this reason, it becomes imperative to pay greater attention to issues of writing from a sociolinguistic perspective, due to the perceived intimate connection of writing to society and culture (Bunčić, 2016a, p. 19).

1.1.1 Statement of the problem

The target group in this study is the Indian Sindhī community. This nominally Hindū community traces its roots to the Sindh region of the Indian Subcontinent—today a province of Pakistan. The broad research area in this study is the sociolinguistics of writing in the Sindhī language within the Indian Sindhī community. Within this research area, the problem being investigated is the widespread inability to read and write Sindhī within the community, especially among the younger generations. This inability has resulted from the Sindhī version of the Perso-Arabic script declining in use over the years, and the Devanāgarī script failing to fully supersede it. This problem is outlined in detail below.

The Sindhī language is an Indo-Aryan language (Khubchandani, 2007) native to the Sindh province of southern Pakistan. Varieties of the language are also natively spoken in regions of India bordering Sindh, namely the Kachchh region of Gujarāt state and the Jaisalmer region of Rājasthān state (Khubchandani, 1995, p. 310, 2007, p. 683; see Figure 2.5 on p. 40). According to M. P. Lewis, Simons, and Fennig (2016), Sindhī is spoken by just under 24 million people worldwide. Of these, 22 million are estimated to reside in Pakistan,

primarily in Sindh, and 1.7 million speakers in various parts of India. The figures for India differ slightly from the Indian census of 2001, which reports just over 2.5 million speakers of Sindhī in the country (Census of India, 2001a).² The higher figures reported by the Indian census are the result of Kachchhī and Jaisalmerī speakers being classed as Sindhī speakers. Regardless, a speaker base of 2.5 million amounts to only 0.2% of India's population, which, as of 2015, stood at 1.31 billion (World Bank, 2017). Consequently, the Sindhī community in India is, in Khubchandani's words, a "microscopic minority" in the country (1995, p. 309).³ An estimated 500,000-strong Sindhī diaspora, mostly Hindū, also exists in over a hundred countries worldwide (Falzon, 2004, p. 6).

The Sindhī community in India is primarily a result of the emigration of Hindū Sindhīs from Sindh after the Partition of British-ruled India in 1947. The Partition resulted in the formation of two independent countries, Hindū-majority India and Muslim-majority Pakistan. Sindh with its Muslim-majority population was included as a province of Pakistan, following which religious violence erupted in parts of the province. This resulted in most Hindū Sindhīs fleeing to India. However, these refugees did not settle in one place, but ended up in various parts of the country, especially in urban and semiurban areas such as Mumbai (formerly Bombay), Pune (formerly Poona), Ahmedabad, Ulhāsagar and Delhi (Cole, 2006; Jetley, 2000). Some eventually emigrated to other countries, contributing to the formation of the worldwide Sindhī diaspora.

Today, in Pakistan, Sindhī is an official language of Sindh province. Along with the national language Urdū, Sindhī is used in the Sindh province in education, administration, media and daily formal and informal interaction, in both oral and written forms (Rahman, 1996, 1999). In India, Sindhī is one of 22 constitutionally recognised or "scheduled" languages (Constitution of India, Schedule VIII). In Pakistan, the Sindhī language is currently written in a modified version of the Arabic script known as Perso-Arabic (اب ب پ ...) (Salomon, 2007, p. 75). In India, Perso-Arabic used to be the predominant script for the Sindhī language, but its use is currently on the decline in the country. The reasons for this are twofold. First, the Hindū Sindhī community in India tends to educate its children in languages other than Sindhī, chiefly English (Daswani, 1989). Secondly, the Perso-Arabic script is very different in appearance and structure from other scripts commonly used in India (King,

² The 2011 Indian census data for languages are not yet available (cf. <http://censusindia.gov.in>)

³ The Indian census only collects data based on self-reported mother tongue affiliation, and not on self-reported ethnicity. This necessitates the ontological assumption that "Sindhī speakers" and "Sindhī community" are somewhat coterminous. While this may be statistically inauthentic, the assumption of such an overlap does not impact on the study's results.

2001), due to which there is little scope of literacy transfer. For these reasons, attempts have been made in India for several decades now to supplement or replace Perso-Arabic with the Devanāgarī script (अआइई...) for writing Sindhī (Daswani, 1979). The stated rationale behind adopting Devanāgarī is the widespread use of the script in India for writing other languages, primarily Hindī. However, attempts to introduce Devanāgarī for Sindhī have only been partly successful (Shackle, 2014). In other words, the situation of the Sindhī language in India is one where the Perso-Arabic script is dying out, and where the Devanāgarī script has not taken its place entirely.

Of late, the Roman script (A B C D ...) has been proposed by certain community members as a potential solution to the script divide (Chandiramani, 2011; Jaisinghani, 2004; RomanizedSindhi.org, 2010a; Sagar, n.d.; Sarwar, 2013). This proposal raises the question of whether and to what extent Roman will be adopted by the Indian Sindhī community to write the Sindhī language. It also raises the question of what scripts have been used for the Sindhī language in the past, and what lessons can be learnt from the community's historical usage of various scripts. This study, therefore, seeks to delve deeper into present-day community perceptions on the idea of using the Roman script for Sindhī, and compare and contrast it with historical script use for the language.

1.1.2 Research objectives

The present study aims to understand the sociolinguistics of script in the Indian Sindhī community. It does so by identifying and describing past and present trends of script use for the Sindhī language in the community. To this end, this study adopts a two-pronged approach, and draws on both historical literature and fieldwork data. The historical literature comprises scholarly works and archival material on Sindhī linguistics and ethnography that include research on script use in the community. The fieldwork data comprise in-depth qualitative information from community members of various ages, geographical origins, educational qualifications, language abilities and, most importantly, script abilities.

Thus, the main objectives of this study are:

- (i) from a diachronic perspective, to understand the interplay of language and script in the Sindhī community, and identify key factors behind the adoption or rejection of scripts for the Sindhī language during various periods in history, and

- (ii) from a synchronic perspective, to critically investigate opinions in the Indian Sindhī community on using the Roman script to read and write the Sindhī language.

Secondary objectives of the study are:

- (iii) to explore potential solutions to the declining use of Sindhī in the written form in India, when the idealistic option of replacing the societal roles of the dominant language(s) with the traditional community language is not desirable or practical, and
- (iv) to provide insights on the potential that Roman may hold in rejuvenating written Sindhī, and bridging the script divide between Perso-Arabic and Devanāgarī in the Indian Sindhī community.

Research on script necessarily involves discussing matters of orthography, as the two can hardly be treated in isolation. For this reason, this study also analyses relevant aspects of orthography in the three scripts in question.

It is emphasised that this study is one of the first on the subject. Hence, it is based on exploratory textual analysis, and on a nonprobabilistic or purposive sample of participants, with a view to generating primary data on the subject (Guest, MacQueen, & Namey, 2012). Consequently, the broad nature of the research questions warranted a qualitative approach to data collection and analysis (Sunderland, 2010). Based on the analysis, the study makes recommendations intended to serve as a base for future studies of a confirmatory or hypothesis-driven nature.

1.1.3 Significance of the study

This is a significant study that makes original empirical, theoretical, conceptual and methodological contributions to the existing body of knowledge.

The empirical contributions of this study are threefold. First, the study stands out in approaching the theme of historical script use for the Sindhī language primarily from a sociolinguistic perspective. The study provides a comprehensive diachronic review and analysis of script practices in the Sindhī community, making it one of the first to do so.

Second, the findings of this study provide revealing insights into the expectations a multilingual urbanised minority community may have of a writing system for its language. While several studies do exist on the topic of script and orthography development for minority languages (Bird, 1999; Cahill, 2011; Decker, 2014; Guérin, 2008; Karan, 2006; Lüpke, 2011; Seifart, 2006;

Smalley, 1964; Venezky, 1970), such studies often tend to deal with communities that meet one or more of the following criteria:

- based in a remote location;
- socioeconomically disadvantaged;
- currently or previously subject to cultural and/or linguistic repression;
- predominantly monolingual;
- associated with a language that is unwritten or not commonly written.

In contrast, the present study investigates a community that is:

- predominantly urban, and is internationally mobile;
- highly educated and socioeconomically successful;
- granted nominal state support for cultural and linguistic maintenance;
- predominantly multilingual;
- associated with a language that has a centuries-old written tradition.

These factors distinguish the present study from previous research in the realm of script and orthography. In this regard, the findings of this study challenge the oft-asserted claim that minority ethnolinguistic communities are typically desirous of seeing their language in written form (Unseth, 2008). Such a claim may unintentionally present a monolithic image of community opinion. In contrast, this study brings to light the complex and inherently ambivalent attitudes that members of a minority community may have towards reading and writing their traditional language.

Third, the study points to the emergence of a “new” variety of Sindhī phonology among younger speakers in India, which is marked by the loss of certain distinctive features compared to the phonology of older, Sindhī-educated speakers. In doing so, the study draws attention to the ramifications of Sindhī pedagogical materials prepared on the basis of the old variety phonology, but intended for a target audience that may be more accustomed to the new variety phonology.

Theoretically and conceptually, the study makes inputs to the concept of orthographic transfer, which occurs when beginner readers inadvertently and erroneously apply phoneme-grapheme correspondences from a familiar orthography to a new orthography. The study also underscores the implications of orthographic transfer for the pedagogy of lesser-learned languages. In addition, the study brings to the fore the presence of scriptal diglossia, or digraphia (Bunčić, 2016c; see p. 11 for definition), in the usage of scripts for the Sindhī language. In this context, the results of this study reaffirm the enduring presence of domain complementarity in language use in the Indian socio-linguistic milieu, and supplement it with insights on domain complementarity

in script use as well. Furthermore, the study discusses the impact that the phenomenon of domain separation in the usage of languages and scripts may have on oracy and literacy in the Sindhī language.

Finally, the study makes the methodological contribution of juxtaposing historical and present-day sociolinguistic factors, in order to arrive at a comprehensive overview of the scriptal situation of the Sindhī language. In the context of this study, this approach offered a fresh and nuanced look at the rise and fall of scripts for a language with a centuries-old written history. Most importantly, it helped reveal that certain present-day language and script practices within the Indian Sindhī community are not remarkable, but have historical precedent.

1.1.4 Terms and conventions used

This section defines the key terms that appear throughout this study, and explains the naming and spelling conventions used. The key terms used can be broadly classified as geographical, socioreligious, linguistic or script-related.

Geographical terms

The word SUBCONTINENT with an initial uppercase letter denotes the Indian subcontinent, today synonymous with the term SOUTH ASIA. This includes the modern-day countries of Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri Lanka. PARTITION with an initial uppercase letter denotes the 1947 division of British-ruled India into the independent dominions (later republics) of India and Pakistan. In pre-Partition contexts, the entire region is simply referred to as INDIA, in line with the nomenclature used at the time.

Religious and social terms

The use of religious labels to describe sections of the Sindhī community proves problematic. Historically, the so-called Hindū Sindhī community followed a syncretic blend of practices that drew heavily on Sikhism (Daswani & Parchani, 1978, p. 21). That is, they tended to follow Sikh scriptures rather than conventional Hindū ones, and marked major life events such as birth, marriage and death by ceremonies in Sikh temples rather than Hindū ones. A few even went on to become baptised Sikhs (Kothari, R. & Thadhani, 2016). Hindū Sindhīs would also visit the shrines of Muslim seers to seek their blessings (Ramey, 2008). Following Partition, most Hindū Sindhīs migrated to India. That said, several members of the intelligentsia among the immigrant Sindhīs were actually self-avowed communists (Agnani, 2013) and, in that sense, openly

irreligious. Nevertheless, there has been a shift of late among some sections of the community in India towards becoming more hardline Hindū, under the influence of political developments in the country (Kothari, R., 2009). Conversion to Christianity has also been reported in sections of the diaspora (Khemlani David, 2001; Raina Thapan, 2002). Evidently, labelling a group of such diverse affiliations simply as “Hindū” does not satisfactorily reflect the complexity of the actual situation (Sila-Khan, 2008, p. 78). Bearing this religious fluidity in mind, the terms HINDŪ SINDHĪ and MUSLIM SINDHĪ have been used in this study loosely and purely for convenience of identification, rather than as indicative of actual religious affiliation. Furthermore, since most Hindū Sindhīs relocated to India after Partition, they can be considered synonymous with INDIAN SINDHĪ in a post-Partition context.

In the context of the SINDHĪ DIASPORA, the presence of the community in various countries around the world can historically be traced to Hindū traders migrating from Sindh (Falzon, 2004; Markovits, 2000). Today, Hindū Sindhīs in India and other countries typically do not look to Sindh as a homeland (Anand, 1996).⁴ Moreover, Hindū Sindhīs worldwide continue to maintain close ties with the community in India. Hence, the worldwide Sindhī diaspora can for all practical purposes be considered an extension of the Indian Sindhī community. For this reason, this study makes only a nominal geographical distinction between Indian Sindhīs and diasporic Sindhīs. Where the target group is evident from context, they are simply referred to as Sindhī.

Linguistic terms

The core subject matter in this study is, of course, language. In this study, the term TRADITIONAL LANGUAGE is used to describe the Sindhī language in relation to the Sindhī community in India and overseas. This term has been deemed appropriately descriptive of the linguistic situation in question, while at the same time acceptable to members of the community themselves. The term also circumvents connotations of actual competence in or emotional affiliation with the language.

What this study defines as traditional language has been variously described in the literature in other terms. Commonly encountered terms include “heritage language” (Polinsky & Kagan, 2007; Valdés, 2000) and “ancestral

⁴ A section of Sindhī-language writers, typically born in pre-Partition Sindh and now based in India, euphemistically refer to themselves as “in exile” (Khubchandani, 1998, p. 10). However, this view is typically restricted to literary circles and does not extend to laypersons. The term “exile” is occasionally used for impact in literature dealing with Partition; see, for example, Bhavnani (2014).

language” (Fraser Gupta, 1997). However, these terms carry with them the ontological presumption of chronological primacy of the language in the individual’s life. Similarly, the terms “first language” and “native language” (Bloomfield, 1935/2005) insinuate a high degree of proficiency in the language. Since these presumptions were not universally applicable for participants in this study, the aforementioned terms were considered inadequate in the present context.

Usage of the term “mother tongue” was briefly considered, based on its ubiquity in India. However, the variety of semantic connotations of this term render it problematic. In Western contexts, the scope of this term usually coincides with that of the other terms mentioned above (Le Page, 1988). However, in other contexts, especially Asian, this term usually denotes the language traditionally associated with a community, which may not necessarily be one’s first-learned or best-known language (Ministry of Education, Singapore, 2016). Also, unlike the West, a mother tongue may be considered a personal matter rather than an identity marker (Abbi, 2008, p. 165). The multiple interpretations of the term “mother tongue” have, therefore, led to it being eschewed in favour of the term “traditional language”. All the aforementioned terms are, however, retained when quoting study participants or other sources.

A PRESTIGE LANGUAGE in a given sociogeographical context has been taken as the language that wields considerable economic and social power, irrespective of whether it is spoken by a numerical majority in that context. In this study, the prestige language is English. Although Hindī and regional languages such as Marāṭhī and Gujarātī wield significant economic power in local contexts, they do not have the same social clout that English does. Therefore, they do not qualify as prestige languages per se—at least not for the urbanised Indian Sindhī community.

This study also follows the definitions of LANGUAGE SHIFT by two leading international sociolinguists. The first one is by Batibo (2005), who describes language shift as “speakers abandon[ing] their language, willingly or under pressure, in favour of another language, which then takes over as their means of communication and socialisation” (p. 87). The second is by Dorian (1982), who characterises language shift as “the gradual displacement of one language by another in the lives of the community members” (p. 44). In the Indian context, these definitions would have referred to *languages*, namely, in the plural rather than in the singular.

The study involves the description of situations involving a division of labour between languages and within varieties of a language. A situation where

the prestige or high-status (H) position is occupied by a language different from one occupying the colloquial low-status (L) position, and the two are used in mutually exclusive societal domains, is characterised as DOMAIN COMPLEMENTARITY (Timm, 1981). In contrast, a situation where the H and L positions are occupied by mutually exclusive varieties of the *same* language are characterised as DIGLOSSIA (Ferguson, 1959).⁵ This study predominantly involves the former situation.

Finally, this study adopts the distinction between LITERACY and ORACY as defined by Wilkinson (1970). According to him, the skills of reading and writing in a language can be characterised as literacy. In contrast, the skills of speaking and listening in a language are termed oracy (p. 73).

Script-related terms

Besides language, the key topics in this study are WRITING SYSTEM, ORTHOGRAPHY and SCRIPT. Baker (1997) defines writing system as “any means of representing graphically any language or group of languages” (p. 93). He defines orthography as “a writing system specifically intended for a particular language” (p. 93). Along similar lines, Daniels and Bright (1996) define writing system as “a [collection of characters] together with an associated orthography” (p. xlv). They consider orthography to be the “conventional spelling of texts, and the principles therefor” (p. xliii).

Sebba (2007) posits that SCRIPT is a synonym of writing system, citing the examples of the “Roman writing system” and “Cyrillic writing system”. He summarises the various terms in question by providing the example of “I am *spelling* the words of this sentence according to the *orthography* of English using the Roman *writing system* (or *script*)” (pp. 10-11; emphasis in original).

This study also involves the discussion of various types of writing systems or scripts, namely, ALPHABET, ALPHASYLLABARY and ABUGIDA. Daniels and Bright (1996) define alphabet as “a type of writing system that denotes consonants and vowels” (p. xxxix). They define alphasyllabary as “a writing system in which vowels are denoted by subsidiary symbols not all of which occur in a linear order (with relation to the consonant symbols) that is congruent with their temporal order in speech” (p. xxxix). They consider abugida a subtype of alphasyllabary, and define it as “a type of writing system

⁵ Strictly speaking, “diglossia” refers only to situations where the H and L varieties are seen by society as varieties of the *same* language. However, certain authors, primarily Fishman (1967), have attempted to extend the meaning of diglossia to include situations involving *different* languages in H and L positions. This study adheres to the classical definition of diglossia, and terms Fishman’s concept “domain complementarity”. For a critique, see Timm (1981).

whose basic characters denote consonants followed by a particular [inherent] vowel, and in which diacritics denote the other vowels” (p. xxxix). Daniels and Bright (1996) classify Devanāgarī and other Indic scripts discussed in this study as alphasyllabaries or, more precisely, abugidas.⁶

With regard to the interchanging of scripts, Daniels and Bright (1996) contend that TRANSCRIPTION is “an interpretation of a written text that supplies information not explicit in the text” (p. xlv). Transcription is thus an attempt at representing the pronunciation of words in the text, in the same or another script. On the other hand, they describe TRANSLITERATION as “a one-to-one transposition of the signs of a text into the signs of another writing system” (p. xlv), that is, a letter-for-letter conversion from one script into another. Van Driem (1991, pp. 1-2) has also defined these terms along similar lines. By extension, transliteration into the Roman script would be termed ROMAN TRANSLITERATION.

A related but distinct concept is that of ROMANISATION, namely “[p]roviding a language which is written with a non-alphabetic script with an alphabetic writing using the Roman script” (Coulmas, 1996, p. 443).⁷ To the extent this study deals with the Roman script for Sindhī, it is in the sense of romanisation, and not Roman transliteration or transcription. Roman transliteration, or letter-for-letter conversion of the existing Sindhī scripts into Roman, forms only a part of the overall exercise of Sindhī romanisation.

In addition to the objective issue of the orthography of Sindhī in Roman, this study also engages with the subjective matter of community perceptions of the overall language-script ecosystem of Sindhī-in-Roman. This ecosystem will be referred to as ROMAN SINDHĪ, on the lines of PERSO-ARABIC SINDHĪ and DEVANĀGARĪ SINDHĪ.

In the context of multiple scripts for a single language, this study uses the term DIGRAPHIA (Bunčić, 2016c) to describe the scriptal counterpart of diglossia, namely, a situation where different scripts are in use in H and L contexts for the same language.

Finally, this study uses the term SCRIPTAL as the adjectival form of “script” (Bunčić, Lippert, & Rabus, 2016).

⁶ Indic scripts are derivatives of an ancient script called BRĀHMĪ, attested in the Subcontinent from the 3rd century BC onwards. Several Indic scripts are or have been prevalent in South and South East Asia (Salomon, 1996b).

⁷ Evidently, this definition is limited in scope, as it only covers languages with *non-alphabetic* scripts. However, since the present study deals with a language hitherto written in non-alphabetic scripts, Coulmas’ definition suffices.

Naming and spelling conventions

Throughout this study, words originating in Sindhī and other South Asian languages have been represented in Roman using a simplified version of the diacritical orthography proposed by Grierson (1919, pp. ix-x). An overview of this modified Griersonian system is provided in Table A-2 (Appendix A). Names of South Asian origin that are now established in English (e.g., ‘Pakistan’), or commonly appear in an anglicised form (e.g., ‘Delhi’, ‘Hyderabad’, ‘Ahmedabad’), are represented in their conventional spellings.⁸ Personal names, too, have been reproduced in their usual spellings.

Places having multiple English names or Roman-script spellings have been cited with the name or spelling prevalent at the time under discussion. For instance, Mumbaī is referred to as Bombay in contexts before 1995—the year in which the English name of the city was officially changed. An exception has been made for the name of Sindh. In addition to “Sindh”, the name has also spelt “Scinde” and “Sind” in the past. Since the three spellings in question were often in simultaneous use, only the spelling “Sindh” has been used in this study. However, when quoting authors or citing participants, the source usage of place names has been reproduced verbatim.

1.2 Sociolinguistic background to the study

This section traces the origins of the problem being investigated in this study, namely, the declining proficiency in written Sindhī in the Indian Sindhī community. In doing so, this section describes the foundations on which the research objectives have been formed. The issues are presented in the form of a logical progression, starting from the increasingly restricted use of the Sindhī language in India and proceeding to the facilitation of the use of the language in the written form.

1.2.1 Sindhī neo-vernacularisation

The Sindhī community is a dispersed one within India (Anand, 1996, p. xii). The dispersal and settling among other-language communities has led to the community increasingly adopting other languages in daily life. Consequently, a steady decline in the community’s use of and competence in the Sindhī language is seen. This phenomenon has been attested by several academic

⁸ In the simplified Griersonian orthography followed in this study, these words would be spelt *Pākistān*, *Dēhli*, *Haidarābād* and *Ahmadābād*, respectively.

studies over the years (Anand, 1996; Daswani & Parchani, 1978; Daswani, 1985; Falzon, 2004; Iyengar, 2013; Khubchandani, 1963; Kothari, R., 2009; Parchani, 1998). These studies are reviewed in greater detail in Section 3.1.

Non-academic journalistic and popular views on the issue are often along similar lines. For instance, Bathija (2013) reports that parents in Sindhī families in urban areas of India tend to speak to their children in English or Hindi, rather than Sindhī. She opines that Sindhī children in such areas “cannot string a single sentence in Sindhi without faltering”. Nair (2010) highlights the widespread complaint among older community members that youngsters are not speaking the language. Wajihuddin (2010) quotes a Sindhī film producer who laments that the Sindhī language in India “is on a ventilator, gasping for breath”. He also cites other Sindhī artistic and literary figures who share a similar pessimistic view of the language’s future in India. Sharma (2016) and Vora (2016) report on the closure of the last two government-run Sindhī-medium schools in Ahmedabad. They note that the steadily declining enrolment in these schools was attributable to Sindhī parents preferring an English-medium education for their children, due to perceived economic benefits. The authors also draw attention to the difficulties faced by students in learning the Perso-Arabic script. Thus, non-academic emic and etic opinion generally concurs with academic opinion on the restricted use of the Sindhī language being a real and noticeable phenomenon in the Indian Sindhī community, particularly among urbanised sections.

Therefore, the Sindhī community’s situation in large Indian cities can be characterised as one of language shift. However, claiming language shift in the community as a whole proves problematic. Over the years, Indian census figures have been registering a steady rise in the Sindhī-speaking population in the country. For instance, speakers of Sindhī and its dialects in India reportedly increased by more than a third over the thirty-year period from 1971 (1,676,875 speakers) to 2001 (2,535,485 speakers) (Census of India, 2001b). The increase cannot be attributed to a purported rise in speakers of Sindhī as a *second* language, since the Indian census figures reflect people’s self-proclaimed mother tongue. Consequently, the increase in the number of Sindhī speakers must be community-internal. As a result, it cannot be verifiably asserted that the Indian Sindhī community as a whole is undergoing language shift. Rather, the case is one of language shift in urban areas but language maintenance in semi-urban areas. It is also the upper socioeconomic strata that are more prone to language shift than the middle socioeconomic strata. Such language shift has been characterised by Fishman (1991) as “shift that is not ‘across the board’,”

but, rather, as is more usually the case, differential, being more rapid and fargoin in some . . . sub-populations than in others” (p. 45).

The case of Sindhī in India is, therefore, one where the absolute number of speakers is marginally on the rise due to overall population growth, but where the language’s health is far from safe. Consequently, the Sindhī language in India is not an endangered language in the traditional sense of the term. Rather, it is one that is undergoing NEO-VERNACULARISATION. According to Annamalai (2014), neo-vernacularisation occurs when:

the economic, political and cultural value of a language comes to near zero . . . Such a language survives, but does not live. This situation can be found even in a language with a large population and official status.

(Annamalai, 2014, p. 3)

Annamalai suggests that such a neo-vernacularised language, namely a language that used to be a literary language but is no longer one, would continue to be spoken, but would “liv[e] on the life-support mechanisms of allocating state resources to maintain its symbolic status” (2014, p. 15). Sindhī in India is, therefore, a language with an extensive literary and written history (Asani, 2003) that is being progressively restricted to an ever-shrinking set of domains, and largely reduced to a spoken-only form (Buglio, 2006, pp. 98-99).

It thus emerges that Sindhī is maintained in India almost exclusively in spoken form, primarily in the home environment, and mainly by persons of medium socioeconomic status living in smaller towns. Sindhīs who are English-speaking, highly educated, wealthy and based in large urban centres are the ones least likely to speak the language (Khumbchandani, 1963, p. 49; Kothari, R., 2009, p. 157). Given that Sindhīs from smaller towns tend to migrate to larger cities as their education and affluence increases (Daswani & Parchani, 1978, p. 9), this reinforces the progressive neo-vernacularisation and consequent shift in succeeding generations.

In such a scenario, theories of reversing language shift (‘RLS’; see Fishman, 1991) come to mind as potentially relevant. However, the discourse on RLS in the literature often tends to veer towards the lofty ideals of upholding the ethnolinguistic rights of minority disadvantaged ethnic groups (Fishman, 1991, pp. 70-72; Skutnabb-Kangas, 2000; Skutnabb-Kangas, Phillipson, & Rannut, 1995). In such discourse, language shift is often associated with communities that are socioeconomically and linguistically discriminated against. Besides, shift is often characterised as being inflicted by dominant groups on vulnerable communities. In contrast, the Indian Sindhī community is typically prosperous, well-integrated into surrounding society and geographically mobile. It also

enjoys not just linguistic rights but also linguistic funding. Consequently, language shift in such a community does not neatly fit the stereotype of socioeconomic-cum-linguistic deprivation. In other words, the phenomenon of language shift has often been characterised in the literature as one caused by a stick. Instances of language shift induced by a carrot, seemingly self-imposed, have received scant attention.

As a result, it appears that the operational parameters for RLS among disadvantaged or oppressed groups may not provide the requisite answers if applied to well-to-do communities. For instance, Fishman (1991) claims that:

[a]ll that is basically required, to begin with, is greater local self-management of cultural processes and institutions, to the effect that families, neighborhoods, schools, libraries, theaters, entertainment groups, youth groups (hobby groups, skill groups) and even lower-level work-sites and media units can function in the languages preferred by a sufficiently large and dedicated clientele. Of course, such self-management is easier sought than attained.

(Fishman, 1991, p. 66)

Sindhīs in India already have access to most of the above resources, namely self-managed institutions including schools, libraries, religious centres, cultural groups and so on. They also have two national-level cultural-linguistic research institutions funded by the central government in New Delhi—the Indian Institute of Sindhology (IIS) and the National Council for Promotion of the Sindhi Language (NCPSL). If not as a medium of instruction, Sindhī is nominally available as a school subject in at least five states in India, where the bulk of the Sindhī population resides. The Sindhī community has thus sought *and* largely attained self-management of the “processes and institutions” that Fishman speaks of. However, what has not been attained is RLS. For instance, a regular lament among Sindhī language activists is that Sindhī-medium schools in India are closing down or converting to other media of instruction (Asani, 2003, p. 642). The problem is, therefore, not the setting up but rather the *shutting down* of Sindhī-medium schools, due to lack of community patronage. The establishment of mother-tongue-medium schools might be met with great enthusiasm among certain language communities (Schneider, 2011), but this is not the case with the Indian Sindhī community.

On closer examination, it emerges that the language tendencies of the Indian Sindhī community are not unusual or puzzling. Rather, the dilemma is traceable to the monolithic ascription of one and only one language to a community, and the assumption that children of the community must be educated in that language. Indeed, it appears that preference for education in, or even domestic use of, a prestige language instead of the community's

traditional language is not uncommon among South Asian communities. For instance, Barz (1988) mentions the “widespread tendency” among certain Indian communities overseas to replace the traditional language with one that may offer “pragmatic advantages in acquiring an education or in achieving a higher standard of living” (p. 198). In fact, the harnessing of societally significant languages in education as a supplement to, or even in place of, the purported mother tongue, has its fair share of advocates. Khubchandani (2003, p. 249) emphasises that the mother tongue cannot be the sole language of education. D’Souza (2006) defends the rights of linguistic minorities to opt for educating their children in the dominant or prestige language. She argues that not doing so might be contrary to the rights of the child in having access to an economically stable future, and claims that:

[t]o ensure the survival of the [minority traditional] language one would have to use it as the medium of instruction, but to do so would be to ensure that the minority children continue to be at a disadvantage because their language cannot do for them what a knowledge of the dominant state language can. The minority mother tongue cannot, on the basis of equal opportunity, enable the child to compete with others in society.

(D’Souza, 2006, p. 163)

This opinion is echoed by Fraser Gupta (1997) when she calls for the “empowerment of individuals . . . [to] have primacy over the development of an individual’s mother tongue, and even over the preservation of a language” (p. 497). She asserts that if language maintenance impedes individual empowerment, then the individual may well be receiving their linguistic rights at the expense of their educational and social rights.

The aim here, however, is not to give the impression that language maintenance and socioeconomic progress are incompatible or mutually exclusive. Rather, the aim is to underscore that the Indian Sindhī community is not unique in wanting to educate its children in a socially prestigious language. Education in a prestige language, whether the language be liturgical (Sanskrit, Arabic, Tibetan) or secular (Persian, English), has been attested in the Subcontinent since ancient times (Khokhlova, 2014, p. 41). If not in a prestige language, education is often received in a language of wider communication in the area, even if different from one’s home language (Gumperz & Wilson, 1971; Kulkarni-Joshi, 2015). Education in the prestige language or in the language of wider communication creates a self-reinforcing cycle. A populace educated in these languages is likely to use and promote them in official domains and in writing literature. This, in turn, makes them desirable to parents as languages of education for their children, which perpetuates the cycle. The result is often

a stable situation of domain complementarity between the prestige language(s) and the traditional community language(s).

Thus, in the highly multilingual and stratified Indian sociolinguistic milieu, the medium of education is almost always determined by utilitarian rather than identitarian factors. In modern times, English has emerged as the prestige language. Consequently, parents in urban India, irrespective of linguistic background, generally prefer to educate their children in the English medium due to the better socioeconomic prospects such an education is seen to offer (Ramanathan, 2005; Vaish, 2008). The pragmatic advantages obtainable through command of a prestige language or language of wider communication outweigh any latent desires of people to educate their children in their home or traditional language for purely emotional purposes.

If such pragmatic attitudes towards language prevail in the Subcontinent, why have notable agitations in the name of language taken place every now and then in the region? In reply, Khokhlova (2014) argues that language campaigns in the region typically have their roots in economic deprivation. These campaigns often manifest in the form of self-declared “sons of the soil” using language as a pawn to wrest power from economically better-off migrants. Khokhlova claims that “[i]f the ‘sons of the soil’ are satisfied with their economic, political or social status, language movements do not arise” (p. 34). Considering that Sindhīs in India have achieved exceptional economic success, especially when viewed against their humble beginnings as refugees, it is unsurprising that they have not asserted their linguistic rights to the extent that oppressed linguistic communities have elsewhere. Indeed, linguistic chauvinism in the Indian Sindhī community is almost unheard of (Iyengar, 2013).

Along similar lines, Barz (1988) states that societal and governmental suppression of a minority language and its speakers often results in “galvanisation of support for a language within its home community” (p. 198). Conversely, when granted linguistic freedom and rights, the minority community may not feel the need to be overly protective of its traditional language. In other words, a minority that does not experience outright oppression may not experience any psychological reactance (Brehm, 1966; Brehm & Brehm, 1981) that makes it feel the need to reassert its identity, including its linguistic identity. Therefore, the inadvertent outcome of linguistic freedom might well be language shift or neo-vernacularisation.

On a related note, the attribution of restricted usage of community languages to linguistic and cultural oppression is not entirely applicable to the Indian

sociolinguistic context. In fact, Khubchandani (1963) states exactly the opposite when it comes to the linguistic freedom available to minorities in India:

There is great cultural autonomy in India. Every culture and language usually gets [a] chance to retain its identity and there is no force from the dominant group to fall in line with its culture and language. Thus[,] contrary to the acculturation process of immigrants in many Western countries, which lay great emphasis on the conformity of culture, the acculturation process of immigrants in India is more or less optional and gradual.

(Khubchandani, 1963, p. 65)

Taken together, the above statements by various scholars point to economic success and the provision of linguistic rights, freedom and support giving an indirect and unintended impetus to neo-vernacularisation. There are two aspects to this phenomenon. First, such linguistic and cultural freedom would not only encompass the rights of minorities to maintain their traditional language, but also to learn and use other languages if they so desire. Second, while the presence of linguistic oppression might result in minorities going into survival mode concerning their language, the absence of such oppression and the presence of a linguistically peaceful scenario might well result in desires to maintain the traditional language being trumped by the pragmatic advantages of adopting prestige languages. This explains the situation of Sindhī in India, where use of the language is becoming restricted despite the absence of any overt suppression and despite the provision of institutional and governmental support for the language.

In addition, a look at models and theories of RLS reveals that the prevalent archetype of a community undergoing language shift is an ethnolinguistically and ethnoculturally bounded one living as a minority in a society with a clear majority (Fishman, 2001). Often, the community may have been linguistically or culturally repressed (Lo Bianco & Rhydwen, 2001; Strubell, 2001). These characterisations apply poorly to the Indian Sindhī community. To begin with, there is high internal diversity in the community, and language shift is restricted only to a particular subsection. Besides, in the variegated and multilingual Indian milieu, there is often no clear linguistic majority. This is particularly the case in urban areas, where most Sindhīs reside. Furthermore, the Sindhī community is the antithesis of a disadvantaged one. Hence, prevailing models of RLS may prove suboptimal in addressing the situation of Sindhī in India.

In summary, the questions at hand are: What are the solutions to Sindhī neo-vernacularisation in a scenario where the community is drawn towards prestige languages, at least for purposes of educating its children, in order to

secure a better economic future for them? How is neo-vernacularisation to be prevented—or at the very least, decelerated—in situations where replacing the societally dominant language(s) with the traditional language proves utopian and impractical? Furthermore, how can children’s rights to their traditional language and to a stable economic future be best reconciled, and not treated as mutually exclusive? Attempts to address these questions are elaborated on in the following section.

1.2.2 Sindhī literisation

In the context of language maintenance in India, Srivastava (1990, p. 42) observes that folk multilingualism in the region has traditionally been maintained orally. Singh (2006, p. 48) notes that 44 of India’s 94 most widely spoken languages were not being used in writing, even in the 1990s. According to him, this underscores the predominance of oracy over literacy in the region. Along these lines, Agnihotri (2008) states that:

[t]he norm in India, as perhaps in the whole of the South Asian region, is language maintenance rather than language loss, though very few of the languages in each country may have written forms.

(Agnihotri, 2008, p. 278)

It is thus seen that the percentage of Indian languages having written forms is low, but that language maintenance in the oral form persists. Yet, reassurances of oral language maintenance being widespread may do little to assuage the fears of literates in a language witnessing its neo-vernacularisation. This is seen in the case of Sindhī in India, where the increasingly restricted use of spoken Sindhī, and the near-disappearance of written Sindhī from everyday life is becoming a cause for concern among sections of the oldest generation and intellectuals in the community. For such parties, there is a desire to encourage the LITERISATION (Pollock, 2006), or usage in written form, of the Sindhī language. In a sense, the issue is one of the re-literisation of the language, as it already has a written history, and the community is already literate, albeit in other languages. However, intellectuals in the community are divided on the script in which their language should be written.

Proponents of Perso-Arabic state that this is the ‘traditional’ script for the Sindhī language, and that most Sindhī literature exists in this script. Loss of the script, they argue, would involve being cut off from the richness of Sindhī literature (Asani, 2003, p. 626). However, community knowledge of the Perso-Arabic script among Indian Sindhīs is progressively declining with age.

Knowledge of the script is typically restricted to community members aged 65 years or more. Community members below 40 years of age who are familiar with Perso-Arabic are few and far between (Lekhwani, personal communication, December 8, 2014). Besides, the Sindhī version of Perso-Arabic is graphematically complex (Bhatti, Ismaili, Soomro, & Hakro, 2014), and has a much larger number of glyphs compared to other Perso-Arabic-based writing systems (Shivdasani, 2010). Furthermore, as Sindhī is not seen as an economically useful language, it is unlikely that community members would be willing to put in additional effort to learn a specialised script for the language. In other words, if motivation to learn or use the language is low, then motivation to learn a specialised script from scratch would be even lower, thus reducing its potential in facilitating language maintenance.

Proponents of Devanāgarī for the Sindhī language claim that Devanāgarī is widely known in India, and is, therefore, an ideal choice for writing the language. To some extent, the Devanāgarī script is already being used in India to teach Sindhī as a language subject, typically in schools and colleges run by Sindhī trusts. Notwithstanding, socioeconomically ambitious Sindhī parents educate, or want to educate, their children in institutions that use English as a medium of instruction. The more elite and prestigious the institution, the greater the predominance of English and the lesser the likelihood that Sindhī plays any part in the curriculum (Khubchandani, 1978, p. 376). The aspirational value of such English-dominant educational institutions, and the consequent lack of snob value of Sindhī-teaching institutions, requires proponents of Devanāgarī Sindhī to swim against the tide, as it were. The result is an increasing number of English-dominant, and therefore, Roman-dominant youth, often with only a cursory knowledge of the Devanāgarī script (Pillalamarri, 2015). Knowledge of Perso-Arabic in this group, as mentioned earlier, is almost certainly absent.

Adding to the complexity of the situation is that the Perso-Arabic and Devanāgarī scripts differ greatly in terms of visual and structural makeup. Consequently, even if an individual knows one of these two scripts, learning the other script entails much more than simply learning a second set of graphemes. It essentially involves acquiring literacy all over again, as it were (Bunčić, 2016c, pp. 65-66). In turn, both these scripts are visually and structurally very different from Roman.

In brief, the stark differences between Perso-Arabic and Devanāgarī in terms of appearance and structure, ideological divides between their supporters in the community, and the youngest generation's unfamiliarity with both scripts

to varying degrees, cumulatively prove detrimental to the development of the written form of Sindhī. Consequently, this compounds the question of how to (re-)literate the language.

In light of the above, it has been proposed of late that the Sindhī language be alternatively written in Roman. Advocates of Roman for Sindhī see in the script a potential solution to the neo-vernacularisation of the language, and to the prevailing script divide. The rationale for their advocacy of the Roman script is pragmatic. First, Roman is portrayed as the closest thing in present times to a common worldwide script, or *scriptum francum* (Man, 2002, p. 112). Furthermore, Sindhī youth in India tend to be well-versed with Roman, due to its usage as the script for English and the community preference for English-language education. On this basis, supporters of Roman claim that using the script for Sindhī would eliminate the need for specialised knowledge of a particular script, and may provide an impetus to reading and writing in the language.⁹ This is illustrated by the following quote from a community advocate of Roman for Sindhī:

Learning the Arabic script (written from right to left) and learning to write the alphabets takes a lot of time which youngsters can't give and nor are they interested. The roman format, which is transliteration in English [*sic*], makes the learning process easier without needing the children to learn a whole new writing system.

(Sarwar, 2013)

Second, Roman is cited as being ubiquitous on computers and mobile devices. Electronic content in the Roman script can therefore be easily written and widely reproduced:

The Roman script is presently the most widely used script on computers and on the internet all over the world. So those who use the Roman script for their languages have a great advantage over other people who do not use that script.

(Jaisinghani, 2004)

Third, Roman is proposed as an ideologically neutral solution to the Perso-Arabic-versus-Devanāgarī script debate. Supporters also assert that Roman is the only script common to Sindhīs worldwide, including to Sindhīs in Pakistan,

⁹ The Roman script for Sindhī was also proposed by a Pakistan-based Sindhī-language litterateur, Haleem Brohi, but not in response to the sociolinguistic situation of the Sindhī language in India. Rather, it was intended as a sort of universal script, which was “not only meant for Sindhi, but provided an opportunity to all the local [Pakistani] languages that lacked a script, such as Marvari, Dhatki, Brahvi, Hindko, Siraiki and Balochi” (Sindhu, 2013).

since English forms part of the Pakistani education system (Rahman, 1996). This sentiment is echoed by the following quote:

Now if we analyse, we come to the conclusion that out of 100 [Sindhī] persons, some know the Arabic script, some Devnagiri [*sic*] script but practically all of us know the roman script. So why not make use of this reality?

(Chandiramani, 2011)

Thus, there seems to be broad agreement among proponents of Roman on the script being the most widely *known* script within the Sindhī community, both in India and worldwide. Some proponents of Roman for Sindhī have even gone to the extent of augmenting their proposed Roman orthographies with idiosyncratic diacritical additions or modifications to try and accurately reflect the 50-odd phonemes of Sindhī (Nihalani, 1999).

On the basis of these community proposals, some of them quite detailed, this study argues that it is worthwhile investigating the idea of writing the Sindhī language in Roman—a script already known to a wide section of the community. In particular, it is worthwhile investigating whether using Roman has the potential to rejuvenate Sindhī in the written form, by means of literacy transfer. The task at hand is, therefore, to assess whether Sindhī laypersons, and not just intellectuals, are open to the idea of using the Roman script for the Sindhī language. This study, therefore, investigates what lay community members, both young and old, as well as experts in the Sindhī language feel about the use of the Roman script for the language. To what extent does Roman carry the potential to boost reading and writing in Sindhī? What objections are raised with regard to its usage? What other concerns come up in relation to this main question? This study seeks to address these questions by analysing and reporting on data collected from members of the Indian Sindhī community. The core aim is to ascertain whether the Roman script is seen by community members, both scholarly and lay, as an *acceptable* medium to write and propagate their language in, and to understand their reasons for or against it.

Indeed, it emerges that questions of script for the Sindhī language are not new. The language has had a long history of being written in multiple scripts, starting from the tenth century. The question of which script to use for Sindhī became particularly prominent after the British took over Sindh in the mid-nineteenth century. Diverse patterns of script use were in place, and there existed variation along the lines of religion, caste and even gender. Therefore, modern-day opinion on which script to write Sindhī in cannot be considered in isolation. Rather, it needs to be compared and contrasted with historical reactions and usage patterns, so that a comprehensive and plausible analysis

of the situation can be arrived at. For this reason, the scope of this study includes the diachronic analysis of script use for the Sindhī language.

1.2.3 Sindhī identity

This section addresses the contentious issue of language and community identity, and illustrates that neo-vernacularisation and language shift in the context of the Sindhī language implicate only the *language* and not the *identity* of the Indian Sindhī community. Indeed, despite the fate of the Sindhī language in India being bemoaned by community intellectuals and activists, there seems to be no threat to the existence of the Sindhī community as a distinct cultural entity in the country. This simultaneous and seemingly paradoxical decline of the Sindhī language with maintenance of Sindhī identity is well summarised by Khubchandani (1995). While asserting that language shift is in no way indicative of identity shift in the community, Khubchandani notes that “identity maintenance factors seem to be much stronger than assimilation-promoting traits” (p. 312). Elsewhere, he also notes that:

many homogenized nationality groups, as in Europe, regard affiliation with their mother-tongue as a defining characteristic, not leaving much room for manipulating the primary group identity. In such contexts, any departure in its verbal manifestation is regarded as an ‘outward’ shift; in a way, one is aspiring to enter another club . . . [in India] assertions of language identity vary at different times and in different places. Language identity alone cannot universally be regarded as defining membership in an exclusive group.

(Khubchandani, 1984, p. 175)

The fluid linguistic and identitarian boundaries common in the Subcontinent stand in stark contrast to what Kamusella (2009, p. 29, 2015, p. 18) terms the “normative isomorphism” of language and ethnic group identity in Europe. Kamusella notes that in Europe, sociopolitical organisation in the past did not necessarily involve an overlapping of language, ethnicity and nation, but by the twentieth century, ethnolinguistic nationalism in the region had become the social norm for organising communities, and eventually, nation-states. In contrast, Khokhlova (2014, pp. 33-34) asserts that portrayals of language as an ethnic marker in the Subcontinent “are absolutely different from what occurred in . . . national development in Europe”. She observes that ethnic movements in Europe involved the active development and promotion of the “ethnic” language, whereas in the Subcontinent, the so-called ethnic language is brought into the picture only as a bargaining chip for gaining economic and political advantages.

In this sense, the dispensability of language to community identity, use of the traditional community language in restricted domains, and implicit tolerance of neo-vernacularisation and language shift are not unusual in the urban milieus in which the Indian Sindhī community typically finds itself, both in India and overseas. The language ecology, attitudes towards language, and the relation of language to identity in such urban environments have been succinctly summed up by Fraser Gupta (1997):

[T]he cosmopolitan cities of Asia, Africa, and South America are very often multilingual islands . . . children may grow up in mixed families or mixed neighbourhoods — the experiences of children growing up in one of these cities are very variable. Attitudes towards language learning and language shift are typically relaxed, and ethnic identity may be very weakly linked to language.

(Fraser Gupta, 1997, pp. 498-499)

Fraser Gupta's statements have been echoed by R. Kothari (2009) in the context of the Indian Sindhī community. She states that insecurities over the loss of the Sindhī language are restricted to the intelligentsia, and do not usually extend to laypersons:

A plethora of seminars, discussions and 'easy to learn' language kits betray the anxiety of the older generation about the likely extinction of the Sindhi language . . . [but] such anxieties are restricted to those engaged with Sindhi academia and literature. The large majority of Sindhis prefer to take a pragmatic view, . . .

(Kothari, R., 2009, p. 163)

At this juncture, reference is made to Smolicz's (1999) concept of CORE VALUES. Smolicz contends that every group possesses cultural artefacts which form the basic values of that group's culture. Such values "represent the heartland of the ideological system and act as identifying values which are symbolic of the group and its membership" (p. 105). According to Smolicz, language forms a core value for certain communities like the Greeks, Ukrainians and Poles, but not for others like the Jewish and the Chinese. On these lines, Iyengar (2013) has argued that language does not form a core value of Sindhī culture in urban Indian settings. This is based on community members' emic view that the Sindhī community would not disintegrate if the language was lost. Indeed, the secondary role of the Sindhī language in *Sindhīyat*^a or "Sindhiness" (Parwani, 2010) has been alluded to by various authors. Among Indian Sindhīs, Khubchandani (1998, p. 9) notes that "the observance of specific traits, like language associated with identity, is generally left fluid". Similar observations have been made by Detaramani and Lock in the Sindhī diaspora in Hong Kong

(2003), and by Khemlani David for the diaspora in Malaysia (1991, 1998), the UK (2001) and other countries (2008). Noting that the Sindhī community in general considers language from a utilitarian perspective, Khemlani David (1998) states that “the Sindhi language is no longer a *sine qua non* for Sindhiness” (p. 75). In other words, language is not a core value of Sindhī identity, particularly in urban India and the diaspora. More significant core values include Sindhī cuisine, the close-knit Sindhī social networks, and characteristic Sindhī traits such as adaptability and entrepreneurial abilities (Khemlani David, 2008). This feature of translinguistic cohesiveness in the Sindhī diaspora is similar to tendencies in other Indian diasporas, particularly in the Caribbean (Barz, 1988; Khemlani David, 2001).

It is emphasised that the above observations only concern the apparent dispensability of *language* to the Sindhī community, and do not insinuate that the community is not desirous of cultural rootedness. In fact, the inability or unwillingness to invest efforts into learning the traditional language has made them associate more strongly with other cultural aspects, such as traditional cuisine and religiocultural practices (Iyengar, 2013). The latter is evidenced by the emergence of post-Partition Sindhī religiocultural icons, with which language was only peripherally associated. Immediately after Partition and migration to independent India, certain Sindhī cultural entrepreneurs (Falzon, 2004, p. 80) implicitly understood that language would be inadequate as the sole nucleus for the dispossessed community. Of these cultural entrepreneurs, the educationist and folk singer Ram Panjwani saw the need for Sindhī quasi-religious symbols as a rallying point for the dispersed community. Consequently, he revived and propagated Jhūlelāl, hitherto a local deity in Sindh, as the patron saint of Sindhīs. The Sindhī New Year, *Cheṭī Chandʷ*, began to be celebrated as the birthday of Jhūlelāl (Parwani, 2010). While the Sindhī language was incorporated into devotional songs and slogans on Jhūlelāl, it nonetheless played second fiddle to religiosity and folk tradition in fostering a sense of community (Khubchandani, 1998, pp. 7-10). This phenomenon is aptly illustrated by Figure 1.1, which shows a banner in Pune for a programme organised on the occasion of *Cheṭī Chandʷ*. Appearing in Perso-Arabic Sindhī are the title of the banner, along with a hortative message requesting the community to attend in large numbers. Rough Devanāgarī and Roman transcriptions of the title are provided for symbolic purposes. However, the majority of the banner, comprising details of the programme and its location, is in English. This succinctly captures the relative positions of religiocultural

practices vis-à-vis the Sindhī language in creating a sense of community among Sindhīs in India.

The phenomenon of translinguistic cohesiveness in the Sindhī community is corroborated by Markovits (2000). While noting that Sindhīs in India are increasingly adopting English as an intracommunity language, Markovits also highlights that they are “probably more of a community [today] than in pre-Partition days” (p. 285). He attributes this to the breakdown of traditional intracommunity class divisions, as well as to their adoption of more homogenised Hindū practices.



Figure 1.1. Banner in Pune for the *Cheṭi Chand*^u festival, with Sindhī written in Perso-Arabic (centre) and Devanāgarī (right)

It seems, therefore, that the absence of core value status for the Sindhī language within the community has allowed the language to be restricted to certain domains, yet not pose any existential threat to the community as a distinct cultural group. On this basis, this study proceeds with the hypothesis that neo-vernacularisation, language shift, or a shift in script competence do not necessarily indicate any perceptible identity shift in the Indian Sindhī community. Consequently, the study does not delve into the topic of Sindhī identity, and restricts itself to matters of language, and more specifically, script.

1.2.4 Summary

This section has shown that the Sindhī language in India is undergoing neo-vernacularisation, in that it is increasingly being used as a purely oral language restricted to home and community domains. This has been exacerbated by the Sindhī community's preference for education in English-medium schools, the indecision between using Perso-Arabic and Devanāgarī for the Sindhī language, and the restricted proficiency of the younger generations in these scripts.

Consequently, community members desirous of seeing the Sindhī language re-literised have of late put forward a seemingly pragmatic solution to the issue. This is to use a script considered to be widely known to Sindhīs worldwide—the Roman script. Using Roman, it is argued, would eliminate the need to learn a separate script purely for Sindhī. It is envisaged that Roman would facilitate easy input and reproduction of the language on computers and mobile devices. It is also seen as an ideologically neutral solution to the script debate between Perso-Arabic and Devanāgarī. On these grounds, the present study undertook a deeper investigation into community opinion on the idea of reading and writing Sindhī in Roman. Therefore, the study sought to ascertain contemporary community opinion on script, and correlated it with historical script practice in the community.

It is emphasised that this study is an initial one on the topic of Sindhī in Roman. Therefore, it focuses on the presentation and analysis of primary data, rather than on issues of practical implementation. Therefore, this study does not engage with questions of methods and techniques of imparting literacy, and the allocation of responsibility for producing literacy material. Literacy training and the development of pedagogical material is a subdiscipline by itself (Schneider, 2011), and is beyond the scope of this study. Furthermore, these questions are premature in the present context, where research on the topic of Sindhī in Roman is still in an embryonic stage.

1.3 Organisation of the study

This study comprises seven chapters. Chapter 1 orients the reader regarding the research problem, the objectives of the study and the terminology used in it. It also expounds the sociolinguistic phenomena that provided impetus to this study and the justifications for the research objectives. Chapter 2 provides an overview of the Sindhī people, their sociocultural and political history, and the Sindhī language. This serves as a lead-in to the analysis chapters of this study.

Chapter 3 reviews and summarises literature relevant to the study, particularly in the fields of Sindhī language use in India, writing systems and script reform. Chapter 4 deals with the approaches used in the historical and fieldwork components of the study, and elaborates on the finer points of participant attributes and the collection and analysis of data. The analysis has been presented in separate chapters, covering the historical and fieldwork data, respectively. The first of these, Chapter 5, first describes the two main scripts currently in use for the Sindhī language, and analyses issues of orthography, standardisation and the implications for Sindhī language learning in detail. It then delves into the rich history of script use for the Sindhī language through the ages, paying particular attention to the official and lay usage of various scripts and the patterns therein. The presentation of this analysis is in the form of a chronological progression, in order to make for a seamless and contextualised discussion and provide the reader with a holistic diachronic view of the subject matter. This is followed by Chapter 6, which presents the fieldwork data in the form of themes, followed by an analysis. While the chapter foregrounds opinions on the proposed use of Roman for Sindhī, opinions on Devanāgarī and Perso-Arabic are also highlighted where required. The study concludes with Chapter 7 highlighting the main findings and exploring their significance for the health of the Sindhī language in India. It also identifies and recommends directions for future research on the subject.

Sindhī people and language

This chapter provides a brief overview of the Sindhī people and their language. It first tells about the people, from prehistoric times to the modern day. In doing so, it recounts the split of the once largely coherent Sindhī society into its Pakistani, Indian and diasporic components. It then describes the key elements of the language, including its phonology and morphosyntax, and concludes with a sketch of the language's sociolinguistic development in modern times. At all stages, those aspects that are particularly relevant in the results and analysis of this study are foregrounded. In doing so, this chapter acts as a foundation for the subsequent chapters on data analysis that form the core of this study.

2.1 Sindhī people

2.1.1 Ancient and pre-Islamic times

The Sindh region is mentioned as *sindhu* in the Indian epic *Mahābhārata*, which tells about events supposed to have taken place around 3102 BC (Buck, 2000, p. xiv; Winternitz, 1981, p. 453). Up until the early 20th century, these mythological allusions were the earliest recorded references to the region. In fact, the history of the entire Subcontinent had until then been attested with some certainty only up to 326 BC, the year Alexander of Macedonia had invaded the north-west of the Subcontinent (Possehl, 2002, p. 3). However, all this changed in the 1920s when a series of excavations were carried out in the north-west of the Subcontinent by the Archaeological Survey of India (ASI). These excavations revealed hitherto unknown sites of settlement buried beneath numerous large mounds along the valley of the Indus river, the largest river in what is today Pakistan. These sites were collectively named the Indus Civilisation or Indus Valley Civilisation (Marshall, 1931/2004), and were subsequently dated to the Bronze Age (3300–1100 BC) (Habib, 2002; McIntosh, 2008). The discovery of these settlements had the effect of pushing back the Subcontinent's recorded prehistory to at least 2500 BC. Since the first of these settlements that were discovered was near the village of Harappā in Panjāb (Punjab) province, the civilisation is sometimes termed the Harappan Civilisation (McIntosh, 2008, pp.

3-4). The civilisation reached its pinnacle between 2600 and 1900 BC (“Mature Harappan Phase”; see Figure 2.1), and was highly advanced for its time.

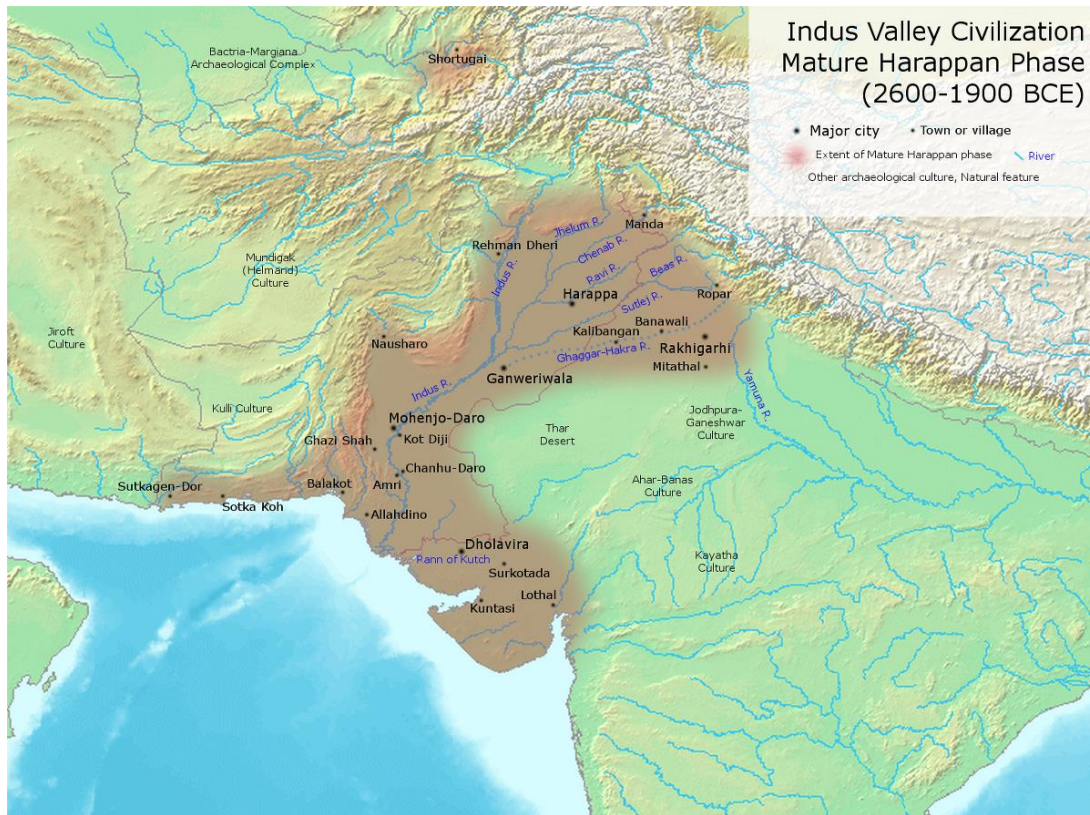


Figure 2.1. Extent of the Indus civilisation at its peak

From *Wikimedia Commons*, 2014. ([http://commons.wikimedia.org/wiki/File:Indus_Valley_Civilization,_Mature_Phase_\(2600-1900_BCE\).png](http://commons.wikimedia.org/wiki/File:Indus_Valley_Civilization,_Mature_Phase_(2600-1900_BCE).png)). Copyright 2014 by Avantiputra7. Used under CC BY-SA 3.0.

After Harappā, another well-known Indus civilisation site was unearthed in what is today the Lārḱāṇo district of north-west Sindh province. This has been estimated to be one of the largest cities in the world for its time (Petrie, 2013, p. 88). Significantly, several skeletal remains of apparently abandoned bodies in unusual positions, including in the city streets, have been excavated. While theories have been put forward to explain the presence of these skeletons (Wheeler, 1953, pp. 91-93), none has found wide acceptance (Habib, 2002, p. 64). Nevertheless, the presence of skeletons under the mounds at this site is likely the inspiration for the Sindhī name of the site—[m̥sən̪ˠ d̪zo d̪əɾo], meaning ‘mound of the dead’. The name has conventionally been spelt *Mohenjo-daro* in English since the publication of Marshall’s (1931/2004) work, with the alternative *Moenjo-daro* appearing occasionally (Kenoyer, 2016; Possehl, 2002, p. 3). Both names can also be found unhyphenated (see Government of Pakistan, Director Tourism (1965)). Of late, Mohenjo-daro has been increasingly used, especially by Indian Sindhī intellectuals, as a symbol of the supposed

antiquity of Sindhī culture (Falzon, 2004, p. 78; Kothari, R., 2009, pp. 1-2). This is despite a shortage of substantiated facts on the culture, religion or language of the Indus civilisation.

The Indus civilisation started declining with the abandonment of cities from 1900 BC onwards, the reasons for which are again not clearly known. Various theories have been advanced, including invasion, a change in course of the river Indus and decline in trade (Habib, 2002, pp. 61-66; Possehl, 2002, pp. 237-246).

The geographical location of Sindh on the north-western border of the Subcontinent has rendered it vulnerable to invasions from Central and Western Asia. The area was conquered by the Persian Achaemenid Empire in the 6th century BC, and by the Macedonian-Greek army of Alexander in 326 BC (Kulke & Rothermund, 2004, pp. 60-61). Subsequently, it came under the rule of the Mauryans, Graeco-Bactrians, Scythians, Kuṣhāṇs, Sassanids and Huns, who brought various cultural influences and Greek, Hindū and Buddhist religious practices with them (Bowersock, Brown, & Grabar, 1999).

2.1.2 711 to 1843: Advent of Islām

In 711 AD, the 17-year old Arab general Muhammad bin Qāsim invaded Sindh and defeated the local king Rājā Ḍāhir. Sindh thus became the easternmost province of the Umayyad Caliphate (Campo, 2009). In 1025 AD, Sindh was seized from the Arabs by the Afghān king Mahmūd of Ghaznī. From 1050 AD onwards, Sindh was ruled by the Sūmro and Samo dynasties—warrior clans native to the region—and then by the Turco-Mongol Arghūn dynasty, all of whom had adopted Islām (Qalichbeg, 1902). In 1593, Sindh was taken over by the emperor Akbar (Richards, 1995, p. 51), and annexed to the Mughal empire that ruled much of the Subcontinent until British colonisation. From the 17th century onwards, Sindh was ruled by the local Kalhorō clan and then the Ṭālpur clan, as vassals of the Mughals (Qalichbeg, 1902). Thus, even though Sindh did not remain under direct Arab rule for long, it did remain under local Muslim rulers for more than 1100 years. This Islamic rule had a tremendous impact on the culture and language of the region.

Nevertheless, throughout the period of Muslim rule, there remained in Sindh a significant minority Hindū population. Traditionally, they were worshippers of the deity Jhūlelāl (§ 1.2.3). Later, they also began following the teachings of Gurū Nānak (1469–1539), the founder of the Sikh religion (Sila-Khan, 2008). The faith of the Hindū Sindhīs hence became “an easy blend of Sikhism and Hinduism” (Daswani & Parchani, 1978, p. 21). Thus, although nominally Hindū,

they also performed rituals at Sikh temples, especially for significant life events such as birth, marriage or death (Ramey, 2008, p. 178).

2.1.3 1843 to 1947: British rule

In 1843, the ruling Ṭālpur chieftain of Sindh was defeated at his capital Hyderabad by British general Charles James Napier. Sindh thus came under British rule and was subsequently amalgamated into the neighbouring Bombay Presidency. In 1936, it was made a separate province within British India with its own Assembly (Bhattacharyya, 2010).

In the early 20th century, the struggle for independence gained momentum in British-ruled India. This period also saw a rise in Hindū-Muslim tensions, as the Muslim elite began fearing domination in an independent Hindū-majority India. In 1940, the All-India Muslim League passed the Lahore Resolution—today known as the Pakistan Resolution (Saigol, 2011). The Resolution called for the creation of “independent states” for Muslims in British India, and stated, among other things:

that no Constitutional Plan would be workable in this country or acceptable to the Muslims, unless it is designed on the following basic principle, namely that geographically contiguous units are demarcated into regions which should be so constituted, with such territorial readjustments as may be necessary, that the areas in which the Muslims are numerically in majority as in the North Western and Eastern Zones of India would be grouped to constitute ‘Independent States’ in which the constituent units shall be autonomous and sovereign.

That adequate, effective and mandatory safeguards shall be specifically provided in the constitution for minorities in the units and in the regions for the protection of their religious, cultural, economic, political, administrative and other rights of the minorities, with their consultation.

(cited in Saigol, 2011)

This Resolution was passed in the Sindh Assembly in June 1947 (Jalal, 1994, p. 290), which meant that Sindh would become part of the new nation of Pakistan.

2.1.4 1947–48: Partition and its aftermath

Pakistan, comprising the Muslim-majority areas of the Subcontinent, came into being on 14 August 1947, followed by independent India a day later. The port city of Karāchī, which was the capital of Sindh and the largest city in the new country, was designated the national capital (Khan, 2007).

The partition of British India triggered massive bloodshed and resulted in one of the largest mass migrations in recorded history. Between twelve and

seventeen million people were displaced (Butalia, 1998, p. 3; Jalal, 1994, p. 1), and between two hundred thousand and two million were left dead (Butalia, 1998, p. 3). Fearing for their lives, many Hindūs and Sikhs, in what became Pakistan, began to flee their ancestral homes. Similar scenes were witnessed on the Indian side, with Muslims fleeing in fear of a Hindū-Sikh backlash (Khan, 2007). Consequently, Sindh, and especially Karāchī, received a large influx of Muslim refugees from what was now independent India. In January 1948, religious riots erupted throughout Sindh giving rise to insecurity and fear in the minds of Sindh's Hindūs (Zamindar, 2010). These events culminated in a mass exodus, with most Hindū Sindhīs taking along whatever they could and leaving their homeland to make a new beginning in independent India.

2.1.5 Present-day

Pakistan

Sindhīs in Pakistan today primarily reside in Sindh, which is now one of the four provinces of the country (see Figure 2.2). As of 1998, when the last comprehensive census was conducted in Pakistan, Sindh had a population of 30.4 million (Pakistan Bureau of Statistics, 1998a), only 59.7 percent of whom were Sindhī “mother tongue” speakers (Pakistan Bureau of Statistics, 1998b). The ethnolinguistic demographics of Sindh today, therefore, represent a drastic transformation from pre-Partition times, when Sindhī speakers were in a much greater majority. In 1941, Sindh had a population of just over 4.5 million (Census of India, 1941), of whom the overwhelming majority were Sindhī speakers. Partition saw 800,000 Sindhī-speaking Hindūs flee Sindh. As described earlier, their place was taken by Muslim refugees, mainly Urdū-speaking, from other regions of the Subcontinent. These Muslim refugees came to be known as *muhājir*, Arabic for ‘refugee’ (Platts, 1884, p. 1098). Although this label is disliked by some in-group members due to its connotations of nonindigeneity, it has today come to be somewhat coterminous with ‘Urdū speaker’ in Pakistan (Ayres, 2009; Siddiqi, 2012). Many Muhājirs settled in Karāchī, while others ended up smaller cities of Sindh such as Hyderabad and Shikārpur. As a result, the populations of these cities have gone from majority Sindhī-speaking before Partition to majority Urdū-speaking fifty years later (Khubchandani, 1998, p. 12; Rahman, 1995, p. 1008).

Today, although Sindhī remains the official language of Sindh and is used in education and mass media in the province, it is no longer a language that is spoken by the bulk of the population as it was before Partition. As of 1998, only



Figure 2.2. Present-day political map of Sindh province, Pakistan

From Google Maps, n.d., (<http://maps.google.com>). Copyright 2013 by Google.

in rural areas of Sindh did native Sindhī speakers form a clear majority (92 percent). Of the urban population of Sindh, only 25.8 percent was native Sindhī-speaking. In contrast, the proportion of native Urdū speakers in urban Sindh was almost 42 percent. In Karāchī, the proportion of native Urdū speakers was slightly higher, at 48.5 percent, but that of native Sindhī speakers was less than eight percent (Blank, Clary, & Nichiporuk, 2014, pp. 18-19). Consequently, Sindh has seen several instances of Sindhī-Muhājir tensions erupting into violence, not least over the issue of language (Shackle, 2014). For an overview of ethnolinguistic conflicts in the recent past in Sindh and Pakistan, see Rahman (1995, 1999), Ayres (2009) and Siddiqi (2012).

Present-day Sindh also has a minority of close to 2 million Hindūs (Pakistan Bureau of Statistics, 1998c), most of whom are Sindhī-speaking. However, they form only 6.5 percent of the provincial population (Pakistan Bureau of Statistics, 1998d), and, therefore, do not significantly impact the province's language demographics.

India

Sindhīs in India are dispersed all over the country, although the vast majority are settled in the western states of Mahārāṣṭra and Gujarāt. Of the Hindū Sindhīs that migrated to post-Partition India, most settled in metropolitan areas such as Bombay, Delhi, Calcutta and Madras (Kapoor, 2002, p. 6657). As the business capital of India, Bombay (now Mumbaī) was the ideal destination for this trading community (Anand, 1996, p. 52; Tan & Kudaisya, 2000, p. 233). Hence, Bombay received the main wave of migration. Those who were unable to find shelter in Bombay proper ended up in refugee camps outside Kalyān, then a small town about 50 kilometres from the city. These camps eventually grew into a town, which was named Ulhāsagar after the adjacent Ulhās river. Although the Indian government provided some help, the refugees in these camps were faced with lack of housing and the travails of starting life anew in a foreign land (Falzon, 2004, p. 41).

The total number of Sindhī refugees in India just after Partition was estimated at approximately 800,000 (Daswani & Parchani, 1978, p. 7). According to the 1951 Indian census, 337,000 Sindhī refugees arrived in western India and of these, almost 88 percent had settled in urban districts, encouraged by their traditionally mercantile occupations (Barnouw, 1966). Consequently, the number of Sindhīs listed as tradesmen was 41 percent, compared to only eight percent for the overall Indian population. More significantly, the Sindhīs had a relatively high literacy rate of 53 percent, compared to 24 percent for the overall population (Falzon, 2004, p. 41).

The bulk of Sindhīs in India today—92 percent—continue to be based in urban areas of India. People from large cities of Sindh such as Karāchī, Hyderabad and Shikārpur are settled in large Indian cities such as Mumbaī and Delhi. On the other hand, persons hailing from the villages and smaller towns of Sindh typically reside in smaller Indian towns such as Ulhāsagar (Falzon, 2004, pp. 41-42). Currently, the largest concentration of Sindhīs in India is at Ulhāsagar, at almost 400,000 (Tare, 2010; see Figure 2.3).

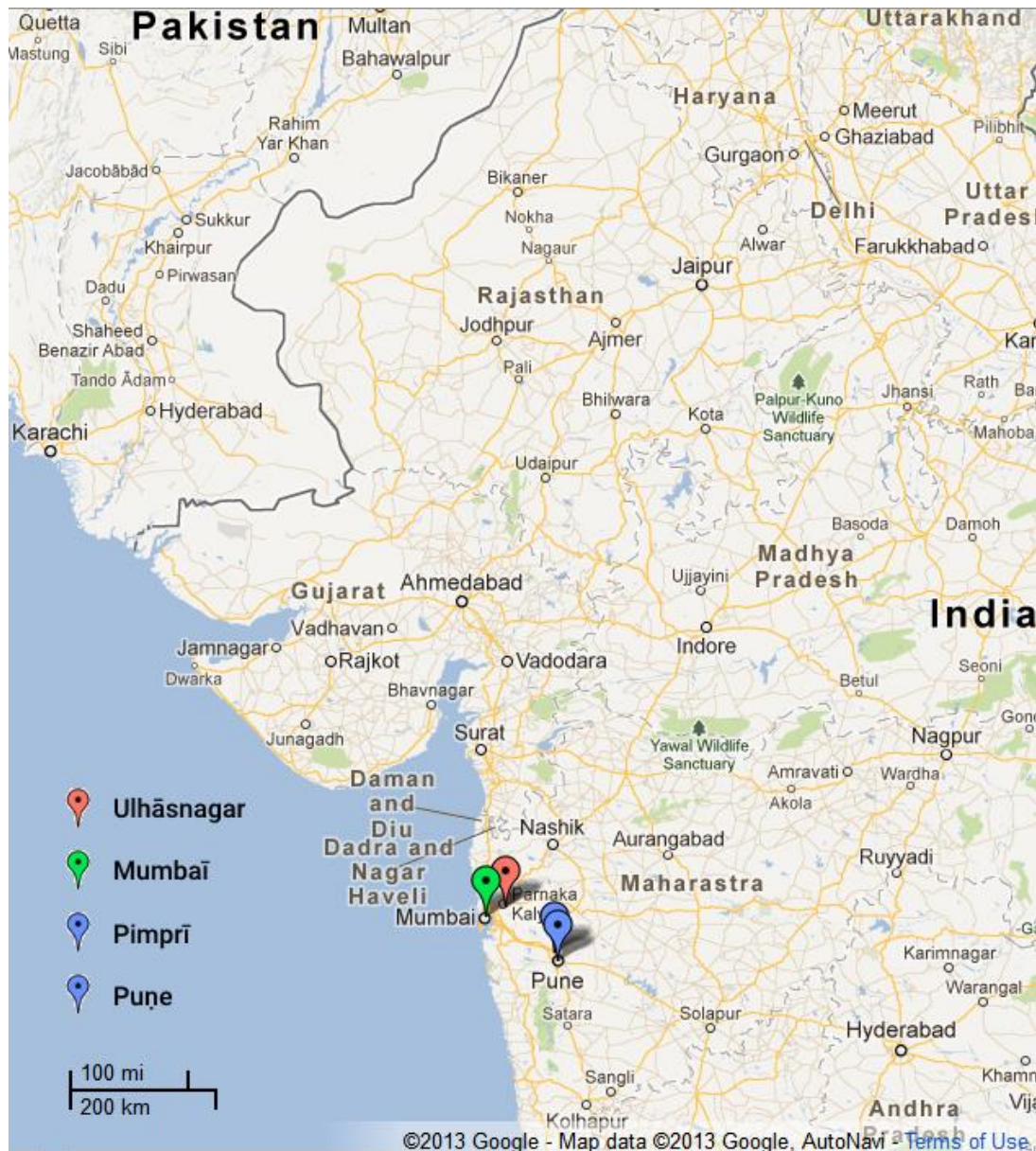


Figure 2.3. Areas of large Sindhī populations in Mahārāṣṭra state, India

From *Google Maps*, n.d. (<http://maps.google.com>). Copyright 2013 by Google.

Sindhī diaspora

Although numerically boosted by the exodus of Hindū Sindhīs following Partition, the Sindhī diaspora in other countries had been in existence for at least one hundred years prior. In fact, Falzon (2004, pp. 5-6) characterises the emergence of the worldwide Sindhī diaspora in terms of three distinct waves of emigration from Sindh. The first occurred with the British annexation of Sindh in 1843. Faced with uncertain business prospects following the takeover, Hindū Sindhī traders, primarily from Hyderabad and Shikārpur, started venturing into new lands to try their luck (see Markovits, 2000). The second migration was an outcome of Partition, where Hindū Sindhīs fled as refugees

to independent India or to other parts of the world where they had family or business links. For some, India served only as a temporary post-Partition base before they moved on to other countries, both in the East and West. The third migration according to Falzon (2004) coincides with modern-day emigration from India for economic reasons. These waves of migrations have resulted in Hindū Sindhīs being found today in more than a hundred countries worldwide, from Japan to Malta to Panama.

2.1.6 Summary

This section has traced the rich and diverse history of Sindh and its inhabitants through the ages. Frequent change of rule, often accompanied with a change in the majority faith, greatly influenced the Sindhī culture, language and script. In particular, it made the Sindhī people accustomed to uncertainty, and instilled in them an ethos of adaptability and pragmatism (Anand, 1996; Falzon, 2004). How this has impacted not just the Sindhī language and script, but the Sindhī community's very approach to language and script is the focus of the following sections and chapters of this study.

2.2 Sindhī language

2.2.1 Linguistic affiliation

The Sindhī language is grouped under the north-western branch of the Indo-Aryan subfamily of the Indo-European language family (Jetley, 2000; Lewis, M. P., Simons, & Fennig, 2016; see Figure 2.4, and Figure B-2 in Appendix B).

The classification of Sindhī as Indo-Aryan has not been undisputed. For instance, it is common to find unproven assertions that the language of Mohenjo-daro, or of the Indus Civilisation in general, was an ancient form of Sindhī (Allana, 1991, p. 1; see also Asani, 2003, p. 613). Khubchandani (2007) outlines prominent claims of this kind made by Sindhī authors, both Pakistani and Indian. He characterises them as claims made “[u]nder the spell of language chauvinism” (p. 687). Alternatively, it has been speculated that Sindhī might have descended from a Dravidian ancestor (Cole, 2006). This stems from the hypothesised Dravidian origin of the Indus Civilisation language (Habib, 2002, pp. 50-51; Mahadevan, 1977; Parpola, 1996, 2009), and the present-day existence of a Dravidian language, Brāhuī, in parts of Sindh and environs.

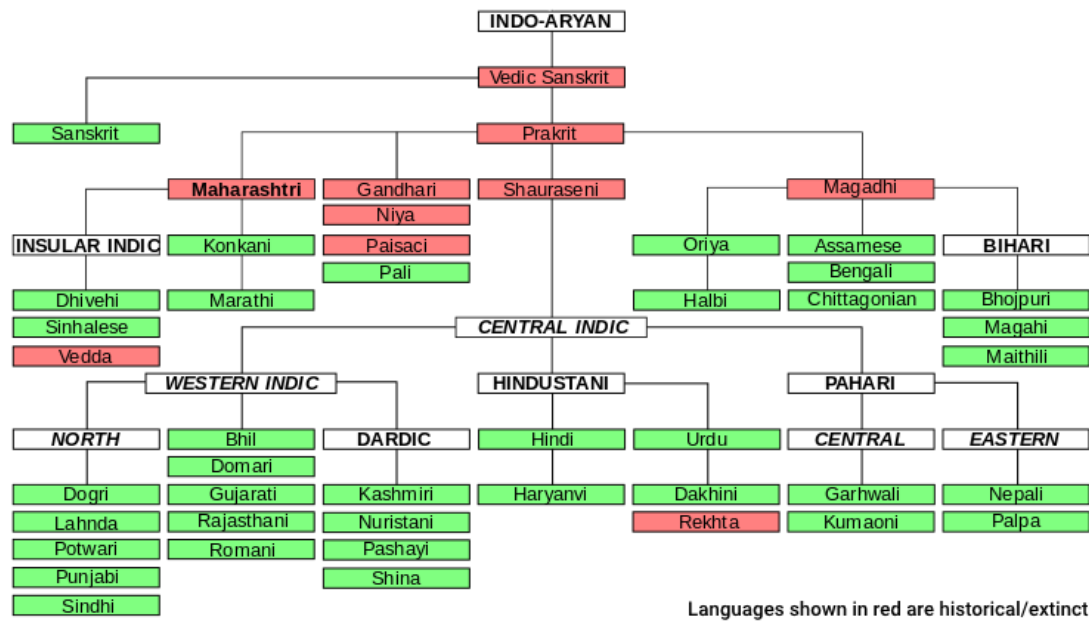


Figure 2.4. Classification of Sindhī within Indo-Aryan

Adapted from *Wikimedia Commons*, 2015 (<http://commons.wikimedia.org/wiki/File:IndoEuropeanTreeDielli1.svg>). Copyright 2015 by Zoti Zeu. Used under CC BY-SA 3.0.

Other scholars opine that Sindhī, while being essentially Indo-Aryan, might well contain a substratum of another language family. For instance, the author of one of the first major Sindhī grammars, Ernst Trumpp (1872), states on the one hand that “Sindhi is a pure Sanskritical language, more free from foreign elements than any other of the North Indian vernaculars” (p. i). On the other hand, he also claims that Sindhī possesses “a certain residuum of vocables, which we must allot to an old aboriginal language, of which neither name nor extent is now known to us” (p. iii).

P. J. Gidwani (2007) asserts that this “aboriginal language” is Dravidian in nature, and attempts to demonstrate the link between Sindhī and Dravidian languages by means of lexical-etymological comparison. Others have attempted to present a Semitic origin for Sindhī (Baloch, 1962). Nonetheless, based on linguistic evidence, the majority of scholarly opinion is in favour of classifying Sindhī as Indo-Aryan (Cole, 2006).

To be precise, Sindhī is considered to have descended from a certain form of Prākrit, a group of Middle Indo-Aryan vernaculars (Bubenik, 2003) spoken in what is Sindh today (Grierson, 1919, p. 4; Jetley, 2000; Khubchandani, 2007, pp. 686-687). However, due to the region having been under Muslim rulers for more than 1100 years, numerous Arabic and Persian words and phonemes have entered the Sindhī language (Cole, 2006; Jetley, 2000). Cole (2006) states that Sindhī “undeniably reveals the impact of its long history of contact with speakers of other languages” (p. 384). Captain George Stack (1849b), a

pioneering British author of Sindhī dictionaries and a grammar, has succinctly summed up the syncretic nature of modern Sindhī in stating that “[t]he Sindhi . . . borrows from the Arabic, the Persian, and the Sanscrit [*sic*], to an extent only limited by the learning and fancy of the writer” (p. iii).

Despite these influences, Jetley (2000) claims that the basic structure of the language has “remained mostly unchanged” (p. 40).

2.2.2 Dialects

The standard variety of Sindhī is considered to be the Vicholī dialect (Khubchandani, 2007, p. 683; Nihalani, 1999, p. 131), spoken in Vicholo, central Sindh, around the city of Hyderabad. According to Grierson (1919) and Khubchandani (2007), other dialects of Sindhī include:

- Sirolī, spoken in Siro, upper Sindh;
- Lārī, in Lār^u, lower Sindh;
- Lāsī, in western Sindh and the Las^abelo region of neighbouring Balochistān province in Pakistan;
- Tharī or Tharelī, in the Thar^u region of south-east Sindh and parts of Jaisalmer in neighbouring Rājasthān state in India;

The Sirolī dialect is also cited in the literature as Sirāikī (Nihalani, 1978, p. 8). However, this is also the name given to a variety of southern Panjābī, and is being increasingly used in this sense (Shackle, 2007). Meanwhile, the northern Sindhī dialect has come to be known as Sirolī (Buglio, 2006, 2009) or Utarādī (Buglio, 2009, p. 30), meaning “of the north” (Mewaram, 1910, p. 3).

Other speech varieties sometimes classified as Sindhī dialects include Kachchhī and Jaisalmerī (Cole 2001; Kapoor, 2002, p. 6656; Khubchandani, 2007, p. 683). Khubchandani (2007, p. 683) notes that the Vicholī variety is the standard in Sindh for administration, literature and education. However, he also points out that Vicholī is not considered the standard by speakers of Kachchhī, despite considerable mutual intelligibility. This is due to Sindh and Kachchh having developed as separate political entities over the last six centuries. Since 1947, they have also been separated by the international border between India and Pakistan. Hence, Kachchhī speakers may instead identify with the neighbouring Gujarātī-speaking population, or maintain a separate identity. For an overview of the phonological differences between Kachchhī and Vicholī, see Khubchandani (2007, p. 690).



Figure 2.5. Distribution of Sindhī dialects in Sindh and environs

Adapted from *Wikimedia Commons*, 2012. (http://commons.wikimedia.org/wiki/File:Location_map_Pakistan_Sindh.png). Copyright 2012 by Nomi887. Used under CC BY-SA 3.0.

Apart from the Sindhī-related varieties of Kachchhī and Jaisalmerī, there are no Sindhī dialects native to present-day India. For a comprehensive treatment of Sindhī dialect features, see Grierson (1919). This work is invaluable both for the wealth of information it contains, as well as for its historical significance.

2.2.3 Phonology

The phonemic inventory of Sindhī is by and large similar to that of most north-western and western Indo-Aryan languages. However, scholars are not unanimous on the exact number and nature of phonemes in Sindhī. This section provides an overview of several areas of Sindhī phonology and highlights certain features that are significant for the results of this study. These features include implosive stops, gemination, reduced vowels and age-based phonological variation. Scholarly disagreement in these areas is also discussed.

Consonants

Table 2.1 shows the phonemic inventory of consonants in standard Sindhī, based on Nihalani (1999), Cole (2001) and Khubchandani (2007).

Table 2.1. Phonemic inventory of consonants in standard Sindhī

	LABIAL / LABIO- DENTAL		DENTAL		ALVEO- LAR	RETRO- FLEX	ALVEOLO- PALATAL / PALATAL	VELAR	GLOTTAL
<i>Plosive stop</i>	p p ^h	b b ^h	t t ^h	d d ^h		t t ^h	d d ^h	k k ^h	g g ^h
<i>Implosive stop</i>	ɓ				ɗ			f	ɠ
<i>Nasal stop</i>		m (m ^h)	[ɳ]		n (n ^h)	ɳ (ɳ ^h)	ɲ		ŋ
<i>Affricate</i>							tʃ tʃ ^h	dʒ dʒ ^h	
<i>Fricative</i>	f				s z		ʃ	x	ɣ ħ
<i>Approximant</i>		ʋ (ʋ ^h)					j		[w] [w ^h]
<i>Tap/Flap</i>					r [r ^h]	ɽ (ɽ ^h) [ɽ̌]			
<i>Lateral approximant</i>					l (l ^h)				

Sounds enclosed in parentheses in Table 2.1 are those listed by Nihalani (1999) as independent phonemes, but by Cole (2001) as phonemically ambiguous. Cole notes that it is difficult to claim independent phoneme status for [m^h], [n^h], [ɳ^h], [l^h], [ɽ^h] and [ʋ^h], since they do not contrast with a sonorant+/ħ/ cluster. Khubchandani (2007) too does not list the aforementioned sounds as independent phonemes in Sindhī. This is also the perspective reflected in the Perso-Arabic Sindhī orthography, in that each of these sounds is written with two separate characters. In addition, [ɽ] and [ɽ^h] freely alternate with [r] and [r^h] in certain speakers' idiolects (Nihalani, 1978, p. 103). Khubchandani also lists a voiceless uvular stop /q/ as a marginal phoneme, albeit mentioning that it is only found in the “formal speech of Persian-oriented speakers” (2007, p. 689). Allophones are shown enclosed in square brackets. [ɳ] is an allophone of /n/ preceding dental stops in consonant clusters, as in /dʌɳdʌ/ [dʌɳdʌ] ‘tooth’. [ɽ̌] is an intervocalic allophone of /ɽ/, as in /maɳ^hu/ [maɽ̌^hu] ‘man’. This is reflected in the observation by early grammarians that /ɽ/ was occasionally interchangeable with /r/ (Trumpp, 1872, p. 16). [w] and [w^h] tend to be the realisations of /ʋ/ and /ʋ^h/ before back vowels, although this is subject to high idiolectal variation.

Sindhī has the most comprehensive stop system of all Indo-Aryan languages (Nihalani, 1974). Traditionally, Sindhī consonants are classified into five places of articulation—labial, dental, retroflex, palatal and velar. Based on the Sanskritic model, phonetically alveolar oral stops are considered phonemically retroflex. Similarly, alveolar sibilants and liquids are classified as dental. Alveolo-palatal affricates are traditionally grouped under palatal stops (Masica, 1991, p. 94). Sindhī thus shares a large part of its consonantal inventory with neighbouring Indo-Aryan languages such as Panjābī, Hindī-Urdū and Gujarātī.

However, the Sindhī phonemic inventory transcends those of its neighbours in terms of two major features. First, Sindhī has a full set of five nasal phonemes. This contrasts with the neighbouring Indo-Aryan languages, where the velar /ŋ/ and palatal /ɲ/ do not for the most part feature as independent phonemes. In fact, /ɲ/ may be altogether absent in these languages, while /ŋ/ may only appear as an allophone of /n/ when preceding a velar stop in a consonant cluster. That said, in Sindhī, only /n/ and /m/ among these five nasal phonemes appear word-initially. Second, Sindhī features a series of voiced implosive stops /ɟ/, /ɸ/, /ɗ/ and /ɓ/, which occur word-initially and medially (see Table 2.2). Of these, /ɸ/ is traditionally considered palatal and /ɗ/ retroflex. This classification agrees with the etymological origin of the implosives from the gemination of the corresponding plosives /g/, /ḍz/, /d/ and /b/, respectively (Trumpp, 1872, pp. 13-19). A dental implosive corresponding to the dental plosive /ḍ/ is absent from the phonemic inventory. For a detailed articulatory analysis of implosives in Sindhī, see Nihalani (1986).

Table 2.2. Examples of voiced implosive stops in Sindhī

WORD-INITIALLY		WORD-MEDIALY	
[gʱoʰʊ]	‘village’	[ḍzʱəgʱʊ]	‘quarrel’
[ʃaʃʱəʃʱ]	‘to know’	[əʃʱ]	‘today’
[ḍaḍʱo]	‘very’	[gaḍi]	‘cart, vehicle’
[bʊḍʱəʃʱ]	‘to drown, sink’	[kəbʱəʃʱ]	‘cupboard’

Younger Sindhī speakers in India with limited exposure to spoken Sindhī may be unable to clearly articulate the implosives /ɟ/, /ɸ/, /ɗ/ and /ɓ/. Such speakers typically pronounce the implosives as the corresponding plosives /g/, /ḍz/, /d/ and /b/, respectively (Lekhwani, 2011, p. 34; Parchani, 1998, p. 18).

As regards phonemic gemination of consonants and its representation in the orthography, categorical confirmation or denial is lacking among scholars. Grierson characterises the Sindhī implosive stops as “double consonants”, but states that “[t]hese are really the only double letters [sic] in Sindhī” (1919, p. 22). Nihalani (1978, 1999) only states that intervocalic stops tend to be longer when

they follow a lax vowel. Khubchandani (2007) affirms that “doubling of consonants is not significant in Sindhi” (p. 691), but then goes on to refer to the existence of a diacritic marker in Perso-Arabic Sindhī orthography to represent consonant gemination. He also offers the example of a geminate consonant in the word [ɪzzət̪] ‘respect’ (p. 697). In contrast, Mewaram’s (1910, p. 373) and Lekhwani’s (1996, p. 12) orthography for the same word reflects the pronunciation [ɪzət̪ʰ]. Lekhwani is likely the most explicit on the issue of gemination. He states that phonemic gemination is not semantically significant in Sindhī, and on this basis, recommends avoiding orthographic gemination altogether (1996, p. iii, 1997, p. xv).

Consensus is also lacking on the presence of word-medial consonant clusters in Sindhī. Trumpp (1872, p. xxxiii) observes that there is great idiosyncratic variation in the pronunciation of a “compound consonant”, ranging from pronunciation as a cluster to pronunciation as separate consonants with an intervening epenthetic [ɪ]. He notes that this epenthetic vowel is “scarcely perceptible”. This phenomenon has been attested by several scholars over the years (Grierson, 1919, p. 23; Khubchandani, 2007, p. 691; Lekhwani, 1996, p. iv). This idiosyncratic variation in the pronunciation of medial clusters results in corresponding variation in the orthography as well, and is discussed further in Section 5.1.3. In terms of word-initial clusters, certain dialects of Sindhī, especially the northern ones, retain initial [tʀ] and [dʀ] (Buglio, 2009). In the southern dialects, these clusters are realised as simple [t] and [d], respectively. The standard orthography reflects the southern pronunciation, with these phonemes being written as simple retroflex stops (Grierson, 1919, p. 23). The orthographic representation may, therefore, not be reflective of some northern dialect speakers’ pronunciations. Attempts have been made in the past to represent these sounds with independent graphemes (Stack, 1849b, p. 9), but this practice has not caught on.

With reference to loan phonemes, Sindhī has absorbed a number of nonindigenous consonant phonemes from loanwords, such as /f/, /z/, /x/ and /ɣ/. The phonemes /f/ and /z/ are found both in Perso-Arabic as well as English loanwords, while /x/ and /ɣ/ are present only in Perso-Arabic loanwords. Among Sindhīs in India, /f/ and /z/ seem to be relatively stable in the speech of younger speakers. This is likely due to the reinforcing presence of these phonemes in English, which is a language that young Sindhī speakers in India are often familiar with. On the other hand, /x/ and /ɣ/ are disappearing in the speech of the demographic group in question, merging with /kʰ/ and /g/, respectively (Lekhwani, 2011, p. 34; Nihalani, 1978, pp. 2-3; Parchani, 1998, p. 19). This

merger is leading to the emergence of new homophones. For instance, both /sək^hi/ ‘female friend’ and /səxi/ ‘generous’ are realised as [sək^hi] in the speech of younger Indian Sindhīs. An emerging phenomenon in Indian Sindhī is that of /p^h/ and /f/ both collapsing into /f/, even in native Sindhī words, again resulting in new homophones. An example is that of /p^hoʈo/ ‘cardamom’ merging with /foʈo/ ‘photograph’, with both being realised as [foʈo]. A similar phenomenon is attested in modern Hindī by Shapiro (2007, p. 286).

Other loan phonemes are usually approximated to the closest native Sindhī phoneme; for instance, the English alveolar stops /t/ and /d/ are usually realised in Sindhī as the corresponding retroflex stops /ʈ/ and /ɖ/, respectively.

Vowels

Sindhī has a system of ten vowels, namely /ə a ɪ i ʊ e ε o ɔ/ (Khubchandani, 2007; Nihalani, 1999). Vowel nasalisation is phonemic, and all oral vowels have nasalised counterparts. Based on the Sanskritic model, these vowels have been traditionally grouped into SHORT (/ə ɪ ʊ/), LONG (/a i u e o/) and so-called DIPHTHONGS (/ε ɔ/). However, vowel length in Sindhī is not phonemically significant (Nihalani, 1978). Therefore, this study characterises the traditional short and long vowels in Sindhī as LAX and TENSE, respectively. In general, lax vowels tend to be phonetically short, and tense vowels phonetically long (Keerio, Channa, Mitra, Young, & Chatwin, 2014), although this depends greatly on word environment (Nihalani, 1978). Hence, the terms lax and tense have been employed in the present study primarily for nomenclatural convenience rather than as accurate descriptors of phonetic quality and quantity.

The so-called diphthongs /ε/ and /ɔ/ show variable realisation. Certain speakers may pronounce them closer to /əɪ/ and /əʊ/, respectively. Others may pronounce them closer to /e/ and /o/, respectively. The distribution of pronunciation is described variously by different authors. Nihalani (1999, p. 133) only states that /ε/ and /ɔ/ “tend to be diphthongized”. Khubchandani (2007, p. 693) claims that /ε/ and /ɔ/ occur mostly in loanwords, and are often replaced by /e/ and /o/. The most comprehensive sociolinguistic treatment of these vowels is likely that of Bughio (2001). Bughio attributes the varying realisation of these vowels to a nominal diachronic and synchronic stratification in Sindhī pronunciation, albeit only in the context of Pakistan. First, he draws a distinction between the speech of older, rural Sindhī speakers and younger, urban Sindhī speakers. These are termed the OLD VARIETY and NEW VARIETY, respectively. The new variety is further divided into Hindū and Muslim varieties. Sindhī sociolects are, thus, classified into RELIGIOLECTS and CHRONOLECTS (Adamson, 1998; Frellesvig, 1996). According to Bughio, Hindū

new variety speakers tend towards the mid-low vowels /ɛ/ and /ɔ/, while Muslim new variety speakers tend towards the diphthongs /əɪ/ and /əʊ/ in their phonologies. In contrast, old variety speakers, both Hindū and Muslim, tend to articulate these vowels as /e/ and /o/, respectively. Bughio's characterisation of the Hindū new variety of Pakistani Sindhī is reasonably applicable to Indian Sindhī pronunciation as well.

Notwithstanding Bughio's classification, there remains significant idiolectal variation in the realisation of the sounds in question. Unsurprisingly, scholars disagree on the nature of not just these two sounds, but on the very nature of diphthongs in Sindhī (Keerio, 2011, p. 62). Regardless, Bughio's classification of Sindhī dialectal variation into religiolects and chronolects is a compact and convenient one. For this reason, it is extensively employed in this study.

Table 2.3. Phonemic inventory of vowels in standard Sindhī

	FRONT	CENTRAL	BACK
HIGH	i		u
MID-HIGH	ɪ		ʊ
MID	e	ə	o
MID-LOW	ɛ ~ əɪ		ɔ ~ əʊ
LOW		a	

Certain environments can cause vowels to change their quality; for instance, the sequence /əɦɪ/ is realised allophonically as [ɛɦ^ɛ] (Grierson, 1919, p. 22; Trumpp, 1872, p. x).

An oft-cited feature of Sindhī is its vowel-finality. Some authors assert that *all* Sindhī words are vowel-final (Bughio, 2006, p. 98; Cole, n.d.-b; Grierson, 1919, p. 22; Hardwani, 1991, p. iii). Others state that indigenous Sindhī words are vowel-final, while certain consonant-final loanwords that have not yet been phonologically indigenised remain as they are (Khubchandani, 2007, pp. 691, 701). Conversely, if a loanword that is consonant-final in the source language is considered to have been assimilated into Sindhī, it may have a lax vowel suffixed. This word-final lax vowel manifests in a 'reduced' form (see Table 2.4).

Table 2.4. Assimilated loanwords in Sindhī with suffixed reduced vowels

SOURCE WORD	SOURCE LANGUAGE	PHONEMICALLY INDIGENISED SINDHĪ WORD	GLOSS
/ɔfis/	English	[afis ^ə]	'office'
/dʒɒn/	Persian	[dʒan ^ɪ]	'life'
/yarib/ ¹⁰	Arabic	[yarib ^ə]	'poor'

¹⁰ The Arabic pronunciation shown is approximate, since it varies with dialect.

The reduced vowels [ə], [ɪ] and [ʊ] are essentially unstressed phonetic realisations of the lax vowels /ə/, /ɪ/, and /ʊ/, respectively in morpheme-medial or morpheme-final positions in polysyllabic words (Addleton & Brown, 2010, p. 15). In monosyllabic words, they tend to be enunciated more clearly, due to their salience as the sole vowel. In polysyllabic words, the reduced vowels become grammatically significant in final position, since the quality of the vowel often contains person-number-gender (PNG) information (Grierson, 1919, p. 22). Compare, for instance, /kɪʈabə/ [kɪʈab^ə] ‘book’ and /kɪʈabə/ [kɪʈab^ə] ‘books’, or /masatʊ/ [masatʊ^ə] ‘mother’s sister’s son’ and /masatɪ/ [masatɪ^ɪ] ‘mother’s sister’s daughter’. Final reduced vowels are also semantically significant, as illustrated by the words /bāsə/ [bās^ə] ‘smell’ and /bāsʊ/ [bās^ʊ] ‘bamboo’.

Reduced final vowels are not predictable from the phonemic structure of the word. Rather, they are lexically conditioned. Assignment of a reduced final vowel in Sindhī to a consonant-final loanword is arbitrary, much like the arbitrary assignment of grammatical gender in Sindhī to an inanimate loanword. However, reduced final vowels and grammatical gender often align; certain final vowels are characteristic of masculine words and others of feminine words. This is treated in further detail in Section 2.2.4.

Reduced vowels are typically imperceptible to a nonfluent listener (Cole, 2001; Stack, 1849b, p. 10), and are often dropped in rapid speech (Khubchandani, 2007, p. 692). Cole (2001) notes that reduced vowels in final position may also be devoiced following voiceless stops, adding to their imperceptibility. These reduced vowels are being lost in the speech of Sindhī youth who do not live in a comprehensive Sindhī-speaking environment. Remarkably, this has been attested not just in India, but also in Pakistan (Cole, 2006). More accurately, reduced vowels tend to feature only epenthetically in the new variety phonologies, rather than as a distinctive feature. This has resulted in the emergence of new homophones, and consequently impinged upon the morphology of the language. For instance, both [kɪʈab^ə] and [kɪʈab^ə] may be pronounced [kɪʈab] by new variety speakers. This is often frowned upon by older speakers (Cole, n.d.-a).

The merger or loss of various consonants and vowels in Indian Sindhī as described above has contributed to the creation of the Hindū new variety of the language. In this chronolect, reduced vowels have largely been lost (Buglio, 2001), and implosives and velar fricatives have merged with their corresponding stops. On the other hand, the old variety remains more conservative, preserves reduced vowels, and also preserves the distinctness of implosives and velar fricatives. The intergenerational difference in phonology

has implications for Sindhī pedagogy and orthography design and forms a significant thread in this study's results.

The phonologies of the old and new chronolects, therefore, form a spectrum. In such a scenario, speaking of a supposedly authentic Sindhī phonology becomes problematic. For this reason, using either extreme as the 'standard' phonology will be suboptimal as a reasonably accurate representation of the other. That is, both /kɪṭabə/ and /kɪṭabə/ on the one hand, and [kɪṭab] on the other, would be found awkward by speakers of the other chronolect. To overcome this dichotomy, a mid-point pronunciation, with unstressed lax vowels explicitly represented as reduced, has been adopted in this study. In other words, phonemic /ə/, /ɪ/, and /ʊ/ in unstressed or final position will always be shown as phonetic [ə̃], [ɪ̃] and [ʊ̃], respectively. This practice also has precedence in Sindhī linguistics, considering Grierson (1919) explicitly represented reduced vowels in Sindhī by means of superscripts (see Table A-2).

Reduced vowels are also significant from an orthography point of view. Perso-Arabic Sindhī orthography conventionally omits lax and reduced vowels, whereas Devanāgarī Sindhī orthography requires that all vowels, whether tense, lax or reduced, be explicitly represented. This results in disagreement on how to spell certain words in Devanāgarī, since there is high intergenerational as well as idiosyncratic variation in the pronunciation of reduced vowels. The implications of the representation of short vowels in orthography are described in detail in Chapter 5.

2.2.4 Syntax and morphology

This section provides an overview of Sindhī syntax and morphology to the extent relevant to the study's results. Since the study's results primarily involve aspects of Sindhī noun and adjectival morphology, the scope of this section is restricted to these aspects. For comprehensive treatments of Sindhī verbal morphology, see Grierson (1919) and Cole (2001).

In terms of syntax, Sindhī has features similar to neighbouring Indo-Aryan languages. Sindhī is a head-final language; word order is nominally subject-object-verb (SOV), but is flexible to allow for topicalisation. In terms of morphology, Sindhī has a rich system of noun declensions and verb conjugations based on case, number and gender (Cole, 2001). Nouns usually end in [ə̃], [a], [ɪ̃], [i], [ʊ̃], [u] or [o]. Nouns ending in [e], [ɛ] and [ɔ] are uncommon. All nouns are classified into masculine or feminine genders, and are often distinguishable based on their final vowel. Nouns ending in [ə̃], [a], [ɪ̃] and [i] are usually feminine, whereas those ending in [ʊ̃], [u] and [o] are usually

masculine (see Table 2.5). Exceptions typically comprise animate nouns, such as [rad̪za] ‘king’ and [maʷ] ‘mother’. However, a few inanimate nouns are also irregular in this regard; [moʈi] ‘pearl’ is masculine, and [kʰəŋdʷ] ‘sugar’ is feminine (Grierson, 1919, pp. 23-24; Shahaney, 1906/1967, pp. 41-48).

Table 2.5. Masculine and feminine nouns in Sindhī with typical final vowels

MASCULINE		FEMININE	
[gʰərʷ]	‘house’	[zalʰ]	‘woman, wife’
[təmbu]	‘tent’	[həva]	‘air’
[nalo]	‘name’	[bʰɪʈʰ]	‘wall’
		[gʰoʈi]	‘mare’

Note: Adapted from Shahaney (1906/1967, p. 42).

Sindhī makes use of postpositions, which is typical of Indo-Aryan languages. Most grammatical cases are formed by a noun followed by a postposition. In such instances, the noun appears in a declined form, known as the OBLIQUE (see Table 2.6).

Table 2.6. Selection of masculine and feminine noun cases in Sindhī

	NOMINATIVE	OBLIQUE	DATIVE	COMITATIVE
MASC. SINGULAR	[gʰoʈo] ‘horse’	[gʰoʈe]	[gʰoʈe kʰe] ‘to the horse’	[gʰoʈe sã] ‘with the horse’
MASC. PLURAL	[gʰoʈa] ‘horses’	[gʰoʈənʰ]	[gʰoʈənʰ kʰe] ‘to the horses’	[gʰoʈənʰ sã] ‘with the horses’
FEM. SINGULAR	[gʰoʈi] ‘mare’	[gʰoʈiʰ]	[gʰoʈiʰ kʰe] ‘to the mare’	[gʰoʈiʰ sã] ‘with the mare’
FEM. PLURAL	[gʰoʈʰjũ] ‘mares’	[gʰoʈʰjønʰ]	[gʰoʈʰjønʰ kʰe] ‘to the mares’	[gʰoʈʰjønʰ sã] ‘with the mares’

Note: Adapted from Shahaney (1906/1967, p. 69).

Adjectives in Sindhī are classified as declinable or indeclinable. Declinable adjectives agree in case, number and gender with the noun they qualify, whereas indeclinable adjectives are invariant (see Table 2.7).

Verbs are marked for tense, aspect, mood and agreement. Agreement is in number and gender with the head noun (Cole, 2001; Grierson, 1919).

Table 2.7. Declinable and indeclinable adjectives in Sindhī

DECLINABLE			
	MASCULINE		FEMININE
SINGULAR	[t̪ɛəŋo ɡʱoɾo] ‘(a) good horse’		[t̪ɛəŋi ɡʱoɾi] ‘(a) good mare’
PLURAL	[t̪ɛəŋa ɡʱoɾa] ‘good horses’		[t̪ɛəŋjũ ɡʱoɾjũ] ‘good mares’
INDECLINABLE			
	MASCULINE		FEMININE
SINGULAR	[mæzʱbuɽʱ ɡʱoɾo] ‘(a) strong horse’		[mæzʱbuɽʱ ɡʱoɾi] ‘(a) strong mare’
PLURAL	[mæzʱbuɽʱ ɡʱoɾa] ‘strong horses’		[mæzʱbuɽʱ ɡʱoɾjũ] ‘strong mares’

Note: Adapted from Shahaney (1906/1967, pp. 68-69).

Of late, a few morphological changes have emerged in Sindhī usage in India. In the literary variety, this primarily involves replacing vernacular Sindhī adjectival declensions with Sanskritic adjectival suffixes. Lekhwani (2011, p. 34) illustrates this phenomenon with the example of the Sindhī word [səmad̪ʱ] ‘society, community’. While this word has traditionally been adjectivised as [səmad̪ʱi] ‘societal’, recent Indian practice is to use the Sanskritised adjectival form [səmad̪ʱikʱ]. In the spoken variety, morphological changes are most evident in the speech of the younger generation. For instance, Parchani (1998, p. 20) observes that the negative copula [naɦe] ‘is not’ may be realised by younger Sindhī speakers as [nə aɦe], where the negative particle [nə] ‘not’ is simply juxtaposed with the copula [aɦe] ‘is’, rather than phonologically merged with it. Such changes are the morphological counterparts to the intergenerational phonological changes described earlier (§ 2.2.3).

2.2.5 Post-partition developments in India

Sociolectal development

The 2001 Indian census states that out of 2,535,485 Sindhī speakers, a majority—1.8 million—are located in urban areas (Central Institute of Indian Languages, n.d.). Sindhīs in India, therefore, are scattered in a multilingual, urban and cosmopolitan environment, which has caused changes in the use and spread of Sindhī varieties. According to Lekhwani (2011, p. 33), Sindhī dialectal variation is disappearing in India. Instead, dialect levelling is taking place, and the standard Vicholī variety tends to predominate. In contrast,

Daswani (1989, p. 59) states that there is no accepted standard dialect of Sindhī in India, and that every speaker considers their own group variety to be the reference. Regardless, the language is typically used only in familiar and cultural environments, with education in the language being minimal. The language has, thus, undergone a considerable reduction in functional load (Kapoor, 2002, p. 6656).

Khubchandani (2007, p. 684) notes that the Sindhī language has developed in different directions in Pakistan and in India in the post-Partition era. In Pakistan, the language is undergoing progressive Arabicisation and Urdūisation, while in India, it is being infused with Sanskrit and Hindī elements, accompanied by a simultaneous purging of unassimilated Perso-Arabic elements. A common element, though, is that urban varieties of the language in both countries are also experiencing increasing Anglicisation. This is corroborated by Nihalani (1978, pp. 3-4) when he points out the reduction of Perso-Arabic elements in colloquial Indian Sindhī and an increase in Hindī and English influence. For a detailed analysis of phonological, morphological and lexical changes in Indian Sindhī since Partition, see Khubchandani (1963), Daswani and Parchani (1978) and Lekhwani (2011, pp. 33-35).

Literary development

Following their arrival in India, the Sindhīs made attempts to maintain their linguistic identity, by publishing newspapers, magazines and books. A variety of material, including poetry and prose, was thus produced. While noting that Sindhī literature has often experienced interruptions due to social turmoil, Kloss and McConnell (1978, p. 466) reiterate that fresh literary activities in the Sindhī language have not been found wanting both in Pakistan and in India. Khubchandani (personal communication, August 2, 2012) also opines that Sindhī writing and the number of Sindhī writers in India, while not necessarily thriving, are indeed on the rise. This is particularly attributed to government grants and recognition such as the annual awards by the *Sahitya Akademi*, or the National Academy of Letters in India. Similarly, Rohra (2015) highlights the positive impact that governmental and institutional aid and awards given to Sindhī writers have had in increasing the amount of Sindhī literature published. Rohra, however, characterises the situation of written Sindhī in India as “strange”, considering that the number of publications in the language is increasing despite the number of readers decreasing. In contrast, Daswani (1989, p. 59) opines that literary activity in the language is very limited, as is the number of emerging writers.

The Language Information Services website of the Central Institute of Indian Languages (Central Institute of Indian Languages, n.d.) provides information on a variety of post-Partition literary productions in Sindhi, including drama, essays, critical works, short stories and novels, biographies, folklore, translations and also works in linguistics. A list of prominent post-Partition linguistic works in Sindhi can be found in Khubchandani (2007, pp. 685-686). An overview of lexicographic works in the language in modern times is given in Khubchandani (1988). For comprehensive overviews of Sindhi literature, both pre- and post-Partition, see Allana (1991, 2009), Jetley (1992), Jotwani (1992, 1996), Lekhwani (2011) and Schimmel (1974).

The last 25 years have also seen the establishment of the state-aided Indian Institute of Sindiology (IIS) and the National Council for Promotion of Sindhi Language (NCPSL). The IIS, founded in 1989, claims to be:

[A] centre for advanced studies and research in the fields related to Sindhi Language, Literature, Education, Art and Culture. Its primary aim is to preserve and promote the Cultural heritage of [the] Sindhi Community and ensure its continuity by disseminating it in the younger generation.

(IIS, n.d.)

The NCPSL, formed in 1994, has similar aims, in that it is involved in:

[taking] action for making available in Sindhi language the knowledge of scientific and technological development as well as knowledge of ideas evolved in the modern context, ... [and undertaking] any other activity for the promotion of Sindhi language as may be deemed fit by the Council.

(NCPSL, n.d.).

Both institutions are engaged in publishing Sindhi literary and educational material and conducting language courses, while the IIS also runs an independent state-recognised school in Ādipur, Kachchh. Curiously, neither institute has a Sindhi-language version of its website. As of May 2017, Sindhi-language content on these websites is low. The IIS website hosts older issues of its Sindhi-language newsletter and bulletin and a self-tutor software program providing basic instruction in Perso-Arabic Sindhi through English. The NCPSL website is largely devoid of Sindhi-language content.

Role in education

Following Partition and migration to independent India, several Sindhi philanthropists endeavoured to set up Sindhi-language schools in areas where the community had settled in considerable numbers. As a result, a number of schools providing instruction in Sindhi were set up, particularly in western

Mahārāṣṭra and the Kachchh region of Gujarāt. However, this meant that Sindhīs settled in other parts of the country were not able to provide their children with education in their language. Khubchandani (1963, p. 29) notes that less than half of the total Sindhī population of India at the time had the opportunity of sending their children to Sindhī-medium schools. That said, he observes that a few such schools had introduced Sindhī instruction in Devanāgarī, although the majority of them, especially in Mahārāṣṭra and Gujarāt, taught chiefly in Perso-Arabic. While the use of Devanāgarī in Sindhī instruction has increased since then, the overall demand for, and availability of, Sindhī education has fallen drastically (Daswani, 1989, p. 59).

Apart from being the primary medium of instruction, Sindhī is also eligible to be taught as a language subject in schools under the Three-Language Formula mandated by the Indian government. This formula recommends that children be taught their “mother tongue”, Hindī and English in school, with one of the three languages being the primary medium of instruction. The choice of the “mother tongue” or third language is at the discretion of individual schools (Benedikter, 1999). However, the best schools in urban areas typically employ English as the primary medium of instruction and offer the state language as the third language. These are the schools often preferred by the Sindhī community (Daswani & Parchani, 1978, pp. 88-89). Such a schooling choice often precludes any presence of the Sindhī language in Sindhī children’s education.

Following the decline in community demand for education in the language, most Sindhī-medium schools have either closed down (Sharma, 2016; Vora, 2016; Wajihuddin, 2010), or are changing their medium of instruction to English, Hindī or a regional language (Sindhi Sangat, 2016). They retain Sindhī only as a subject, if at all (Anand, 1996, pp. 114, 127). Unfortunately, reliable figures regarding the number and spread of Sindhī schools in India are scarce. The absence of up-to-date and openly accessible government figures means that statistics on Sindhī education in India need to be pieced together from independent academic sources. In western India, Anand (1996, p. 168) provides a figure of 28 schools in Ulhāsagar town that taught Sindhī at the time, at least as a subject. In the metropolises of Mumbaī and Puṇe there are likely no Sindhī-medium schools remaining. A few schools and colleges in these cities offer the language as a subject (Jai Hind College, 2015; MUCC, 2016; St. Mira’s, 2017). When taught as a subject, the script used is usually Devanāgarī. In northern India, Lekhwani (2015) opines that formal education in Sindhī is almost nil, save for Ajmer town. That said, language courses at certificate and diploma levels are run throughout the country by the NCPSL in conjunction with local

Sindhī organisations (NCPST, 2010). Options for further study in the language up to the doctorate level are also available at a few major universities, particularly the University of Mumbai.

Media

Since 1967, Sindhī has been a constitutionally-recognised or “scheduled” language of India, which makes it eligible for government support (Daswani, 1979; Vaish, 2008). As of May 2017, the Registrar of Newspapers for India (2016) lists 205 registered Sindhī newspapers and periodicals, with a variety of publication frequencies. Most of these periodicals are published from areas of high Sindhī concentration such as Ulhāsnagar, Ajmer, Ahmedabad and Mumbai. However, no information is provided on the script of publication.

In terms of radio and television presence, the state-owned All India Radio (AIR) allocates 16 hours per week for Sindhī programmes, including news (Central Institute of Indian Languages, n.d.). Certain channels run by the Indian state-owned television broadcaster, Doordarshan, also have slots for programming in Sindhī (SABSindhī, 2016). A private Sindhī television channel called ‘Sindhī Kutchi TV’, relaying from Ādipur-Gāndhīdhām in Kachchh, was briefly available in the recent past, but has now ceased operations (Encyclopedia of Sindhī, 2016). As of May 2017, a dedicated state-run Sindhī television channel is yet to appear in India. A campaign is underway to have the government start one (Live Law, 2015; Punjabi, n.d.). Prominent Indian Sindhī politicians are lending their support to the cause (Sindhī Sangat, 2008).

In the meantime, advances in technology have enabled several Pakistan-based Sindhī-language media outlets, as well as smaller Indian ones, to make their audio-visual content available online on video-sharing websites. However, this is a fairly recent phenomenon. While the impact of online Sindhī-language content on the Indian Sindhī community or the diaspora is beyond the scope of this study, it is a promising site for future research.

2.2.6 Summary

This section has outlined the linguistic features of the Sindhī language relevant to this study, especially its phonology. It has also shown how the transplantation (Khubchandani, 1995) of the community in independent India has brought about significant changes in the language’s present-day status, role in education, and consequently, everyday use. Evidently, the changes in domains and patterns of language use have brought with them corresponding changes in script use.

Changes in use, however, are not new in the context of the Sindhī language and script. As evinced by the grammatical and sociolinguistic information in this chapter, the language has absorbed a variety of influence over the centuries. Accordingly, its lexicon and scripts have undergone several metamorphoses. Tracing and investigating Sindhī script use over the centuries, and comparing and contrasting it with the situation today, are the subjects of the analysis component of this study. With a view to laying the groundwork for the analysis, the following chapter reviews works in the literature that are relevant to the subject matter of this study.

Literature review

The literature reviewed in this chapter is classified into three broad categories. Section 3.1 deals with studies on the sociolinguistics of the Sindhī language in India. Section 3.2 covers works on script reform, and pays particular attention to script reform involving the Roman script. It then examines the insufficiently studied history of romanisation in India. Finally, in Section 3.3, key insights gleaned from the various studies are then summarised, and their relevance to this study highlighted.

3.1 Sociolinguistics of Sindhī in India

Although still underresearched, the phenomena of language shift and maintenance in the Sindhī community have been the subject of a few studies. These studies have covered sections of the community in India as well as the diaspora. In the diaspora, language shift is widely attested by works such as Detaramani and Lock (2003), Dewan (1989), Khemlani David (1991, 1998, 2001, 2008) and Raina Thapan (2002). Khemlani David's exploratory studies in the Sindhī diaspora in Kuala Lumpur (1991, 1998), London (2001) and in the Sindhī diaspora worldwide (2008) indicate that English has become the "vernacular" (1991, p. 7) for Sindhīs in the diaspora. Sindhī is primarily used only by members of the oldest generation among themselves. Khemlani David's work is echoed by Detaramani and Lock's (2003) quantitative study among 299 Sindhīs in Hong Kong. This survey sheds light on how the community in Hong Kong has started to use English as the predominant language in their daily life. Similar conclusions are drawn in Dewan's (1989) and Raina Thapan's (2002) ethnographic studies on the Sindhī diaspora in South East Asia.

The aforementioned studies on the Sindhī diaspora indicate that the English language is widely used for intracommunity communication. The primary reason for this is the Sindhīs' inclination to educate their children in English, due to the language's perceived necessity in international business. This factor assumes particular importance for this traditionally mercantile community. Also influencing this process is the absence of kinship ties with a Sindhī-speaking homeland, since most Hindū Sindhīs emigrated from Sindh following

Partition (Detaramani & Lock, 2003, p. 251). The perceived dispensability of the Sindhī language to cultural activities such as marriages and festivals further contributes to language shift away from Sindhī and towards English. These studies also indicate that the community views language shift with pragmatism, rather than with a sense of loss. In brief, studies in the Sindhī diaspora have demonstrated that language shift is pervasive and that the community has generally reconciled itself to it.

In contrast, the phenomenon of Sindhī language shift in India is more complex. Causes for and the extent of shift vary depending on region and socioeconomic class, and the reactions to shift differ between the laity and the intelligentsia. In order to arrive at a better understanding of the phenomenon, key studies on the sociolinguistics on Indian Sindhī are reviewed in detail in this section. These studies are Daswani and Parchani (1978), Khubchandani (1963) and Parchani (1998). In addition, certain ethnographic works on the community that touch upon matters of language are reviewed. These are Anand (1996), Barnouw (1966), Falzon (2004) and R. Kothari (2009).

Barnouw's (1966) brief anthropological paper on the integration of Sindhī refugees in Pune city and its environs provides useful insights into the community's social, economic and linguistic practices at the time. Barnouw compares the Sindhīs with the Jews in medieval Europe. He notes that both groups were traditionally involved in mercantile and moneylending occupations and as a result faced prejudice. However, he also states that there had been no opposition to Sindhī settlement in Mahārāṣṭra, whether by the local people or by the government. In terms of education, Barnouw states that "a heavy linguistic burden has been placed upon the Sindhī children" (p. 44), since the education system required them to learn English, Hindī and Marāṭhī. While Barnouw does not make any mention of language shift among the Sindhīs at the time, he does note that "ambitious or well-to-do parents want their children to learn English" (p. 44). This could be seen as sowing the seeds for the current situation of the language in India.

Falzon's (2004) ethnographic study on the Hindū Sindhī community in India and Europe (the United Kingdom and Malta) illustrates the community's high level of adaptability in terms of dress, food and language. On this basis, he claims that the Sindhīs "often fail to live up to the model of a distinctive bounded culture that anthropologists traditionally were so keen on" (p. 2). He also notes that the generation younger than 35 years of age, especially those overseas and in urban India, had only rudimentary Sindhī language skills. Their intragroup languages had instead become English, Hindī and the local

language of their place of residence. He observes the anxiety of the Sindhī “intellectual elites” (p. 79), usually Mumbai-based, that the community needs to rediscover its language and identity. Crucially, he remarks that the products of these “cultural entrepreneurs . . . find few takers among Sindhīs” and that they “constitute the exception rather than the rule” (p. 80).

Anand’s (1996) study on the integration of Sindhīs into modern Indian society covers their travails in starting life anew in India, and the resultant changes in their cultural and linguistic practices. A large part of her work focuses on western Mahārāṣṭra, which is the region of the highest concentration of Sindhīs in the country. Anand inadvertently affirms Falzon’s observation on Sindhī intellectuals’ anxiety about their language, by claiming that the Sindhī language in India is “facing a situation of near extinction” (p. xii). Although Indian census figures evince that this is statistically far from the truth (§ 1.1.1), Anand’s statement is indicative of the feeling prevalent within the Sindhī intelligentsia. She highlights the fact that the language, both as a medium of instruction as well as a subject, has for the most part been done away with in urban India, even in Sindhī-run institutions. The only exceptions to this rule are a few schools and colleges in the Sindhī stronghold of Ulhāsagar. Like the other authors above, Anand alludes to the community focus on economic progress rather than cultural and linguistic maintenance. On the Sindhī script issue, she labels those advocating Devanāgarī for the language as “assimilationists”, and argues that adopting Devanāgarī would “complete the process of [cultural] absorption” (p. 128). She also notes that the youngest generation generally learns the Sindhī language orally, if at all.

Anand’s (1996) observations on the community’s language practices are echoed to an extent by R. Kothari (2009) in her study on the Sindhī community of Gujarāt. Kothari reiterates the fact that there is little incentive for community members to speak the Sindhī language, primarily due to its limited need in education or business. However, she also makes critical observations on Sindhī language shift in Gujarāt, which sets it apart from Sindhī language shift in other parts of India and the diaspora. Kothari notes that a major factor behind this shift is a sense of shame that Sindhī youngsters in the state feel about their community. This stems from the Sindhī community in Gujarāt historically being relegated to refugee camps on the outskirts of major cities. Another cause for such shame is the religious and social conservatism of the local Gujarātīs, which makes them look down upon the comparatively liberal Sindhīs (pp. xix, 151). Being implicitly shunned by the Gujarātīs has promoted language shift towards Gujarātī and English, particularly among the lower socioeconomic strata in the

Sindhī community. Notably, “elite cosmopolitanism” (p. 157) among the minority upper socioeconomic strata of Sindhīs has also resulted in language shift, typically towards English.

Anand and Kothari are both community members and speakers of Sindhī, whereas Barnouw and Falzon are not. The works by these authors, therefore, provide useful emic and etic views on the community and language. Whereas Falzon (2004) does take note of language shift among Sindhīs, he underscores their economic success. On the other hand, Anand (1996) tends to foreground the sidelining of Sindhī language and culture, which, in her view, have been caused by the community’s pragmatism and focus on economic success. Kothari’s (2009) study is valuable due to its focus on the shame felt by Sindhīs in Gujarāt, even in modern times, and how this encourages language shift. This contrasts with the situation of Sindhīs in Mahārāṣṭra, where, according to Barnouw (1966), they did not face any overt cultural opposition. As documented by Anand (1996), language shift among Sindhīs in Mahārāṣṭra has largely been due to a socioeconomically-conditioned inclination towards English and Hindī, rather than due to a feeling of shame in speaking or being Sindhī. The findings of these studies suggest that formal educational opportunities in the Sindhī language are not greatly sought by the community, and that economic concerns take precedence. These aspects warrant consideration by advocates of Sindhī language maintenance.

Khubchandani’s (1963) dissertation on the acculturation of Indian Sindhī to Hindī is likely the earliest comprehensive study on the onset of post-Partition language shift in the community. Khubchandani’s study focuses on the adaptations that have taken place in Sindhī in various parts of India, due to its speakers’ increased exposure to Hindī. While his study is largely on phonological and lexical changes in Indian Sindhī arising due to interference from Hindī, it also covers some sociolinguistic aspects of this acculturation that are relevant to the present study.

Khubchandani (1963) notes the abrupt reduction in functional load that Sindhī has had to undergo due to Partition, with use of the language outside the home being ensured only in areas of considerable Sindhī concentration. He also observes that English and Hindī were displacing Sindhī not just in reading and writing, but also in interpersonal communication among some elite sections of the community. Furthermore, he alludes to how English and Hindī were taking hold on young Sindhīs at the time. He cites the reasons for this as “need-filling” and “prestige” (p. 56). Need for commercial and social contact with other language groups in India, as well as the availability of media and entertainment

mostly in other languages meant that Sindhī speakers often saw English, Hindi and regional languages as highly useful. This usefulness had in turn accorded a prestige value to these other languages, with English having the highest prestige value. This led to Sindhī speakers deeming these languages appropriate for use even in intracommunity communication, in place of their traditional language. Even when speaking Sindhī, usage of English and Hindi borrowings was frequent, usually by speakers of the higher socioeconomic strata. Not only was this considered appropriate, it was also indexical of the speaker's erudition (p. 61). Khubchandani also observes that these pan-Indian prestige languages, namely, English and colloquial Hindi, were being adopted as home languages by some families of the “upper economic strata”, and calls it a “growing fashion” in the community. He notes that children from such families were growing up hearing Sindhī but not speaking it themselves, and therefore developing only a passive knowledge of the language (p. 49).

The findings of Khubchandani's (1963) pioneering study state that perceived need and appropriateness determine the Sindhīs' likelihood of using a particular language in a given situation. This observation is relevant to the present study in reiterating the weak link between language and identity in the Sindhī community. It also stresses the community's flexibility and adaptability in matters of language.

Possibly the most comprehensive survey on Sindhī usage in India conducted to date is the *Sociolinguistic Survey of Indian Sindhi* by Daswani and Parchani (1978). This survey involved 100 Sindhī participants in eight locations in India where a considerable Sindhī population was present—Mumbaī, Puṇe, Delhi, Ahmedabad, Ulhāsagar, Ajmer, Ādipur-Gāndhīdhām and Devlālī (Deolali). Participants were sampled from a broad socioeconomic spectrum, and were categorised into three age groups:

- Group I: 50+ years old, 37 people;
- Group II: 35-50 years old, 30 people;
- Group III: 16-35 years old, 33 people.

At the time of Partition, Group I would have been adults in their late twenties and above, Group II in their teens or early twenties, and Group III, children. Group III also included participants born in post-Partition India. Over one hundred questions were posed to participants regarding their first language (L1), usual home language, competences in other languages, situational usage of Sindhī, and other culturally-related aspects such as knowledge of Sindhī nursery rhymes, swear words, festival names and Sindhī names of calendar months. Empirical data was also gathered on participants' opinions on

maintaining the Sindhī language, and their script preference for the language, among other things. While the majority of Group I had been educated through the Sindhī medium, the majority of Group III had had non-Sindhī-medium schooling. In this regard, some participants in the study did admit the need to send children to non-Sindhī, mostly English-medium schools due to their “utilitarian outlook” (1978, p. 88), and also due to them being a business community, which necessitated rising above the competition. The study also highlighted the mobility of this community and the consequent need to adapt to their respective surroundings (p. 27).

Daswani and Parchani (1978) conclude that the language is undergoing assimilation with contact languages such as Hindī and Gujarātī, and that familiarity with Sindhī dialects other than one’s own is on the decline. They also mention an overall declining competence in Sindhī, especially in highly educated and well-off sections of the community. Nevertheless, they also allude to participant opinion that Sindhī in India would survive even in the absence of education in the language, as long as it was spoken within the home. On the script issue, they note that 42 percent favoured Perso-Arabic, 30 percent Devanāgarī, and a significant 28 percent with no opinion (pp. 92-93).

Daswani and Parchani’s (1978) comprehensive and empirically sound survey validates and reiterates the practical community outlook towards language education and use. Significantly for the present study, it notes that the lay Sindhī population did not concern itself greatly with the question of script choice for the Sindhī language.

Subsequent studies by Daswani and Parchani using a similar three-age-group classification have been summarised in Parchani (1998). A 1981 survey conducted among 160 Sindhīs in Delhi showed that reading in Sindhī was on the decline in all three generations (p. 11). The primary reason cited was the prevalence of the Perso-Arabic script in popular Sindhī publications, but the usage of the Devanāgarī script in Sindhī medium schools. This left many of the youngest generation unable to read Perso-Arabic Sindhī. The younger generation also showed a greater preference, albeit slightly, for Devanāgarī, presumably due to convenience since the latter was more widespread in India. However, participants across age groups indicated their preference for English-medium education, with even the oldest generation pointing out that Sindhī-medium schools needed to raise their standard to be on a par with that of English-medium schools (p. 13).

Crucial factors mentioned by Parchani (1998) include the inability of the youngest generation to read the Perso-Arabic script, and the community’s

predisposition to English-medium education. Therefore, it is likely that even though certain younger participants indicated a slight preference for Devanāgarī over Perso-Arabic for the Sindhī language, their English-medium education would result in the English alphabet, namely the Roman script, as their best-known script. It can be envisaged that the English-dominant younger generation would use more English than Devanāgarī Sindhī as the main written language in their daily lives, thus rendering the preference for Devanāgarī over Perso-Arabic somewhat inconsequential. Ostensibly for these reasons, Parchani recommends “a fresh opinion poll across the country, regarding . . . appropriateness of script” for the language (p. 23). In this regard, the findings of Parchani’s review are particularly relevant to the present study.

Iyengar’s (2013) exploratory study of emic views on language shift among 13 English-educated Sindhī youth in Pune city indicated that the Sindhī language ranked low in participants’ minds in terms of both necessity as well as affinity. In other words, participants did not see much practical use in learning or speaking Sindhī, nor did they have any inherent attachment to the language and the culture. In this sense, Iyengar’s concepts of “necessity” and “affinity” are analogous to Gardner and Lambert’s (1972) concepts of “instrumental” and “integrative” motivations for language learning. Participants in Iyengar’s study also indicated that their parents generally knew Sindhī, even if it was not used as the home language. That said, none of the participants, and almost none of their parents, could read Perso-Arabic Sindhī. Iyengar notes that “[t]he script [Perso-Arabic] was overwhelmingly seen as a roadblock to receiving more exposure to the language, even if such exposure was passive” (2013, p. 56). Significantly, almost none of the participants were aware of the usage of the Devanāgarī script for Sindhī. As a result, while participants had received at least limited oral exposure to the language, they had had no exposure to written Sindhī, whether in Perso-Arabic or Devanāgarī.

Iyengar’s study confirms Parchani’s (1998) findings about the younger generation being unable to read Perso-Arabic Sindhī, and uninterested in learning to read it. Simultaneously, it also highlights the low penetration of Devanāgarī Sindhī within the community, especially among urban English-dominant Sindhī youth.

The studies reviewed above reveal a few distinct community traits with regard to language and script. First, languages are acquired and used in the community based on necessity and not their symbolic value. This means that education in economically useful languages is preferred, resulting in little to no formal instruction in written Sindhī. Consequently, Sindhī tends to be used

primarily as an oral language in the home and community domains. English is favoured for all other needs, and often within the home and community too. This practical attitude towards language use and familiarity with the English language and Roman script give rise to the question of how the community would respond to the idea of using Roman to read and write Sindhī. This idea of putative script reform warrants a review of existing literature on the topic, which follows in the next section.

3.2 Script reform

This section reviews literature on several key areas regarding script. It first deals with the concepts of script modification and replacement for a particular language. Script replacement in the form of romanisation is then broached. Relevant literature on specific cases of romanisation, both successful and unsuccessful, and the history of romanisation in India, are then dealt with. Key findings and insights from these works are then discussed in the context of using the Roman script for the Sindhī language. Due to the intertwined nature of script and orthography in real-world contexts, the following review of script reform will also include studies on orthography reform where relevant.

The earliest independently developed writing systems deciphered so far are the Mayan (5th century BC), Sumerian (4th millennium BC) and Chinese logographs (2nd millennium BC) (Daniels, 1996c). In modern times, though, languages are typically literised using scripts derived from or inspired by existing scripts for other languages (Bunčić, Lippert, & Rabus, 2016). It is rare to find modern-day instances of a previously unwritten language being put into writing using a script invented specifically for that language. The most notable exceptions to this rule are likely the Cherokee syllabary in the United States (Scancarelli, 1996) and the Cree syllabary in Canada, the latter having been inspired by the success of the former (Nichols, 1996).

Daniels (1996d) cites religious, political and practical factors as influencing the choice of script for a previously unwritten language. Historically, religious affiliation of an ethnolinguistic group has been a significant influence on the form of writing given to their language. This is the reason the Perso-Arabic script was initially used, and ultimately prevailed, as the dominant script for Sindhī in Muslim-majority Sindh. If religious influence is interpreted more broadly as cultural influence, a notable example is that of the impact Chinese logographic writing has had on its neighbours. Boltz (1996) argues that the historical cultural dominance of Chinese writing in East Asia has directly

resulted in languages in the region having, or having had, scripts based on logographs. Noteworthy examples are Japanese *kanji*, Korean *hanja* and Vietnamese *chữ nôm*. In modern times, Daniels (1996d) notes that political factors have become more prominent than religious ones. As an example, he cites the Soviet Union government's imposition of the Cyrillic script on various Central Asian languages. Daniels also notes the increased importance of availability of technological support for a script. He observes that “[t]echnology is best equipped for Roman-alphabet work” (p. 625), resulting in Roman very often becoming the script of choice for many hitherto unwritten languages.

3.2.1 Script modification

A borrowed script may not always be adapted to suit the target language's phonology and morphology. Reasons for this include the script's religious sanctity that discourages significant modifications to it, or the unregulated and organic evolution of orthography in the script. Indeed, once a script has come into general use for a language, large-scale modifications seldom occur. As Coulmas (2002, p. 234) states, “writing systems, scripts and orthographies are not perceived by their users as value-neutral instruments”. Both scripts and orthographies become ingrained over time in the minds of users and any proposal to change them may be met with outright hostility. Fishman (1988, p. 280) contends that the replacement of a script or orthography poses a threat to existing intellectual authorities, which is why any such proposal inevitably meets with considerable resistance. The degree of fixation that users have to a script and its associated orthography is most likely the reason reforms usually comprise only minor changes to the orthography. This has been aptly summarised by Karan, who states that “[c]onservative reforms are more likely to be implemented than radical ones” (2006, p. 233).

Karan's observation is echoed by Johnson's (2005) study on the well-known 1996 German orthography reform. Johnson observes how the initial proposals of the reform ended up being diluted before the new orthography could be ultimately promulgated. She notes that linguists' recommendations for reform, even though logical from a consistency perspective, are usually opposed by people educated in the existing orthography. Consequently, she states that linguists may see themselves as acting “in the interests of the wider public”, but those in favour of a status quo label linguists' views as “élitist”. Instead, the latter group advocates the retention of existing orthographic practices on the grounds of tradition and indexicality (pp. 149-150).

Script modification need not concern only the orthography. They may also extend to the graphetic level, and entail changes to character shapes. Mohanan (1996) and Steever (1996) report character simplification in the scripts for Malayālam and Tamil, respectively, ordered by the governments of the Indian states where these languages are official. They cite the main reason behind such simplification being the desire to streamline and linearise printing. Steever also alludes to more ambitious reform attempts in the Tamil script, intending to structurally modify it from an alphasyllabary into a full-fledged alphabet. He notes that such proposals “have not been taken seriously; and they probably never will be” (1996, p. 428). This concurs with Karan’s (2006, p. 233) finding that conservative reforms are more likely to succeed than radical ones.

Rarely, characters may be added to or deleted from an existing orthography for a language. A notable instance of this is seen in the Russian orthography reform of 1917, when four letters were eliminated from the Cyrillic script for the Russian language (Comrie, Stone, & Polinsky, 1996, p. 290). The success of this reform could be attributed to the authoritarian influence of the communist government, which had come to power following the Russian Revolution earlier that year. This underscores the need for a powerful driving force to be present, for successful script modification to take place. A similar phenomenon is seen in engineered instances of script replacement and romanisation.

3.2.2 Script replacement and romanisation

Script replacement, when it does occur, usually takes place gradually over an extended period of time. Often, script replacement may be preceded by a biscriptal phase, in which two scripts are used for the language simultaneously. In their volume on the phenomenon of biscriptality, Bunčić, Lippert and Rabus (2016) present case studies of certain languages in Europe that were historically written in Roman alongside another script. These include Old Norse and Irish in Western Europe, which in addition to Roman, were also written in Runes and Ogham, respectively. For both these languages, Roman ultimately prevailed as the sole script. These Western European examples, therefore, represent cases of successful romanisation. In Eastern Europe, Cyrillic has historically been the dominant script, and languages in the region that were historically biscriptal in Cyrillic and Roman are today written predominantly in Cyrillic rather than Roman. An example of this is the Belarusian language (Antipova & Bunčić, 2016). Romanian forms an exception to this rule, in that it is a language of Eastern Europe that was successfully romanised from Cyrillic in 1860 (Kamusella, 2014, p. 278; Kohn, 2009, p. 510). Serbian is a curious case, in that it

is written in both Cyrillic and Roman even today, and there is no clear likelihood of either script replacing the other completely. Bunčić (2016d) reports that all school children in Serbia are taught the Serbian language in both scripts, and Serbian adults are usually literate in both.

Successful instances of gradual romanisation are also seen outside of Europe. In Asia, the Vietnamese language began to be written in Roman during French colonial times (19th century–1954), alongside its ‘traditional’ script—modified Chinese characters. Aytürk (2010a, 2010b) notes that the Vietnamese case of romanisation was a slow one, officially declared in 1910 but widely adopted only by the 1950s. Leow (2016) reports a similar case with the Malay-Indonesian language. These language varieties began to be written in Roman during colonial rule by the British (18th century–1957) and Dutch (17th century–1945), alongside the then-prevalent Arabic script. The Roman script was officially adopted for both varieties in the early 20th century, and a common orthography agreed upon only by 1972. A comparable instance in Africa is that of Kiswahili. Mdee (1999) observes that Kiswahili, which had been written in the Arabic script since the 13th century, began to be written in Roman in the 19th century by European travellers and missionaries. He states that Roman has today become the dominant alphabet for Kiswahili, but that the standardisation of a Roman orthography for the language is still an ongoing process.

The most noteworthy cases of romanisation in the 20th century have typically involved language experts devising a Roman-script orthography, followed by an authoritarian government imposing the script and orthography on the masses (Aytürk, 2010a, p. 1). This is exemplified by the 1928 introduction of the Roman script and the simultaneous outlawing of the Arabic script for the Turkish language. This event has been termed by Aytürk as “the textbook example of a successful and lasting case of romanisation” (2010b, p. 97). Another modern-day instance of successful romanisation, although not as well-known, is the 1972 adoption of the Roman script for the Somali language. I. M. Lewis terms this event the “Somali miracle of instant literacy” (1993, p. 150). The pattern in the success of script reforms in Turkey and Somalia and the 1917 orthography reform in Russia is evident. All these reforms were instituted by heads of state or ruling bodies with considerable political authority, who imposed their desired reforms by fiat.

In contrast, script or orthography reforms of a democratic nature that attempt to persuade the user base more often than not fail, or end up being severely watered down before being accepted. In this regard, Aytürk (2007, 2010a, 2010b) cites the unsuccessful attempt at Hebrew romanisation

contemporaneous with that of Turkish romanisation. Initiated by a journalist and newspaper editor in Mandatory Palestine, the proposed Hebrew romanisation ran foul of conservative Jewish readers and ultimately faded away. This reiterates the observation that script reform, especially through democratic means, is unlikely to succeed if the script in question is perceived to have religious sanctity.

The significance of political authority in implementing script reform is also evinced by the recent script reforms in several ex-Soviet Central Asian countries. Since the 1990s, Azerbaijan, Uzbekistan and Turkmenistan have all romanised their respective national languages, replacing the Cyrillic alphabets imposed upon them during Soviet rule. In covering the script reform process in these countries, Landau (2010) notes that these reforms were all pushed through by authoritarian presidents. He reports that proponents of romanisation cited improved relations with Western countries and facilitation of learning English as advantages. Opponents of romanisation usually argued the loss of access to past literature and the supposed unsuitability of the script to the phonology of the languages in question. Religion did not play a major role in the debates, ostensibly due to the effects of communist rule. Significantly, he notes that the general population of these countries remained largely disinterested in the issue of romanisation.

Less frequently, romanisation may take the form of script supplementation. This involves the adoption of a subsidiary script, usually for a specific purpose. For instance, certain countries have adopted official romanisation systems for their languages, which are explicitly intended for accurately transcribing local names and terms in the Roman scripts. The most notable examples of such countries are China, Japan and Korea. In some cases, the use of such supplementary romanisation systems may be extended. For instance, Mair (1996, p. 204) states that the *pīnyīn* system of romanisation in China is used to gradually introduce school children to the complex Chinese logographs as well as to facilitate computer input of these logographs.

It is emphasised that romanisation, whether as script replacement or as script supplementation, applies to a language that already exists in written form, albeit in a different script. This is what sets romanisation apart from script introduction for a hitherto unwritten language, or what Coulmas terms “alphabet making” (1996, p. 12). Since this study deals with a language that is a written one, works on alphabet making and orthography design for unwritten languages are not reviewed further. Nonetheless, useful works in this domain

include Decker (2014), Guérin (2008), Karan (2006), Lüpke (2011), Seifart (2006), Simons (1977) and Smalley (1964).

In the South Asian context, a few hitherto unwritten languages have had Roman orthographies designed for them, usually by European Christian missionaries. This is particularly noticeable in the north-east of the region. In most other parts of the region, the Roman script has been used, if at all, only as a supplement to already existing scripts. Attempts have been made in the past to institutionalise Roman as a replacement to existing scripts, without success.

3.2.3 Romanisation in India

The history of romanisation of South Asian languages goes as far back as the seventeenth century, when European Christian missionaries in the Subcontinent employed the Roman script for writing grammars of local languages and subsequently translating Christian scriptures into them (Camps & Muller, 1988; SarDessai, 2000). With the advent of British colonisation of the Subcontinent in 1757, British authors started compiling reference works and textbooks on languages of the region. According to Friedlander (2006), the main motive of such British authors was “to learn the language[s] of the country they were colonising and . . . to figure out how to do this” (p. 39). Consequently, several British administrators and scholars began to see a standard system of writing South Asian or “Indian” languages in Roman letters as indispensable. Nonetheless, different parties had different interpretations of the idea. Some viewed a Roman script version of Indian languages solely as a script supplement, or administrative transliteration standard for the numerous Indic scripts already in use. Others saw it as prospective romanisation, that is, as having the potential to develop into a pan-Indian script that would *replace* the Indic scripts. However, support for Roman was by no means unanimous. A collection of papers compiled by Monier-Williams (1859) highlights the views of the belligerents at the time. Those in favour of romanising Indian languages included the British Sanskritist Monier Monier-Williams, the British civil servant Charles Trevelyan, the German Indologist Friedrich Max Müller and the Scottish-Irish bishop Robert Caldwell. The main opponent of the idea was the distinguished philologist James Prinsep.

Trevelyan and others supportive of romanisation cite the supposed greater legibility of Roman, its perceived cost-effectiveness and potential for use as a common Indian script. They also claim that such romanisation would facilitate the learning of English by Indians. A section among this group also deem Roman-script versions of Indian languages a suitable medium for popularising

Christian scriptures in the country. On the other hand, Prinsep and other critics of romanisation highlight the perceived inability of Roman to unambiguously express the phonemes of Indian languages and the greater compactness of the syllabic Indic scripts. Remarkably, both factions say that their arguments are pro-native. The opponents of romanisation contend that the continued use of native scripts would simplify the teaching of Indian languages, while its supporters claim that it is in fact the Roman script that would simplify the teaching of these languages to the natives. The irony is that no ‘natives’ are being consulted in the entire process, which is clearly lost on both parties.

In the colonial Indian context, the close association of romanisation with evangelisation is noteworthy. For instance, Max Müller (1854, p. 49) opines that “the multiplicity of alphabets—the worthless remnant of a bygone civilisation bequeathed, for instance, to the natives of India—should be attacked as zealously by the Missionary as the multiplicity of castes and of divinities” (p. 49). The bishop Caldwell, who is credited with establishing the concept of the Dravidian family of languages, was also interested in popularising Christian scriptures in Indian languages in the Roman script. Nevertheless, Caldwell (1859) puts forward seemingly pragmatic arguments in favour of his “Indo-Roman” alphabet. These include typographical simplicity and legibility, reduced cost of printing, facilitation of native education and encouragement of mutual communication among Indians. That said, Caldwell does note that the success of any romanisation system would depend on the uniform implementation of the plan by the government alone. According to him, it would be unlikely that the Roman alphabet would be voluntarily adopted by Indians, since the “force of custom in this old conservative country is prodigiously great” (p. 252).

In the end, the British government’s policy of administering provinces in the respective regional language, with a standardised regional script, inadvertently resulted in weakening calls for sweeping romanisation in India. However, the prospect of Indian independence in the mid-twentieth century rekindled the question of romanisation in India, this time in the form of a unified national script. In his paper *A Roman Alphabet for India* (1935), linguist Suniti Kumar Chatterji argues that on a pan-Indian level, “[t]he problem of the Babel of scripts in India presents itself . . . as being capable of a final solution only through an Indo-Roman script” (p. 9). He notes that Devanāgarī, despite being widely employed in India, was unlikely to prevail as a national script due to loyalty to regional scripts. On the other hand, he believes that Roman would make a good candidate for a national script. On this basis, he puts forward a proposal for a

pan-Indian Roman alphabet, which dispenses entirely with “capped or dotted letter[s]” (p. 22). Rather, he introduces IPA-esque inverted letters as new graphemes and the apostrophe and colon as modifier symbols. Regardless, he also admits the unlikelihood of Roman being adopted for Indian languages at the time, due to its association with the colonisers, the British.

Nonetheless since the departure of the British from India, the English language and the Roman alphabet have come to be widely used and learnt in India. In one of the few meta-analyses that exist on the topic of romanisation in India, Kurzon (2010) notes that the growing use of English in recent years “has led to a widespread use of the Roman script in the public sphere to write Indian languages, especially in advertising” (p. 70). The increased use of Roman for informally writing Indian languages prompts the question of people’s reaction to writing an Indian language—in the present case, Sindhī—*formally* in Roman.

3.3 Summary

The literature reviewed in this chapter brings to light several key insights on the core subject matter in this study. Firstly, the Sindhī community is one that has had a long history of cultural adaptation without assimilation. In other words, Sindhīs worldwide have managed to not just survive, but thrive in a variety of milieus. They have done so by adopting a flexible and pragmatic outlook when it comes to matters of culture, particularly language. The increased use of English in daily life, including in the home, is resulting in decreased usage of and competence in Sindhī. However, it also means that the community is becoming increasingly well-versed in the Roman script via English. This inspires the question of how the community would react to seeing Sindhī written in Roman, and if there would be any resultant impact on the use of the written language.

Nevertheless, the review of successful romanisation attempts worldwide reveals that change is usually gradual, often spanning several decades if not centuries. Instances where change has been rapid are almost always traceable to a powerful central authority instituting reforms by fiat. Democratic attempts at promoting Roman have typically proved ineffective. Significantly, it is often the intellectual elite in a particular community that are the most active in matters of script. While the general population may have an opinion on script and language issues, the vagaries of daily life mean that they may be unwilling or unable to participate more actively in such matters. This is seen in the studies on Sindhī language shift as well as romanisation. What the literature reviewed

above suggests is that the opinions of laypersons in a community on matters of script require further investigation, as they are often deliberately or unintentionally sidelined in linguistic decision-making. This is the reason this study specifically targeted community opinion on the question of using Roman for the Sindhī language.

As far as romanisation of languages in the Subcontinent is concerned, past attempts at blanket romanisation have faded away, chiefly due to lack of government support and the restriction of the discussion to the elite sections of society. That said, the organic growth of Indian language writing in Roman of late gives renewed impetus to the question of the likelihood of romanisation.

Yet, while contemporary trends in communities in India and worldwide contribute to our understanding of present and future script use in the Sindhī community, of particular importance are the historical trends of script use within the Sindhī community itself. Indeed, synchronic script use for the Sindhī language cannot be fully comprehended without investigating diachronic script use for the language. For this reason, the core analysis in this study has been divided into separate treatments of historical and present-day script use for Sindhī. Details of the research methodology used in the analysis of data follow in the next chapter.

Research methodology

As stated in previous chapters, the objective of the present study is to arrive at a diachronic and synchronic understanding of patterns of script use for the Sindhī language, with a particular focus on the Hindū/Indian Sindhī community. To achieve this objective, the research has been divided into two components—compiling a historical review, and collecting fieldwork data. The two components are then analysed, compared and contrasted in order to achieve the study objective. This chapter elaborates on the design of the research and the methodology used to achieve its objectives. It describes the procedures adopted and the rationale behind their adoption. Details of the fieldwork component of the research, including sampling procedures, participant information and the methods adopted for analysing the data, are also described in detail. The chapter concludes with a discussion on the finer procedural matters underlying the research.

4.1 Research design

The historical component of the research comprises data gleaned from scholarly works and personal accounts on the topic of script for the Sindhī language over the years. The fieldwork component comprises data gathered from members of the Indian Sindhī community on their views on script use for the Sindhī language, with particular attention paid to the question of using Roman for the language. A qualitative approach was adopted for data collection, since it was considered especially suitable for “data that do not indicate ordinal values” (Nkwi, Nyamongo, & Ryan, 2001, p. 1). In other words, the qualitative approach was seen as appropriate for data dealing with social patterns, perceptions, acceptance and opinions. A statistically-oriented quantitative research paradigm was seen as suboptimal for the nonquantifiable parameters of acceptance and opinions that underpin this study. The qualitative approach was also considered suitable thanks to its inherent focus on “richness, depth, nuance, context, multi-dimensionality and complexity” (Mason, 2002, p. 1). Investigation of the context was imperative, as any investigation of language-and-script considering *only* language-and-script

would be deficient. In other words, consideration of the “bigger social picture” (Edwards, 2009, p. 1) was key. Most importantly, the qualitative approach was considered suitable due to its emphasis on transcending mere descriptions and producing explanations or arguments (Mason, 2002, p. 7).

4.2 Historical review

The historical review comprised scrutinising the literature for narratives on script use for Sindhī over the last millennium. However, these narratives, or “recounting[s] of things spatiotemporally distant” (Toolan, 2001, p. 1), did not necessarily have the issue of script use for Sindhī as their focus. Consequently, information had to be gleaned from sources extending over a wide variety of genres: old and recent grammars and dictionaries of the Sindhī language, anthologies of Sindhī literature, government gazettes, travelogues of the Sindh region and personal accounts. Data gathered from these sources have been presented chronologically rather than thematically, as the focus was on the chronological progression of multiscriptality. Particular emphasis has been placed on the spread and use of Perso-Arabic and Devanāgarī, especially during the British and post-Partition era.

4.3 Fieldwork

The fieldwork component of this study comprised open-ended in-depth interviews with members of the Indian Sindhī community, with a view to obtaining their opinions on the issue of a script for Sindhī, particularly on the use of Roman. To this end, the fieldwork involved a process of “giving voice to the other” (Guest, MacQueen, & Namey, 2012, p. 13). This process was aided by the use of open-ended questions (see Appendix C), which had the potential of uncovering information not anticipated by the researcher (Guest, Namey, & Mitchell, 2013, p. 21)

4.3.1 Sampling

The basic criteria for including an individual as a potential participant in the study were twofold. First, the individual needed to self-identify as a member of the Indian Sindhī community. Since the focus was on linguistic and cultural affiliation, the citizenship(s) that they currently or previously held was immaterial. Second, they should have had their schooling in Sindh or elsewhere

in India. These were guiding principles to be followed in spirit rather than to the letter. In addition, a balance was also sought between the following types of participants:

- females and males;
- ages below 45 years, between 45 and 65 years, and above 65 years;
- those currently living in India and those overseas;
- those who had spent their childhood in large cities and those in smaller towns, irrespective of their current location;
- those fluent in Sindhī and those nonfluent in it; and
- those who could read Perso-Arabic Sindhī and those who could not.

The initial target area of research was the Mumbai-Pune belt of western India where the majority of Indian Sindhīs (~700,000) reside.¹¹ Through this initial cohort of participants, additional participants from other parts of India and overseas were subsequently contacted. In Singapore and Australia, assistance was sought through the Singapore Sindhi Association and the Sindhi Association of Victoria, respectively.

Before commencing the fieldwork, approval for the research was obtained from the Human Research Ethics Committee (HREC) of the University of New England. Purposive snowball sampling was used to shortlist potential participants. Personal acquaintances who self-identified as members of the Indian Sindhī community were first approached. Commencing the research with familiar individuals allowed the interview questions and techniques to be refined, before proceeding to unacquainted people. All potential participants were initially contacted via email or text message, and requested to reply if willing to participate in the study. On receipt of their confirmation, participants were given a brief about the research, including the requirement for audio recording. They were also reassured that their privacy would be safeguarded in line with HREC guidelines. An appointment for a qualitative semistructured interview was then arranged at a suitable time, either in person or over video-conferencing software. Prior to the interview, participants were given an information sheet (see Appendix C). This contained contact details of the researcher's supervisors at the University of New England, as well as a contact in Pune whom they could get in touch with in case of additional questions or complaints. Dr. Sundri Parchani kindly agreed to be the Pune-based contact for this study. Participants were also requested to sign a consent form (see

¹¹ The 2001 Indian census figures (Census of India, 2001c) cite Gujarāt as having a greater Sindhī-speaking population (958,787 speakers) than Mahārāṣṭra (709,224 speakers). However, this is chiefly due to the subsuming of Kachchhī speakers under Sindhī in Gujarāt (Anand, 1996, p. 182).

Appendix C). Remote participants were emailed a soft copy of the form, which they printed, signed, scanned and returned by email. Suggestions for additional potential participants were sought from individuals already interviewed. These individuals were then contacted in the same manner.

4.3.2 Participant demographic information

The final number of participants was determined by theoretic saturation, namely, a situation where no new patterns, or more specifically, no new properties of observed patterns emerge from the data (Charmaz, 2006; Glaser, 2001). However, the voluntary nature of participation and limitations of time and resources meant that certain sampling targets, such as a balance between female and male participants, or between those literate and nonliterate in Perso-Arabic Sindhī, were suboptimally realised.

A total of 50 participants—31 males and 19 females—were interviewed. The youngest participant was 28, and the oldest 85. Based on their age, participants were categorised into the youngest (ages 28–44), middle-aged (ages 45–64) and oldest (ages 65–85) generations. This three-generation classification was based on a similar concept adopted by Daswani and Parchani (1978) in their classic sociolinguistic study on Indian Sindhī. Of the participants interviewed, 20 were of the youngest generation, 12 were middle-aged, and 18 were of the oldest generation. Among the oldest generation, 16 were born in pre-Partition Sindh. Figure 4.1 summarises the distribution of participants across age groups.

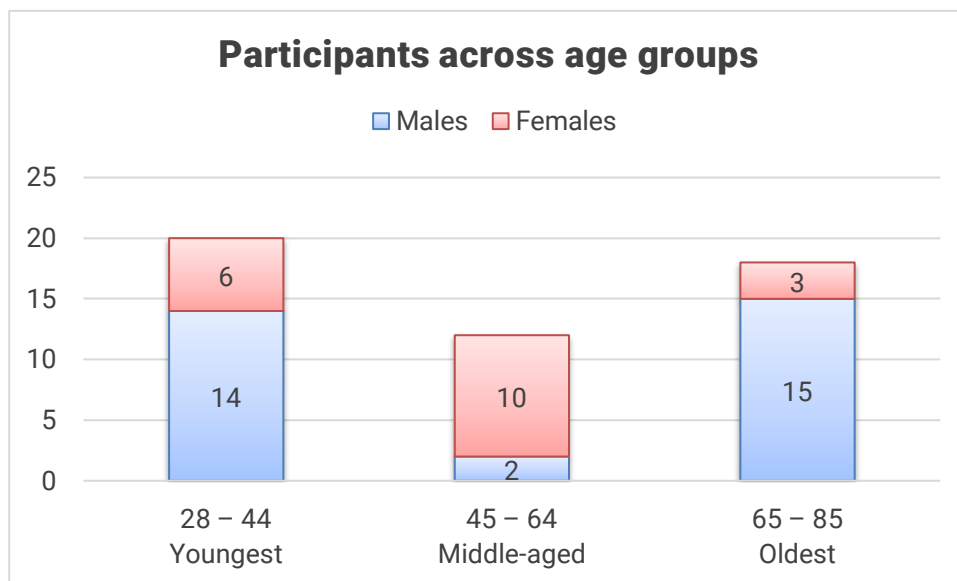


Figure 4.1. Number and gender of participants across three age groups

As mentioned, the first basic criterion for inclusion in this study was that the person should self-identify as Sindhī. Of the 50 participants, 47 had parents who were both Sindhī. Two had only one Sindhī parent, but maintained contact with Sindhī relatives. The remaining participant was a native Marāṭhī speaker with a Sindhī husband. However, she had learnt the Sindhī language well enough to write poetry in it, and was active in Sindhī literary circles in Pune.

The other basic criterion for inclusion in this study was school education in Sindh or India. Of the total interviewed, 44 participants had received their entire school education in Sindh or India. Three had spent a few childhood years in Dubaī, and one in Hong Kong, before moving back to India and continuing their education. However, when overseas, they had attended Indian schools that followed Indian curricula. Hence, this educational setting was deemed equivalent to one in India. Two participants had spent some or all of their formative years in Malaysia. One had moved from India to Malaysia at age 8, while the other was born and brought up in Malaysia, but moved to India after marriage. Most importantly, both spoke conversational Sindhī, had Sindhī spouses, and maintained close links to other Sindhīs. It was felt that the inclusion of these participants would enrich the data and add fresh perspectives on the Sindhī script issue. For this reason, they were included in the study.

Interviews were carried out from August 2014 to January 2015. All interviews were conducted personally by the researcher. Forty-two were interviewed one-on-one. The remaining eight participants were interviewed in pairs in four separate sessions. Three of these four pairs comprised family members, while the remaining pair comprised colleagues. Each interview question was separately posed to each participant, in order to ensure that they each received an opportunity to explicitly state their views. Joint interviews were avoided, to the extent possible, in order to prevent one participant's views from being influenced by the presence of the other participant.

Interviews were conducted in India, Australia and Singapore, and over video-conferencing software (Skype). Thirty-three participants were interviewed in India, ten in Australia, and four in Singapore. Four participants residing in the USA and Canada were interviewed over Skype. That said, interview location and current place of residence were not necessarily the same for participants. Of the total interviewed, 30 participants were ordinarily resident in India and 20 in other countries, including Australia, Canada, Hong Kong, Singapore and the USA. Regardless, participants' current place of residence did not necessarily indicate a childhood association with the place.

Of the 50 participants, 44 had spent all their childhood years in India, or in Sindh followed by post-Partition India. Of these, 25 had spent the majority of their childhood in large metropolises. These included 22 who had grown up in Bangalore, Delhi, Mumbai or Pune, and three older participants who had spent some or all of their school years in Karāchī. In contrast, 19 participants had grown up in smaller cities, including Ulhāsnagar, Gāndhīdhām, Ajmer and Hyderabad (Sindh). Five had split their childhood between India and another country, and one had grown up entirely in Malaysia. The distribution of participants' childhood locations is shown in Figure 4.2.

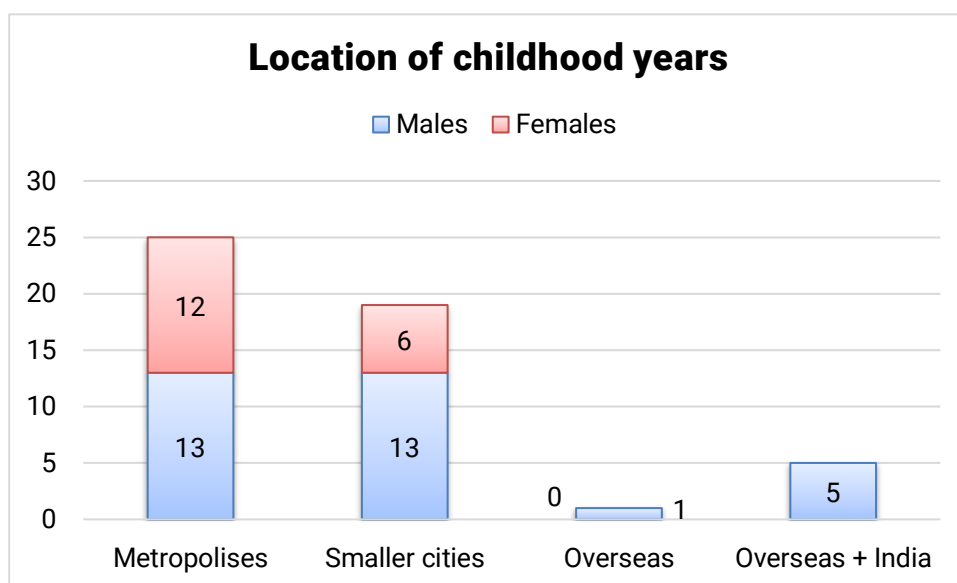


Figure 4.2. Locations where participants spent their childhood years

In brief, it was common for participants in all generations to have complex geographical affiliations. As children, the oldest generation moved among several locations in India due to their refugee status. However, some of them eventually went on to temporarily live or permanently settle overseas. The middle-aged generation, too, often moved cities and countries in early adulthood, but as economic migrants and not as refugees. The youngest generation had been highly mobile since childhood. Indeed, several participants were at a loss when asked where they were from. The multiple geographical affiliations of participants succinctly highlight the transnationalism (Vertovec, 2009) of the Indian Sindhī community. Hence, the stated figures on geographical affiliations should only be taken as indicative.

In terms of overall education levels, at least 39 had a university degree or diploma. This is in line with Khubchandani's (1998, p. 8) observation that the Indian Sindhī community has achieved "near-universal literacy". The acknowledged economic success of the community (Falzon, 2004; Markovits,

2000) can also be partly attributed to its high levels of education. The exception to this rule was the oldest participant, who was 85 years old at the time of the interview. He had dropped out of school in Sindh after Year 2, due to economic constraints, but had gone on to become a wealthy businessman. Most importantly, he was literate in both Perso-Arabic and Devanāgarī Sindhī. Those participants who did not specify their levels of education were all over the age of 70, and were either retired or working part-time. Figure 4.3 shows the relative levels of education among participants.

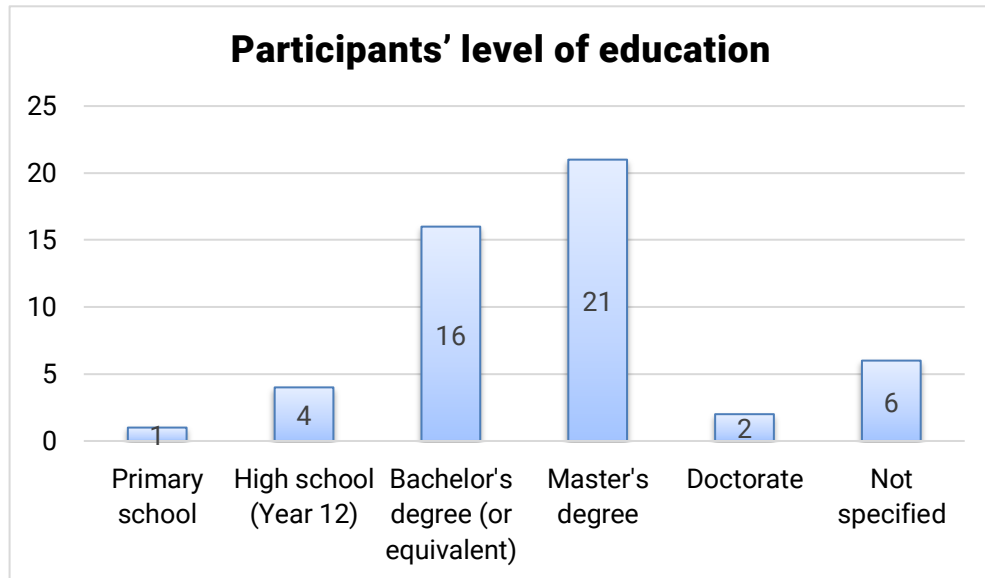


Figure 4.3. Breakup of participants according to level of education

Despite the high levels of education, only 19 of the 50 participants had received any education in Sindhī, either as a medium of instruction or a school subject. Of these participants, 17 were 65 years of age or older. This was indicative of the decline in demand for the language in education and its consequent availability in schools. In other words, the only participants to have received any formal education in Sindhī were those of school-going age during the Partition era, before the mushrooming of private English-medium schools in Indian cities. Significantly, the two younger participants who had some Sindhī-medium education were in fact lecturers of Sindhī in universities in Mumbai and Pune. Both had Master's degrees in the language. The other 31 participants had received no formal or informal education in Sindhī.

In terms of self-reported language fluency, 28 of the 50 participants claimed thorough understanding and speaking abilities in Sindhī—18 of them were in the oldest generation, nine in the middle-aged and one in the youngest. Twelve of these fluent speakers were involved in academic, literary or other Sindhī-language-related activities. For convenience, these participants are referred to

as ‘scholars’ in this study. Nine of the scholars belonged of the oldest generation. Figure 4.4 shows the distribution of participants’ claimed Sindhī fluency on a scale of 1 to 5, where 1 represents bare minimum knowledge and 5 fluency.

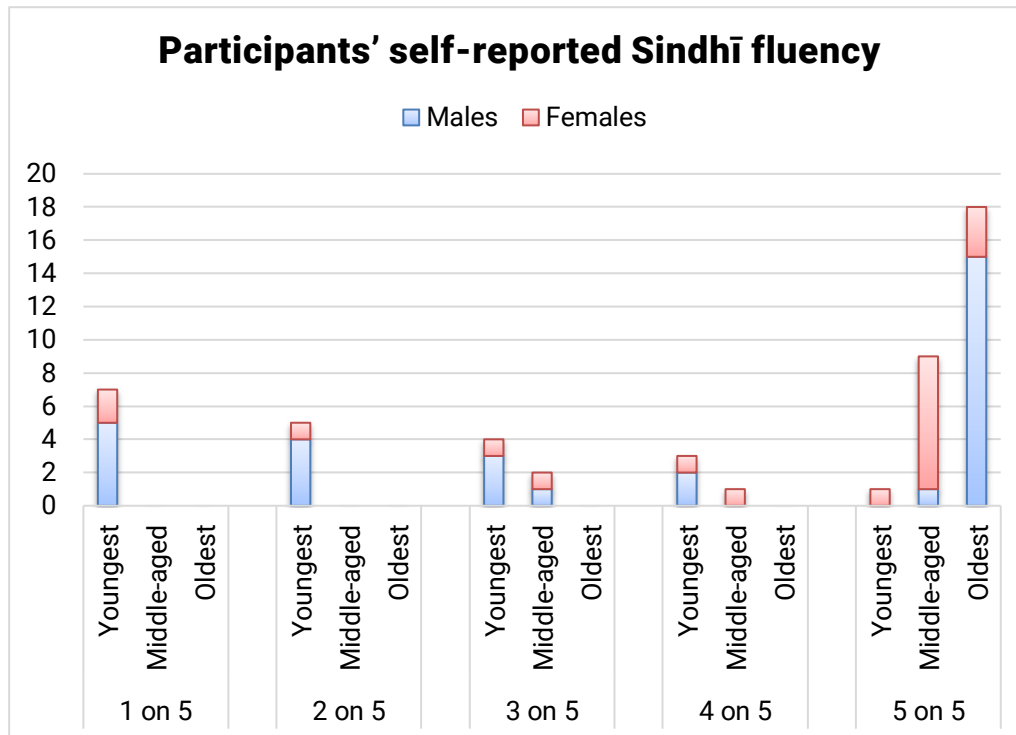


Figure 4.4. Breakup of participants according to Sindhī fluency

In terms of script abilities, 18 participants were able to read Perso-Arabic Sindhī, of whom 17 were 65 years of age or older. All of them had received some form of education in Sindhī, either as a medium of instruction or as a subject. All of them also had at least some experience of reading Devanāgarī Sindhī. Ten of the scholars were literate in both Perso-Arabic and Devanāgarī Sindhī, while the remaining two scholars were familiar only with the latter.

In terms of Devanāgarī Sindhī abilities, ascertaining participant abilities was problematic. All but one participant claimed to be able to read Devanāgarī. However, their Devanāgarī ability was largely due to literacy in Hindī. In fact, 14 participants were not aware that Sindhī was also written in Devanāgarī. Seven were aware of the existence of Devanāgarī Sindhī, but had never read any. Of the 28 that had had exposure to Devanāgarī Sindhī, only four had received formal education in it, at least as a school subject. Seven were fluent in Devanāgarī Sindhī despite not having studied in it, due to extensive reading and writing on a personal level. 17 indicated that they had some reading experience in Devanāgarī Sindhī, in some cases extremely limited.

4.3.3 Data collection

Interviews were conducted in English, Hindī and Sindhī, depending on participant ability and preference. Code-switching and code-mixing was inevitable and presumed, as this is common practice in urban multilingual milieus in India (Kothari R., 2003, p. 33). Since the focus of the research was the content of participants' utterances and not the utterances themselves, the language(s) of the interview did not affect the data.

Before the interview, the open-ended nature of the questions was explained to the participants and they were encouraged to speak at length. The open-ended nature of the interview allowed for inductive probing (Guest, MacQueen, & Namey, 2012, p. 13), namely, seeking further clarification from the participants on their statements if required. It also allowed for the sequence of questions to be kept flexible and give the interview a better flow based on the participant's response. Participants' background and a self-evaluation of Sindhī fluency were first obtained. This was followed by information on their ability in and usage of the Perso-Arabic and Devanāgarī scripts for Sindhī. Their opinions on the scripts in terms of suitability for the language and any suggestions for resolving the script dichotomy were sought. Their opinion on the usage of the Roman script for Sindhī was explicitly requested, along with the perceived advantages and disadvantages of such a script.

Participants were then shown short text passages in Perso-Arabic, Devanāgarī and Roman Sindhī, adapted from primary school textbooks (see Appendix C). All three texts were originally in Perso-Arabic. One was retained in the original, one converted to Devanāgarī Sindhī and one into Roman Sindhī. Conversion into Devanāgarī and Roman was carried out based on Lekhwani's (1996) and Grierson's (1919) conventions, respectively. Participants were asked to read aloud the passages whose scripts they were familiar with and provide feedback on their reading experience of each passage. Nominally technical questions such as those on optimal sound-letter mapping and diacritics were also posed. Also posed were questions on any perceived link between script and religion, and on the extent to which they thought Roman should be used for Sindhī. For an interview outline in English, as well as the Sindhī text passages in the three scripts, see Appendix C.

All interviews were recorded using a Sony ICD-PX440 portable recorder. Following the completion of an interview, it was transcribed for further analysis. This included a rendering in the International Phonetic Alphabet (IPA) of participants' reading of the Sindhī text passages.

4.3.4 Data analysis

Initial interviews were transcribed and analysed shortly after completion so that preliminary patterns in the data could be identified and incorporated as required in subsequent interviews. This system of ongoing coding and analysis, or constant comparative analysis (Glaser & Strauss, 1967) enabled data to be provisionally categorised and themes to be continuously conceptualised.

Following the completion of data collection, data were scrutinised as a whole in order to further refine the provisional categorisations. This process of content analysis, namely, a “research technique for making replicable and valid inferences from texts . . . to the contexts of their use” (Krippendorff, 2004, p. 18), involved two levels of analysis. The manifest level entailed describing what was actually said by the participants, while the interpretative level focused on what was meant or implied. This enabled underlying inferences in the utterances to be brought to the surface (Ndhlovu, 2011).

As a part of content analysis, the data were subjected to thematic analysis. This involved sifting patterns from the data while bearing the specific research questions in mind and categorising the patterns under fundamental themes called codes. The codes were identified on the basis of how well they captured the qualitative richness of the phenomenon under consideration (Boyatzis, 1998) and were subject to constant revision. A two-stage classification then followed, where codes were consolidated into organising themes and global themes. This approach contained elements of both deductive thematic analysis, in that the codes revolved around the aforementioned specific research question, as well as strains of inductive thematic analysis, in that the codes were not preconceived but sought from the data themselves (Braun & Clarke, 2006, pp. 83-84; Fereday & Muir-Cochrane, 2006, p. 91). In many cases, the codes did not show any direct link to the questions asked. The key criterion for classification as a code was that the information in the data needed to be related to the topic of script and language, but not necessarily to the interview questions. The usefulness of this approach was vindicated by the fact that the participants often volunteered additional relevant information, over and above what the interview question addressed. The ultimate aim of the analysis was to identify patterns of script use and opinions, and on this basis, provide recommendations on the way forward (Guest, Namey, & Mitchell, 2013, p. 13).

In the presentation and analysis of fieldwork data in Chapter 6, excerpts from interviews have been inserted where relevant to further illustrate the points under discussion and the direct connection between participants’ words and the interpretation of the data (Fereday & Muir-Cochrane, 2006, p. 81). It

should be noted that participants' statements were often incomplete, involved code-switching and code-mixing, featured multiple stops and starts, and often left out information implied in the context. For this reason, interview excerpts should be understood as capturing the gist of participants' utterances, rather than as a literal reproduction of their utterances. This practice is also consistent with the study's focus on the *content* of participants' statements, rather than their *form*. Nevertheless, efforts have been made to retain the participants' original words to the extent practically possible.

Interview excerpts are followed by a reference, comprising the participant's serial number and a letter denoting their gender. For instance, any excerpts from the interview with the twenty-fourth participant, who happened to be a female, are followed by the reference '(24F)'. Excerpts translated into English from Hindī or Sindhī have been marked '(translated)'. Source-language versions of excerpts have not been provided due to space constraints. Explanatory text within excerpts has been enclosed in braces { } instead of the conventional square brackets []. This is to avoid confusion with the square brackets conventionally used to indicate phonetic pronunciations.

4.3.5 Procedural considerations and scope

It was crucial that the title and nature of the study did not give the participants the impression that the researcher's aim was to *promote* Roman for Sindhī. In other words, the study needed to be insulated against supposed experimenter bias. This was done by formulating open-ended questions by using words such as *why* and *how*, especially those dealing with participants' opinions. Closed questions were used when ascertaining facts from participants' language history, such as their exposure and familiarity to the Sindhī language in various scripts. Since such questions did not concern participants' opinions, framing them in a closed manner was considered safe from a neutrality perspective.

On a related note, it was also critical that the researcher did not succumb to the curse of knowledge (Camerer, Loewenstein, & Weber, 1989), namely, the inability of a person who knows more about a particular subject to view the subject from the perspective of those who know less about it. This would have been counterproductive, since the very aim of the study was to find out what the participants thought. Therefore, every attempt was made to ensure that the questions were relevant to the participants, related to their lived experiences and did not involve technical or nebulous jargon. Consequently, complex terminology was rendered in plain language, in line with common usage

among the participants. For instance, the Roman script was referred to as ‘English letters’, and diacritics as ‘extra symbols’.

On the subject of terminology, the word ‘attitudes’ has been avoided to the extent possible in the analysis of the results when discussing participants’ reported feelings and behaviours. This has been done since the definition of attitude varies from individual to individual, and indeed author to author.¹² Moreover, attitudes can be difficult to reliably measure, simply because they are difficult to observe and evaluate. Therefore, the less loaded term *OPINIONS* has been preferred for the subject matter of the study, that is, participants’ self-reported thoughts on the use of Roman for Sindhī, garnished with varying quantities of emotion.

Terminology aside, the fact remains that in an ideal scenario, participants should have reported their honest thoughts free of any external influences (Sunderland, 2010, p. 24). In particular, participants’ opinions should ideally not have been tainted by the knowledge that they were being observed by the researcher. Participants should also not have felt any implicit self-imposed pressure to conform to what they might have incorrectly assumed to be the researcher’s aim, that is, to promote Roman. In other words, participant reactivity to the research (Heppner, Wampold, & Kivlighan, 2007) should have been nil. However, participant reactivity could not have practically been avoided in this study, since gathering participants’ informed consent was an ethical prerequisite (see Appendix C). The very process of participants reading the Information Sheet and signing the Consent Form would have made them conscious that they would be observed. Hence, attempts were made to compensate for this by avoiding linguistic and ideological priming as far as possible, and designing interview questions to be open, as described earlier.

Regarding implicit pressure to conform to the researcher’s perceived intentions, some participants might have used satisficing techniques (Simon, 1956) to some extent or the other. That is, participants might have provided answers which according to them would satisfy the researcher, and suffice for purposes of the research. It is, therefore, unrealistic to expect any sort of survey or interview data, whether quantitative or qualitative, to serve as *unambiguous* indicators of people’s true opinions. Indeed, some participants admitted that they had never thought about the Sindhī script issue before. Considering that the idea of using Roman for Sindhī was novel to these participants, their

¹² Where used, the term ‘attitude’ has been understood as “compris[ing] three components: belief, emotion and a disposition to act” (Edwards, 2011, p. 31).

responses may reflect only their initial opinions. Their responses may have been different had they had more time to reflect on the idea.

These uncertainties were likely why I was gently cautioned by a participant (#38M), a Sindhī grammarian and lexicographer, that “this business of [gathering] people’s opinions is rather risky”. Nevertheless, while relying on people’s opinions may well be risky, researchers do not have much choice in the matter. In this regard, Fishman (1991) has concisely summarised the indispensability of qualitative self-reported data when gauging opinions on and attitudes towards language:

If attitudes . . . do become of overriding interest or importance, there is usually no practical alternative to . . . collecting self-report data about them via ‘scales’ or ‘questionnaires’.

(Fishman, 1991, p. 49)

In any case, even if it is somehow possible to narrow down and identify people’s true opinions and behaviours, this would not guarantee that these people would eventually adopt a solution that is supposedly suitable under the circumstances. This is simply because they are human, and therefore, emotional beings. A cold, objective solution to the script issue that does not take people’s emotional idiosyncrasies into account would likely ultimately fail. This is why people’s opinions, albeit risky, have value. This idea has been succinctly expressed by Edwards (2011):

[E]ven if reported attitudes do not always correspond to actual behaviour – even if, in some situations, they rarely do so – we ought not to assume that they are without value. Sometimes what people say is just as interesting and revealing as what they do. Discrepancies may provide some perspective on the intertwining of the individual with the social, rather than presenting disturbing or perplexing anomalies.

(Edwards, 2011, p. 41)

When it comes to gathering people’s opinions on written language, Cahill (2011) advocates giving community opinion utmost importance when deciding on an orthography. Cahill’s maxim could be applied when deciding on a script as well, in that what should matter most is what the community feels about it. Of course, this does not mean everyone in the community itself would necessarily be in favour of giving community opinion too much importance. The example of a participant forewarning me against overreliance on people’s opinions has already been mentioned above. I was also advised by another participant, a Sindhī lexicographer and translator (#25M), in complete contrast to the spirit of Cahill’s statement, that people “would have to do what the government tells

them to do”, meaning that people’s opinions were insignificant. However, the very fact that the participants making such statements would have wanted their own opinions to be given due consideration proves the fact that community opinion does matter. This study is therefore further justified based on the aforementioned principle.

4.4 Summary

This chapter has described the research methodology and procedures adopted in this study and underscored the study’s qualitative approach to the sociolinguistic phenomena under investigation. The scope of the study has necessitated dividing data collection into historical and present-day components. Data from the historical review have been organised in chronological progression, whereas data from fieldwork have been organised in the form of themes. Based on the analysis of historical and fieldwork data, findings are reported on the past and present patterns of, and the reasons for, script use for the Sindhī language. The analysis component of this study follows in the next two chapters.

Perso-Arabic, Devanāgarī and historical script use

This chapter forms the first part of the analysis component of this study. First, the structure and main features of the Perso-Arabic and Devanāgarī scripts as used for the Sindhī language are described. Next, a synopsis of issues in orthography and standardisation in these scripts is provided, with particular emphasis on their pedagogical and sociolinguistic implications. This is followed by a comprehensive historical review of script usage for the Sindhī language, starting from its origins up to present times. This includes a thorough investigation into the patterns of use of various scripts, their main user bases, and the reasons for their fading away. Key events in the script chronology of Sindhī are highlighted, and findings from these historical occurrences further analysed for their pedagogical and sociolinguistic significance.

5.1 Perso-Arabic for Sindhī

The official script for Sindhī in Pakistan is the Perso-Arabic script. As its name suggests, it is based on the Persian version of the Arabic script (Khubchandani, 2007, p. 696; see Table 5.1). In India, it is recognised as a co-official script for the language, along with Devanāgarī (Daswani, 1979).

5.1.1 Structure

As is the norm with Arabic-based scripts, the Perso-Arabic Sindhī script runs from right to left. It is inherently cursive, with base graphemes within a word generally joining the following one. This causes certain graphemes to have different shapes depending on their position within a word (Bauer, 1996).

Table 5.1. Perso-Arabic Sindhī alphabet
with standard phoneme-grapheme correspondences

s	t ^h	t	t ^h	t̤	b ^h	b̤	b	<i>alif^u</i>
ث	ٹ	ت	ت̤	ت̣	پ	پ̤	ب	ا
ħ	t̤ ^h	t̤	ɲ	d̤ ^h	f	d̤ ^h	p ^h	p
ح	چ̤	چ	چ̣	ج̤ ^h	چ̣	ج̣	ق̣	پ̣
ɾ	r	z	d ^h	ḍ	d ^h	d̤ ^h	ḍ	x
ڑ	ر	ذ	ڍ	ڊ	ڌ	ڌ̤	ڍ̣	خ
ʎ	Ø	z	t̤	z	s	ɖ	s	z
غ	ع	ظ	ط	ض	ص	ش	س	ز
ŋ	g ^h	g ^h	g	k ^h	k	q	f	f
گ	گ̤	گ̣	گ̣	ک̤	ک̣	ق̣	ف̣	ف̣
j	<i>hamzo</i>	ħ	ʋ	ɳ	n	m	l	l
ي	ء	ھ	و	ڻ	ن	م	ل	ل

Note: Collation order based on Mewaram (1910)

Consonants are represented as simple base graphemes. A consonant that is not followed by a vowel is simply shown as a bare consonant grapheme. If the absence of a vowel needs to be explicitly indicated—for instance, in primers—then the diacritic ⟨◌̣⟩ is placed atop the consonant grapheme. However, there is disagreement among Sindhī grammarians on the possibility of vowelless consonants in word-medial and final positions. This is explained further in Section 5.1.3.

Compared to consonants, vowels have more complex representations. A lax vowel is shown by a diacritic above or below a base. A tense vowel is usually shown in two parts—a diacritic part written above or below a base, and an in-line part written after the base. When a vowel phoneme follows a consonant phoneme, the vowel grapheme is written using the consonant grapheme as the base. When a vowel phoneme occurs word-initially, a vowel-holder grapheme called *alif^u* is used as the base. When two vowels occur consecutively, the second vowel uses another type of vowel-holder grapheme called *hamzo* as the base.

Examples of vowel graphemes written using *alif^u*, *hamzo* and the consonant grapheme for /b/ as the base are shown in Table 5.2. Graphemes on the lower line are variant forms, which will be treated in greater detail in Section 5.1.3.

Table 5.2. Representation of vowels in Perso-Arabic Sindhī

WORD-INITIAL FORMS WITH <i>ALIF</i> ^U										
ɔ	o	ε	e	u	ʊ	i	ɪ	a	ə	
اَو	او	اَي	اي	اُو	اُ	اِي	اِ	اَ	اَ	
اَوُ		اُي		اُو		اِي				
SECONDARY FORMS WITH <i>HAMZO</i>										
o	e	u	ʊ	i	ɪ	a	ə			
ئو	ئي	ئو	ئُ	ئي	ئِ	ئا	ئَ			
		ئو		ئي						
<i>In Sindhī, /ε/ and /ɔ/ do not occur as the second vowel of a vowel sequence</i>										
FORMS USING CONSONANT AS BASE										
bɔ	bo	bε	be	bu	bʊ	bi	bɪ	ba	bə	b
بَو	بو	بَي	بي	بُو	بُ	بِي	بِ	با	بَ	ب
بَوُ		بُي		بُو		بِي				بُ

Graphemes for Sindhī-specific phonemes have been created by adding or repositioning dots and diacritics on graphemes used in Arabic or Persian (Salomon, 2007, p. 110; see Table 5.3).

Table 5.3. Selection of Sindhī-specific graphemes derived from pre-existing Arabic graphemes

ARABIC VOWEL GRAPHEME		DERIVED SINDHĪ VOWEL GRAPHEMES	
اَي	/i/	اَي	/e/
اُو	/u/	اُو	/o/
ARABIC CONSONANT GRAPHEME		DERIVED SINDHĪ CONSONANT GRAPHEMES	
ج	/d͡ʒ ~ d͡ʒ/	چ	/f/
ت	/t ~ t̪/	ت	/t̪h/
د	/d ~ d͡d/	ڈ	/d͡d/
		چ	/ɟ/
		ت	/t̪/
		ٹ	/t̪h/
		ڈ	/d͡d/
		د	/d͡d/
		ڈ	/d͡d/
		ڈ	/d͡d/

In terms of typographical appearance, Perso-Arabic Sindhī is characterised by the multitude of dots in use. Another distinct feature is the conventional use of the *naskh* calligraphic style (Shackle, 2014). These features visually distinguish the Sindhī version of the Perso-Arabic script from versions used for other Subcontinental languages such as Urdū and Kashmīrī.

5.1.2 Orthography

The Sindhī language lacks several phonemes that the Arabic language has. However, the distinct graphemes for these phonemes are retained as they are

in the Perso-Arabic Sindhī script. As a result, the script contains superfluous graphemes that result in a many-to-one mapping of graphemes to phonemes. Table 5.4. shows a few homophonous graphemes in the Perso-Arabic Sindhī script, with their Arabic and Sindhī pronunciations.

Table 5.4. Arabic and Sindhī phonemic values of certain Perso-Arabic graphemes

PERSO-ARABIC GRAPHEME	ح ه	ط ت	ث س ص	ذ ز ض ظ
ARABIC PRONUNCIATION	/ħ/ /h/	/t/ /tˤ/	/θ/ /s/ /sˤ/	/ð/ /z/ /zˤ/ /ðˤ/
SINDHĪ PRONUNCIATION	/ɦ/	/ṭ/	/s/	/z/

A logical extension of graphemic retention is orthographic retention. This refers to the retention of source-language orthography for loanwords in the target language, when both the source and target languages use the same script. Share and Daniels (2016) refer to this phenomenon as *ORTHOGRAPHIC INERTIA*. Sindhī is a noteworthy case of a language that displays orthographic inertia both in its Perso-Arabic and Devanāgarī scripts. An example of orthographic inertia in Perso-Arabic Sindhī is that of the Arabic loanword (تعليم) ‘education’. In standard Arabic, this word is pronounced [taʕlīm]. However, in Sindhī, its pronunciation is indigenised to [ṭelimˤ]. In general, loanwords from Arabic and Persian retain their original orthography in Sindhī, apart from minor adaptations to Sindhī morphophonology. This retention of source orthography sometimes serves a disambiguating purpose, as can be seen in Table 5.5.

Table 5.5. Homophonous lexemes in Perso-Arabic Sindhī

SINDHĪ WORD	PRONUNCIATION	GLOSS
مَدُو	[mɔḍo]	‘time period’
مَدَعُو		‘issue, matter’
بَسَرُو	[bəsərˤ]	‘livelihood’
بَصَرُو		‘onion’
حَالُ	[ɦalˤ]	‘condition, state’
هَالُ		‘hall’

Note: Adapted from Lekhwani (1996)

However, the retention of source orthography also means that the spellings of such loanwords often need to be learnt by rote. That said, such cases of homophony-but-heterography in Perso-Arabic Sindhī are few.

The converse, that is, homography-but-heterophony is also present in the orthography. In line with standard Arabic-script practice, diacritics for lax vowels are usually omitted in Perso-Arabic Sindhī orthography (Shahaney, 1906/1967, p. 11). This customary omission of lax vowel diacritics often results in homographs, as shown in Table 5.6.

Table 5.6. Homographic lexemes in Perso-Arabic Sindhī

HOMOGRAPHIC FORM WITHOUT DIACRITICS	POSSIBLE READING	PRONUNCIATION	GLOSS
مٲ	مٲٲ	[məʈʰ]	‘earthen pot’
	مٲٲ	[mɪʈʰ]	‘cheek’
	مٲٲ	[mɪʈʰ]	‘relative’
	مٲٲ	[mʊʈʰ]	‘urine’
يچن	يچن	[bʰəʈəʈʰ]	‘to break’
	يچن	[bʰʊʈəʈʰ]	‘to roast’

Note: Adapted from Lekhwani (1996)

It is evident that the onus is on the reader to disambiguate homographs from the context. Such disambiguation necessitates fluency in the language.

It may be argued that there is a semblant advantage to omitting lax vowel diacritics in Perso-Arabic Sindhī orthography. Since reduced lax vowels are present in old variety Sindhī but largely absent in the new variety (§ 2.2.3), omitting lax vowel diacritics in the orthography allows the reader to mentally add reduced lax vowels according to their own idiolect. That is, it acts as a hypodifferentiated standard (Cerrón-Palomino, 1991, p. 36) that allows for words to be pronounced according to the old or new variety chronoelect, while maintaining a cross-chronoelectal orthographical standard. However, this is effectively a moot point, since most Sindhī new variety speakers in India are nonliterate in the Perso-Arabic script.

5.1.3 Standardisation

The shapes of the individual graphemes in the Sindhī version of Perso-Arabic were standardised by the colonial Government of Bombay in 1853 (Pandey, 2010a, p. 1). However, Lekhwani (2011, p. 38) notes that matters of diacritics

and spellings of words were not considered in depth. For this reason, there remains considerable variation on the finer points of the Perso-Arabic Sindhī orthography to this day. The most salient of these points are outlined below.

Reduced vowels

Due to lax vowels being conventionally omitted in writing, there is disagreement among scholars on the representation of medial and final lax vowels in certain words. For instance, the unmarked word (جھڙو) ‘which (correlative)’ is diacriticised by Cole (n.d.-c) as (جھڙو), which is phonemically /dʒɪɦəɾo/. In contrast, Lekhwani (1996, p. 62) diacriticises the same word as (جھڙو), which is phonemically /dʒəɦɪɾo/. Mewaram (1910, p. 181) lists both forms. Compare these to the colloquial realisation of this word, which is generally [dʒəɦɪɾo].

Gemination and vocalic endings

Another area of disagreement is the representation of gemination and vocalic endings. In his classic grammar, Trumpp (1872, p. xxxiii f.n.) states that gemination is not usually marked in the orthography, except to avoid potential homographs. Trumpp cites the examples of (اُن) ‘his/her/its’ and (اُنَّ) ‘wool’, the diacritical spellings of which suggest the pronunciations [ʊn^ə] and [ʊnn^ə], respectively. However, the entry for ‘wool’ is cited by both Mewaram (1910, p. 25) and Lekhwani (1996, p. 15) as (اُن), which reflects the pronunciation [ʊn^ə]. Consequently, the variation spills over onto other scripts; in his Devanāgarī Sindhī dictionary, Hardwani (1991, p. 403) lists both spellings under ‘wool’, effectively representing both pronunciations.

Variation is more pronounced when it comes to loanwords. Consider, for example, the Arabic loanword (عزت) ‘respect’ (§ 3.2). According to Khubchandani (2007, p. 697), the diacritical version of this word is (عَزَّتْ). This reflects the pronunciation [ɪzzət̪], with a final vowel absent and gemination present. On the other hand, Lekhwani’s (1996, p. 12) diacritical version of this word is (عَزَتْ). This reflects the pronunciation [ɪzət̪^ə], with a final vowel present and gemination absent. Nevertheless, the colloquial pronunciation of both variants would be similar, varying on a spectrum between the two pronunciations cited.

Loanwords

A related phenomenon is that of the Perso-Arabic-script spellings of recent loanwords from languages other than Arabic or Persian, the pronunciations of which may not yet have undergone phonemic indigenisation in Sindhī. An example is the English word ‘mobile’. Since scholars are not in agreement

whether unassimilated consonant-final loanwords should have a final reduced vowel appended to them or not, it is unclear whether this word should be transcribed in Perso-Arabic Sindhī as (موبائل) [mobail] or (موبائِل) [mobail^o].

Consonant clusters

The question of representing reduced vowels also surfaces with regard to medial consonant clusters. Since there is great idiosyncratic variation in the pronunciation of consonant clusters, there is corresponding variation in the orthography. This uncertainty regarding orthographic representation of consonant clusters occasionally results in variant orthographic practices by the same author and within the same text. Figure 5.1 offers an example of such practice. This is an image from the website of the Karāchī-based Sindhī media group *Awami Awaz*, advertising a programme entitled [ɪkʰɪjũ mɪɾʰɪjũ ɡalʰɪjũ], with the name spelt in Perso-Arabic as (تکيؤن مڻيؤن ڳالهيؤن).



Figure 5.1. Variable vowel graphemes in Perso-Arabic Sindhī orthography

Adapted from *Awami Awaz*, n.d., Retrieved August 31, 2015 from <http://awamiawaz.com/>. Copyright 2013 Daily Awami Awaz.

The orthography of the first two words in the image is such that the potential consonant clusters <-کي> [-kʰj] and <-ئي> [-tʰj] have been separated by an intervening <ِ> [ɪ]. That is, they appear as <-کي> [-kʰjɪ] and <-ئي> [-tʰjɪ], respectively. However, the orthography of the third word shows a consonant cluster <-هي> [-lʰj], with no intervening <ِ> [ɪ].

Diacritics

Another area of ambiguity in Perso-Arabic Sindhī orthography is that of the placement of the diacritic component in vowel signs. As shown in Table 5.2, the vowel signs for /i/ and /u/ are traditionally written <يِ> and <ؤِ>, with the diacritic components <ِ> and <ُ> positioned below <ي> and above <و>, respectively (Lekhwani, 1996, 1997; Shahaney, 1906/1967; Varyani & Thakwani, 2003). However, due to Arabic and Urdū influence, these diacritics are often

found positioned on the preceding base grapheme instead. Therefore, the signs for /i/ and /u/ may also appear as ⟨يِ⟩ and ⟨وِ⟩, respectively. Occasionally, these alternative forms may appear in the same text, as evinced once again by Figure 5.1. In the first two words ⟨تکيُون مَنيُون⟩ [tik^hjū mɪ^hjū], the two-part vowel sign for /u/ has been written ⟨وِ⟩, with the diacritic component ⟨وِ⟩ positioned over the in-line component ⟨وِ⟩. However, in the third word ⟨گالهيُون⟩ [gal^hjū], /u/ has been written ⟨وِ⟩, with the diacritic component ⟨وِ⟩ appearing over the preceding consonant grapheme ⟨يِ⟩ /j/.

Similar variation prevails with regard to the vowel signs for /ε/ and /ɔ/. The commonly used forms for these vowels are ⟨يِ⟩ and ⟨وِ⟩, respectively, but ⟨يِ⟩ and ⟨وِ⟩ are also seen (Lekhwani, 1996, p. vi). Figure 5.2 shows a signboard at an intersection in the Khār suburb of Mumbai, named after an Indian Sindhī educationist. The signboard displays the name of the intersection transcribed into Devanāgarī, Perso-Arabic and Roman. In Perso-Arabic, the Sindhī word [t̪ɛɔ̌kʰ] ‘square, intersection’ has been spelt ⟨چُونک⟩ (or ⟨چُونکُ⟩, were vowel diacritics to be included). In contrast, Mewaram (1910, p. 211) and Lekhwani (1996, p. 57) both spell the same word ⟨چُونکُ⟩.



Figure 5.2. Triscriptal Sindhī-language signboard in Mumbai

Allographs and derivative graphemes

Alternation is also seen between Arabic and Sindhī graphemic forms, and between visually similar Sindhī-only graphemic forms. As mentioned at the beginning of this section, the cursive nature of the Perso-Arabic Sindhī script means that graphemes have slightly differing forms depending on whether they appear at the beginning, middle or end of a word. These positional variants are known as the Initial, Medial and Final forms, respectively. When not connected to any other grapheme, the variant is known as the Isolated form (Bauer, 1996).

However, Sindhī has a larger phonemic inventory than Arabic. Hence, new graphemes for Sindhī-specific phonemes have been created by spinning off positional variants in Arabic as independent graphemes in Sindhī. In other words, certain graphemic forms in the script that are only positional variants in Arabic are independent letters in Sindhī. Table 5.7 provides examples of how forms of the base grapheme for the Arabic phoneme /h/ (row 1) have been modified in Sindhī to represent all of the following:

- the phoneme /ħ/ (row 2);
- a graphemic suffix to represent aspiration on certain consonants (row 3);
- a word-final silent ⟨h⟩ (row 4), also known as the “imperceptible ⟨h⟩” (Shahaney, 1906/1967, p. 22).

Table 5.7. Positional variants of the grapheme ⟨h⟩ and derivative Sindhī variants

	FINAL FORM	MEDIAL FORM	INITIAL FORM	ISOLATED FORM	PHONEMIC VALUE
ARABIC	ح	ه	هـ	هـ	/h/
	1a	1b	1c	1d	
SINDHĪ	ھ	ھ	ھ	ھ	/ħ/
	2a	2b	2c	2d	
	ه	ه	(هـ)	(هـ)	/h/, /ħ/
	3a	3b	3c	3d	
	ا	-	-	ا	/Ø/
	4a			4d	

Note: Adapted from Kew (2005, p. 7)

While certain works adhere strictly to these graphemic distinctions (NCPSL 2005, 2014, 2015; Lekhwani, 1996; Varyani & Thakwani, 2003), others do not (Baloch, 1962; Lekhwani, 1997). For instance, the medial and final forms of the aspiration grapheme (cells 3b and 3a) may be replaced with the corresponding forms of /ħ/ (cells 2b and 2a). This means that graphemes such as ⟨هـ⟩ /g^ħ/ and

⟨جھ⟩/dʒʰ/ may appear as ⟨گھ⟩ and ⟨جھ⟩, respectively. An example of this can be seen in Figure 5.2, where the grapheme ⟨جھ⟩/dʒʰ/ has been replaced by ⟨جھ⟩ in the spelling of the word ⟨جھمٹمل⟩ [dʒʰəmətʰməl̪]. Conversely, the medial form of Sindhī /h/ (cell 2b) is often found replaced with the medial form of the aspiration grapheme (cell 3b) (Shahaney, 1906/1967, p. 9), which is visually identical to the medial form of Arabic /h/ (cell 1b). The final form of Sindhī /h/ (cell 2a) may also be swapped for the corresponding Arabic form (cell 1a). For instance, the word [həmeɐəh̪] ‘always’ is spelt by Lekhwani (1996, p. 194) as ⟨هَمَيْشَهْ⟩, but by Shahaney (1906/1967, p. 21) as ⟨هَمَيْشَهْ⟩. The reasons for variant usage include Arabic orthographic influence, idiosyncratic preference and font limitations (Cole, n.d.-c; SIL International, 2017).

Phoneme status

A related issue is that of the status of the phone [ɾʰ ~ ɾh], represented in writing as ⟨ڙھ⟩. Unlike most Arabic-script graphemes that join the following one, ⟨ڙ⟩/ɾ/ is an exception in that it does not. The grapheme ⟨ھ⟩, which follows ⟨ڙ⟩, is therefore written in its Initial form (see Table 5.7). This results in the status of ⟨ھ⟩ being ambiguous. One interpretation is that ⟨ھ⟩ represents aspiration (cell 3c), which would make ⟨ڙھ⟩ a single phoneme /ɾʰ/. The other interpretation is that ⟨ھ⟩ represents the phoneme /h/ (cell 2c). This would essentially make ⟨ڙھ⟩ a sequence of two separate phonemes, namely, /ɾh/. Both interpretations are found in the academic literature. As mentioned earlier (§ 2.2.3), scholars vary in opinion on the status of this phone. Whereas the ambiguity concerning the formal classification of this phone may not be of any articulatory or semantic consequence, it poses complications for the transliteration of Perso-Arabic Sindhī into Devanāgarī Sindhī. This is explained in further detail in Section 5.2.3.

Collation order

Despite having been in official use for over 150 years, there is still considerable variation in the collation order, or alphabetisation, of Perso-Arabic Sindhī characters. According to Grierson (1919, p. 21), the earliest ‘standard’ collation order was that used by Shirt, Thavurdas and Mirza in their Sindhī-English dictionary of 1879. Grierson employs the same collation order in the *Linguistic Survey of India* (1919), which is as follows:

ا ب پ ت ث ن ٹ پ ق ج جھ چ چ ح خ د ڈ ڙ ر ز س ش ص ض
ط ظ ع غ ف ق ک گ گھ ل م ن و ه ي

Mewaram (1910) uses the following collation order in his classic dictionary, as does Shahaney (1906/1967, pp. 2-3):

ا (آ) ب پ ت ث ٹ پ ق ج ج ج ج ج ج ح خ د ت ڈ ب ذ ر ژ س ش ص ض
ط ظ ع غ ف ق ک گ گ گ ل م ن ڻ و ه (ء) ي

This order differs from that of Grierson in the position of ⟨گ⟩ /ŋ/, and in the omission of ⟨ڙ⟩ /ʒ ~ ʒ/. The phoneme /ʒ ~ ʒ/ does not occur in Sindhī, and the grapheme ⟨ڙ⟩ is a relic inherited from the Persian alphabet. Jhangiani (1992) notes that subsequent attempts were made to reintroduce this grapheme into the collation order, without success.

Of late, the Sindhi Language Authority (SLA), which is the regulatory body for the Sindhī language in Pakistan, has put forward the following collation order on its website (Sindhi Language Authority, 2015):

ا ب پ ت ث ٹ پ ق ج ج ج ج ج ج ح خ د ت ڈ ب ذ ر ژ س ش ص ض ط ظ
ع غ ف ق ک گ گ گ ل م ن ڻ و ه ي

This order differs from that of Grierson and Mewaram mainly in the position of ⟨ق⟩ /p^h/, which now occurs after ⟨ف⟩ /f/ rather than after ⟨پ⟩ /p/. It also includes the vowel holder *hamzo* ⟨ء) as an explicit character.

However, parallel standards or quasi-standards have been listed elsewhere. For instance, the PAN Localization project (styled “panl10n”), an international consortium of several technological institutions across various Asian countries, cites the following collation order for Sindhī (Hussain & Durrani, 2010, p. 83):

ا ب پ ت ث ٹ پ ق ج ج ج ج ج ج ح خ د ت ڈ ب ذ ر ژ س ش ص ض ط
ظ ع غ ف ق ک گ گ گ ل م ن ڻ و ه ي

In this order, ⟨ق⟩ /p^h/ has been restored to the position specified by Grierson and Mewaram. Peculiar is the inclusion of the Persian and Urdū dotless ⟨ی) as opposed to the Sindhī ⟨ي) /j/, since the dotless version is not used in Sindhī orthography. Curiously, the document states that the “Sindhi collation sequence has been standardized and published by Sindhi Language Authority for Pakistan” (p. 85). A few pages later (p. 88), ⟨ه) is listed as a separate character in the alphabet distinct from ⟨ه) /h/, although not included in the original list (p. 83).

The *Sindhi (Pakistan) Style Guide* issued by Microsoft Corporation specifies the following collation order (2013, p. 7):

آ ا ب پ ت ث ن ٹ پ ق ج ج ج ج ج چ ح خ د ت ڈ ب ذ ر ز س ش ص ض ط
ظ ع غ ف ق ک گ گ گ ل م ن و ه ه ي

This list includes not just ⟨ه⟩ but also ⟨ā⟩ /a/ as explicit characters. This gives a total of 54 characters as opposed to the traditional 52. Overall though, this is similar to the panl10n order, and different from the SLA order in terms of the position of ⟨ق⟩ /p^h/. That said, the *Style Guide* also contains the following statement, which appears just below the list of characters:

All these characters are used in Sindhi text and Collating Order is Standardized by Sindhi Language Authority.

(Microsoft Corporation, 2013, p. 7)

It is therefore extremely unclear what the official collation order is for Sindhi in Pakistan. In India, the situation is as nebulous. Below are a few collation orders used in works by prominent Indian Sindhi authors:

Hardwani (1991, p. x):

ا ب پ پ ت ث ن ٹ پ ق ر ز د ت ڈ ب ح ج ج ج ج چ خ ع غ
س ش ص ض ک ق ط و ل م ن و ه ج ه ي

Lekhwani (1997, p. xii):

ا ب پ پ ت ث ن ٹ پ ق د ت ڈ ب ج ج ج ج چ ح خ ر ز س ش ص ض ط ظ ع غ
ف ق ک گ گ گ ل م ن و ه ج ه ي

Varyani & Thakwani (2003, p. x):

ا ب پ پ ت ث ن ٹ پ ق گ گ گ ک ي د ت ڈ ب ح ج ج ج ج چ خ ع غ ر ز
م ن ل س ش و ق ص ض ن ط ظ ه ج ه ک ي

Khubchandani (2007, p. 697):

ا ب پ پ ت ث ن ٹ پ ج ج ج ج چ ح خ د ت ڈ ب ذ ر ز س ش ص ض ط
ظ ع غ ف ق ک گ گ گ ل م ن و ه ي

As is evident, such idiosyncratic variation in collation order can have significant consequences for lexicographic works. In an increasingly digital world, it also has implications for computer-aided sorting.

5.1.4 Summary

This section has highlighted areas of both orthographic clarity and ambiguity in Perso-Arabic Sindhī. Linguistically speaking, ‘standard’ orthographies, glyphs and collation orders are not critical components of language, and only serve as finishing touches to the written form of language. However, in a modern world where literacy is prized and written languages are considered of greater cultural value than oral ones (Coulmas, 2014, p. 1; Fishman, 1997, p. 154), the standardisation of the aforementioned finishing touches assumes importance for lay users. As Bunčić (2016a, p. 16) states, “the invention of the printing press made people think that every language had (and had to have) a uniform orthography”. Jaffe echoes this sentiment in observing that:

it is not only important [from the layperson’s perspective] to have an orthography, but it is also critical for that orthography to have prescriptive power – to be standardised and authoritative . . .

(Jaffe, 2000, p. 506)

Consequently, in a literate society, standardisation or lack thereof in matters of orthography, glyph inventory and collation order add to or detract from the popular image of a language. In the context of the Sindhī language in India, the lack of consensus on the aforementioned matters, namely the application of diacritics, the shapes of graphemes and the collation order of letters, may not impact those fluent in the language and in the Perso-Arabic script. Nevertheless, it does carry significant ramifications for Sindhī pedagogical material such as dictionaries and primers and, consequently, for learners of the language and script. Ambiguity over minute orthographic matters may seem insignificant in isolation, but may cumulatively result in learner frustration and consequent loss of motivation.

5.2 Devanāgarī for Sindhī

In India, the Devanāgarī script (see Table 5.8) is used in parallel with the Perso-Arabic script for the Sindhī language, albeit not without controversy. Both scripts have constitutional recognition, and both are employed in Sindhī-language education in the country.

Table 5.8. Devanāgarī Sindhī alphabet
with standard phoneme-grapheme correspondences

ə अ	a आ	ɪ इ	i ई	ʊ उ	u ऊ		
ɾɪ ऋ	e ए	ɛ ऐ	o ओ	ɔ औ	̐ ॐ		
kə क	qə ~ kə क़	kʰə ख	xə ख़	gə ग	gʱə ग़	ʃə श	gʰə घ
ṭə च	ṭʰə छ	dʒə ज	fə ज़	zə ज़	dʒʰə झ	ɲə ञ	
tə ट	tʰə ठ	də ड	dʱə ड़	rə ड़	dʱʰə ढ	rʰə ढ़	ɳə ण
tə त		tʰə थ	də द		dʱʰə ध	nə न	
pə प	pʰə फ	fə फ़	bə ब	bʱə ब़	bʰə भ	mə म	
jə य	rə र	lə ल	və व	ʃə श	ʃə ष	sə स	hə ह

Note: Collation order based on Khubchandani (2007, p. 698)

5.2.1 Structure

As mentioned earlier (§ 1.1.4, p. 10), Devanāgarī is structurally an abugida, which Daniels and Bright (1996, p. xxxix) describe as “a type of writing system whose basic characters denote consonants followed by a particular [inherent] vowel, and in which diacritics denote the other vowels”. In the Sindhī version of Devanāgarī, the inherent vowel in every basic character is [ə] (Bright, 1996, p. 387). All other vowels are denoted by diacritics. A consonant that does not have a vowel following it is shown in a half-form, or with the diacritic (◌्) below it. However, as mentioned earlier, the representation of a consonant as vowelless is contingent on the writer’s view of consonant clusters and final vowels in Sindhī, and shows great idiosyncratic variation.

The representation of a vowel in Devanāgarī depends on its position within a word. When a vowel phoneme occurs word-initially, the vowel grapheme is written in a so-called independent or standalone vowel form. The independent form is also used for the second vowel in a sequence of two vowels. When a vowel follows a consonant, it is written in a dependent or diacritic form attached to the consonant grapheme as the base. Examples of independent and dependent vowel graphemes in Devanāgarī Sindhī are shown in Table 5.9.

Table 5.9. Representation of vowels in Devanāgarī Sindhī

INDEPENDENT (STANDALONE) FORMS									
ə	a	ɪ	i	ʊ	u	e	ɛ	o	ɔ
अ	आ	इ	ई	उ	ऊ	ए	ऐ	ओ	औ
DEPENDENT (DIACRITIC) FORMS									
b	bə	ba	bɪ	bi	bʊ	bu	be	bɛ	bo
ब	ब	बा	बि	बी	बु	बू	बे	बै	बो
ब्									

Unlike Perso-Arabic Sindhī, Devanāgarī Sindhī requires all vowels to be explicitly represented. Only the inherent vowel, when following a consonant, remains unwritten and implicit.

The Devanāgarī Sindhī graphemic inventory is inspired by that of Hindī, which itself is based on the graphemic inventory as used for Sanskrit. Graphemes for phonemes absent in Sanskrit have been created by adding an underdot diacritic to existing graphemes. For instance, both standard Sindhī and Hindī have the phonemes /z/ and /f/, which classical Sanskrit does not. Hence, graphemes for these phonemes have been created by adding an underdot to the graphemes for /ḍz/ and /pʰ/, respectively (see Table 5.8). Graphemes for the Sindhī implosives have been created by adding an underline diacritic to the corresponding plosives (see Table 5.10).

Table 5.10. Devanāgarī Sindhī graphemes for plosives and implosives

g	ḍz	q	b
ग	ज	ड	ब
ḡ	f	ɖ	ɓ
ग़	ज़	ड़	ब़

Languages that use Devanāgarī may have typographical preferences in terms of glyph shapes. For instance, the graphemes for /l/ and /ɛ/ usually have the shapes ⟨ल⟩ and ⟨श⟩ in Hindī text, but ⟨ल⟩ and ⟨श⟩ in Marāṭhī text. No typographical trend seems to have emerged as yet for Devanāgarī Sindhī, and Sindhī works may feature either set of glyph shapes.

5.2.2 Orthography

In terms of orthographic conventions, Devanāgarī Sindhī is largely similar to the Devanāgarī orthographies of other modern South Asian languages, particularly Hindī. That said, Devanāgarī Sindhī differs from other Devanāgarī-based orthographies in a few notable ways. One of the key areas of difference

concerns the representation of the reduced lax vowels [ə], [ɪ] and [ʊ], which are largely absent from the phonemic inventories of most other languages that use Devanāgarī.¹³ As mentioned earlier, the diacritic (◌◌) is placed below the base grapheme if the inherent vowel sound /ə/ needs to be muted and a pure consonant sound is to be represented. However, in Hindī, the vowel /ə/ does not occur word-finally (Gumperz, 1958, p. 216), except in some Sanskrit neologisms. For this reason, the diacritic (◌◌) is typically not used in word-final position in Devanāgarī Hindī orthography. Rather, the reader ignores all orthographic final schwas, and interprets such words as consonant-final. In Sindhī, on the other hand, the vowel /ə/ does occur word-finally, usually in the reduced form [ə]. Thus, in Devanāgarī Sindhī, if a final schwa exists in the orthography, it is pronounced. Table 5.11 shows a few words common to both Sindhī and Hindī. In both languages, they have the same orthography and meaning. However, they differ in pronunciation in terms of the final schwa.

Table 5.11. Representation of [ə] in Devanāgarī Sindhī orthography

DEVANĀGARĪ SPELLING	SINDHĪ PRONUNCIATION	HINDĪ PRONUNCIATION	GLOSS
तार	[tarə]	[tar]	‘wire’
खबर	[xəbərə]	[xəbər]	‘news’
ज़मीन	[zəminə]	[zəmin]	‘ground, land’

It should be noted that the Sindhī new variety pronunciations tend to be closer to the Hindī pronunciations shown in Table 5.11.

In contrast to the implicit representation of the schwa, Devanāgarī orthography requires the lax vowels /ɪ/ and /ʊ/ to be explicitly written. However, no orthographic distinction is made in Devanāgarī Sindhī between the full and reduced pronunciations of /ɪ/ and /ʊ/. The reader has to mentally discern the appropriate pronunciation of the vowel from its position in the word. This is illustrated by the examples in Table 5.12.

Table 5.12. Representation of [ɪ] and [ʊ] in Devanāgarī Sindhī orthography

DEVANĀGARĪ SINDHĪ WORD	PRONUNCIATION	GLOSS
दिलि	[dɪlɪ]	‘heart’
पुछु	[pʊtʃʊ]	‘tail’
गुज़िरणु	[gʊzɪrəɳʊ]	‘to pass’

¹³ Maithilī in Eastern India is the only other major Indo-Aryan language with attested reduced vowels that is commonly written in Devanāgarī (Grierson, 1903; Masica, 1991).

In each of the words in Table 5.12, the lax vowel in the first syllable is pronounced full, while the lax vowel in the final syllable is unstressed, and pronounced in its reduced form. However, the orthographic representation of both full and reduced forms remains the same.

The lack of orthographic distinction between full and reduced /ɪ/ and /ʊ/ does not usually pose a problem to Sindhī old variety speakers. When reading Devanāgarī Sindhī, such speakers mentally apply the phonological rule of unstressed lax vowels becoming reduced, and arrive at the correct pronunciation. However, the orthographic underdifferentiation has ramifications for Sindhī new variety speakers. New variety speakers, whose speech may not feature the reduced vowels, may find the orthography of a word disagreeing with their own pronunciation of that word. For instance, new variety speakers typically pronounce [d̪ɪɪʌ] closer to [d̪ɪɪ], which in Devanāgarī is more accurately represented by the spelling <दिल>. Especially affected are Sindhī new variety speakers who may be more familiar with Hindi orthography. According to Hindi orthographic rules, the vowel signs <ि> and <ु>, which are usually pronounced /ɪ/ and /ʊ/, are to be read in word-final position as their tense counterparts /i/ and /u/, respectively. This rule may be unwittingly applied to Sindhī words. Consequently, the spelling <दिलि> may be interpreted as [d̪ɪɪli], which is a nonword in Sindhī.

As seen from the above, Devanāgarī Sindhī orthography, especially with regard to orthographic final lax vowels, is largely reflective of Sindhī old variety phonology. This poses an initial hurdle to inexperienced new variety readers. Besides, the question of orthographic final lax vowels also has implications for Sanskrit loanwords and neologisms in Sindhī. These issues are taken up in greater detail in Section 5.2.3.

Like Perso-Arabic Sindhī orthography, Devanāgarī Sindhī orthography too exhibits graphemic retention. Sanskrit loanwords in Devanāgarī Sindhī typically retain graphemes whose phonemic values are no longer distinct in Sindhī phonology (Khubchandani, 2007, p. 699). That is, the phonemic values of these graphemes have become identical to those of other graphemes in Sindhī. Specifically, the phonemic values in modern Sindhī of the Sanskrit-specific graphemes <ऋ>, <ॠ> and <ॡ> have merged with those of other Sindhī graphemes or syllables (see Table 5.13). Trumpp (1872) omits <ऋ> and <ॡ> from his version of the Devanāgarī Sindhī graphemic inventory. However, most modern-day Devanāgarī Sindhī authors tend to include them.

Table 5.13. Sanskrit and Sindhī phonemic values of certain Devanāgarī characters

DEVANĀGARĪ GRAPHEME/SYLLABLE	PHONEMIC VALUE IN SANSKRIT	PHONEMIC VALUE IN SINDHĪ
ऋ	ɾ	
रि	ri	ɾi
ज्ञ	dʒɳ	
ग्य	gɟ	gɟ
ष्	ʂ	
श्	ʂ	ʂ

In addition to graphemic retention, Devanāgarī Sindhī also exhibits orthographic retention. Source spellings of Sanskrit loanwords are often retained, even though they may conflict with the general rules of Devanāgarī Sindhī orthography. The manner in which Sanskrit spellings are retained is largely unstandardised, and will be discussed in detail in the following section.

5.2.3 Standardisation

In some ways, standardisation, or lack thereof, in Devanāgarī Sindhī orthography directly reflects corresponding standardisation in Perso-Arabic Sindhī orthography. Those aspects that are clearly defined in Perso-Arabic Sindhī orthography are consequently unambiguous in Devanāgarī Sindhī as well. For instance, Perso-Arabic Sindhī has clear independent graphemes for the implosive sounds. Accordingly, new graphemes have been created for the implosives in Devanāgarī Sindhī. However, aspects such as representing orthographic gemination or consonant clusters remain as unclear in Devanāgarī Sindhī as they are in Perso-Arabic Sindhī.

Loanwords

Certain aspects of Devanāgarī Sindhī orthography are considerably influenced by orthographic practices in Hindī, which have consequences for learners. One such area is the spelling of Sanskrit loanwords. As mentioned earlier (§ 2.2.2), numerous Sanskrit-origin words are often used in Devanāgarī Sindhī works. This is attributable at least in part to the influence of modern literary Hindī, which is rich in Sanskrit loanwords and neologisms (King, 2001). Therefore, Sanskrit-origin words in Sindhī tend to retain their modern Hindī pronunciations. However, in Hindī, Sanskrit loanwords whose source spellings end in orthographic lax ⟨i⟩ and ⟨u⟩ are pronounced with the corresponding tense vowel instead. For instance, the Sanskrit loanwords ⟨शक्ति⟩ (shakti) ‘strength’ and

⟨वस्तु⟩ (vastu) ‘thing’, which end in orthographic lax ⟨i⟩ and ⟨u⟩, are pronounced in Hindī with final tense /i/ and /u/, respectively. That is, they are pronounced as /ækt̪i/ and /vəst̪u/, respectively (Shapiro, 2007, p. 284). This follows from a phonological rule in Hindī that does not permit lax /ɪ/ and /ʊ/ word-finally (Gumperz, 1958, p. 216). However, Sindhī phonology—at least the old variety—allows both lax and tense final vowels. Considering that the Sindhī pronunciations of Sanskritic words tend to be in line with their Hindī pronunciations, certain authors recommend that the orthography of Sanskrit loanwords in Devanāgarī Sindhī be modified to reflect the modern Sindhī pronunciation. That is, if a Sanskritic word in Sindhī is pronounced ending in tense /i/ and /u/, it should also be written ending with tense ⟨ī⟩ and ⟨ū⟩. However, writers are often loath to tinker with the spelling of Sanskritic loanwords, either due to the revered status of Sanskrit in India (Deshpande, 2016), or due to a desire to maintain harmony with Hindī orthography. Therefore, Sanskritic words in Sindhī pronounced with a final tense vowel may continue to be spelt with a final lax vowel, in line with the source orthography. This results in potential ambiguity for the reader.

Table 5.14 illustrates this phenomenon with the Sanskrit-origin words ⟨लिपि⟩ (lipi) ‘script’ and ⟨कवि⟩ (kavi) ‘poet’. Both these words end in an orthographic lax ⟨i⟩. As described above, these words are pronounced [lɪpi] and [kəvi] in Hindī, and consequently in Sindhī as well. However, if the source spellings with final lax ⟨i⟩ are retained in Devanāgarī Sindhī orthography, there is room for a mismatch. According to Sindhī orthographic rules, orthographic final lax ⟨i⟩ should be pronounced as reduced [ɪ̯]. Application of this rule results in ⟨लिपि⟩ (lipi) and ⟨कवि⟩ (kavi) potentially being realised as *[lɪpɪ̯] and *[kəvɪ̯], which are nonwords in Sindhī. Thus, the *correct* application of Sindhī pronunciation rules may result in *incorrect* pronunciations. To better reflect the pronunciations [lɪpi] and [kəvi], certain Sindhī lexicographers recommend respelling ⟨लिपि⟩ (lipi) and ⟨कवि⟩ (kavi) as ⟨लिपी⟩ (lipī) and ⟨कवी⟩ (kavī), respectively, with final tense vowels (Hardwani, 1991, pp. 67, 399; Lekhwani, 1996, pp. 23, 160).

Table 5.14. Realisation of orthographic final ⟨i⟩ in Hindī and Devanāgarī Sindhī

DEVANĀGARĪ SPELLING	ROMAN TRANSCRIPTION	HINDĪ PRONUNCIATION	SINDHĪ PRONUNCIATION
लिपि	⟨lipi⟩	[lɪpi]	[lɪpɪ̯]
लिपी	⟨lipī⟩		[lɪpi]
कवि	⟨kavi⟩	[kəvi]	[kəvɪ̯]
कवी	⟨kavī⟩		[kəvi]

However, Devanāgarī Sindhī authors with Sanskritic or Hindī leanings may consciously or inadvertently retain the prevalent Sanskrit-Hindī orthography of words in Sindhī as well (Lakhani, 2011, 2012).

A similar dilemma is posed by Sanskrit-origin words ending in lax ⟨u⟩. According to Sindhī spelling rules, final reduced [ʊ] is indicated by orthographic lax ⟨u⟩, whereas final tense /u/ requires orthographic tense ⟨ū⟩. Therefore, [sɪnd̪ʱʊ] ‘Sindh’ is spelt ⟨सिंधु⟩ ⟨sindhū⟩, whereas [sɪnd̪ʱu] ‘Indus river’ is spelt ⟨सिंधू⟩ ⟨sindhū⟩ (Lekhwani, 2011, p. 1). In Hindī, however, the name of the Indus river, [sɪnd̪ʱu], is usually spelt ⟨सिंधु⟩ ⟨sindhū⟩, with orthographic final lax ⟨u⟩. This is due to retention of the Sanskrit spelling of the word in Hindī orthography (Monier-Williams, 1851, p. 1217). However, if the Sanskritic spelling is used in a Sindhī text, the result might be phonetic and semantic ambiguity for the reader. Table 5.15 provides an overview of the various spellings in question.

Table 5.15. Realisation of orthographic final ⟨u⟩ in Hindī and Devanāgarī Sindhī

DEVANĀGARĪ SPELLING	ROMAN TRANSCRIPTION	SINDHĪ		HINDĪ	
		PRONUNCIATION	GLOSS	PRONUNCIATION	GLOSS
सिंधु	⟨sindhū⟩	[sɪnd̪ʱʊ]	‘Sindh’	[sɪnd̪ʱu]	‘Indus’
सिंधू	⟨sindhū⟩	[sɪnd̪ʱu]	‘Indus’	[sɪnd̪ʱu]	-

In summary, retaining Sanskritic spellings in Devanāgarī Sindhī ensures a common orthography for these words across Sindhī and Hindī. This has potential advantages for a Hindī-literate reader or learner of Sindhī. However, Sanskritic spellings often conflict with Devanāgarī Sindhī orthographic rules, requiring such spellings to be treated as exceptions. This results in an increased learning curve.

Grapheme homophony

Comparing homophonous graphemes in both scripts (see Table 5.4, p. 88) and Table 5.13, p. 102), it is evident that instances of graphemic homophony are considerably fewer in Devanāgarī Sindhī than in Perso-Arabic Sindhī. However, their use in Devanāgarī has not yet been standardised, and homophonous graphemes may occasionally be interchanged with each other. Some authors may retain the Sanskritic grapheme, while others may opt for the phonetically more transparent grapheme. For instance, the Sanskrit-origin word [ʋigjanʱ] ‘science’ is spelt by Lekhwani (1996, p. 168) as ⟨विज्ञानु⟩ but by Hardwani (1991, p. 442) as ⟨विज्ञानु⟩. That is, Lekhwani spells the syllable [gja] as ⟨ज्ञा⟩, while Hardwani spells it ⟨ग्या⟩.

⟨ق⟩ and ⟨ق⟩ form marginal homophonous graphemes. ⟨ق⟩ is found only in Arabic and Persian loanwords, and in the source languages is pronounced /q/. However, in Sindhī, its pronunciation is more or less equivalent to that of ⟨ق⟩ /k/ (§ 2.2.2). Scholars generally agree in this regard. Khubchandani (2007, p. 689) opines that ⟨ق⟩ in Sindhī is optionally pronounced as /q/ only in careful or formal speech. Masica (1991, p. 105) claims that /q/ is either absent or not well established in Sindhī. Varyani and Thakwani (2003, p. x) explicitly state that ⟨ق⟩ is pronounced /k/ in all instances. In other words, its pronunciation is identical to that of ⟨ق⟩.

Spelling standardisation

With regard to Devanāgarī Sindhī orthography, variant spellings are extremely common. As mentioned earlier, Perso-Arabic Sindhī orthography usually omits lax vowels. Considering that lax vowels may be slurred over in unstressed medial and final positions, there may be disagreement on the quality of lax vowels in certain words. For instance, the word [pɪɽ̪^l ~ pɪɽ̪^ʊ] ‘also’ is spelt (پڻ) in Perso-Arabic Sindhī, with vowel diacritics conventionally omitted. The omission of diacritics allows for a degree of flexibility in interpreting the final vowel. However, the nature of the Devanāgarī script requires all vowels to be explicitly represented. Consequently, different authors use vowels in Devanāgarī Sindhī at their discretion, which results in diverse spellings. NCPSL (2005, 2014, 2015) and Lekhwani (2011) spell (پڻ) as (पिणि), which reflects the pronunciation [pɪɽ̪^l]. In contrast, Hardwani (1991, p. 268) spells the same word (पिण), which reflects the pronunciation [pɪɽ̪^ʊ].

Occasionally, there may be variation in Devanāgarī Sindhī spelling within the same author's writing, resulting in the same word or derivations thereof being spelt differently in the very same work. An extreme example is shown in Figure 5.3, where the root word ⟨paṛh-⟩ 'read, study' has been spelt differently in the same sentence. This example is all the more remarkable, since it comes from the Year 8 Devanāgarī Sindhī school textbook issued by the Board of Secondary Education of Mahārāṣṭra state. In Perso-Arabic Sindhī orthography, the root ⟨paṛh-⟩ would be spelt ⟨پڑھ-⟩. As mentioned earlier (§ 5.1), there is ambiguity over the nature of ⟨ڙھ⟩. If interpreted as a single phoneme /ɽʱ/, its Devanāgarī transliteration would be ⟨ढ़⟩. If interpreted as a sequence of phonemes /ɽ(ə)ɦ/, its Devanāgarī transliteration would be ⟨ढ़ह⟩. This uncertainty results in Perso-Arabic Sindhī ⟨ڙھ⟩ being variously transliterated into Devanāgarī Sindhī as ⟨ढ़⟩ /ɽʱ/, ⟨ढ़ह⟩ /ɽ(ə)ɦ/, or, as seen in Figure 5.3, as the redundant ⟨ढ़ह⟩ /ɽʱ(ə)ɦ/.

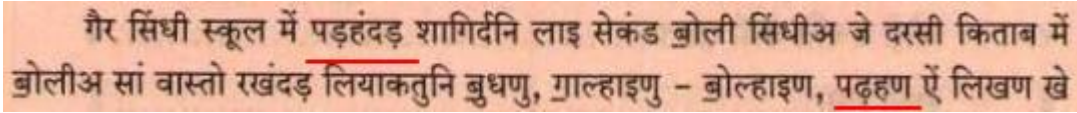


Figure 5.3. Variation in spelling of ⟨parh-⟩

Adapted from *Sindhī Sindhūbhār^{atī}: Darjo Aṭhō* [Sindhī Sindhūbhār^{atī}: Standard Eight] (p. v) by Maharashtra State Bureau of Textbook Production and Curriculum Research, 2009, Pune, India.

Another area of occasional variation is the grapheme for the implosive /ɖ/. As shown in Table 5.10 (p. 99), this phoneme is written ⟨ड⟩ in Devanāgarī Sindhī, based on the grapheme ⟨ड⟩ /ɖ/. However, it has on occasion also been written ⟨ढ⟩, by modifying the base grapheme ⟨द⟩ /d/ instead. Prominent instances of such usage can be found in Advani (1941/1963) and Shahaney (1906/1967). Khubchandani (2007, p. 699) terms usage of the dental ⟨द⟩ as the base grapheme for /ɖ/ “erroneous” and attributes it to the “unplanned switch-over” from Perso-Arabic to Devanāgarī.

Collation order

In terms of collation order, there exist minor differences in the works of different authors. For instance, Lekhwani (1996, p. vi) does not explicitly list the graphemes ⟨ऋ⟩ and ⟨ं⟩ as independent letters of the Devanāgarī Sindhī alphabet, but makes extensive use of ⟨ं⟩ in the rest of his work. On the other hand, Khubchandani (2007, p. 698) includes not only ⟨ऋ⟩ and ⟨ं⟩ in his listing of the Devanāgarī Sindhī alphabet, but also the Sanskritic grapheme ⟨ः⟩, which is rarely, if ever, used in modern Devanāgarī Sindhī. When used, ⟨ः⟩ is pronounced [ȟ]. Overall, though, the collation order of Devanāgarī Sindhī is much more defined compared to that of Perso-Arabic Sindhī.

5.2.4 Summary

As seen in this section, there exist areas of both orthographic clarity and ambiguity in Devanāgarī Sindhī. In some instances, these areas overlap with corresponding areas in Perso-Arabic Sindhī. In other instances, they are a product of the sociolinguistic impact of prestige or dominant languages such as Sanskrit and Hindī. Similar to the situation of Perso-Arabic Sindhī, Devanāgarī Sindhī authors may adopt orthographic practices that reflect their ideological affiliation. Such orthographic variation is tolerated, and may even go unnoticed, by fluent readers. On the other hand, such variation in the orthography has the potential to snowball into confusion and disenchantment for beginners and learners. In the context of variation in the Devanāgarī orthography for Marāṭhī, Deshpande (2016, p. 72) states that “seemingly trivial

issues of signs and dots gradually emerge as part of larger ones about literacy, historicity, [and] community”. This statement appears to hold true for Devanāgarī Sindhī as well.

5.3 Historical review

This section presents a comprehensive chronology of Sindhī multiscryptality, starting from the tenth century AD. In this regard, the history of scripts used for the Sindhī language goes hand in hand with the history of written literature in Sindhī. Although scholarly works focusing primarily on Sindhī scripts are few and far between, works on the Sindhī language and literature often include useful information on historical script trends. Such works include Asani (2003), Daswani (1979), Lekhwani (2011) and Khubchandani (2007). Pandey’s (2010a, 2010b, 2011a, 2011b) brief papers on historical Sindhī scripts also provide crucial information on the subject. Most importantly, certain British-era works on Sindh and the Sindhī language serve as invaluable sources of data on the topic, and consequently form the foundation of this section. These works include Burton (1851), Grierson (1919), Stack (1849a, 1849b, 1855) and Trumpp (1857, 1872). Data gathered from the above sources and others are compiled, compared and contrasted, in order to arrive at a detailed diachronic analysis of Sindhī multiscryptality.

5.3.1 Pre-1843

Modern scholarship generally agrees that Sindhī in the modern sense likely appeared in writing in the ninth century AD (Khubchandani, 2007; Lekhwani, 2011). Nonetheless, there exist divergent opinions that seek to confer a much greater antiquity on Sindhī writing. As described in Section 2.2.1, there is little to no substantiated information on the language of the Indus civilisation, since the signs on the seals discovered at excavated sites have not been successfully deciphered (see Figure B-1 in Appendix B). This is despite more than a hundred attempts at decipherment having been made since the 1920s (Robinson, 2015, p. 500). Indeed, researchers disagree on whether these signs represent a linguistic writing system at all (Rao et al., 2009; Sproat, 2010). Notwithstanding, claims of script decipherment are not uncommon. In his initial work on the Indus civilisation excavations, Marshall (1931/2004, p. 423) claims that these signs were the precursor to the Brāhmī script of ancient India. He concedes, though, that the language represented by these signs is unknown. Two of the

best-known recent attempts at deciphering these signs are those of Mahadevan (1977) and Parpola (1996, 2009), both of whom claim that the language represented is of Dravidian stock. However, this hypothesis is not universally accepted (Possehl, 2002, pp. 127-140). That said, alternative claims at decipherment of the signs are even less accepted, such as that of the language being of Indo-Aryan origin (Bright, 1990a; Mitchiner, 1978; Rao, S. R., 1982).

Relevant to the present study, though, is a third group, largely if not entirely comprising Sindhī primordialists, both in India and Pakistan. This group claims that these signs represent an early stage of the Sindhī language, predating other linguistic influences. Along these lines, the signs themselves are depicted as a precursor to modern Sindhī scripts. Khubchandani (2007, p. 687) lists a few authors who have attempted to link the Indus civilisation signs with a proto-Sindhī language and script. While such claims typically do not find scholarly acceptance, they are nevertheless popular among Sindhī intellectuals. In this sense, the subject of the Indus civilisation signs is one that arises frequently in present-day intellectual opinion on the Sindhī script issue.

In terms of attested literature, oral poetry in Sindhī has been dated to the ninth century AD (Asani, 2003, p. 622). Over the years, a rich tradition of poetry, religious hymns and folk ballads emerged in the language. Indeed, Sindhī has been characterised as having one of the most extensive literatures among Indo-Aryan languages (Schimmel, 1974). That said, several of these compositions were performative in nature, and tended to be propagated through oral means. In a sense, therefore, early Sindhī literature may be described as orature.

Unfortunately, the earliest written literature in the language has not survived, and is known only through indirect references. Khubchandani (2007, p. 688) and Lekhwani (2011, pp. 26-27) state that the Qur'ān was translated into Sindhī in the ninth century AD, presumably using an Arabic-based script. However, Schimmel (1963, p. 224) states that it is not clearly known whether this Qur'ān translation was into Sindhī or some other north-western Indian language. Chatterji (1958) refers to a Sindhī version of the Indian epic *Mahābhārata* that is supposed to have existed in the eleventh century AD, known only through its subsequent Arabic and Persian translations. The script of the original Sindhī composition, however, is not known.

It therefore emerges that much of early written literature in Sindhī has been lost, while orature, on the other hand, has survived and thrived. This led many British and European authors in later years, with their focus on the written form of language, to regrettably characterise Sindhī as a language poor in literature (Grierson, 1919, pp. 12-13; Imperial Gazetteer of India, 1908).

Nevertheless, it is known that several scripts were in use for the language even a thousand years ago. The tenth-century Arab traveller Al-Nadīm cites second-hand accounts of there being two hundred scripts being used in Sindh at the time (Dodge, 1970, p. 34). Al-Nadīm's contemporary, the Persian scholar Al-Bīrūnī, reports a more plausible three scripts in vogue in the region at the time. He gives their names as Ardhanāgarī (half-nāgarī), Malwārī and Saindhava (Sachau, 1910, p. 173). Considering that Sindh was under Arab rule at the time, one or more of these scripts, likely Saindhava, would have been Arabic-based, augmented with dots to represent Sindhī-specific sounds (Asani, 2003, p. 622).

In medieval times, Sindh came under the sphere of influence of the Persianate Mughal dynasty (§ 2.1.2). Consequently, Persian remained the court and prestige language in Sindh for much of this period. Persian was also used for educating administrators and merchants, both Muslim and Hindū, in practical matters such as court records and bookkeeping. Education for the elite, on the other hand, was usually in liturgical languages and differed based on religion—Arabic for Muslims, and Sanskrit for the Hindū Brahmin priests. In this sense, medieval education in Sindh was stratified by “vocational relevance” (Khubchandani, 1977, p. 34). The stratification of language instruction based on vocation and religion meant that different user groups tended to be conversant with different scripts. Muslims and Persian-educated Hindū administrators, known as *Āmil*, were typically literate in the Perso-Arabic script, while Sanskrit-educated Brahmins were typically literate in Devanāgarī. Regardless, spoken Sindhī remained common to all sections of society.

Up until the mid-nineteenth century, Persian continued to remain the court and prestige language in Sindh, with Sindhī not having any official status. Consequently, its use in writing was usually informal and in a variety of unstandardised scripts (Asani, 2003, p. 622). That said, the scripts in use for writing Sindhī essentially fell into two broad categories—Perso-Arabic and Indic. The Indic scripts in use for Sindhī can themselves be classified on the one hand into Devanāgarī, and on the other into varieties of a regional script family called LANḌĀ.¹⁴

The Lanḍā varieties emerged in the 16th century AD in the north-west of the Subcontinent. Technically speaking, the Lanḍā forms were essentially localised graphic variants on a continuum that varied from region to region (Stack, 1849, p. 1; Trumpp, 1872, p. 1). These varieties were primarily used by traders in Sindh,

¹⁴ The Sindhī name for this script family is LUNḌO (Khubchandani, 2007, p. 695; Lekhwani, 2011, p. 35; Pandey, 2010c, p. 2).

called *Vāṇyā*, to record accounts and transactional details. Since it was chiefly traders who made use of these script varieties, they were also called *BANIYĀ*, *VĀṆIKĀ* (Asani, 2003, p. 623; Grierson, 1919, p. 14; Pandey, 2010a, p. 1) or *HAṬAVĀṆIKĀ* (Lekhwani, 2011, p. 36), all meaning ‘mercantile’. These script varieties typically did not have diacritics for vowels, did not always distinguish between plosives and implosives or aspirated and unaspirated consonants, and did not employ consistent word spacing or punctuation (Pandey, 2010a, p. 1). Such shorthand practices were what resulted in the name *Landā*, meaning ‘clipped’ (Grierson, 1904, p. 68; Pandey, 2010a, p. 1, 2010c, p. 2). Early British and European authors were highly contemptuous of these writing methods. In his 1872 Sindhī grammar, Trumpp dismisses these forms as:

utterly unfit for literary purposes, as they have become greatly mutilated in the course of time and are very deficient in the vowel and consonant system, so that the Hindū merchants themselves, after a lapse of time, are hardly able to reproduce with accuracy what they have entered in the ledgers.

(Trumpp, 1872, p. 1)

In the same vein, Grierson (1919, p. 14) states that *Landā* was “a most imperfect script, wanting in signs for the medial vowels. It is seldom legible to anyone except the original writer, and not always to him”. Unsurprisingly, apocryphal stories and jokes on the supposed misinterpretations arising from such shorthand writing abound in the Sindhī community, and continue to be popular even today (Falzon, 2004, p. 272).¹⁵

It is often mentioned in the literature that the *Landā* forms were a secret traders’ script (Anand, 1996, p. 8; Boivin, 2015; Falzon, 2004). Such depictions imply that the shorthand practices in question were deliberate, allowing traders to maintain their accounts in a cryptic form and conceal details of their dealings from the authorities. However, it also seems likely that these shorthand practices arose simply from traders’ need for expediency and compactness rather than phonetic fidelity. For instance, Prinsep (1837) states that “the inconvenience of this omission [of vowel signs] is not much felt in the limited scope of mercantile correspondence, . . . where the same sentences are constantly repeated” (p. 352). An example of such a “constantly repeated”

¹⁵ Such a joke was narrated to me by a participant in this study (#26M). Someone reportedly wrote a note in *Landā* to an acquaintance, with the Sindhī phrase [ɦu əd̪z̪¹mer¹ u¹jo] ‘He went to Ajmer town’. The recipient read it as [ɦu əf̪^o məri u¹jo] ‘He died today’.

mercantile sentence in Lanḍā Sindhī on a *hundī*, or indigenous bill of exchange, is shown in Figure 5.4.¹⁶

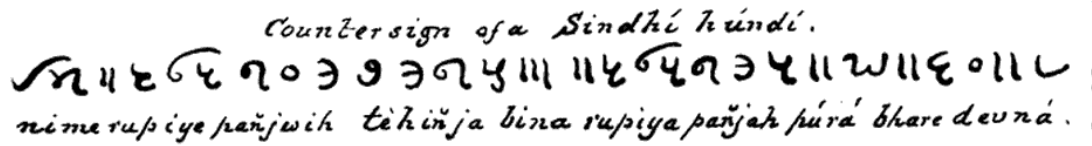


Figure 5.4. Example of vowelless Lanḍā Sindhī writing on a *hundī*

Adapted from “A Grammar of the Sindhī Language”, by J. Prinsep, 1837, *Journal of the Asiatic Society of Bengal*, 6(1), p. 4 foldout.

Indeed, the two functions of Lanḍā as a shorthand form and as a secret script can be seen as going hand in hand. In other words, its usage as a secret script might have simply been a convenient extension of it being a shorthand form of writing known only to a closed group (Falzon, 2004, p. 271). Lekhwani (personal communication, December 8, 2014) also surmises that the practice of conventionally omitting vowel diacritics in Perso-Arabic might have influenced the omission of vowel signs in Lanḍā. In other words, the possibility of a spillover effect from Perso-Arabic Sindhī orthography onto Lanḍā Sindhī orthography cannot be ruled out. Lekhwani’s conjecture is echoed by a major nineteenth-century work on world scripts (Faulmann, 1880, p. 121), which alludes to the Lanḍā practice of omitting medial vowel diacritics, along the lines of Semitic scripts.

Irrespective of their perceived shortcomings, the Lanḍā varieties were relatively widely used during pre-British times. During the rule of the Kalhoṛo clan in the eighteenth century, the Lanḍā form used in the capital city at the time, *Khudābād*, rose to the level of a quasi-standard and came to be known as *KHUDĀBĀDĪ* or *Khudāwādī* (Lekhwani, 2011, p. 36; Pandey, 2010a, 2010c). The *Khudābādī* script eventually came to be identified with the Sindhī language to the extent that it is occasionally referred to by authors as the “Sindhī” script (Lekhwani, 2011, p. 36; Pandey, 2010a, 2010c; Stack, 1849, pp. 1-2).

Apart from *Khudābādī*, a few other varieties of Lanḍā went on to be standardised as scripts for particular religio-linguistic communities in Panjāb and Sindh, and were “developed into full-fledged vehicles of literary expression” (Asani, 2003, p. 623). Two such examples are GURMUKHĪ and

¹⁶ The text in Figure 5.4 means “one half (being) rupees twenty-five, double fifty, to be paid in full” (Prinsep, 1837, p. 352 fn.). In modern Sindhī, the text would read [nim¹ rōp²ja pāndz³viḥ⁴ tēh⁵īdza biṛa rōp²ja pāndz³ah⁶ pura b⁷are dī⁸ā⁹al].

KHOJIKĪ.¹⁷ Gurmukhī is a script that was improved and standardised by the Sikh guru Angad (1504–1552) to transcribe the religious hymns of the Sikh community of Panjāb, which were written in Panjābī and other language varieties of north-western India. Hindū Sindhīs who also followed Sikh teachings therefore learnt Gurmukhī to be able to read the Sikh scriptures. Knowledge of Gurmukhī was widespread among Hindū Sindhī women, as they tended to devote more time to religious rituals than the men (Falzon, 2004, p. 54; Khemlani David, 2001, p. 231). While a limited amount of non-Sikh literature, including the couplets of the well-known Sindhī poet Sāmī, did appear in Gurmukhī, the script largely remained restricted to Sikh temples and books, and did not find wide use as an everyday script for the Sindhī language (Lekhwani, 2011, pp. 37-38). The present-day use of Gurmukhī for the Sindhī language outside of religious literature is practically nil, but its use for the Panjābī language has flourished; in fact, it has been adopted as the standard script for Panjābī in India.

Along lines similar to Gurmukhī, Khojikī arose in the 16th century from a need to accurately transcribe the religious hymns of the Khojā sect of Shī‘a Muslims in Sindh and Gujarāt, which had been composed in the Sindhī-Kachchhī language (Pandey, 2010a, p. 1). This variant also came to be known as CHĀLĪH^A AKHARĪ ‘forty-letter script’ (Allana, 1991, p. 41; Lekhwani, 2011, p. 36). Today, the Khojikī script is largely restricted to scriptural use by Khojā Muslims worldwide (Pandey, 2011b, p. 2).

Besides Khudābādī, Gurmukhī, Khojikī and the unstandardised Landā varieties, another Indic script occasionally used for Sindhī in pre-British times was Devanāgarī. For instance, the poetry of Qāzī Qādan, hailed by some authors as the first real Sindhī poet (Asani, 2003, p. 616 ff.; Lekhwani, 2011, p. 37) has been found written in Devanāgarī.

Apart from the various Indic scripts, Sindhī in pre-British times was also written in the Perso-Arabic script, not least because the majority of the population of Sindh was Muslim (Lekhwani, 2011, p. 38). This script received a modicum of standardisation in the 17th century when the Sindhī theologian Abūl Hasan of Ṭhaṭo used a particular form of the script in his works. This augmented version of the Perso-Arabic script came to be known as “Abūl Hasan Sindhī” (Allana, 1991, p. 21; Lekhwani, 2011, p. 28 fn.). The augmentation essentially comprised the addition of dots to existing Perso-Arabic base

¹⁷ Several spelling and corresponding pronunciation variants are attested; Gurmukhī is also spelt and pronounced “Gurumukhī” while Khojikī also appears as “Khojki”, “Khojaki” (Pandey, 2011b, p. 1), “Khwājaki” and “Khuwājiki” (Asani, pp. 622, 624).

graphemes to represent phonemes not present in Sindhī. Significant was the representation of aspirate phonemes using only one grapheme, modified by dots as required. This was illustrative of the emic view that the aspirated stops were single phonemes, and not compounds of a stop and /h/ (Trumpp, 1872, p. 3). In spite of this attempt at standardisation, several ambiguities continued to remain in the way Perso-Arabic Sindhī was written in pre-British times. These mainly concerned inconsistencies in the application of dots for creating new letters, and the underdifferentiation of certain phonemes in the script (Trumpp, 1872, pp. 2-3). These matters would not be addressed until after the British conquest of Sindh.

5.3.2 1843–1947

Scholarly works explicitly dealing with the issue of a script for Sindhī first appear in the 19th century, as part of grammars, dictionaries or scholarly papers on Sindhī. The authors of such works comprised both Indians and Europeans, but the target audience was mostly European officers and missionaries based in India (Khubchandani, 2007, p. 685). Useful charts comparing the various script forms in use for Sindhī at the time can be found in Stack (1849b, pp. 3-8) and Grierson (1919, pp. 15-17).

By 1843, Sindh had fallen into British hands. The new rulers had a policy of running lower-level administration in the local language (Khubchandani, 2007, p. 696). Consequently, it was decided that Persian would be replaced by Sindhī as the official language of the provincial government. Before this could be done, though, the British felt the need to finalise a standard script for Sindhī. The *Laṇḍā* forms were rejected due to their perceived shortcomings (Asani, 2003, pp. 624-625). The choice therefore lay chiefly between Perso-Arabic and Devanāgarī.

In his account of Sindh, the British explorer Richard Francis Burton (1851, pp. 152-157) outlines what he feels are the relative advantages and disadvantages of the various scripts advocated for Sindhī at the time—Devanāgarī, Gurmukhī, *Laṇḍā* (which he terms “*Khudāwādī*”), and Perso-Arabic. He admits the suitability of Devanāgarī based on its familiarity to Europeans in India, but notes that it was unfamiliar to most Sindhīs themselves. Furthermore, he claims that Devanāgarī would require several additional diacritics to adapt it to Sindhī phonology. Burton rejects both Gurmukhī and *Khudāwādī* on the grounds of them being known only to small sections of the population. Ultimately, he advocates Perso-Arabic for Sindhī since it had already been extensively used for Sindhī literature until then. Burton does admit, though, that Perso-Arabic had been “carelessly adapted to the language

of Sindh, and by the confusion of points and the multitude of different sounds expressed by one letter appears difficult and discouraging” (1851, p. 155). However, he asserts that the script would be familiar to most educated Muslims and Persian-educated Hindūs. He also hopes that mass education would result in standardisation of the script and elimination of its shortcomings.

On the other hand, George Stack, the author of the first comprehensive dictionaries of Sindhī (1849a, 1855) as well as a detailed grammar of the language (1849b), recommends Devanāgarī for the language. In the introduction to his grammar (1849b, pp. v-vi), Stack dismisses the Landā forms—which he calls “Sindhī”—due to their “scanty use of vowels”. He rejects Roman on the grounds that diacritics would have to be added to make it suitable to Sindhī phonology, learning which would allegedly involve as much effort as learning a new script. Notably, he admits that Devanāgarī too would require augmentation in terms of additional diacritics to make it suitable for Sindhī, but justifies this augmentation by claiming that the diacritics are few and optional.

Both Burton (1851) and Stack (1849b) tend to wax eloquent about their preferred scripts and gloss over their flaws, and focus instead on the purported drawbacks of the other scripts in the fray. For instance, Burton (1851) ignores the fact that the Perso-Arabic script retains superfluous consonants that have become homophonous in Sindhī. In fact, Burton seems to suggest that these letters specific to Persian and Arabic loanwords are necessary simply because Sindhī borrows a much greater number of Persian and Arabic words than do other South Asian languages (p. 400). In doing so, he glosses over the fact that the Sindhī pronunciations of the loanwords have been phonologically indigenised, and differ from their source pronunciations. He claims that Landā is unsuitable for Sindhī due to the lack of vowel signs, but underplays the fact that the same practice of omitting vowel signs for lax vowels is followed in the Perso-Arabic script as well. On the other hand, Stack (1849b) denounces both Perso-Arabic and Roman as requiring several new signs and marks in order to render them suitable for Sindhī, while defending the enhancement of Devanāgarī with similar additional signs. Also of note is that Stack prefers Devanāgarī on the grounds that it was relatively well-known to Europeans at the time (p. vi), albeit largely unfamiliar to Sindhīs themselves. Ostensibly, Stack’s target audience was British and European officers in the government, who had to learn the Sindhī language as part of their administrative duties.

Eventually, the pro-Perso-Arabic lobby prevailed. Playing a decisive role in this outcome was the support received by Hindūs well-versed in Persian, and

Europeans like Burton (Khubchandani, 1985). A 52-letter enlarged Perso-Arabic-based script was devised based on existing conventions, and adopted as the official script for Sindhī in 1853 (Asani, 2003, p. 625; Khubchandani, 2007, p. 696). However, the committee that finalised this script did not pay sufficient attention to the finer points of orthography such as diacritics, spelling of words and collation order (Lekhwani, 2011, p. 38). Much of the resultant ambiguity in these aspects of Perso-Arabic Sindhī orthography continues to persist till today (§ 5.1.3).

However, the script controversy for Sindhī did not end with the decree of an official script by the government. Supporters for Devanāgarī continued to make a case for it, with a prominent advocate being the German-born missionary Ernst (or Ernest) Trumpp. Trumpp (1857) criticises the Perso-Arabic alphabet for Sindhī as being loaded “with a confusing heap of dots and other diacritical marks” (p. 685). In his grammar of Sindhī, Trumpp (1872) devotes an entire chapter to the development, characteristics and a critique of the Sindhī version of the Perso-Arabic script (pp. 1-30). This is likely the most detailed work on the subject from that period. In this work, Trumpp maintains that Devanāgarī, which he calls the “Sanskrit alphabet” (p. 1), is the best suited for Sindhī.

A constant thread across several of Trumpp’s works is the supposed existence of religious prejudices between the Muslims and Hindūs of Sindh. Trumpp also ascribes scripts to religious groups to the extent that he labels the Perso-Arabic and Devanāgarī scripts “Hindū” and “Muslim” scripts, respectively (Trumpp, 1872). In his opinion, the prevailing prejudices meant that one group would not learn the script of the other:

As the population of Sindh consists of Hindūs and Muhammadans, two distinct alphabets will be required for them. In respect to the Muhammadans, all are agreed that only the Arabic character will do for them . . . The national alphabet for the Hindūs is the *Sanscrit* [Devanāgarī] character, . . .

(Trumpp, 1858, pp. ii-iii; emphasis in original)

A similar claim is found in Trumpp’s other works (1857, 1872). In brief, he claims that Devanāgarī, although linguistically better suited to the Sindhī language, would be inappropriate since the majority of Sindh’s population was Muslim. However, Trumpp also criticises the 1853 standardisation of the Perso-Arabic script for Sindhī, claiming that it was as unsystematic and indiscriminate in its application of dots as was the previous unstandardised practice. In his works (1857, 1872), he repeatedly advocates that the Perso-

Arabic script as modified for Hindustānī be adopted for Sindhī as well.¹⁸ In Trumpp's opinion, the Hindustānī Perso-Arabic script is more comprehensive, allowing for both Sanskritic as well as Perso-Arabic words to be accurately transcribed. He recommends that the Hindustānī version of the Perso-Arabic script be adopted in its entirety for Sindhī. Trumpp's grammar (1872, pp. 534-535) contains a useful comparison of the Hindustānī, pre-1853 Sindhī and post-1853 Sindhī versions of the Perso-Arabic script. It also includes a Roman transcription of these scripts based on the "Standard Alphabet" by German Egyptologist Richard Lepsius (1863). This comparison chart, along with the modern-day Devanāgarī Sindhī equivalents, is shown in Table A-1 (Appendix A).

Nonetheless, Trumpp claims that even the Hindustānī Perso-Arabic variant would not find favour with the Hindūs of Sindh, due to supposed religious acrimony between them and the Muslims. Similar statements are also found in the works of European scholars such as Stack and Burton. Significantly, such opinion has also been attributed to British government officers (Aitken, 1907, p. 474). Anand (1996, pp. 17-18) opines that the instituting of two separate scripts for Muslim and Hindū Sindhīs was deliberate, and consistent with the British policy of *Divide and Rule*. Whether due to genuine belief in Hindū-Muslim religious prejudice or as a covert implementation of Divide and Rule, the government decided to promulgate a second standardised script for Sindhī in 1868, specifically for educating the Hindū community of Sindh. The script selected as the basis for the new standard was the Khudābādī variant of Landā (Pandey, 2010a, 2010b, 2011a), since it was already in use in an unstandardised form among the mercantile Hindū community. To this end, the government initiated the publication of textbooks in Khudābādī Sindhī (Boivin, 2015, p. 13). However, contrary to the government's expectations, education in the script did not flourish. Government jobs were available only to those with knowledge of the Perso-Arabic script (Hughes, 1876; Rahman, 2002, p. 330), due to which the pragmatic Hindū Sindhī community preferred to educate its children in schools teaching in Perso-Arabic Sindhī (Anand, 1996, p. 18; Kothari, R., 2009, pp. 19-20). Schools teaching in Khudābādī Sindhī were eventually shut down (Grierson, 1919, p. 18), and Perso-Arabic ended up prevailing as *the* script for the Sindhī language. In other words, the assumption by European scholars and officials that one religious group would not use a script indexical of another religious group was ultimately proven false.

¹⁸ Hindustānī is an umbrella term for the colloquial variety of Hindī-Urdū as spoken across the northern part of the Subcontinent, of which Hindī and Urdū are Sanskritised and Arabicised registers, respectively.

Besides Perso-Arabic, Devanāgarī and *Khudābādī*, other scripts were also used to limited extents during British rule in Sindh. Grierson (1919, p. 13) notes that certain Christian scriptures were translated into Perso-Arabic, Devanāgarī and Gurmukhī Sindhī by European missionaries in the 1850s. The choice of Gurmukhī suggests a target audience of Hindū Sindhī women, who were often fluent in Gurmukhī. A Gurmukhī-script Sindhī-language monthly magazine entitled *Sudhār^a Patrikā* ('Journal of Reform'), dealing with women's issues, was launched in 1890 from Hyderabad (Jotwani, 1992, p. 368). Again, the choice of Gurmukhī for this magazine was likely determined by the script competence of its target audience.

Another script that found occasional use in British-era Sindhī writing, usually targeted at European audiences, was Roman. Significantly, some of the earliest European attempts at writing grammars of Sindhī were in the Roman script. Among these attempts were those of the reputed Indologist James Prinsep (1835) and one W. H. Wathen (1836), secretary to the British Government of Bombay. Due to copies of these books being physically or electronically inaccessible, it is not known what script(s) Prinsep used in his grammar. Through Prinsep (1837, p. 351) and Stack (1849b, p. v), it is known that Wathen used the Perso-Arabic script along with a Roman transliteration in his work, although what form of augmented Perso-Arabic letters he used to accommodate Sindhī sounds is unclear. Eastwick (1843) prepared an English-Sindhī wordlist entirely in the Roman script. However, the orthography used was essentially ad hoc, and made no attempt at distinguishing tense vowels, retroflex consonants and other specificities of the language.

The most comprehensive attempt at using Roman for Sindhī, albeit only as an auxiliary academic transliteration, appears to be that of Grierson (1919, pp. ix-x). In his monumental eight-volume *Linguistic Survey of India* (1903-1928), Grierson employs a Roman transliteration based on the one initially proposed by the Welsh scholar William Jones (Shipley Jones, 1799). This Roman transliteration is loosely based on the principle of "vowels as in Italian, consonants as in English", which was a concept popular among English missionaries at the time (Gleason, 1996, p. 778). Grierson's Roman transliteration incorporated established Indic romanisation standards, such as representing a tense vowel with a macron above the vowel letter (e.g., ⟨ā⟩), and a retroflex consonant with an underdot (e.g., ⟨ḍ⟩). It also included innovations such as representing the characteristic reduced vowels of Sindhī by superscript letters. Grierson's work also features sample texts in the form of Christian scriptures translated into Perso-Arabic, Devanāgarī and Roman Sindhī. Figure

5.5 shows an extract of a translation into Roman Sindhī, with an English interlinear gloss.

[No. I.]

INDO-ARYAN FAMILY.

NORTH-WESTERN GROUP.

SINDHĪ.

STANDARD DIALECT.

DISTRICT HYDERABAD.

SPECIMEN I.

TRANSLITERATION AND TRANSLATION.

Hekirē-māṇhu ² -khē	bba	puṭ ²	huā.	Tin ² -mā	nandhē
<i>One-man-to</i>	<i>two</i>	<i>sons</i>	<i>were.</i>	<i>Them-from-among</i>	<i>by-the-younger</i>
pi ² -khē	chayō,	‘ē	bābā,	māl ² -mā	jēkō bhānō
<i>the-father-to</i>	<i>it-was-said,</i>	<i>‘O</i>	<i>father,</i>	<i>the-property-from-in</i>	<i>whatever portion</i>
mūh ² -jē-hiṣē	achē,	sō	mū ² -khē	khaṇī-dḍē,’	jāh ² -tē hun ²
<i>in-me-of-the-share</i>	<i>may-come,</i>	<i>that</i>	<i>me-to</i>	<i>set-to-and-give,’</i>	<i>which-upon by-him</i>
māl ²	bbinhī-khē	virāhē-dḍinō.	Thōran ² -dḍīhan ² -khā-pō ²		
<i>the-property</i>	<i>the-two-to</i>	<i>was-divided(-and)-given.</i>	<i>A-few-days-from-after</i>		

Figure 5.5. Roman Sindhī specimen with interlinear English gloss

Adapted from *Linguistic Survey of India: Indo-Aryan Family, North-Western Group: Specimens of Sindhī and Lahndā* (p. 102), by G. A. Grierson, 1919, Calcutta, India: Government of India.

While alternative scripts for Sindhī survived in pockets, the bulk of education and publishing in the language continued to be in the Perso-Arabic script until Partition.

5.3.3 After 1947

The Sindhī script controversy seems to have lain low until after the independence and Partition of British India in 1947 and the emigration of most Hindū Sindhīs from Sindh to independent India. The call for instating the Devanāgarī script for Sindhī in independent India was first made by a group called the *Sindhī Sāhitya Sabhā* (‘Sindhī Literary Assembly’) in Bombay in 1948 (Asani, 2003, p. 625; Daswani, 1979, p. 61). This proposal was accepted by the Government of India in 1950, and Devanāgarī was declared the official script for Sindhī in India. However, a pro-Perso-Arabic group called the *Sindhī Sāhitya Maṇḍal* (‘Sindhī Literary Circle’) challenged the government order in court. As a result, the government in 1951 declared Perso-Arabic a co-official script for Sindhī, on par with Devanāgarī (Daswani, 1979, p. 62). Curiously, for more than fifteen years, Sindhī in India had two official scripts but did not have official

language status; the latter was achieved only in 1967. Ironically, the granting of official language status had the effect of rekindling the Sindhī script debate. Being an official language of India, Sindhī was now eligible for government funding and support. Consequently, supporters from both script factions wanted to appropriate the entirety of these funds for teaching and publication in the script of their choice (Daswani, 1979, p. 66). This resulted in the two factions attempting to elbow out the other where possible.

The rationale of both parties for their respective stands have been outlined by Daswani (1979) and Asani (2003). The pro-Devanāgarī lobby claims that their script is linguistically more suitable to the Sindhī language, and that there exists a historical and cultural link of the script with the language. In the process, script and religious identity are often conflated, and the Perso-Arabic script is identified with Islām. On these lines, it is claimed that Devanāgarī was “buried underground by Muslim conquerors” (Asani, 2003, p. 625). It is also claimed that Devanāgarī is ubiquitous in India. On this basis, it is argued that the adoption of Devanāgarī is in the interest of the Sindhī language’s long-term survival in the country. On the other hand, the pro-Perso-Arabic lobby claims that usage of their favoured script would continue to ensure the readability of past Sindhī literature, maintain a link between Indian and Pakistani Sindhīs, and confer a distinct identity on the written language. Using Devanāgarī, they argue, would re-emphasise the hegemony of Hindī over the community in India, especially over the younger generation. In the process, the pro-Perso-Arabic lobby paints the pro-Devanāgarī lobby as sectarian, due to the latter’s use of anti-Islamic rhetoric in their propaganda.

The infighting and indecision on the Sindhī script issue in post-Partition India has been criticised by various authors, from different perspectives. Daswani (1979, p. 66) states that the script limbo has made the Sindhī community disillusioned with the issue, causing a large section of the younger generation to have no opinion in the matter (§ 3.1). Anand (1996, p. 128) is disapproving of this script “compromise”, asserting that it is in no way helping the cause of a language already under threat due to its speakers being dispersed. On the other hand, scholars like Khubchandani take a broader view of the situation, and object to the very preoccupation with standardisation and codification of language and script. Khubchandani opines that the overall endeavour at “bringing order to chaotic diversity” (1984, p. 172) ultimately stems from a Western monolingual and homogenising mindset.

In the meantime, the Indian government has resolutely kept out of the Sindhī script debate, leaving the final decision to the community itself. Consequently,

the language is taught in different script combinations in different states of India (§ 2.2.5). Government institutions, including the Central Institute of Indian Languages (CIIL), usually bring out their Sindhī-language publications in both scripts. According to Daswani, this leads to “duplication and a waste of public funds” (1979, p. 67). Although nowhere as intense as a half-century ago, the one-upmanship between the two script factions remains. For instance, the *Sahitya Akademi*, or the National Academy of Letters, only considers works written in Perso-Arabic eligible for its Sindhī literature awards. This has been attributed to Perso-Arabic supporters holding influential positions in the Academy (Hardwani, personal communication, November 8, 2014). The indecision on the script issue also leads to occasional symbolic setbacks, such as Sindhī-language text being left out from Indian rupee currency notes (Young, 2009, pp. 165-166; see Figure B-3 in Appendix B).

Other scripts for the language such as Gurmukhī have all but died out. In pre-Partition Sindh, the main users of Gurmukhī were women who were typically homemakers and learnt to read the script from older stay-at-home women. However, in post-Partition India, the spread of mass education meant that girls began to receive their education in Perso-Arabic or Devanāgarī Sindhī, and subsequently in other languages such as Hindī and English. By the 1990s, the percentage of the Sindhī population conversant with Gurmukhī Sindhī had declined considerably. Consequently, Sindhī religious literature that would earlier have likely been printed in Gurmukhī may today be printed in other scripts such as Devanāgarī (Gidwani C. P., 2012).

In Pakistan, the Perso-Arabic script continues to be the unchallenged official script for the Sindhī language. A few publications in Devanāgarī Sindhī have been brought out by the Hyderabad-based Sindhī Language Authority (SLA) (Hussain, F., 2011), but Devanāgarī is not used in Sindh in any official or educational capacity.

5.3.4 Analysis

The review of historical script and language use in the Sindhī community over the ages reveals certain distinct trends and patterns. These patterns touch upon the situationally determined use of scripts and the very need of written language. While these trends are not unusual in the context of the Subcontinent, they may differ from prevalent trends in other parts of the world.

Script use vocationally determined

The first pattern that emerges from the historical review of Sindhī multiscryptality is that different user groups employed different scripts. Certain sources, especially colonial-era British and European sources, have attributed this variation to religious stratification (Trumpp, 1872, p. 1). While religious affiliation did influence the choice of script by particular user groups, it would be an oversimplification to state that religious affiliation *dictated* the choice of script. In fact, closer investigation reveals a great deal of diversity in script use among various Sindhī socioreligious and occupational groups (Burton, 1851, pp. 152-157; Jhangiani, 1992), with there being not just religion-based variation, but also occupation-based and gender-based variation. The diversity in script use can be attributed in part to the fact that there was no centralised mass education in South Asia in pre-British times (Ferguson, 1996, p. 86). Only liturgical and administrative languages, and the scripts used for them, formed part of the limited education system. Therefore, in general, people learnt to read and write—if at all—depending on their religio-occupational needs, rather than on purported ideological affiliation. Affiliation to a particular religion, sect or community occupation, therefore, influenced the kind of education one received and, consequently, determined one's script competences. In other words, people were taught scripts that were required to read the religious scriptures of their community, or to take up the traditional occupations of their community. For certain groups such as the Brahmins, religion was synonymous with occupation. Along these lines, Muslim Sindhīs were taught the Arabic script to read the Qur'ān, while Muslim Sindhīs of the Shī'a Khōjā sect were often also taught Khōjīkī to read their sect-specific hymns. Among Hindū Sindhīs, Vāṇyā men involved in trade were taught the local Landā variety to maintain commercial accounts, while Āmil men in the administration were taught to read and write Persian. Hindū Brahmin priests were taught Devanāgarī, in which most Sanskrit scriptures were written. Hindū women, on the other hand, were often taught to read and write Gurmukhī, in order to read the Sikh scriptures that they followed. In this manner, religio-occupational affiliation indirectly influenced user fluency in a particular script and, consequently, engendered a skill-based preference for that script.

In this context, two points should be borne in mind. First, only a very small proportion of the population at the time were formally educated and, consequently, literate. According to Ferguson (1996, p. 86), the overall literacy rate for the Subcontinent before the 19th century was no more than two percent. Therefore, the question of script competence only concerns this miniscule

literate subsection of the Sindhī population. Second, competence in a particular script was typically acquired as part of competence acquisition in the Arabic, Sanskrit or Persian languages. Despite being the everyday language of most of Sindh's inhabitants, Sindhī was not formally taught at the time. In the limited instances that Sindhī was read and written at the time, it was logical that people would use the script that they were literate or most comfortable in. This might have given rise to the erroneous assumption among European scholars that religious affiliation, and even prejudice, led people to choose a particular script and reject others. The use of particular scripts by different user groups is better understood as a natural tendency emerging from competence in a particular script, rather than as an ideological choice.

The acquisition and usage of scripts in pre-British and early British times also shows a distinct bifurcation in terms of context-based usage. In religious and formal contexts, so-called fully developed scripts were in use, such as Perso-Arabic, *Khujikī*, *Devanāgarī* and *Gurmukhī*. In commercial or informal contexts, on the other hand, the scripts in use were so-called defective ones, such as the *Landā* forms. In other words, the scripts used, and their completeness from the perspective of phonological representation, depended on their vocational relevance (Khubchandani, 1977, p. 34). Therefore, script use in pre-British and British-era Sindh varied not just according to user group, but also context of use. That is, there existed both USER-ORIENTED as well as USE-ORIENTED stratification in script use (Bunčić, 2016c, Gregory, 1967).

The British colonisation of Sindh brought with it the institutionalisation of Sindhī as the administrative language, and the consequent need of imposing a uniform script for administrative convenience. However, the colonial government, either due to an incomplete understanding of the Sindhī sociolinguistic milieu, or deliberately as part of a policy of Divide and Rule, propagated the idea of Muslim and Hindū scripts for Sindhī. Perso-Arabic was deemed a Muslim script, despite the fact that it had the support of Hindū administrators educated in Persian. The *Khudābādī* form of *Landā* was decreed the script for Hindūs, and attempts were made to educate children from Hindū families in the script. Even so, the attempt failed, since it did not fit into the prevailing trend of script acquisition based on vocational relevance. The Hindū Sindhīs saw no benefit in learning a script that did not help their children obtain employment in government service (Aitken, 1907, p. 479). For this reason, they preferred educating their children in Perso-Arabic Sindhī, which was the language-and-script of administration. Meanwhile, variant *Landā* forms and *Gurmukhī* continued to be learnt and used on an informal level

(Aitken, 1907, p. 479; Grierson, 1919, pp. 14, 18). Thus, the script practices at the time in the Sindhī community—at least among the Hindūs—reveal that perceived economic benefits outweighed any alleged religious divides. The utilitarian outlook of the Hindū Sindhī community at the time has been paid a backhanded compliment by Burton (1851, p. 150), in stating that “[the Hindoo’s] greater pliability of conscience and tenets allows him to take any step towards improving his position”.

At this juncture, it is necessary to draw a distinction between the government’s advocacy of separate scripts for Muslim and Hindū Sindhīs and the advocacy of the same by Christian missionaries such as Trumpp. As discussed, the government’s motives may have been informed by the policy of Divide and Rule. In contrast, missionaries were driven by the aim of making Christian scriptures as widely readable as possible. Considering the different script competences prevalent among different societal groups in Sindh, it was expedient for missionaries to not just translate but transliterate their work accordingly. As a result, translations of Christian scriptures into Sindhī emerged in various scripts (§ 5.3.2) in order to potentially cover various groups. Translations appeared in Perso-Arabic to cover Muslims and Persian-educated Hindū administrators, in Landā to cover Hindū traders, in Devanāgarī to cover Hindū priests, and in Gurmukhī to cover Hindū women. It appears, therefore, that the government and the missionaries, despite having ostensibly different aims, coincidentally ended up doing the same thing—promoting separate scripts for separate groups.

It is thus seen that the Sindhī community over the years has been less concerned about the Sindhī language and script than about employment and economic benefits. In fact, concern about the Sindhī language per se in the past was unnecessary, as it remained the undisputed dominant language in daily life in the Sindh region. In this sense, the modern-day trend in the Indian Sindhī community of choosing a language of education that offers economic benefits has historical precedent. The difference, though, is that the present-day pursuit of economically beneficial languages is causing the inadvertent sidelining of the Sindhī language.

Writing not an end in itself

The historical review shows that Sindhī had a rich culture of orature, including numerous musical and poetic compositions. However, not all of them appeared in written form. Original compositions that went on to be written tended to be of a religious or spiritual nature. Indeed, writing continued to be the realm of only a small section of the population of Sindh well into the twentieth century.

As of 1901, the literacy rate in Sindh was 9.3 percent for Hindūs, and 0.74 percent for Muslims (Aitken, 1907, p. 180).

Regardless, the historically low literacy rates in Sindh are not unusual in the context of the Subcontinent. In this regard, Ferguson's (1996, p. 86) estimate of the Subcontinent having a literacy rate of less than two percent before the 19th century has already been cited. More importantly, the primacy of the oral medium in pre-British Sindh and the utilitarian outlook towards the written medium are indicative of the traditional Indian attitude towards writing in general. This attitude has been characterised as "paradoxical" (Masica, 1996). Writing has a 3000-year history in the Subcontinent, and the region has seen the evolution of dozens of scripts (Salomon, 1996a). In fact, the region likely has the highest script density in the world (Masica, 1996). Yet, oral transmission and performance has traditionally been the primary means of teaching and learning in South Asian cultures (Aklujkar, 2008; Annamalai, 2008; Fuller, 2001; Kachru, 2008; Lopez, 1995; Masica, 1996; Ostler, 2016; Plofker, 2009; Rocher, 1994). In this sense, premodern South Asia has been portrayed as a culture that "hypervalue[d] orality" (Pollock, 2006, p. 4). Salomon, who has written extensively on the topic, notes that:

[w]riting played a significantly different cultural role in traditional South Asia (i.e. the Indian subcontinent) than in many parts of the ancient world . . . Oral traditions were usually more revered than written ones in India, and sacred texts such as the Vedas or the Buddhist Canon were originally preserved by memory rather than in written form, which was felt to be less reliable.

(Salomon, 1996a, p. 371)

Salomon (2007, p. 80) also hypothesises that writing having "secondary cultural value" could be a reason why so many different scripts developed in various parts of the Subcontinent. In other words, regional script forms arose in abundance since writing was considered secondary and scribes, therefore, were not fastidious in their use or reproduction of scripts. In the context of this study, Salomon's observation is aptly illustrated by the emergence of the numerous regional varieties of Landā.

Along similar lines, Masica (1991, pp. 137, 144) notes that the historically secondary nature of writing in India has led to it being primarily used for informal commercial record-keeping, rather than for literary works as was the case in Europe and Arabia. This observation is echoed by Bright (1990b), who notes that writing has been known in India for millennia, but has been used more for informal mercantile purposes rather than for literature. In this regard, Salomon (2007, p. 80) adds that writing practices in premodern India

varied according to purpose. Writing for informal purposes was usually in defective scripts or inconsistent orthographies. In contrast, writing for formal purposes used rigorous and relatively standardised scripts and orthographies. These observations neatly sum up the use-oriented or domain-based divide between scripts in pre-British and early British-era Sindh. Writing for relatively ephemeral purposes, such as bookkeeping, was in defective scripts like Landā that did the job. In a digraphic sense (Bunčić, 2016c), this qualified as the low-status or L variety of writing. In contrast, when writing was used for religious purposes, the scripts employed were fully developed ones such as Gurmukhī, Khojiki and Devanāgarī, which had all the requisite glyphs for accurately representing Sindhī phonology. This was necessary as the liturgical nature of the text mandated accurate phonetic reproducibility. This type of writing qualified as the high-status or H variety. Thus, there existed a neat division of labour or domain complementarity among scripts for the Sindhī language, depending on the purpose of writing.

5.3.5 Summary

The historical review of Sindhī multiscryptality provides certain key insights. First, the Sindhī community has had a long history of diversity in script usage, which was influenced—but not necessarily dictated—by religion, occupation and gender. Second, Sindhī society, and the Subcontinent in general, has had a history of treating writing as secondary to the oral medium. Therefore, although writing was known, it was used only where required, such as in administration, religious compositions and mercantile records. More importantly, the context or domain determined the script that was used. Short informal texts dealing with everyday matters were written in defective scripts, while longer religious or formal texts dealing with loftier topics were written in fully developed scripts.

Therefore, writing practices in premodern South Asia appear to differ from those in other parts of the world. For instance, Bright (1990b, p. 146) contrasts the historically secondary nature of the written medium in India with the “cult of the book” prevalent in the West. To some extent, this may explain the notion of a standardised script and orthography that the British rulers of Sindh were preoccupied with. The notion of standardising scripts and orthographies has been criticised for its monolingual and homogenising underpinnings by certain authors, in particular Khubchandani (1984). Nevertheless, it is also true, as stated by Bright (1990b, p. 146) that “nowadays, it is writing, not speech, which most educated people regard as basic, and indeed as a necessity”. With the

spread of mass education, the notion of a standard script and orthography for a language has become entrenched worldwide (Bunčić, 2016b, p. 16). In fact, it is the entrenchment of this notion in India that has led to the post-Partition infighting over the so-called official script for Sindhī in India. How this seemingly monoscriptal mindset impacts on the proposal of using another script for Sindhī, namely, Roman, is analysed in the following chapter.

Roman and modern-day script use

As seen in the preceding chapters, Sindhī has had a long history of multiscryptality. Nevertheless, the British colonial government's promotion of official scripts for the various languages of the Subcontinent, including Sindhī, has inadvertently implanted in the Indian psyche the notion of a language requiring a unique standardised official script. This has led to disagreement among supporters of Perso-Arabic and Devanāgarī, both of whom want their script of choice to be declared the sole official script for Sindhī in India. The script divide in the Indian Sindhī community and the resulting impasse has prompted certain community members of late to propose Roman as an alternative script for the language.

On this basis, this chapter explores the community suggestion of using Roman for Sindhī, and examines in detail one particular proposal of a Roman Sindhī orthography. This is followed by a comprehensive examination of fieldwork data collected from fifty Indian Sindhīs, residing in India and in other countries, on the suitability of using Roman for the Sindhī language. Salient themes identified in the data are presented, described and analysed, in an attempt to understand lay and scholarly opinion on the issue.

6.1 Roman for Sindhī

With the advent of the internet and mobile phones in the 1990s, the use of the Roman script on computers and electronic devices for writing Indian languages, including Sindhī, has risen. The usage of Roman for Sindhī on electronic devices was initially prompted by the lack of technological support for non-Roman scripts. However, usage of the script for the language continues despite advances in the electronic display and input of both Perso-Arabic and Devanāgarī. This continued usage of Roman for Sindhī can be attributed to:

- suboptimal awareness and familiarity with Perso-Arabic and Devanāgarī Sindhī input methods,
- increasing comfort, especially among the youth, with the Roman script, and
- there being no other script common to Sindhī-speaking people worldwide.

The guiding orthographic principle for Roman-script Sindhī is the aforementioned “vowels as in Italian, consonants as in English” (Gleason, 1996, p. 778), although users themselves may not be explicitly aware of this principle. All the same, there is a high degree of idiosyncratic variation from user to user. This effectively results in ad hoc, spelling-by-ear practices, to the extent that reasonable fluency in the Sindhī language is often required to decipher messages written in this improvised Roman orthography.

Regardless, the anxiety to ensure the maintenance of the Sindhī language is palpable among a few community members, especially those of the older generation fluent in the language (Kothari, R., 2009, p. 163). Some of these aspiring language activists see in Roman the potential to take this idea forward, on the assumption that the script is well-known to the community worldwide. This apparent potential has spawned a few amateur community proposals for a standardised Roman-script orthography that reflects Sindhī phonology with reasonable accuracy. These proposals include those of Sagar (n.d.), Jaisinghani (2004), *Indus Roman Sindhi* (2016) and the *Romanized Sindhi* team (Chandiramani, 2011; RomanizedSindhi.org, 2010a). Of these, the proposal by the *Romanized Sindhi* team (RST) is the most developed and organised. Of the RST’s core members, at least one is involved in formal Sindhī-language teaching, although most of them are not language specialists. Nevertheless, the RST has consulted with linguists and other Sindhī-language teachers in formulating its Roman-script orthography for Sindhī (RomanizedSindhi.org, 2010b). Its core members are based in India, Singapore, the UK and the USA. These members give talks and regularly hold training sessions at Sindhī-run institutions and events around the world. The group’s website (RomanizedSindhi.org, 2010a) explains their proposed Roman orthography for Sindhī, and also features a few introductory lessons with audio. The website also features a rather extensive bilingual Sindhī-English dictionary, also with audio, where the Sindhī entries are displayed in Perso-Arabic, Devanāgarī and their proposed Roman orthography. The group has published a few e-books in their proposed Roman orthography (Sindhu Academy, 2015), including Sindhī lessons and classical poetry by well-known Sindhī poets.

Considering that Sindhī has 50-odd phonemes (Nihalani, 1999), unambiguously representing all of them with only the 26 graphemes of the basic Roman alphabet would invariably involve the use of additional symbols or digraphs. In other words, some sort of script augmentation would be required. However, the RST is resistant to introducing symbols above or below a letter, on the grounds of difficulty in computer input. For this reason, the only

additional symbols included in their orthography are those available on a standard US English computer keyboard layout, such as the tilde (~) and circumflex (^). These are used to modify base letters and create additional graphemes. What is striking is that these symbols are used *after* the base letter, rather than above or below it. This is probably the most noteworthy feature of the RST's proposed Roman orthography. Table 6.1 highlights the conventions of the proposed RST orthography that differ from those of Griersonian Roman.

Table 6.1. Differences between Griersonian and *Romanized Sindhi* orthographies

SINDHĪ PHONEME (IPA)	GRIERSONIAN ORTHOGRAPHY	ROMANIZED SINDHI ORTHOGRAPHY	SINDHĪ PHONEME (IPA)	GRIERSONIAN ORTHOGRAPHY	ROMANIZED SINDHI ORTHOGRAPHY
a	ā	aa	x	<u>kh</u>	khh
i	ī	ee	y	<u>gh</u>	ghh
u	ū	oo	gʃ	ḡ	g^
õ	õ	'n	f	j̄	j^
ŋ	ñ	g~	dʃ	ḍ	d^
ɲ	ñ	j~	b	ḃ	b^
t	ṭ	t	ʈ	t	t~
d	ḍ	d	ḍ	d	d~
ɳ	ṇ	n~	n ~ ɳ	n	n
r	ṛ	r^			

As seen in Table 6.1, the RST's orthography uses additional symbols as free-standing diacritics, which can be termed *POSTLITERAL* diacritics. This differs from the practice of *CIRCUMLITERAL* diacritics, that is, those positioned above or below the base letter, as is traditionally the practice. In principle, usage of postliteral free-standing diacritics is not uncommon in Roman orthographies worldwide. For instance, the apostrophe symbol is widely used as a postliteral free-standing diacritic to indicate ejective and palatalised consonants, among others (Baker, 1997, p. 103). The colon symbol has been attested as a postliteral tone diacritic in a few languages of Papua New Guinea (Priest & Constable, 2006, p. 7). That said, the symbols used by the RST—the circumflex and tilde—seem to be rarely used as postliteral diacritics in Roman orthographies. Rather, these two symbols appear more frequently as circumliteral diacritics. Thus, while the principle of using postliteral diacritics is not unconventional, the choice of the RST's symbols is.

The RST's insistence on using postliteral diacritics instead of circumliteral ones, and resorting to only those symbols that are commonly available on a US English computer keyboard layout is reminiscent of Chatterji's (1935) pan-Indian romanisation proposal (§ 3.2). Chatterji's Roman orthography, too, was

informed by typographical restrictions, and only made use of letters and symbols commonly available in fonts at the time. Regardless, neither the RST's website nor their publications seem to make explicit reference to historical or contemporary attempts at romanisation in India.

Three members of the RST participated in the fieldwork component of this study. Their views are presented and analysed along with those of the other 47 participants in Sections 6.3 and 6.4.

6.2 Fieldwork data

The following sections provide a detailed exposition of the fieldwork data and their analysis. As described in Section 4.3.4, the data were consolidated in the form of themes based on the patterns found. Although the focus during fieldwork was on gathering participants' opinions on Roman for Sindhī, their statements necessarily included comparisons and contrasts with the Perso-Arabic and Devanāgarī scripts. Devanāgarī, in particular, was a script almost all participants were literate in, albeit often out of touch with. Moreover, the reading task during the interview stimulated a variety of opinions on the ease and difficulty of reading in the three scripts. Hence, this fieldwork data, and consequently the themes and analyses, necessarily include salient information on participants' views on Perso-Arabic and Devanāgarī Sindhī.

When preparing the Roman Sindhī reading task for participants, a Roman orthography had to be decided on. The Griersonian system (see Table A-2 in Appendix A) was adopted, since it is based on long-standing conventions for romanising Indian languages. Indeed, minus the diacritics, Griersonian Roman is in line with general orthographic conventions in use for romanising words and names in Sindhī and other Indian languages. Besides, the representation of reduced lax vowels as small-sized superscript letters in Griersonian Roman serves as an iconic indication of the pronunciation nuance (International Phonetic Association, 1999, p. 14).

Evidently, Griersonian Roman is only one of several possible Roman orthographies that could be used for Sindhī. However, as outlined earlier (§ 1.2.4), this study does not deal with the preparation or propagation of literacy materials per se. Rather, the aim is to highlight what issues can come up when readers, especially inexperienced ones, encounter an orthography for the first time, especially in a script they are otherwise comfortable in. In this sense, the data brings to light issues not just in a putative Roman Sindhī orthography, but also in the more established Devanāgarī Sindhī orthography. The aim is also to

underscore how scholarly opinion on what constitutes an appropriate orthography from the perspective of an idealised phonology may be irrelevant if the average person finds the orthography a mismatch with their own dialectal or idio-phonology. These aspects assume critical proportions in the context of languages commonly excluded from formal education. Therefore, the use of Griersonian Roman in this study should be understood only as a means to highlight issues that may be encountered by beginning readers.

Overall, the themes were classified into two Global themes, each with two Organising themes. The themes are first expounded in detail, followed by the various subaspects of each theme. Several interview excerpts are included for illustrative purposes in the description of the themes, to give the reader the greatest possible first-hand feel of what was actually said by participants. The meanings and further interpretation of these utterances follow in the Analysis sections provided after each Global theme.

Table 6.2. Global and Organising themes from the data

GLOBAL THEME	ORGANISING THEME	BASIC THEME
Technical aspects	Pedagogical aspects	Familiarity and usage Phoneticity
	Orthographic aspects	Graphemic-level reading Word-level reading
Sociolinguistic aspects	Cultural aspects	Indexicality of scripts Linguistic purity
	Pragmatic aspects	Availability of content Motivation

Of the above, the entire theme of orthographic aspects is devoted to data on participants' reading of the Sindhī-language sample texts shown to them (see Appendix C), in the scripts they were literate in. In addition to interview excerpts, this section also includes numerous examples of nonstandard participant pronunciation of certain words from the sample texts. It is emphasised that the reading exercise was an unstructured one, intended to gauge participants' overall feel and reaction to Devanāgarī and Roman Sindhī orthography. The reading task was not designed for a quantitative analysis of pronunciation patterns. Besides, several participants, especially those with limited spoken Sindhī skills, stopped reading one or more of the texts after the first paragraph. Two participants of the oldest generation were unable to read the sample texts due to age-related eyesight issues. All these lacunae make a statistical or quantitative approach to the subject matter unsuitable. Hence, the

number of participants exhibiting a particular pronunciation has not been cited. Rather, this theme should be considered for the insights it offers into pronunciation patterns, especially among nonfluent Sindhī new variety speakers. In this sense, the data presented and discussed under this theme are intended to act as a launch pad for further, more structured research on the subject.

Table A-3 (Appendix A) provides a breakdown of salient participant information and key opinions expressed by them, along with the number of participants against each piece of information. The number of participants expressing a particular opinion has also been cited in the description of the data where relevant. It should be noted that information on the number of participants expressing a particular opinion is simply meant to provide the reader with an idea of the opinion's prevalence among participants, and does not signify a numerical or quantitative approach to the data. Also to be borne in mind is that the classification invariably involves a certain simplification. Participants did not always have neatly categorisable opinions, and several of them supported multiple outcomes on the issue of script. This intertwining and diversity of views means that the table should only be used as a convenient reference point and not as a hard-and-fast classification of participant opinion.

6.3 Technical aspects

The themes in this section deal with matters of language learning and teaching. They cover participants' statements on the supposed prevalence of scripts in India, on their own proficiency in these scripts, and on reading and writing Sindhī in the various scripts. Furthermore, they also deal with participant opinion on matters of orthography, namely, the perceived phoneticity of the various scripts. Implicit issues in reading, namely, issues that participants did not identify in explicit terms, but were evident, are also covered.

6.3.1 Pedagogical aspects

Familiarity and usage

Perso-Arabic

Of the 50 participants interviewed in this study, 18 were literate in Perso-Arabic Sindhī. Seventeen of them belonged to the oldest generation. Of the 18 Perso-Arabic literates, eight were laypersons and ten were scholars. Laypersons indicated that they preferred to read Sindhī in Perso-Arabic, given a choice.

I'm comfortable with all {Perso-Arabic and Devanāgarī}. But for me, {Perso-Arabic} is the *real* Sindhī. (32M)

Lay participants' preference for Perso-Arabic Sindhī was shaped not just by personal preference or ideology, but also by low exposure to Devanāgarī Sindhī.

I may have seen it {Devanāgarī Sindhī} somewhere. I think it was some *Sukhmanī Sāhib* {a Sindhī religious text} or something. (41M)

In fact, the dearth of everyday reading material was not restricted to Devanāgarī Sindhī; it extended to Perso-Arabic Sindhī as well. This was a common complaint among participants.

I manage to get a copy of the *Hindvāsī* {a Perso-Arabic Sindhī weekly} only occasionally. I don't get it where I live . . . I manage to get about two or three Sindhī books a year. (21F; translated)

I can't read because there are no books nowadays in {Perso-Arabic} Sindhī. (30M)

The perceived paucity of publishing in Perso-Arabic Sindhī was confirmed by a scholar, who attributed it to the dwindling reader base for the script.

Over 80 percent of Sindhī books being printed in India today are in Devanāgarī. Not more than 20, or even 10 percent, {are} in Perso-Arabic. Perso-Arabic is limited only to the older generation. (38M; translated)

This phenomenon of Perso-Arabic being restricted to the oldest generation was confirmed by younger participants, nonliterate in Perso-Arabic Sindhī, who had lived with their grandparents.

{My grandparents} used to get a Sindhī newsletter {in Perso-Arabic} at home. So, that I used to see. But never understood, obviously. (08F)

This fact was also highlighted by the three members of the *Romanized Sindhi* team (RST) who participated in this study. As mentioned earlier in this section, the RST is behind one of the most organised community efforts at promoting Roman for Sindhī. The decline in knowledge of the Perso-Arabic script was highlighted as one of the driving forces behind the RST's venture.

If a Sindhī newspaper {in Perso-Arabic} comes in the house, {the} eldest person reads it, and then keeps it aside. All other three generations, they are living under the same roof, {but} none of them can read it. And when this person passes away, the paper will go in the garbage. (39M)

Along the same lines, the RST members also highlighted the difficulty in creating content in Perso-Arabic Sindhī, due to it being restricted to the older generation.

The person who knows Arabic Sindhī, they can't make an e-book because they don't know how to use computers. (40F)

The crux of the issue was that the oldest generation that was literate in Perso-Arabic Sindhī was not computer-literate, while the youngest generation that was computer-literate was not literate in Perso-Arabic Sindhī. This was compounded by the fact that the youngest generation did not feel the need to learn the Perso-Arabic script.

Not that I'm keen on learning to write Arabic Sindhī—no way! It's a totally different thing {laughs}. That's something, if you've got to learn, you've got to learn at that {early} age. (49M)

The whole idea of learning the Arabic script is daunting . . . that script just looks visually scary. (11M)

The oldest generation did not dispute the difficulty in learning Perso-Arabic, despite their personal fondness of the script.

The Arabic script is difficult for an ordinary student to learn. It takes time. (19M)

Nonetheless, all lay participants literate in Perso-Arabic Sindhī indicated that maintenance of the language was more important to them than maintenance of the script. In brief, they were open to the idea of using another script, if doing so would aid the dissemination of Sindhī.

I know, whenever there is a change, people oppose these things vehemently . . . but if they {Sindhī youngsters} can learn the language of their culture through a familiar script, the language will be more popular. And it has better chances of survival. (46M)

However, there were differences on what this alternative script should be. Of the 18 participants literate in Perso-Arabic, five thought Devanāgarī was the way forward, whereas eight, including the three RST members, supported Roman. Two favoured persisting with Perso-Arabic. The remaining three were uncommitted, opining that issues such as the standardisation of spellings in the existing scripts was more important than adopting a new script. These opinions will be taken up later in this section.

Devanāgarī

The prevalence of Devanāgarī was a theme common to every participant's views. Of the participants, all but one were literate in Devanāgarī. Nonetheless, they had typically acquired literacy in Devanāgarī through exposure to Hindī and not Sindhī. Apart from two scholars, all participants also felt that Devanāgarī in general was well known in India. In other words, lay opinion agreed on the pervasiveness of Devanāgarī in India.

In spite of widespread familiarity with the Devanāgarī script, exposure to *Sindhī* in the Devanāgarī script was far from common among the participants. Fourteen participants were unaware of the very existence of Devanāgarī

Sindhī. All but one of them were from the youngest generation, with the exception being a middle-aged fluent speaker who had grown up in Malaysia. Seven participants had heard of Sindhī in Devanāgarī, but had never seen any. Of these seven, two expressed confidence in their ability to read it, based on their fluency in spoken Sindhī and written Hindī.

I've not learnt Sindhī in Devanāgarī formally. But . . . if you know how to speak Sindhī, and if you know how to read Hindī, then the job's done. There's no magic in reading Devanāgarī Sindhī. (31F)

Twenty-eight participants had at least some exposure to Devanāgarī Sindhī, including the 18 who were literate in Perso-Arabic Sindhī. However, participants in this group ranged from university lecturers and writers in Devanāgarī Sindhī to those who had had only a one-off brush with it.

In the 1960s, my relatives used to go a Sindhī-medium school in Bombay called Kamlā High School, at Khār. I just read their {Devanāgarī Sindhī} books out of curiosity. Not much at length. (29M)

Nevertheless, no pattern was observed between extent of exposure to Devanāgarī Sindhī and support for it. In fact, opinions varied widely on the extent to which Devanāgarī should be used for the Sindhī language. Ten participants explicitly cited Devanāgarī as a suitable script for Sindhī in India, either as a supplement to or replacement for Perso-Arabic Sindhī. The essence of such comments was that Devanāgarī was a script common to most of India, and therefore suitable for Sindhī as well. However, a fundamental assumption made by eight of them was that knowledge of Devanāgarī was equivalent to fluency in the script. In other words, they expected that those who knew Devanāgarī knew it *well*.

In India, people are already learning Hindī. It's a compulsory subject. So, they are well acquainted with the Hindī script. So, I think Devanāgarī would do good for them. (36F)

{Children} would have studied Hindī. So Hindī {Devanāgarī} will be easier for them. (33F; translated)

Five participants of the middle-aged and oldest generations mentioned that enthusiasm for the Sindhī language was greater in smaller towns in India where the language was still actively spoken. Since the population of these areas would be more comfortable in Devanāgarī, they justified promoting Devanāgarī for Sindhī on this basis.

If Sindhī is to be revived and preserved, it will only be in the pockets where it is being spoken today. In smaller towns—Pimpri, Ulhāsnagar, Jaipur, {and} along the Kachchh border. So, if we want to preserve it, we have to preserve it

there. And for them, the familiar script is Devanāgarī. Gujarātī's also {practically} Devanāgarī script. (36F)

The insinuation was that only those from a vernacular-language background and fluent in Devanāgarī would bother reading or writing Sindhī; those fluent in Roman would typically be English-educated and, therefore, not care about Sindhī.

The people who know the Roman alphabet well are not the ones who are enthusiastic about the Sindhī language. (42M)

Two participants in favour of Devanāgarī also put forward the red herring that Devanāgarī was better for Sindhī because Hindī is the “national language”.¹⁹

There's a likelihood that Sindhīs would lean towards Hindī {Devanāgarī} because they know, at the end of the day, it's India. The national language of India is Hindī. (09M)

Such statements illustrated the inability of participants to conceptually distinguish between language and script, due to the phenomenon of most major Indian languages having their own script. This aspect will be explored further in Section 6.4.1.

Nevertheless, the supposed national character of Devanāgarī was a reason behind a couple of participants judging Devanāgarī for Sindhī as the path of least resistance.

You will not meet any resistance if you go with what is deemed as the national script. (42M)

Devanāgarī for Sindhī as the path of least resistance was alluded to by two more participants, but from a slightly different perspective. To these participants, using Devanāgarī for Sindhī seemed less of a gamble. Although they had never read Sindhī in Devanāgarī, they had had prior experience with Devanāgarī when learning Hindī and Marāṭhī at school. On this basis, they felt reasonably sure of Devanāgarī's phonetic capacity. Roman, on the other hand, was a script they had been exposed to mainly via English. The inconsistency of English orthography made them sceptical of Roman's ability to faithfully represent Sindhī phonology.

How would you spell it {in Roman}? Someone spells it because they think that's how it should be spelt. And another person reads it in a different way. (08F)

There'd be different people pronouncing the symbols {diacritics in Roman} differently, and there'd just be more variations of the language, as a result . . . Luckily, now, Devanāgarī I think is quite encompassing. (01M)

¹⁹ India has no constitutionally mandated national language (Constitution of India, pt. XVII).

The 40 participants who were uncommitted towards using Devanāgarī for Sindhī, or had doubts about its success, were sceptical of its pan-Indian status. Reservations were expressed about the spread of Devanāgarī in India, both geographically and socioeconomically. It was felt that regions outside the north and west of the country, and wealthy English speakers in large cities, would have poor knowledge of written Hindī, and consequently, of Devanāgarī.

When I used to teach Sindhī to non-Sindhīs, quite a few students would have trouble understanding even Devanāgarī. (38M; translated)

Hindī is not compulsory after 10th {Year 10} . . . So, people are not giving any importance to Hindī. They are saying, “We only need to pass, so the bare minimum is enough.” So that’s why people are losing interest in Hindī also in India. Especially in cosmopolitan cities. (47M)

For the participants who had not heard of Devanāgarī Sindhī, the prospect of writing Sindhī in Devanāgarī seemed inconsequential.

I don’t know what the use case would be for someone to be writing Sindhī in the Devanāgarī script. Because you might as well speak it out, and write it in a universal language {script}, which everyone already understands. (03M)

For most participants, this universal script was Roman. However, acceptance of Roman’s universality did not necessarily translate into support for using it for the Sindhī language.

Roman

The spread of Roman within the Indian Sindhī community was the most salient theme in the data. All but four participants indicated having read some Sindhī in Roman, typically in the form of text messages (SMS) or snippets on social media. However, for most participants, these texts or snippets were the only exposure to Roman Sindhī that they had received. These were typically of extremely short length, and for the most part comprised jokes or greetings.

My nephew sometimes sends me some jokes in Sindhī, written in Roman. (48F)

The short messages in Roman Sindhī that participants were familiar with were typically written in a makeshift, ad hoc orthography, loosely based on English spelling conventions. The unpredictability of the orthography meant that even fluent speakers of Sindhī sometimes found it difficult to decipher.

You have these little Sindhī jokes or forwards, even on Facebook. It takes me time to understand. {But} because it’s just a small paragraph—2 lines, 3 lines—it’s fine. I manage. (14F)

The finer aspects of the Roman Sindhī that participants were exposed to is examined later in this section, under the theme ‘Phoneticity’.

Irrespective of exposure, participant opinion on Sindhī in Roman was not unanimous, much like with Devanāgarī. Opinion was divided among those who felt Roman should be used for Sindhī, those who felt it should not and those who were uncommitted. All but two participants agreed that Roman was well-known among Sindhīs in India. Of these, 24 participants explicitly indicated that using the Roman script for the Sindhī language was a good idea. This included one participant who had never seen Sindhī in Roman before.

In {Roman}, the advantage would be everyone would be more comfortable with that {script}. Everyone can understand that, every Sindhī person. (22M)

This was similar to the basic argument underlying the pro-Devanāgarī views, namely, that it was suitable for Sindhī because it was widely known. However, supporters of Roman bolstered their claim by stating that it was known not just by Sindhīs India-wide, but worldwide. Of the 20 participants based outside India, Roman had the unequivocal backing of 12 of them.

The advantages of using Roman for Sindhī are obvious. Just the number of people you could reach out to. It's very well known. (06M)

After coming here {Australia}, you tend to lose touch with Hindī {Devanāgarī} . . . I feel the long-term benefits would be if you actually use English {Roman}. Because then it's gonna be easier to spread the language {Sindhī} globally than just in one country. (07M)

Two participants living overseas who had young children felt that Roman would help give their children introductory familiarity with Sindhī in the written form. This, they thought, might stimulate their children to pick up the language further.

Advantages will be, they will get more exposure. And they might ultimately try to understand what that text is. (50F)

This view was echoed by a scholar, also based overseas.

If you give him {the learner} a script that he's already familiar with, the accessibility to a new language becomes a lot easier. So, he saves in terms of time, he saves in terms of effort. And psychological feeling. More than anything else, the psychology works wonders. There's no initial battle that he has to win. (46M)

Ten participants mentioned having studied a Western European language in addition to English. Of these, two pointed out the convenience that the familiar Roman script offered them as learners. On this basis, they supported using Roman for Sindhī as well.

When I started learning German, I realised one thing—that it is the alphabet which is helping. Supposing German was written in a particular {non-Roman} script. First, I have to learn the script . . . How many scripts *can* you learn? (41M)

That said, these participants made no mention of the varying Roman-script orthographies used by European languages, and how they overcame hurdles posed by orthographic conventions that differed from those of English.

Two scholars who dealt extensively with Devanāgarī Sindhī categorically endorsed using Roman for the language. Their justification hinged on the wide use of English by the youngest generation and the ensuing familiarity with the Roman script.

I think it's an excellent idea to adopt this Roman script for Sindhī . . . Because English is the universal language now. (24F)

The previous generation will prefer Arabic. And then Devanāgarī. But after this, the generation that will come up, they will certainly use this {Roman}. And they will find it better. (20F)

A specific aspect of the supposed ubiquity of Roman was highlighted by the members of the *Romanized Sindhi* team. One of the major reasons for the RST's advocacy for Roman is the script's near-universal availability as an input method on computers and mobile devices. The RST's members, who were literate in both Perso-Arabic and Devanāgarī Sindhī, felt that the widespread presence of Roman on computing devices gave it a clear advantage in modern times over the other two scripts.

The Roman script is international, all over the world. Every computer has it. (44M)

Those who know the Sindhī script—that Arabic script—and Devanāgarī, they are not computer-savvy . . . they are not thinking that we are going towards a digital world. So, we have to give them {the younger generation} something which is on the computer, easily available. (40F)

Nonetheless, the pervasiveness of Roman on computing devices was only cited as an advantage by the RST members. No other participant cited support on computing devices as a reason to adopt Roman for Sindhī. This was because they likely conceived of Sindhī largely as a spoken language. This topic will be dealt with further in Section 6.4.2.

However, not all who agreed on the prevalence of Roman thought that the script should be used for Sindhī. Nineteen participants were in favour of renewed ways of teaching of Perso-Arabic or Devanāgarī for Sindhī. The reasons for their disinclination towards Roman was largely based on personal preference. They suggested that Roman be relegated to nonresident Indian (NRI) communities overseas, since neither of the scripts in vogue for Sindhī would be known there.

In India, it is better that they teach them in Arabic Sindhī. If they cannot, then Devanāgarī Sindhī. But abroad, NRI children where they have no choice, they can teach them this {Roman Sindhī} to keep the language alive. (34F)

Of the participants instinctively disinclined towards Roman as a script for Sindhī, five conceded that Roman might actually be a pragmatic script choice. They surmised that Roman might be useful in initially luring learners to the Sindhī language, who might otherwise be put off by the prospect of an unknown script.

The advantages of it being in English {Roman} is, of course, you will get the masses . . . You'd be able to get a lot more candidates to take a first step towards Sindhī reading and writing . . . {but} Devanāgarī or the original Sindhī script {Perso-Arabic} would be ideal. (09M)

Such participants, who saw Roman as a useful carrot for attracting learners but not as a full-fledged script for the language, typically had a mental image of Roman as a stop-gap measure or a temporary fix to the script issue. This will be discussed further in Section 6.4.2.

The two participants who felt that Roman was not widely known within the Indian Sindhī community opined that mere knowledge of Roman did not necessarily translate into reading fluency in the script.

You have the option for English-speaking parents to teach their kid using the English script. But that again is a minority in India . . . there's a large section who are Hindī-speaking, and perhaps read and write and are more comfortable in Hindī {Devanāgarī}. (10M)

Seven participants did not favour any particular script outright. They felt other issues were more pressing, such as standardisation of orthography in the existing scripts, or creation of interesting Sindhī-language content rather than introducing a new script. These themes will be taken up in Sections 6.3.2 and 6.4.2, respectively.

Phoneticity

Diacritics

The Roman Sindhī text (see Appendix C) shown to participants was transcribed in the Griersonian Roman orthography, which makes extensive use of diacritics. Eighteen participants felt that diacritics were useful in indicating the right pronunciation of words in Roman Sindhī. This was especially the case among those who had prior experience with diacritics, typically in a European language with a diacritical Roman orthography.

It's a wonderful idea. . . . the French learn French using the English {Roman} script with their accent marks. {Similarly} you can do Sindhī with the English {Roman} script with accent marks. (14F)

A couple of participants had had experience with the International Alphabet for Sanskrit Transliteration (IAST), which is a diacritical Roman orthography

used for transliterating Sanskrit (Royal Asiatic Society, 1896). Since Griersonian Roman uses conventions similar to the IAST, these participants found the Roman Sindhī text visually familiar.

It is the same way it is done in Sanskrit also . . . when you read the *Gītā* and the *shloka* {verses}, this is the way they indicate how it should be pronounced. (18F)

Scholars among the participants generally approved of diacritics, to the extent that they served a linguistic function.

This {diacritical Roman} is the best. In Devanāgarī also, we use downbars {for implosives}. (20F)

For implosives, you'll have to use diacritics . . . If you want to romanise, then you need to do so keeping in mind the structure of the language—not the convenience of people or the typewriter (38M; translated)

On the other hand, 21 participants—not including the RST members—opined that the diacritics were complex. Their opinion was likely influenced by the diacritic-free nature of English orthography. They emphasised the need for diacritics to be explicitly taught.

{In} English also you will not see these symbols . . . it needs to be taught, what these marks would sound like. (17M)

Having to learn what the diacritics meant was seen as increasing the initial learning curve. This negated the advantages of accessibility and ease as claimed by supporters of Roman.

If I'm reading this word, I need to know what this {diacritic} sounds like. I need to know it so well that it instinctively comes to me. So, I'm trying to learn phonetics and *then* read this. You're adding an extra step for me. It's not as easily accessible as it may seem. (12F)

Overall, visual simplicity of the script and orthography was considered more salient than phonological precision. Diacritics were seen as adding to the optical intricacy of the Roman orthography.

This {diacritical Roman} leads to complications—the line and the dot and all that. This {diacritical Roman} is going back to this script {Perso-Arabic} actually. This is as difficult as doing it in the original. (09M)

Even participants who felt that diacritics were useful highlighted the initial impression of increased complexity conveyed by the diacritics. On this basis, they opined that beginners may find diacritics disagreeable.

This {diacritical Roman} is the perfect way, actually. But I don't know how children, how the youth of today will {take to it}. I would say, {in order} not to confuse them, keep it plain {without any diacritics}. (31F)

Along these lines, it was felt that only languages with robust governmental or societal backing could afford to have a complex orthography. Sindhī, in their opinion, did not enjoy this luxury.

German, for instance, is a language of a country. People *had* to learn it . . . hence, they could put the umlaut and say “Learn this. This is what it means.” Here, you can’t push this down people’s throat saying “You *have* to learn Sindhī”. So, it has to be made as simple as possible . . . it’ll come at the cost of it getting a little corrupted. (05M)

The ideal of simplicity also shaped the RST members’ thoughts on what a suitable Roman orthography for Sindhī should look like. For them, the linearity of a Roman orthography free of circumliterate diacritics (§ 5.3.3) was a significant advantage over the multilevel vowel signs used in Devanāgarī. Using or proposing circumliterate diacritics, they felt, betrayed the enduring conceptual influence of Devanāgarī.

Putting {diacritics} under the letter is not part of Roman script. That means we are still thinking in Devanāgarī, if we are writing Roman script with {diacritics} under and over. (39M)

That said, the RST evidently did feel the need to augment the 26-letter basic Roman alphabet to suitably represent the 50-odd phonemes of Sindhī. This is the reason their orthography does include diacritics, but of a postliterate kind, which can be entered using a standard US English keyboard layout. However, the choice of these postliterate diacritics was not arbitrary, but dictated by technological restrictions.

{If we used a colon}, the computer could not take the {file}name on the Microsoft file saving system. So then we replaced some signs, {and} took some other signs which are acceptable {for the computer}. (44M)

Along these lines, circumliterate diacritics were unacceptable to the RST not only because of their perceived visual complexity, but also because of the supposed difficulty of inputting them on a regular US English keyboard layout.

For putting signs {entering diacritics}, you have to make special software. How many people around the world will go and buy the software, and begin to use and learn Sindhī? We wanted to {make} do with the keys that are {already} available on the computer, without doing {creating} any more software, without confusing anyone. (44M)

This ties in with the RST’s argument of ubiquity and ease of input on computers being a major advantage of Roman. Including diacritics was evidently seen as encumbering this ease of input, and nullifying the advantage. Regardless, apart from the RST members, the supposed difficulty in typing diacritics on computers and electronic devices was explicitly raised only by one other participant.

Apart from the RST members, script augmentation was an issue that numerous participants opposed to diacritics struggled with. Whereas they found diacritics disagreeable, they also admitted the need to tailor the basic 26-letter Roman alphabet to Sindhī phonology.

Showing [tʰ] is very difficult. Because ⟨th⟩ can be [tʰ] also. (13F)

In Roman, showing the difference between /t tʰ d dʰ n/ and /ṭ ṭʰ ḍ ḍʰ n/ {retroflex and dental stops} is difficult. That is something to think about . . . {Indicating the implosives} /b/, /g/ is very difficult. (47M)

Remarkably, reticence to diacritics was only in the context of Roman. Unlike diacritics in Roman, diacritics in Perso-Arabic or Devanāgarī were seen as an integral part of the script. Perso-Arabic and Devanāgarī diacritics were also regarded as key to those scripts' phonetic accuracy. A scholar referred to the convention of omitting vowel diacritics in Perso-Arabic Sindhī, which he regarded as suboptimal for school children. He narrated his unsuccessful attempt to have these vowel diacritics included in Sindhī-language textbooks.

Without vowel diacritics, the Perso-Arabic Sindhī script is effectively disabled. I told the Sindhī 'scholars' in charge of preparing textbooks, "Please include vowel diacritics in textbooks. Children need them." But those professors said, "No! There's no tradition of using vowel diacritics in Perso-Arabic Sindhī". (25M; translated)

Another scholar raised the issue of Perso-Arabic vowel diacritics in textbooks, in the context of their position relative to the base letters (§ 5.1.3). He declared that ⟨اِي⟩ and ⟨اُي⟩ were more authentic in Sindhī than ⟨اِی⟩ and ⟨اُی⟩, and that the latter convention was influenced by orthographic practices in the Arabic language. In his opinion, varying preferences in diacritic positioning were leading to differences in Indian and Pakistani Perso-Arabic Sindhī orthography.

In India, even today, we don't write the diacritics over *aliḥ*. But in Pakistan, they've started doing it. Because of Arabic influence. (38M; translated)

The underlying theme in both scholars' statements was that vowel diacritics in Perso-Arabic were an inalienable and, in fact, indispensable part of the script. Likewise, a participant, who dismissed diacritics in Roman as confusing, lauded the unambiguity of vowel diacritics (*mātrā*) in Devanāgarī. On this basis, she recommended Devanāgarī as a more suitable script for Sindhī.

We need the *mātrā* {in Devanāgarī} . . . the *mātrā* are easier for me to read than these symbols {diacritics in Roman} . . . the *mātrā* are proper. (13F)

Thus, it was evident that lay participants had different mental yardsticks for internalised and uninternalised diacritics, depending on how much exposure

they had had to them. This reticence to unfamiliar orthographic conventions represented a significant complication for Sindhī-language pedagogy.

Lexical versus phonological reading

Underlying reticence to diacritics meant that participants unwittingly ignored diacritics in the Roman Sindhī text provided to them. Nevertheless, those that were fluent in the language were able to read the text with reasonable accuracy.

All these diacritics, they didn't make any difference to me. I didn't pay any attention to them. (15M; translated)

I know Sindhī... so I didn't really pay attention to the diacritics... This {Roman Sindhī} is fine for those who have no idea of Sindhī, who are complete beginners. (21F; translated)

Thanks to their competence in Sindhī, participants fluent in Sindhī seemed to read the Roman Sindhī text by lexical or whole-word recognition, rather than proceeding letter by letter. They found it difficult to conceptualise reading by phonologically decoding individual letters. On this basis, they rationalised that fluency in the language was necessary to read the text accurately, and insinuated that the Roman script was unphonetic.

If the youngsters *know* Sindhī, then Sindhī can be translated {transliterated} into English {Roman}. If they don't know Sindhī itself, then Sindhī in English {Roman} will be difficult to pronounce. (30M)

This {diacritical Roman Sindhī} will take time. They {youngest generation} don't know the words, the language. So they'll find it difficult. I know the language, so I'll be able to understand. (33F; translated)

Regardless, it was not the case that participants with poor Sindhī skills read by phonologically decoding individual letters or letter combinations. Of the seven participants who rated their Sindhī knowledge as poor (1 on 5; see Figure 4.4), only two claimed to have read letter by letter, paying attention to the diacritics.

With all those little things {diacritics} added, with little more practice, it would be really helpful. (04M)

I don't think that this learning curve is very steep, with this kind of {diacritical} lettering. (23F)

The other five participants with poor knowledge of Sindhī claimed to have read by lexical recognition, even though their knowledge of Sindhī might have been insufficient for the purpose.

I more or less ignored the marks {diacritics}. It was previous knowledge of what I thought the word should sound like. (28M)

Even so, reading by lexical recognition was effectively the only option available to some of these nonfluent participants. Even if they attempted to read by

phonological decoding, insufficient time to familiarise themselves with the diacritics meant that they had to eventually fall back on their rudimentary Sindhī knowledge to recognise words in the text.

I struggled with a couple of the extra marks and dots around the script. But with continuous use, you could possibly get used to that. (06M)

If unable to find a match for a word from their mental lexicon, nonfluent participants attempted an ad hoc pronunciation for the problematic word. Such arbitrary attempts sometimes led to participants pronouncing a Sindhī word as an orthographically and semantically similar Hindī or English word. Occasionally, problematic words were skipped altogether.

The aspect of readers needing to familiarise themselves with new conventions was touched upon by one scholar. He believed that retaining orthographic conventions generally familiar to lay readers needed to be taken into account in the context of Sindhī in Roman. On this basis, he recommended retaining digraphs such as ⟨ch⟩ and ⟨sh⟩ despite the availability of alternatives.

We could have created a letter for /ɕ/ either by adding a dot to ⟨s⟩, or by adding an ⟨h⟩. I think ⟨sh⟩ is more common . . . {Similarly,} if you spell /t͡ɕ/ as ⟨c⟩, we linguists will understand it, but common people will have trouble. They'll read it as [k] or as [s]. Because they're used to writing words like [t͡ɕaːt͡ɕaː] {'uncle'} with a ⟨ch⟩. (38M; translated)

Another scholar, although agnostic in terms of orthographic conventions, stressed the importance of standardisation in all scripts.

As long as they {the orthographies in various Sindhī scripts} are standardised, and they are uniform, it shouldn't cause confusion. Confusion comes when you spell one thing in different ways. And then you fight over it—which is right and which is wrong. (19M)

The aspect of familiar orthographic conventions to enable inexperienced readers to ease in better was a significant one in this study. This is described in detail in the following section.

6.3.2 Orthographic aspects

Graphemic-level reading

Vowels

Reduced lax vowels in Devanāgarī. Broadly speaking, the Devanāgarī and Roman sample texts (see Appendix C) gave rise to observable patterns of nonstandard pronunciations. Nonstandard pronunciation of unstressed lax vowels was primarily noticed in the reading pronunciation of the youngest generation

among the participants, that is, new variety speakers of poor to average spoken Sindhī competence. When reading the Devanāgarī Sindhī text, this participant group routinely dropped final reduced schwas. This follows from the overall loss of reduced vowels in new variety Sindhī, and the fact that schwa is not explicitly represented in Devanāgarī Sindhī orthography (see Table 5.11).

On the other hand, in Devanāgarī Sindhī orthography, the full forms of the lax vowels [ɪ] and [ʊ] are represented identically to the reduced forms [ɪ̃] and [ʊ̃] (§ 5.2.2). For old variety speakers, this convention does not pose a problem since the allophones are predictable from their position within a word. However, in the new variety phonology, reduced vowels are often absent (§ 2.2.2). Therefore, representing reduced vowels in the orthography as identical to full vowels results in a mismatch with new variety speakers' pronunciation.

Before participants began reading the sample texts, they were informed that the vowel signs for [ɪ] and [ʊ] were to be pronounced in a reduced form in unstressed positions, especially at the end of a word. Nevertheless, Sindhī new variety speakers with little to no exposure to *written* Sindhī—effectively Devanāgarī Sindhī, since they were nonliterate in Perso-Arabic—often overpronounced the reduced vowels as full. This resulted in a pronunciation that was effectively a nonword in Sindhī. If the participant was reasonably fluent in *spoken* Sindhī, inability to match the orthographic form of the word with a corresponding entry in their mental lexicon resulted in visible displeasure with the orthography and the text.

Certain nonstandard pronunciations showed a pattern. Medially, the vowel sign for [ɪ̃] was read by certain participants as [ɪ]. Similarly, in final position, the vowel signs for [ɪ̃] and [ʊ̃] were sometimes read as [i] and [u], respectively. The pronunciation of lax [ʊ̃] as tense [u] could be attributed to Hindī interference, since final orthographic lax vowels in Hindī are always realised as tense (§ 5.2.3). Instances of medial [ʊ̃] were absent in the text. A summary of common nonstandard pronunciations by participants is shown in Table 6.3.

Of the words in the Devanāgarī Sindhī text with orthographic final [ɪ̃], the word (आहिनि) [aɦɪnɪ̃] 'are' was not recorded as pronounced with final [ɪ ~ i], likely on account of it being an extremely basic Sindhī word. Similarly, a few words with final [ʊ̃] were not pronounced with final [u]. The words (अलगु) [əɭəɡʊ̃] 'different', (शरीरु) [ʃəɾiɾʊ̃] 'body' and (मज्जिबूतु) [məʒɪbʊtʊ̃] 'strong' could have theoretically been pronounced with final [u]. However, the number of recorded instances of these words by new variety speakers was low; these words occurred in the second paragraph of the text, which several participants, particularly those weak in spoken Sindhī, skipped.

Table 6.3. Nonstandard vowel pronunciations in Devanāgarī text

DEVANĀGARĪ	NONSTANDARD	STANDARD PRONUNCIATION		GLOSS
SINDHĪ WORD	PARTICIPANT PRONUNCIATION	OLD VARIETY	NEW VARIETY	
<i>Medial [ʔ] as [ɪ]</i>				
केतिरा	keɽɪra	keɽʔra	keɽra	‘how many’
सभिनी	səbʱɪni	səbʱɪni	səbʱni	‘all’
कसिरत	kəsɪrət̪	kəsʔrət̪	kəsɾət̪	‘exercise’
<i>Final [ʔ] as [i]</i>				
बि	bi	bʔ	b(ʔ)	‘also’
<i>Final [ʊ] as [u]</i>				
तंदुरुस्तु	t̪ənd̪ʊɾʊst̪u	t̪ənd̪ʊɾʊst̪ʊ	t̪ənd̪ʊɾʊst̪	‘fit, healthy’
रहणु	rəɦɪ̃ɽ̪u ~ rəɦɪ̃ɽ̪u	rəɦəɪ̃ɽ̪ʊ	rəɦəɪ̃ɽ̪	‘to be’
तमामु	t̪əmam̪u	t̪əmam̪ʊ	t̪əmam̪	‘very’

Inconsistent lax versus tense vowels in Roman. Overall, pronunciation of reduced vowels was more consistent when reading the Roman Sindhī text. In accordance with Grierson’s (1919) convention, unstressed vowels in the Roman Sindhī text (see Appendix C) were indicated with superscripts. Before reading the text, participants were also instructed to pronounce these superscript vowel letters very lightly. The iconic representation of reduced vowels as small-sized superscripts, coupled with new variety speakers’ tendency to drop these vowels, likely helped them avoid overpronouncing these vowels.

On the other hand, the distinction between lax and tense vowels was not as visually salient in Roman, as in Devanāgarī. In Devanāgarī, vowel diacritics for lax and tense vowels are visually distinct from each other, whereas in Roman they vary only in terms of a macron over the vowel letter. The graphical subtlety in vowel representation in Roman led to participants misinterpreting certain vowels, especially in infrequently used words. Table 6.4 cites a few cases of misinterpreted vowels.

Table 6.4. Nonstandard pronunciations of vowels in Roman text

ROMAN SINDHĪ WORD	NONSTANDARD PARTICIPANT PRONUNCIATION	STANDARD PRONUNCIATION (OLD & NEW VARIETIES)	GLOSS
jhūlāindā	d̪ʱulɛɳɖa	d̪ʱula.ɳɖa	‘(we) fly’
gāindā	geɳɖa	ga.ɳɖa	‘(we) sing’
rāṣṭrīy ^a	rəɽɽɾij	rəɽɽɾijə	‘national’

A plausible explanation for the pronunciation of (jhūlāindā) and (gāindā) as [d̪ʱulɛɳɖa] and [geɳɖa], respectively, is the ignoring of diacritics. That is, the

macrons over ⟨ā⟩ and ⟨ī⟩ are not considered, and the sequence ⟨ai⟩ is then interpreted as the digraph for [ɛ] (see Table A-2). Likewise, the ignoring of the macron over ⟨ā⟩ in ⟨rāṣhṭrīy^a⟩ resulted in the interpretation of tense [a] as lax [ə] instead. This pronunciation also features the interpretation of retroflex ⟨ṭ⟩ [ɮ] as dental [t], which will be discussed later in this section.

The question of whether or not to explicitly represent reduced lax vowels in Devanāgarī and Roman Sindhī was one which only a limited number of scholars commented on. One scholar in favour of explicit representation drew attention to their grammatical function (§ 2.2.4).

There's been a lot of argument on this. If you don't show the reduced vowels {word-finally}, how will you know the difference between plural and singular? Oblique and non-oblique {forms}? How will gender be decided? How will the computer give you an {appropriate} output? (38M; translated)

In contrast, another scholar felt that it was necessary for Sindhī orthography to adapt to changing pronunciations and not reflect antiquated standards.

In 13th century Marāṭhī, you'd say and write [d̪eva t̪uṭ̪eɪ gəṛ̪eɪ].²⁰ Today's Marāṭhī has lost those final lax vowels. And Marāṭhī spelling has been adapted accordingly. (25M; translated)

Statements by the three RST members indicated that the RST was yet to arrive at unambiguous agreement on the issue of representing final reduced vowels. One of them cited an example of younger speakers overpronouncing final reduced vowels in the *Romanized Sindhi* orthography. The word in question was [əmb̪^o] 'mango', which in the *Romanized Sindhi* orthography is written ⟨a'nbu⟩. He acknowledged that internal resolution of the issue was still pending.

Technically speaking, we should add ⟨u⟩. But there was an objection from my colleague. He asked ordinary children to read ⟨a'nbu⟩, and told them that the ⟨u⟩ stands for a very short [ʊ]. But instead of [əmb̪^o], everyone said [əmbu:~]. So, my colleague said that it's confusing to put ⟨u⟩ and ⟨i⟩ {word-finally}. End them without any vowel . . . {but} we have to sort out this issue. (44M)

Another RST member felt that explicitly representing final lax vowels was preferable, but conceded that learners may overpronounce them. She cited the overpronunciation of final vowels in the Sindhī words ⟨d~ili⟩ [d̪ɪl̪ⁱ] 'heart' and ⟨putu⟩ [pʊṭ̪^o] 'son'.

{In the RST orthography}, we write ⟨d~ili⟩, but we pronounce it as [d̪ɪl̪ⁱ]. {Learners} will understand it as [d̪ɪli:~]. Similarly, they {learners} pronounce

²⁰ Devanāgarī (देवा तूचि गणेशु); this is a line from the *Jñāneshvarī*, a 13th century Marāṭhī-language religious commentary. In modern Marāṭhī, the equivalent spelling and pronunciation would be (देवा तूच गणेश) [d̪eva t̪uṭ̪s̪ gəṛ̪eɪ].

final ⟨u⟩ as [uː]. When I say [pʊtʰ], they say [pʊtʰuː], since there's a vowel sign for ⟨u⟩ here. I say that it's a soft sound, [pʊtʰ]. There's a difference. (40F)

As of May 2017, the Sindhī dictionary on the RST's website cites the forms ⟨a'nbu⟩ and ⟨putu⟩, but ⟨d~il⟩.

Diphthongs and loan phonemes. The Devanāgarī and Roman texts contained one instance each of a vowel with varying realisations (§ 2.2.2). In the Devanāgarī text, the vowel [ɛ] in the word ⟨वगैरह⟩ [vəɣerəh̐] was pronounced [e]. This was characteristic of older participants. On similar lines, the vowel [ɔ] in the word ⟨qaumī⟩ [kəmi] often manifested in the speech of older participants as [o].

Also of note was the almost universal realisation of ⟨ṭ⟩ /y/ and ⟨ṣ⟩ /q/ as [g] and [k], respectively. This corroborates the observations in Section 2.2.2 that /y/ and /q/ in Arabic and Persian-origin words are effectively pronounced [g] and [k].

Consonants

Affrication of /z/ in Devanāgarī text. The comprehensive traditional grapheme inventory of Devanāgarī has resulted in most Sindhī phonemes being represented with visually distinct graphemes. However, phonemes not accounted for in the traditional Sanskritic Devanāgarī inventory have been assigned graphemes by adding diacritics to existing base graphemes (§ 5.2.2). One such phoneme is /z/, for which a grapheme ⟨ज़⟩ has been fashioned by adding an underdot diacritic to the grapheme ⟨ज⟩ /d͡ʒ/. The visual similarity of these graphemes led a few participants to interpret ⟨ज़⟩ /z/ as ⟨ज⟩ /d͡ʒ/. A selection of such words is shown in Table 6.5.

Table 6.5. Nonstandard pronunciations of /z/ in Devanāgarī text

DEVANĀGARĪ SINDHĪ WORD	NONSTANDARD PARTICIPANT PRONUNCIATION	STANDARD PRONUNCIATION		GLOSS
		OLD VARIETY	NEW VARIETY	
ज़रूरी	d͡ʒəruri	zəruri	zəruri	‘necessary’
उज़्वे	ʊd͡ʒve	uzve	uzve	‘limb (obl.)’
मज़िबूत	məd͡ʒbuṭ	məzʰbuṭ ^७	məzbuṭ	‘strong’

The words [zəruri] and [məzbuṭ] also exist in Hindī, and are often realised with the nonstandard affricated pronunciations [d͡ʒəruri] and [məd͡ʒbuṭ]. Hence, the affricated pronunciations of these Sindhī words could also be attributed to Hindī interference. However, [uzve] has no common parallel in Hindī. Therefore, the affricated pronunciation of this word can only be attributed to the grapheme ⟨ज़⟩ /z/ being interpreted as ⟨ज⟩ /d͡ʒ/ due to visual similarity. Indeed, of all words in the text containing ⟨ज़⟩ /z/, [uzve] was affricated most frequently by participants.

Inconsistent retroflex versus dental stop distinction in Roman text. Visual indistinctiveness of graphemes in Roman also played a part in nonstandard pronunciations and mispronunciations of words from the Roman Sindhī text. Since retroflex and dental stops are only distinguished by the underdot diacritic in Griersonian Roman, retroflex consonants were often pronounced as dental, and vice versa. Table 6.6 lists a few such instances.

Table 6.6. Nonstandard pronunciations of stops in Roman text

ROMAN SINDHĪ WORD	NONSTANDARD PARTICIPANT PRONUNCIATION	STANDARD PRONUNCIATION (OLD & NEW VARIETIES)	GLOSS
jhaṇḍo	ḍẓḥaṇḍo	ḍẓḥaṇḍo	‘flag’
ṭirango	ṭirango	ṭirango	‘tricolour’
ṭe	ṭe	ṭre ~ ṭe	‘three’

The equivalent of the Sindhī word [ṭirango] in the Hindī language is [ṭiranga]. Thus, the words in the two languages are identical in meaning and very similar in pronunciation. The only differences are the initial consonant and the final vowel. Greater exposure to the Hindī word and unfamiliarity with the Sindhī word could have resulted in an interference-induced replacement of the initial retroflex stop in [ṭirango] with the dental stop [ṭ].

The case of [ḍẓḥaṇḍo] being realised as [ḍẓḥaṇḍo], featuring similar replacement of retroflex stops with dental ones, is a curious one. Again, this Sindhī word is very similar to its Hindī counterpart, /ḍẓḥaṇḍa/, differing only in the final vowel. Hence, the substitution of retroflex stops with dental ones cannot be attributed to Hindī influence in this case. Similar is the case of [ṭre ~ ṭe] being pronounced [ṭe], since the phonetic shape of this Sindhī word is quite different from that of its Hindī equivalent /ṭin/. Hence, the confusion of retroflex and dental stops in [ḍẓḥaṇḍo] and [ṭre ~ ṭe] could be ascribed to the graphemic indistinctiveness of retroflex ⟨ṭ⟩ and ⟨ḍ⟩ from dental ⟨t⟩ and ⟨d⟩. This phenomenon was more commonly observed in nonfluent participants’ speech, likely since their Sindhī knowledge was not advanced enough to correct perceived orthographic ambiguities from context.

Representation of variant pronunciation. Three participants pointed out what they thought were inauthentic orthographic representations. Two participants, one of the oldest and the other of the middle-aged generation, mentioned that the word (डोड़) [ḍorṭ] ‘running’ in the Devanāgarī Sindhī text was an inappropriate spelling. Instead, they recommended the spelling (डोर), which better indicated their own pronunciation [ḍorṭ].

This is [ḍorṭ], but it should be [ḍorṭ], according to my knowledge of Sindhī. (31F).

Likewise, one participant identified the spelling of the word ⟨te⟩ [te] as problematic. According to him, it should have been spelt ⟨te⟩, which better reflected his own pronunciation [tre].

This shouldn't be [te]. It's [tre]. (17M)

These comments reflect the merging of [ɾ] with [r] in certain dialects, and the retention of initial [tɾ] in others (§ 2.2.3).

Along similar lines, nonfluent participants sometimes re-read a word with its colloquial pronunciation, after recognising its meaning. This was most evident with the word ⟨आहे⟩ [aɦe] 'is', which was often re-read with the colloquial pronunciation [a(j)e]. This was indicative of the literary pronunciation of the word being absent in the reader's mental lexicon.

Word-level reading

False friends

In the Devanāgarī text, a few Sindhī words bore great resemblance in orthography and meaning to certain Hindī words. Consequently, participants, especially nonfluent ones, mispronounced these Sindhī words as their Hindī look-alikes. Table 6.7 provides examples of such pronunciations.

Table 6.7. Hindī interference in Devanāgarī Sindhī pronunciations

DEVANĀGARĪ SINDHĪ WORD	NONSTANDARD (HINDĪ) PRONUNCIATION	STD. PRONUNCIATION		SINDHĪ GLOSS	HINDĪ WORD	HINDĪ GLOSS
		OLD VARIETY	NEW VARIETY			
इन्हि	ɪnɦi ~ ɪnɦĩ	ɪnɦən ¹	ɪnɦən	'these (obl.)'	इन्हीं	'these very'
कंहि	kəɦĩ	kẽɦ ^ē	kẽɦ	'any (obl.)'	कहीं	'anywhere'
उपाउ	ʊpaj	ʊpa ^ʊ	ʊpa	'solution'	उपाय	'solution'

In the first two examples in Table 6.7, it is possible that misinterpretation of the orthographic final lax vowel as a tense vowel encouraged Hindī interference. That is, the word was misunderstood as a Hindī word with a final tense vowel [i], which also had a similar pronunciation and meaning to the Sindhī word. This resulted in the mental retrieval of the Hindī word instead. The retrieval of a Marāṭhī false friend was also attested from one participant, who pronounced ⟨कंहि⟩ [kẽɦ^ē ~ kẽɦ] as [kəɦi] (cf. Marāṭhī ⟨काही⟩ /kəɦi/ 'any, some').

A similar phenomenon was seen in the Roman Sindhī text. Roman Sindhī words that were orthographically similar to English words or Roman Hindī words, were pronounced with their English or Hindī pronunciations rather than their Sindhī ones. This is seen in Table 6.8.

Table 6.8. Hindī and English influence on Roman Sindhī pronunciations

ROMAN SINDHĪ WORD	PARTICIPANT PRONUNCIATION	STANDARD PRONUNCIATION (OLD VARIETY)	GLOSS
chakar ^u	t̪ækɾə	t̪ækər ^o	‘wheel’
izat ^a	izzət̪	izət̪ ^a	‘respect’
āgaṣṭ ^u	əgəṣṭ ɔgəṣṭ	agəṣṭ ^o	‘August’
jan ⁱ varī	d̪ənuvəri d̪ənj̪(ə)ri	d̪ən ⁱ vəri	‘January’

In Table 6.8, the pronunciations [t̪ækɾə], [izzət̪], [əgəṣṭ] and [d̪ənuvəri] are the Hindī equivalents of the words in question, while [ɔgəṣṭ] and [d̪ənj̪(ə)ri] are the Indian English equivalents. That said, the pronunciation of ⟨izat^a⟩ as [izzət̪] cannot, strictly speaking, be classified as Hindī interference. As discussed under the topic of gemination (§ 2.2.2), [izzət̪] has been cited by certain scholars as a legitimate Sindhī pronunciation. What is noteworthy, though, is that the pronunciation [izzət̪] resulted from the orthography ⟨izat^a⟩, with orthographic single ⟨z⟩ being pronounced as geminate [zz]. This may be indicative of a tendency to ignore the presence or absence of orthographic gemination as a phonological cue. Also, [izzət̪] and [əgəṣṭ] featured more in the speech of participants nonfluent in Sindhī but at least reasonably fluent in Hindī. This again points to the likelihood of a subconscious preference to ignore phonological cues (gemination, diacritics), and read by whole-word recognition. This explains the unintended retrieval of the phonologically similar Hindī pronunciations from the mental lexicon. The pronunciation of ⟨janⁱvarī⟩ as [d̪ənuvəri] was inconsequential, since the Sindhī and Hindī pronunciations of the word are near-identical.

Certain participants, especially those nonfluent in Sindhī but fluent in English, also read ⟨āgaṣṭ^u⟩ and ⟨janⁱvarī⟩ as [ɔgəṣṭ] and [d̪ənj̪(ə)ri], respectively. It could be surmised that the lexical recognition of the words as English loans likely made them retrieve the Indian English pronunciations from their mental lexicon, superseding any attempts to decode the words phonologically. Indeed, the Hindī or English pronunciations of the words in question may well be the standard ‘Sindhī’ pronunciations of these words in Sindhī for new variety speakers. Hence, no new variety pronunciations have been listed in Table 6.8.

The retention of the source pronunciation of loanwords as the standard Sindhī pronunciation was reflected in a scholar’s objection to spelling the English loanword ⟨August⟩ in Roman Sindhī as ⟨āgaṣṭ^u⟩. In his opinion, the Roman Sindhī spelling should have been more reflective of the Indian English

pronunciation [ɔgəst] rather than the assimilated or old variety Sindhī pronunciation [agəstʰ].

There are few spellings {that are odd}, like ⟨āgastʰ⟩ . . . It's [ɔgəst], no? {The pronunciation} [ɔ] is not conveyed by the line {macron above ⟨a⟩}. (19M)

While the spelling of loanwords was explicitly alluded to only by a few scholars, it was implicitly alluded to in lay participants' reading of loanwords in the Devanāgarī and Roman Sindhī texts.

Loanwords

The question of the spelling of English loanwords was evident during participants' reading of the Devanāgarī and English texts. The Devanāgarī text contained four English loanwords, 'hockey', 'football', 'volleyball' and 'cricket', transcribed ⟨हाकी⟩, ⟨फुटबालु⟩, ⟨वालीबालु⟩ and ⟨क्रिकेट⟩, respectively. All participants fluent in English read out these words with their English pronunciations. However, participants often paused or had false starts when reading these words. This was due to their Devanāgarī spellings being reflective of the assimilated or Sindhī old variety pronunciations [haki], [fʊtʰbalʰ], [valibalʰ] and [kɾikeʃʰ], respectively. The assimilated pronunciations were a mismatch with participants' anglicised pronunciations of these words. The assimilated Sindhī pronunciations were only recorded with two participants, who were fluent in Sindhī but nonfluent in English. For these participants, the Devanāgarī spellings were reflective of their own pronunciations of these words.

The Roman Sindhī text, too, contained several English loanwords, albeit commonly used in Sindhī. Two were names of months, ⟨August⟩ and ⟨January⟩, whose pronunciations have been discussed earlier. The others were the words 'school', 'college' and 'office', but in their oblique or declined forms, that is, with the suffix [ənʰ] appended (§ 2.2.4, Table 2.6). The Roman Sindhī spellings of these forms and their assimilated Sindhī pronunciations are shown in Table 6.9.

Table 6.9. Roman Sindhī spellings of English loanwords

ROMAN SINDHĪ WORD	ANGLICISED PARTICIPANT PRONUNCIATION	STANDARD PRONUNCIATION (OLD VARIETY)	GLOSS
iskūlan ⁱ	skulən	ɪskulən ⁱ	'schools (obl.)'
kālejan ⁱ	kəlɪdʒən	kaledʒən ⁱ	'colleges (obl.)'
āfisan ⁱ	ɔfisən	afisən ⁱ	'offices (obl.)'

These spellings proved to be highly unintuitive both for fluent and nonfluent speakers of Sindhī, due to the novelty of the orthographic form. Most participants required prompts to help them proceed. After prompting, participants fluent in English typically read the root words with their Indian

English pronunciations. Participants' difficulty in pronouncing these words, therefore, implicitly alluded to the orthographic question of how to romanise loanwords from English with Sindhī declensions.

The question of how to spell loanwords was explicitly raised with the three RST members. One of them stated that they intended to respell English loanwords to conform to *Romanized Sindhi* orthographic rules, but without compulsive orthographic vowel finality. Therefore, English 'school' would be spelt (skool), and not (skoolu), in the *Romanized Sindhi* orthography. In the participant's opinion, consonant-final English loanwords were not pronounced as vowel-final in Sindhī. Therefore, the spelling needed to reflect the pronunciation [skul] and not [skul^o].

We're writing that as (skool) . . . not (skoolu). It's not [hi^o mōhīdzo skul^o ahe]
{This is my school}. (40F)

This opinion on omission of final lax vowels was illustrative of the diversity of opinion on the topic of Sindhī vowel finality (§ 2.2.3).

The question of spelling Sanskrit loanwords in Devanāgarī Sindhī was broached by one scholar. He alluded to the difference in opinion on the Sindhī spellings of Sanskrit words with a final lax vowel, which are pronounced with a final tense vowel in Sindhī (§ 5.2.3). He leaned towards retaining the source spellings in Sindhī, since the source spellings were used in Hindī as well.

We write (kavi), that is, (v) with short (i). He {another Sindhī scholar} says, "No. In Sindhī you write (v) with long (ī)". Now the problem is this: if a Sindhī child writes (kavī) with long (ī), then he'll spoil his Hindī spelling. (26M; translated)

To sum up, the theme of Hindī interference, both in terms of misinterpreting a Sindhī word as a Hindī one, and in terms of using the Hindī pronunciation rather than the assimilated Sindhī one, was prominent across participant groups. Also salient was the question of loanword spellings, particularly in Roman. Whereas lay participants did not have explicit opinions on loanword spellings, there was considerable diversity in scholarly opinion.

6.3.3 Analysis

The themes on the pedagogical aspects of Perso-Arabic, Devanāgarī and Roman covered their perceived prevalence and ease of reading. Perso-Arabic was generally considered to be restricted to the older generation and difficult to learn. Devanāgarī, on the other hand, was considered widely known in India, while Roman was considered widely known on a global scale.

With regard to the Perso-Arabic script, lay participants literate in it did not explicitly or implicitly refer to the finer points of its phoneticity. The only

references in this regard were by scholars, about the script being “disabled” by the common omission of lax vowel diacritics, and about the Arabic influence on Pakistani Sindhī in terms of vowel diacritic positioning. As mentioned earlier (§ 5.1.3), these orthographic nuances usually do not affect fluent readers; indeed, the Perso-Arabic Sindhī text shown to participants was largely free of lax vowel diacritics, but fluent readers were able to read them without any noticeable trouble. In this context, Rabin (1977, p. 155) observes that finer orthographic issues in a language typically affect “marginal and largely inarticulate groups” such as children and adult learners with a poor grasp of the language. He also notes that:

[t]he educated reader tends to feel that these people should make the same effort that he made himself in order to learn to read fluently, rather than causing him difficulties by changing his ingrained reading habits. Some even resent the very idea that others should have things made easier than they had themselves.

(Rabin, 1977, p. 155)

However, the oldest generation literate in Perso-Arabic did not claim that the script or its orthographic conventions were special in any way, on the basis that they had invested time and effort in learning it as children. In this sense, they did not display any effort justification (Aronson & Mills, 1959). Rather, they were in favour of using the best possible means to maintain the spoken language. However, consensus was lacking on which script to use for this purpose.

Devanāgarī supporters, both literate and nonliterate in Perso-Arabic, justified their choice on two main grounds. First, they claimed that children in India were taught Hindī in schools up to Year 10, and thus would be familiar with Devanāgarī. Second, they alluded to its supposedly superior phoneticity to Roman. The first justification was based on the assumption that people who were taught English and Hindī in school were bilingual in these languages and bicultural (Bassetti, 2013) in Roman and Devanāgarī, with no consideration given to degrees of fluency. Such claimants did not envisage people being able to read Devanāgarī functionally, but not fluently. In other words, Devanāgarī supporters did not consider the fact that some people may be merely alphabeticised (Zeisler, 2006, p. 177) in the script and not fluent in reading it. The second justification indicated a perception of the Roman *script*, rather than English *orthography* in Roman, as unphonetic. Exposure to Sindhī written in an irregular idiosyncratic Roman orthography in text messages and on social media likely reinforced this impression. In contrast, the Devanāgarī script, rather than Hindī orthography in Devanāgarī, was considered phonetic, and by extension better suited to writing Sindhī. In this sense, participants displayed a

kind of ambiguity aversion (Fox & Tversky, 1995), where the perceived ambiguous outcomes of writing Sindhī in Roman might have made them prefer Devanāgarī. With Roman, there was a fear of the unknown in terms of how the script would affect variation in or evolution of the Sindhī language; Devanāgarī to them seemed to embody greater phonetic stability.

The main argument in favour of Roman for Sindhī was its global prevalence. To the RST members, this included its availability on most computers and mobile devices. However, consensus was lacking among participants on how it should be best employed to represent Sindhī phonology. Some said diacritics in Roman were useful in indicating pronunciation nuances, while others dismissed diacritics as unfamiliar and an initial burden. Overall, the appearance of simplicity was given high importance as an initial lure; a visually complex orthography was seen as putting learners off.

The aversion to diacritics could be attributed to a spillover effect, where the diacritic-free nature of English orthography influences readers' perception of other Roman-based orthographies. Such a spillover effect has been attested by Karan (2006, p. 119), who states that "Anglophone linguists and people in countries which had been colonized by the British often displayed more reticence to using diacritics". In contrast, Nida (1957, p. 130) noted that education officials in French- and Portuguese-speaking areas of Africa had no such reservations concerning diacritics, due to the extensive usage of diacritics in those languages. Be that as it may, facts are irrelevant when feelings are strong (O'Kane, 2014) that no diacritics is better. In fact, being anti-diacritics, or at the very least, rendering them optional is not uncommon worldwide. For instance, the *pīnyīn* romanisation system for Mandarin requires tone diacritics to be used on vowel letters, but the Chinese government disregards such diacritics in official documents. According to Wiedenhof (2005, p. 398), "due to the relatively complex graphics of the tone symbols...[e]ven Chinese passports, despite their obvious identificational function and the high frequency of identical personal names, do not specify Pīnyīn tones".

The RST members advanced the additional argument that diacritics were cumbersome to input on computing devices. In an ideal scenario, technology should not dictate to users; linguists should be free to choose a script and/or design an orthography that is phonetically sound and psychologically and socially acceptable to the language's users. However, in reality, technology does often influence decisions on the script or orthography of minority languages. This is especially evident with regard to characters and symbols that have not yet been encoded in the Unicode standard of font encoding. A paper by the

Unicode Consortium, which has developed and continues to update the standard, states that “[i]t should be considered a long-term disservice to users to saddle users with an orthography that does not work on today’s computers” (Anderson, McGowan, & Whistler, 2005, p. 1). Indeed, addition of new characters into Unicode can often take years. For instance, most common Devanāgarī characters were encoded in Unicode in 1991, but the Devanāgarī characters for the Sindhī implosives were added only in 2006 (The Unicode Consortium, 2007). In this regard, Karan (2006, p. 234) is right in opining that “computer technology can be a deciding factor in orthography [and script] implementation”.

Regardless, some form of augmentation is necessary if the 50-plus phonemes of Sindhī are to be represented in the 26 graphemes of Roman. This augmentation may take the form of diacritics, digraphs (or trigraphs), or a combination of the two. As already indicated, diacritics are considered unfamiliar and do not seem to be favoured, at least in the Indian context. This most likely stems from the fact that English orthography does not use them. Digraphs, on the other hand, are not a new concept to English-literate Indians, since English commonly uses the consonant digraphs ⟨sh⟩ and ⟨ch⟩, and the vowel digraphs ⟨ee⟩ and ⟨oo⟩. However, marking the distinction in Roman between retroflex and dental stops proves trickier. Since English lacks this distinction, there exists no precedent from English orthography for distinguishing retroflex stops from dental ones. In fact, a phonemic distinction between retroflex and dental (or alveolar) stops exists in only 11 percent of the world’s languages, primarily in South Asia and Australia (Arsenault, 2012). Of these, many are unwritten or use non-Roman scripts. From the prominent ones that are written in Roman, Table 6.10 provides a brief overview of conventions used to distinguish retroflex stops from dental/alveolar ones.

Table 6.10. Selection of Roman-orthography conventions for distinguishing retroflex and dental stops

	/t/	/ʈ ~ t/	/d/	/ɖ ~ d/	/ɳ/	/ɳ̐ ~ n/
JAVANESE	th	t	dh	d	-	-
SOMALI	-	-	dh	d	-	-
EWE	-	-	ɖ	d	-	-
AUSTRALIANIST	rt	th, t	rd	dh, d	rn	nh, n
AUSTRALIANIST (WESTERN DESERT)	ṭ	t	ḍ	d	ṇ	n
KŌKAṆĪ	tt	t	dd	d	nn	n
INDIC (GRIERSONIAN)	ṭ	t	ḍ	d	ṇ	n

As seen from Table 6.10, strategies for distinguishing retroflex stops from dental ones include adding diacritics, introducing new letterforms, and creating digraphs. Diacritics in Roman, as already mentioned, were not a

popular option among the participants. Introducing new letterforms, such as the IPA-inspired ⟨d̪⟩, would also cause visual unfamiliarity and an increased learning curve. Sebba refers to this phenomenon as an “increased load on the single letter” (2007, p. 22). This sentiment is echoed by Venezky, in stating that “it may be more difficult to learn to discriminate a totally new symbol from an existing repertoire than it is to learn that a sequence of two existing symbols has a special significance” (1970, p. 260).

Therefore, if diacritics or new letterforms are to be avoided, retroflex consonants could potentially be represented by digraphs, created by prefixing an ⟨r⟩, suffixing an ⟨h⟩, or doubling the letter. It does appear that opting for digraphs using only known letterforms makes the overall orthography look visually familiar, at least at first glance. However, on closer inspection, it emerges that none of these digraph conventions for retroflex consonants are commonly known or used in India, outside of restricted linguistic or academic circles. Therefore, none of these digraphs will be inherently familiar as denoting retroflex stops to prospective users of Sindhī in Roman. In fact, some of these conventions might clash with existing ones. For example, a suffixed ⟨h⟩ is commonly used in ad hoc Roman transcriptions of Indian languages to represent aspirate stops. This essentially means that any orthographic innovation, whether in the form of diacritics, new letterforms or digraphs, will be unfamiliar at first to readers. They would have to be specifically learnt, inevitably increasing the learning curve.

Hence, it appears that the issue of script augmentation results in a Catch-22 situation. If diacritics, new letterforms, or unfamiliar digraphs are (over)used, then the resultant orthography can become visually confusing and aesthetically displeasing. On the other hand, if such innovations are restricted or not used at all, then the resultant orthography can be phonologically ambiguous, consequently requiring readers to have prior familiarity with the language. This makes the orthography difficult for learners of the language.

A significant phenomenon reported by fluent speakers after reading the Devanāgarī and Roman sample texts was their tendency to read through the lexical route, rather than through the phonological route (Cook & Bassetti, 2005). That is, they reported reading by picking on whole words based on their knowledge of the language (Mattingly, 1992), and ignored diacritics and other nuanced phonological cues in the orthography. On this basis, they made two statements. First, fluency in Sindhī was necessary to be able to read Sindhī in Roman. Second, diacritics were useful only for beginners. In other words, they concluded that diacritics did not serve any purpose for fluent speakers who

tend to read through the lexical route, but only for learners whose knowledge of the language was so weak as to leave them with no choice but to read through the phonological route.²¹ This reflects Venezky's (1970) observation of the different requirements that beginners and advanced readers have from an orthography. He notes that "for the beginner, the orthography is needed as an indicator for the sounds of words (*inter alia*), but for the advanced reader, meanings, not sounds, are needed" (p. 260).

In brief, Sindhī in Roman, in particular diacritical Roman, was considered to be useful primarily for learners. Most such learners, in spite of being community members, are effectively learners of Sindhī as a second language (Guérin, 2008, p. 59; Seifart, 2006, p. 283). A putative Roman Sindhī orthography, therefore, should ideally be designed for a target group of L2 learners, not native speakers. This, in turn, should be informed by how much pedagogical instruction the average Sindhī learner would be exposed to. Reading has been shown to be a highly useful language-learning tool (Schneider, 2011, p. 195). Regardless, opportunities for structured or institutionalised reading instruction in Sindhī are slim, since formal schooling in the language is not in demand within the community. Consequently, attempts at reading and writing Sindhī in Roman, or even Devanāgarī, would largely be due to personal motivation or informal community efforts. To aid this, any Sindhī-language orthography, in whichever script, should preferably be consistent and transparent (Cook & Bassetti, 2005; Karan, 2006). That is, it is desirable to have a high-degree of one-to-one correspondence between a given letter and a given sound (Lüpke, 2011). In this regard, Bird opines that orthography design for a language should take into account:

how steep a learning curve the speakers will tolerate, and on the available pedagogical resources, . . . In some settings, the average person may have very limited opportunities for study. New readers may not persevere with a deep orthography long enough, . . . So the reward of being able to read may not come early enough to justify the effort. A shallow orthography may be preferable here, . . .

(Bird, 1999, p. 36)

A shallow transparent orthography would permit beginning readers to sound out letters and words fairly accurately, even if they do not initially understand the meanings of the words being read (Frost & Katz, 1992). While it is true that

²¹ There is ongoing academic debate on the applicability of the dual route model (see Bhuvaneshwari & Padakannaya, 2014; Ziegler & Goswami, 2006). Nevertheless, it serves as a useful theoretical underpinning for the reading phenomena observed in this study.

reading for pronunciation is not the same as reading for comprehension, it is also true that the psychological “reward of being able to read” described by Bird (1999, p. 36) might act as motivation for learners to persist with their efforts.

The phenomenon of second-language learners benefiting from a transparent orthography has also been noted by Smalley (1964) in his classic paper on orthography design. He notes that native speakers of a language may not need explicit representation of phonological or phonetic nuances in the orthography, but “foreigners” or L2 learners of the language do (p. 55). More importantly, he stresses the requirement of a transparent orthography for a lesser-learnt language, stating pointedly that:

[t]he reason we can get along with five vowel symbols in English for our horribly complex vowel system is that we can force children to stay in school long enough to teach them.

(Smalley, 1964, p. 60)

At this stage, it may be argued that standardisation is not paramount in the initial stages of orthographic development, and that idiosyncratic variation in spelling should be tolerable. However, the ability to decode inconsistent spellings presupposes a reasonable command over the language, and consequently, an ability to read through the lexical route. In the context of Sindhī in India, only the oldest generation fulfils this criterion. Nevertheless, this generation sees no need to read in alternative scripts or orthographies since they usually have recourse to Perso-Arabic Sindhī. On the other hand, the implied target group in the current scenario, especially for the RST, is the youngest generation. This generation often has limited to poor abilities in the Sindhī language, and is unable to reliably decipher variant spellings. It follows from the above that a target group with limited skills in spoken Sindhī would benefit the most from an orthography that permits phonological reading. As stated in Sections 5.1.3 and 6.2.3, variant orthographic practices may not pose much of a processing hurdle to fluent speakers and experienced readers, but they do for nonfluent speakers and beginner readers. This is a hindrance that lesser-learnt languages like Sindhī can ill afford.

It can also be argued that a learning curve of some sort is inevitable when attempting to read a new writing system or orthography, even when it involves one’s “native” language (Bunčić, 2016a, p. 18). Along these lines, Desai (2002, p. 185) states that “learning a language is natural to some extent, [but] learning a script is essentially an artificial and planned activity”. The emphasis here, though, is that the aim should be to reduce the learning curve to the greatest

extent possible, in situations where the likelihood of formal instruction in a language and script is low.

Thus, if the guiding principle is that of reducing the learning curve in both Devanāgarī and Roman Sindhī, this implies that the orthographic conventions of these written varieties should incorporate, to the extent possible, conventions that potential learners would already be familiar with. In other words, the orthographic model languages (Sebba, 2007, p. 59; Smalley, 1964, p. 65) should be Hindī and English for Devanāgarī Sindhī and Roman Sindhī, respectively. However, throwing a significant spanner in the works is the subtle generational shift in Sindhī phonology, or change in chronolect (§ 2.2.3). Considering that the creators of Sindhī learner materials are usually old variety speakers, they unwittingly reflect their own chronolect in their Devanāgarī or Roman orthography. This may disagree with new variety speakers' own idiolect or chronolect, and lead to them mispronouncing or misinterpreting words. The RST's experience with children overpronouncing reduced vowels succinctly illustrates the pedagogical implications that the chronolectal divide can have. This in turn creates the need for additional didactic instruction and practice. Given that Sindhī is not a language that students or parents are willing to devote considerable educational time to, an orthography that requires effort to acquire is problematic in the current scenario.

On the question of pronunciation, the data in this study point to particular trends in mispronunciation stemming from the underrepresentation of phonetic nuances, and the orthographic similarity of a Sindhī word to synonyms or near-synonyms in other languages. Issues of phonetic underrepresentation varied depending on script. In Devanāgarī Sindhī, the lack of orthographic distinction between full and reduced lax vowels led to participants pronouncing the reduced variants as full lax vowels, for instance in word-medial position. In word-final position, they were pronounced as tense vowels, due to the influence of Hindī orthographic conventions. Also, consonants that were graphemically similar were often confounded, such as ⟨ज⟩ /z/ being read as ⟨ज⟩ /dʒ/. Although the Devanāgarī Sindhī text did not contain any instances of ⟨ञ⟩ /ɲ/, it could be speculated that this grapheme might be confused with ⟨ड⟩ /d/ or ⟨ड़⟩ /ɽ/, due to their visual similarity. Also, speakers who pronounced certain instances of ⟨ड़⟩ /ɽ/ as ⟨र⟩ /r/ found the orthography unrepresentative of their own pronunciations. It is noteworthy that the graphemes for these phonemes have greater visual similarity in Griersonian Roman—⟨r̥⟩ /ɽ/ and ⟨r⟩ /r/.

In Roman Sindhī, reduced lax vowels were clearly distinguished from full lax vowels by the use of superscript letters, thus minimising reader error in this

regard. However, the fact that lax-tense vowel pairs and retroflex-dental consonant pairs were distinguished using inconspicuous diacritics often led to participants swapping the two when reading. Ignoring diacritics also led to the occasional incorrect interpretation of grapheme sequences as digraphs, such as ⟨āī⟩ /a.i/ being read as ⟨ai⟩ /ɛ/.

It was thus observed that the visual salience (Siegel, 2010), namely, the size and distinctness, and the iconicity of symbols used, made a difference in reading performance. In Devanāgarī Sindhī, those phonological features that had visually salient orthographic representation, such as lax and tense vowels, and retroflex and dental consonants, were rarely confused. In contrast, the phonological feature of reduced lax vowels was often misread in Devanāgarī, as it did not have a visually salient orthographic representation. On the other hand, the representation of reduced lax vowels as superscripts in the Roman Sindhī orthography served as an iconic representation of the phonological feature. However, Roman Sindhī performed badly in aiding participants in distinguishing between lax and tense vowels, and retroflex and dental stops, due to the distinguishing element being a visually less prominent diacritic.

Issues of orthographic similarity were less script-specific. Words in Devanāgarī Sindhī that had likenesses in Hindī were pronounced as the latter, while English loanwords in Sindhī were often pronounced with their Indian English pronunciations. A noteworthy phenomenon was that of the emergence of false friends when reading. These misretrievals from the mental lexicon might be indicative of nonfluent speakers instinctively trying to read through the lexical route, even when the orthography is relatively transparent. This phenomenon has been alluded to by Cook and Bassetti (2005), in that readers whose L1 writing system is opaque tend to use a whole-word approach even when reading a phonologically transparent L2 orthography.

The retrieval of Hindī, English or nonword pronunciations, even when exposed to a transparent Sindhī-language orthography, is indicative of crosslinguistic influence or linguistic transfer (Odlin, 2003). That is, participants reading Devanāgarī Sindhī or Roman Sindhī text unwittingly applied Hindī or English phoneme-grapheme correspondences, respectively, to the text. Therefore, the observed phenomenon was specifically one of orthographic transfer (Cook & Bassetti, 2005; Jarvis & Pavlenko, 2008), where features of the first language (L1) orthography were inadvertently applied to the second language (L2) orthography. In other words, beginner readers experienced a cognitive processing lag or committed errors in retrieving language-appropriate pronunciation, even when the L2 orthography was theoretically

transparent. In the present context, Hindī and English may be termed the L1 from a writing point of view, in that these languages were the first that the participants learnt to read in Devanāgarī and Roman, respectively. Consequently, Devanāgarī Sindhī and Roman Sindhī would be the L2.

This phenomenon of orthographic transfer is a common occurrence in second language acquisition (SLA) situations. For instance, learners of French, who have English as their L1, often decode French text according to L1 phoneme-grapheme mappings (Woore, 2013). Various other studies attest this phenomenon (Bassetti, Escudero, & Hayes-Barb, 2015; Cook & Bassetti, 2005; James, Schofield, Garrett, & Griffiths, 1993; Jarvis & Pavlenko, 2008; San Francisco, Mo, Carlo, & Snow, 2006). Notably, this phenomenon typically affects beginner L2 readers rather than advanced ones. This is affirmed by Hedgcock and Ferris when they state that L2 readers:

tend to use some L1 processing when they try to read the L2, although the tendency influences beginning L2 reading more than advanced L2 reading.

(Hedgcock & Ferris, 2009, p. 13)

The above statement presupposes the progression of learners from the beginner to the advanced level. However, this may not necessarily be a given for lesser-studied languages where learner motivation may be ephemeral. Therefore, for such languages, ensuring the smoothest possible passage with minimal instruction is crucial if the L2 reader is to progress beyond the beginning stage. Consequently, reducing pronunciation or comprehension errors due to orthographic transfer becomes an important consideration when designing orthographies for languages that do not have high learner demand. An orthography with phoneme-grapheme correspondences different from those familiar to the beginning reader may cause the reader to commit errors in pronunciation due to inadvertent transfer. This may result in the orthography, even if transparent per se, being perceived as increasing the learning curve. For instance, representing the Sindhī phoneme $\widehat{t\epsilon}$ with ⟨c⟩, instead of the anglicised ⟨ch⟩ familiar to English-literate learners, may cause transfer-induced errors despite its transparency. Such errors may impact on learner motivation, which, as mentioned earlier, is detrimental for lesser-learned languages. Hence, orthographies of lesser-learned languages need to be more than just *transparent*; their phoneme-grapheme correspondences and orthotactics (van der Kuip, 1996, p. 432) also need to be *familiar* to the tentative learner.

That said, the aim of reducing inadvertent orthographic transfer runs into a significant roadblock when it comes to the orthography of loanwords in Sindhī. If the aim is to make the orthography of the L2 as familiar as possible to the

learner, then this would ostensibly include retaining familiar source spellings of loanwords from the L1 (Schneider, 2016, p. 24). In other words, minimising transfer-induced errors would, in principle, involve retaining Hindī source spellings in Devanāgarī Sindhī, and English source spellings in Roman Sindhī. However, retaining source orthography can be problematic, even when the source and target language use the same script (Sebba, 2007, p. 97). As noted earlier (§ 5.2.3), the source language's phoneme-grapheme correspondences and orthographic conventions may conflict with those generally followed in Sindhī. Particularly complex is the case of loanwords with Sindhī-specific morphological declensions. The data in this study do not offer any concise solution to the issue of loanword orthography.

6.3.4 Summary

Participants in the study had varying views on the spread of the three scripts in question. However, widespread prevalence of a script did not necessarily translate into participants favouring that script for Sindhī. In addition, support for a particular script did not mean that participants were able to read Sindhī accurately in that script. Influence of other languages in participants' repertoires was evident in their reading of the Sindhī texts shown to them.

Considering that the study was not geared towards a thorough analysis of reading performance per se, the observations on reading performance should be considered preliminary. Nonetheless, these preliminary observations are indicative of certain patterns in the interpretations of Devanāgarī and Roman Sindhī orthography. In this sense, they form a useful launch pad for further fine-grained research on what orthographic conventions offer the best balance of reader intuitiveness and phonetic accuracy, especially for nonfluent speakers of Sindhī. More importantly, they indicate how notions of an ideal orthography from a linguistic point of view may fall short of the average reader's expectations. In this regard, those concerned with Sindhī pedagogy and literacy instruction would do well to bear in mind Pike's statement, that:

the science of forming an orthography should by no means be considered limited to the science of linguistics; rather it must be emphasized again and again that the social sciences and psychology must play their part, else an orthography may result which will be vehemently repudiated by the people.

(Pike, 1951, p. 11)

The social and psychological aspects of orthography, script and written language are discussed in the following section.

6.4 Sociolinguistic aspects

This theme deals with matters of social perspectives and approaches towards script and language within the Indian Sindhī community. This section covers participants' statements on the perceived cultural symbolism of the scripts, and what image the participants had of each script. The mental associations made with the various scripts, and the impact this had on the perceived appropriateness of the script for Sindhī, is first presented. This is followed by views on practical matters of learning and using a particular script, and how this tied into the broader question of learning and using a particular language.

6.4.1 Cultural aspects

Indexicality of scripts

For all participants, each of the three scripts in question was emblematic (Agha, 2007) of certain notions. Although participants were not always able to explicitly identify the semiotic values they attributed to the scripts, their statements clearly revealed the underlying mental associations they had with each of the scripts.

Geocultural values

Reference to the Perso-Arabic script as the “Sindhī script” was common. This term was particularly evident in the statements of the nine lay participants literate in Perso-Arabic Sindhī.

Whatever Sindhī I've read is in the Sindhī script. (35F; translated)

Although focused on promoting Roman for Sindhī, the RST members were not averse to terming Perso-Arabic the “Sindhī script”.

In 1853, what the Sindhī script was at that time, today *Romanized Sindhi* is in that position. (40F)

The term “Sindhī script” was also commonly used by lay participants nonliterate in Perso-Arabic but nominally supportive of it, due to exposure to the script in their formative years. Such lay participants were typically unaware of the scriptal history of the Sindhī language.

It's not difficult to translate {transliterate} Sindhī script into Devanāgarī. (31F)

If it's in the original Sindhī script, or Devanāgarī, maybe you'll attract fewer people . . . but they will exit that training being taught proper Sindhī. (09M)

In brief, the indexical value of Perso-Arabic was “Sindhī script”, at least for participants who had had exposure to it and were not opposed to it for

ideological or pedagogical reasons. The phenomenon of Perso-Arabic being emblematic of the Sindhī language is discussed in detail later in this section.

Conversely, participants who were scholars, and consequently aware of the historical interplay of various Sindhī scripts, used the terms “Arabic script” or “Persian script”.

I don’t use Devanāgarī because I haven’t needed to. Whatever I’ve written, I’ve written in Arabic. (43M; translated)

In the schools of the Sadhu Vaswani Mission {a Pune-based Sindhī spiritual organisation} . . . they are changing over to Devanāgarī script because they are not getting teachers in Persian script. (36F)

Devanāgarī carried the indexical value of “Indian script”, or “national script”, particularly for those supportive of using it for Sindhī.

Definitely, one hundred percent, it {the script for Sindhī} should be Devanāgarī. Because it’s an Indian script. Sanskrit is in it, Marāṭhī is in it, {so} Sindhī should be in it. (15M; translated)

Participants who backed Roman ascribed to it the indexical value of “world script” or “global script”. This was especially common among those resident outside India.

Overseas, romanised {Sindhī} is the right way to go. It’s relevant, it’s worldwide. (45M)

Nothing like writing {Sindhī} in a script which is very well understood around the world. (49M)

In brief, the Perso-Arabic signified “Sindhī script”, especially for those not literate in it. Devanāgarī was seen as an “Indian” or “national script”. Roman, on the other hand, was seen as “global” or “Western”.

Religiocultural values

As mentioned earlier in this section, scholars understood that Perso-Arabic was only one of many scripts in use for Sindhī over the years. A couple of participants from this group associated Perso-Arabic with Muslim culture.

When we let go of our language {script} and adopt the script of another {Perso-Arabic}, that means we’re adopting their culture as well . . . This is like a religious conversion. (25M; translated)

Arabic script is associated with Muslim culture. And Sindhī was written in the Arabic script because we were mainly dominated by Muslim culture. (46M)

Similar views were expressed by two younger participants, both of whom did not know Perso-Arabic. One declared that her unfamiliarity with the script contributed to its image in her eyes.

I would think this {Perso-Arabic Sindhī} is a Muslim kind of language, Arabic. It looks the same to me. . . . You may say that Sindhī is different and Arabic is different and Urdū is different. But, to me, all of them are the same. (13F)

The other participant believed that the relative spread of the three scripts in India made a difference to their perceived image.

These two {Roman and Devanāgarī} are commonly used {in India}, while this {Perso-Arabic} is not a commonly used one. So this {Perso-Arabic} would be taken as a Muslim or Arabic thing. But this {Devanāgarī} would be taken as something local. This {Roman} would be something global. (17M)

Participants with awareness of the Sindhī script did not associate Perso-Arabic with “Muslim”, even if they could not read it themselves.

I know the Sindhī script is also like that. It could be the Qur’ān, it could be our Sukhmanī . . . It could be Jawi {Arabic-script Malay} also. (14F)

Of the 18 participants literate in Perso-Arabic, five supported using Devanāgarī for Sindhī. Their views were often expressed as “bringing back” Devanāgarī. Their justifications typically hinged on Devanāgarī being the indigenous script of Sindhī, before it was displaced by invaders, namely, Arabs or “Muslims” and the British.

People say, before Muslims came to India, or 500 years ago, what was Sindhī language written in? It was written in Hindī {Devanāgarī}. (36F)

Earlier, there was only Devanāgarī. There was no Arabic. When we know ourselves that there was Devanāgarī before, {and} Britishers came and changed it to Arabic, why can’t we go back to Devanāgarī again? (47M)

The purported sidelining of Devanāgarī and the instituting of Perso-Arabic by the British was justified by citing the British policy of Divide and Rule.

Before 1843, the script used for Sindhī was Devanāgarī. That’s on record . . . But at the same time, there were supporters of Arabic. And in 1843, the British conquered Sindh. So they {the British}, as per their policy of Divide and Rule . . . introduced Perso-Arabic {for Sindhī} in India. (26M; translated)

For the two participants who believed that Devanāgarī had been displaced by the British, Perso-Arabic did not necessarily index Muslimness. However, it did not qualify as the indigenous script of Sindhī either. Rather, it was Devanāgarī that indexed indigeneity.

A couple of Devanāgarī supporters bolstered their claim by alluding to the seals of the Indus civilisation (§ 5.3.1). Irrespective of the fact that these seals

are yet undeciphered, these participants asserted that the seals represented some form of Devanāgarī.

One thing is clear, that the original script of Sindhī is related to the Indus Valley script . . . When history says that Devanāgarī is our script, then why shouldn't we write in that script! (25M; translated)

It should be noted that supporters of Devanāgarī, who saw Perso-Arabic as a “Muslim” or “foreign” script, did not view Devanāgarī as a “Hindū” script. Rather, their emphasis was on the supposed indigeneity of Devanāgarī to the Sindhī language.

Along similar lines, none of the 50 participants made any association of Roman with Christianity. At most, four participants alluded to the “Western” nature of Roman.

I won't view it as Christian. Western? Yes. But Christian? No. (11M)

In this sense, Roman was unambiguously seen as devoid of religious associations. However, its global presence caused it to be occasionally characterised as “neutral”.

I think English {Roman} is the most neutral. 'Cos we're so used to seeing it everywhere. (04M)

It is noteworthy that Roman had the support of two participants who revealed that they had been members of the right-wing Hindū group Rāṣṭrīya Svayamsevak Sangh (RSS; ‘National Volunteers’ Association’), one of whom was openly anti-Muslim and anti-British in his outlook. This was indicative of Roman being as devoid of any religious association as was Devanāgarī.

You're talking about language. Where does religion come into the picture? (33F)

In summary, Perso-Arabic had the semiotic value of “Muslim” in the eyes of a few participants, both literate and nonliterate in Perso-Arabic. Devanāgarī, on the other hand, was seen by its supporters as the “native” Sindhī script. It did not have connotations of “Hindū” for any of the participants. Likewise, none associated Roman with Christianity, although it did signify “Western” for a few.

Legitimacy

Of the 26 participants who did not categorically support using Roman for Sindhī, 24 alluded to the makeshift or stop-gap image the script had in their minds. Even if considered easy to read and otherwise convenient, Roman was seen as an illegitimate candidate as a formal script for Sindhī.

The advantage {with Roman} is, you can communicate with people, via text or via email in your own language . . . {but} it's not really preserving the language as such . . . in its original form. (02M)

Participants frequently expressed their perception of Roman being inappropriate for Sindhī in abstract and subjective terms, such as lack of “flavour”.

I think the English or Hindī script would not be advisable. Because the flavour would be lost. (29M)

Whereas a few participants’ dislike of Roman for Sindhī was based on a lack of confidence in its phonetic capacity (see ‘Phoneticity’ in § 6.3.1), others conceded that a phonetically adequate Roman orthography could be designed for Sindhī. Nonetheless, they remained averse to Roman for Sindhī on instinctive grounds.

A Sindhī child may read this {Sindhī in Roman} properly. But still, it won’t seem like Sindhī. It doesn’t have flavour. It won’t have that impression on the child. (26M; translated)

To such participants, Roman seemed unconvincing as a script that could be used for Sindhī in a formal manner. In their eyes, it lacked the intangible propriety and respectability epitomised by Perso-Arabic, and to some extent Devanāgarī.

Others admitted that no script—or rather, orthography—could be truly phonetic. Yet, they still favoured the “original” script, namely Perso-Arabic. This was despite being nonliterate in it.

Phonetics, you’ll never get a hundred percent . . . but the feel of the language essentially flows much better in the script in which it’s {in} originally. (05M)

The fact that participants had only seen Roman in use for Sindhī as a quick-fix script for the language on computers and mobile phones gave the script the indexical value of “inauthentic”.

If there was ever an attempt to popularise Roman script for Sindhī, it would still be used only in a very casual manner. I don’t know why! Maybe just that one level of authenticity drops because it’s not in the original script. (12F)

To sum up, the convenience of Roman was widely acknowledged. Regardless, its perceived lack of phoneticity, coupled with exposure to it only in informal contexts meant that the script had an image of informality and inauthenticity to almost half the participants in this study. To them, the mental associations of Sindhī with Perso-Arabic, and to a lesser extent, Devanāgarī, gave these scripts legitimacy. The rather rigid mental associations between language and script is discussed in the following section.

Linguistic purity

Language-script associations

Apart from the scholars, lay participants were often unable to clearly distinguish between the Devanāgarī script and the Hindī language, and the Roman script and the English language. To them, the idea of writing Sindhī in Devanāgarī or Roman was effectively writing Sindhī in “Hindī” or “English”, respectively.

When I look at this {Devanāgarī Sindhī}, I’m looking for Hindī. (28M)

I’m connecting this {Roman Sindhī} to English... So, when I read it, the pronunciations are how it would be pronounced in English. (12F)

For these participants, drawing a distinction between language and script proved conceptually challenging at times.

Not everybody is very familiar with English... we think everybody knows English, but there will be people who will not know. And for them to understand, to convert that English to Sindhī, will be the difficult part... English can be for people like us, but what about Hindī {speakers}? (31F)

The difficulty in conceptually separating language and script was indicative of the rigid associations between the two in India, where a particular script is considered integral to a particular language. This mindset was particularly evident among the eight lay participants supportive of retaining and reviving Perso-Arabic for Sindhī.

Sindhī has got its own script. So, it should be the same script—the Sindhī, original script—that should be followed and brought back amongst the younger generation. (29M)

The eight lay participants supportive of Devanāgarī for Sindhī also exhibited a similar mindset of language-script association, but with a slight difference. They justified writing Sindhī in Devanāgarī on the basis that Sindhī was an Indian language and Devanāgarī an Indian script.

At least we can say that Devanāgarī is ours, an Indian script, right? (15M; translated)

We’re Sindhī. If we don’t know Perso-Arabic, then we should at least know Devanāgarī. We’re Indians. (21F; translated)

Scholars among the participants understood that there was no intrinsic link between language and script.

IPA transcription, or Devanāgarī script, or Arabic script—these are external manifestations {of} how to represent a language. But that’s not the language {itself}. (46M)

Regardless, this awareness proved elusive to lay participants. They were, for the most part, unable to disengage an established language-script pair in their minds. Consequently, this mindset contributed to the perceived inauthenticity of alternative scripts for Sindhī, particularly Roman.

This {Roman} will always be used as an alternative. It'll never become Sindhī . . . everybody knows this is not Sindhī. It's not like this will be accepted one day as the official Sindhī language {script} . . . But it's a crutch, it's a tool for me to be able to speak Sindhī. (11M)

The rigid associations of script with language meant that the prospect of dissociating the two was often met with resistance.

Resistance to induced changes

Eleven participants—eight of them Perso-Arabic supporters—implied that natural evolution of the language and script were acceptable, but artificially introduced changes were not. Three participants explicitly termed any induced script change as “bastardisation”.

If you're gonna use another script {Roman}, then that element of English will somehow jump in . . . you're trying to bastardise the language . . . it's a tough one. Because you're trying to save the language. But at the same time, you're trying to change the language. (07M)

Who in their right mind would want to, for want of a better word, let me just say bastardise {their language}? When I went for French class, we learnt it properly. When I went for German, I learnt it properly. Why are we changing rules? (27F)

Of the eight Perso-Arabic supporters resistant to induced changes, only one was literate in the script. The 17 other participants literate in Perso-Arabic were more open to changes, as long as they contributed to the language's maintenance. However, openness to changes occasionally manifested in some well-meaning but radical suggestions. To simplify learning the script, two participants literate in Perso-Arabic proposed eliminating the graphemes for the characteristic implosive stops of Sindhī.

I would take away those {implosive} sounds. Like /bə/. /bə/ means ‘two’. {But even} if you say [bə], the meaning is still clear. {And} it simplifies writing. (42M)

The simpler, the better. You can sacrifice sounds {sic} of the alphabet. You cannot sacrifice learners of the language. What is the priority? What is important is not that sounds remain alive. What is important is that speakers remain. (43M; translated)

Most scholars were open to scriptal changes, both in Perso-Arabic and Devanāgarī, but only to the extent that they were linguistically justified.

I won't distinguish the various [z] letters when transliterating from Perso-Arabic {to Devanāgarī or Roman}. Because the sounds of those letters have merged... but if I won't write the {reduced} final vowels, then the whole grammatical structure falls apart. (38M)

To scholars, the sacrificing of graphemes and diacritics in the script was acceptable only if their associated phonemes had fallen out of use or merged with other phonemes naturally over the course of time. Thus, for most participants, be they scholars or laypersons, organic linguistic and scriptal evolution was tolerable, but contrived tweaking was not. That said, while scholars' opposition to forced changes had a linguistic basis, laypersons' opposition to changes, especially blanket replacement of the Perso-Arabic script, was largely due to the symbolic value it had in their eyes.

Symbolicity of Perso-Arabic

Thirteen participants, including the three RST members, were aware that Perso-Arabic was decreed the official script for the Sindhī language by the British in 1853. Twelve of these participants were scholars, and eleven were literate in Perso-Arabic. Knowledge of the fact that Perso-Arabic had been officially propagated since British times, coupled with literacy in multiple scripts, had endowed these participants with meta-scriptal awareness. They implicitly understood that the relation between language and script was not intrinsic.

The theory that Sindhī only works in the Arabic script is utter nonsense. (44M)

Apart from these thirteen participants, all others believed that the Perso-Arabic script had been the only script in use for Sindhī. For the seven participants nonliterate in Perso-Arabic but supportive of it, the feeling that Perso-Arabic was the one and only Sindhī script led to a feeling that Sindhī would be truly preserved only in this script. For such participants, maintenance of originality and tradition was more important than ease of learning.

You should know your language in its original form. It is better. (34F)

I would prefer to go to the original brand of the Sindhī script and the language than go for duplicates, like studying it in any other script. Even Devanāgarī for that matter. (29M)

The superior value that Perso-Arabic had in the eyes of its supporters was evident in the use of terms such as “authenticity”.

If I knew Arabic, I'd obviously like to read {Sindhī} in Arabic and not in the Devanāgarī script. It's more authentic and I guess it's a little more respect. (03M)

Perso-Arabic was the only script among the three in question whose aesthetic qualities were commented on.

Just looking at it right now, it does look really beautiful. Aesthetically. Better than English, definitely {laughs}. (01M)

I don't understand anything in this {Perso-Arabic Sindhī text}. But aesthetically, it looks beautiful. Actually. There is some beauty in the curves and the dots. (05M)

Notably, all those who commented on the look of the script were nonliterate in it. In contrast, none of the participants literate in Perso-Arabic discussed its calligraphic appearance. Indeed, no participant commented on the aesthetics of the scripts that they were literate in.

Two participants considered the Perso-Arabic script inextricable from the Sindhī language to the extent that they felt the script should remain unchanged even if the language were to die out. To such participants, the maintenance of perceived authenticity was more critical than perceived practicality, since they had reconciled themselves with never needing to use the Sindhī language in any form.

If you want to keep it alive, keep it alive in both forms {spoken as well as written in Perso-Arabic}. That'll be truer to the spirit of a language . . . rather than somebody who's learnt to read it in the Roman script. So, you've learnt a bastardised version of the language, and when it'll pass down, it'll be an even more {laughs} worse off version. (11M)

To participants supportive of the script, especially younger ones, the unreadability of the script was immaterial. To them, it was the script's emblematicity of the Sindhī language in particular, and Sindhī culture in general, that gave it importance.

This script {Perso-Arabic} shouldn't be abolished completely. Because, as it is, Sindhīs don't have too much of history or culture or great representation in India. So, that {script} is something that *is* Sindhī. (08F)

In summary, participants supportive of Perso-Arabic exhibited a notional separation in their minds between symbolicity and utility. None were desirous of actually learning Perso-Arabic; they only wished that the scriptal status quo be maintained, and that Perso-Arabic remain an icon of the Sindhī language. As far as learning the script and the language were concerned, these were matters of utility, in which both Perso-Arabic and Sindhī ranked low.

6.4.2 Pragmatic aspects

Availability of content

Irrespective of support for a particular script for Sindhī, the bigger question of written content in Sindhī, regardless of script, was categorically brought up by ten participants, young and old. Despite increasing levels of Devanāgarī Sindhī publishing in India, participants agreed that the majority of Sindhī literature still remained in the Perso-Arabic script. The consequent dearth of material in Devanāgarī Sindhī was alluded to by the RST members as one of the drawbacks of this form of Sindhī.

Devanāgarī does not have all the literature. All the original literature is still in Arabic. Now the question is, {how to} rewrite that into Devanāgarī. But Devanāgarī has got limited access. Should we put all our resources into that which has got limited access for the population? (39M)

In contrast, other participants emphasised the creation of new content in the language over transliteration of older content. Two older participants fluent in Sindhī noted that the paucity of quality written material was an issue that had plagued the language for a while now. They surmised that adopting a new script would not automatically generate interesting material.

Not many people write in Sindhī nowadays. Same-same things are being reprinted over and over. New content is less. Because {there are} not many readers. (19M)

They have to make interesting literature {laughs}. The {content} is important . . . I don't want highly intellectual things. But at least something to relate to. Same-same thing you keep reading. (31F)

Overall, eight participants explicitly mentioned that it was ultimately the *content* in the language, and not the *form* of the language, that mattered. One participant, a scholar, drew attention to the fact that the Urdū language in India was in a scriptal situation similar to that of Sindhī. Like Sindhī, Urdū too has traditionally been written in Perso-Arabic. However, younger Urdū speakers in India are often nonliterate in the script. For this reason, Urdū literature in India is increasingly published in Devanāgarī (Ahmad, 2011). However, this scholar emphasised that Devanāgarī Urdū books were popular not because of their script, but their content. On this basis, he opined that those desirous of popularising Roman Sindhī needed to publish similar interesting content.

You'll find that *Ghālib* {a famous Urdū poet} is sold more in Devanāgarī . . . So, if you want to introduce Roman, publish similar books {in Sindhī} and put them on the market. (38M; translated)

In this sense, the deficiencies of Devanāgarī Sindhī were also applicable to Roman Sindhī. This point was raised by four participants. They felt that using Roman for Sindhī was futile until considerable Sindhī-language material became available in the script. Moreover, the material had to be interesting—publishing a Sindhī text in Roman was irrelevant if the subject matter was dull.

He {a social worker who I'd met} had written a book or something with Roman script, in Sindhī . . . I just thought it was, uh, interesting, but I can't even remember what it was. Which is why I didn't even bother reading it . . . It was not something that I would want to read. (12F)

Conversely, if it was evident to the reader that the content was engaging, it would engender an inclination to read further.

If I know that it's interesting—like, many times I've read {in English} about {the Sindhī deity} Jhūlelāl, what he did, why his name is {such}. So, if it {the Roman Sindhī text} is something that's of interest to me, I'd read it. (13F)

The absence of literature in Roman Sindhī was also acknowledged by the RST members.

The entire literature that we have, we have to start converting into Roman script. So, we need a big bank of enthusiastic writers, producers, translators, who will start transcribing the existing literature that we have in Roman script. (39M)

Apart from the aforementioned eight participants who played down the role of script in a language, three participants played down the role of the very language used. Instead, they placed the emphasis on communication, and stressed that Sindhī was just one of several options available to them.

Sindhī or any other language—if it's of interest to me, I read it. (27F)

The basic function of a language is communication. So, if your communication is reaching {others}, how does it matter? (24F)

In brief, it was felt that the message was more important than the medium. This manifested itself in two ways. First, the quality of Sindhī-language content was considered more important than the script used. Second, communication itself was considered more important than the language used. This implied that written Sindhī, and the Sindhī language itself, were dispensable as long as communication was achieved. This mindset likely played a part in determining participants' motivation in learning to read, write and speak Sindhī.

Motivation

Community inertia

As mentioned in Section 6.3.1, five participants of the middle-aged and oldest generations stated that enthusiasm for the Sindhī language, and consequently for reading and writing it, was greater in smaller towns in India. In the larger cities, interest in speaking and transmitting the language, let alone reading and writing it, was low among the lay Sindhī population.

{It's a} losing battle, in real terms. Of course, depending on the personality of the person, they may make the right noises. {But there's} no seriousness. (42M)

It was insinuated that enthusiasm for the language in metropolises was largely restricted to the intelligentsia. Regardless, petty differences among the literati on script issues had resulted in stalemates and, consequently, inaction. The topic of infighting coupled with reluctance to take a stand on the script issue was brought up by nine scholars. They alluded to a chronic tendency among the Sindhī intelligentsia to pass the buck, rather than take active steps towards popularising the language, whether in Perso-Arabic or Devanāgarī.

They {Sindhī intellectuals} have no logical explanation, and they put it {the blame} on somebody else. "It's *his* opinion. *They* are deciding {things}. Nothing's in *our* hands." They point fingers at each other. (24F)

The gist of their statements was that there was an overall unwillingness among the cognoscenti to ruffle feathers, barring a few notable exceptions. Most of those who openly took a stand on the Sindhī script issue are now deceased. Typically, they comprised supporters of Perso-Arabic, and were left-leaning on the political spectrum.

Those agitating in favour of Perso-Arabic were mostly writers and litterateurs . . . they were called 'progressive writers'. They were of a communist bent of mind. (25M; translated)

Prominent names among these were Kirat Babani (1922-2015) and Popati Hiranandani (1924-2005) (Kothari, R., 2009, p. 163). Hiranandani, one of the few women in an otherwise male-dominated Sindhī literary world, was known for her assertiveness, which was unexpected of women at the time (Shivdasani, 2010). An incident narrated by a participant endorses this fact, and also underlines the open, sometimes aggressive stances that were taken in the past on the script issue.

Popati Hiranandani had threatened to gun down Dada Jairamdas Daulatram {a prominent Sindhī political leader and literary patron} for supporting Devanāgarī—we'd become so radical. Now both sides have calmed down. Because there's been no outcome! (26M; translated)

Such open stance-taking seems to be largely absent in the Sindhī literary world nowadays, and has instead been replaced by a tendency to pass the buck, as mentioned. A similar tendency was occasionally displayed by older participants fluent in Sindhī. Four of them claimed that it was the younger generation that was not interested in learning Sindhī, implying that their own generation was not to blame for not transmitting the language effectively.

Sindhī children should be attracted {to the language}. But nowadays they're not. I always tell {my son}, "Speak in Sindhī". (35F; translated)

Only two attributed any responsibility to their own generation.

They {the older generation} were also responsible for destroying the language {laughs} . . . my son-in-law doesn't speak Sindhī because his parents didn't speak it with him. (31F)

Eleven participants were critical of the Sindhī community in general, stating that they were not doing enough to maintain their language.

They {Sindhīs} are not making any effort to save their language and culture. Because they're very busy making money! (34F; translated)

In a sense, statements blaming an anonymous third party were indicative of the aforementioned tendency to make the right noises. However, of these participants critical of an anonymous other, or of the community in general, only one of them, a Devanāgarī supporter, was emphatic about teaching the script to youngsters. Even those who were nominally supportive of Perso-Arabic indicated that they were happy as long as the younger generation were able to speak the language.

Forget that script {Perso-Arabic}. But they should at least speak in Sindhī at home! (35F; translated)

Statements like these were suggestive of participants perceiving the written form of language—at least of Indian languages—as being dispensable.

Predominance of orality

Overall, there was broad consensus on reading and writing being the hardest part of learning a language. Having to learn a unique script for the language was an added burden. A participant who grew up in Bangalore, and had to compulsorily learn the regional language Kannaḍa as a school subject until Year 8, narrated his travails in reading and writing the language in its distinct script. This was despite him being able to speak the language fluently.

I told him {my Kannaḍa teacher in Year 8}, "My only fear is writing Kannaḍa." . . . Surprisingly, I got my 50 percent {to pass} in that subject. I was more than happy that I finished my Year 8, and after that I didn't have to write in Kannaḍa anymore {laughs}! . . . Writing was a challenge. (49M)

In general, participants emphasised the importance of being able to understand and speak a language, rather than read and write it. They were reluctant to put in special efforts to learn the written form of a language, if there was no evident tangible benefit of doing so. Thus, even if nominally in favour of a particular script for Sindhī, all but one of the participants were happy for the language to be maintained orally.

Even economic interaction, between Sindhīs, can be done by spoken {Sindhī}. Truly if you go to see, purity of the script, {and} purity of the language is more academic than practical. (41M)

How does it matter which script you're teaching? ... the idea is that conversational Sindhī doesn't die. (10M)

Participants of the oldest and middle-aged generations fluent in spoken Sindhī asserted that reading and writing was an after-effect of being able to speak the language. The written form of the language was only seen as having a subsidiary role to play, if at all, in language learning.

This thing called language, you learn it by listening . . . Even if, from the written medium, you want to learn or you want to read, {for that} you need to know something of the {spoken} language first. (31F; translated)

Even simultaneous learning of the spoken and written forms of language was not generally envisaged.

You have to ensure that they {learners} learn {to speak} somewhere first. Then you give them an exposure to reading. Only then it'll make sense. (17M)

In fact, the oldest generation was content with youngsters simply being orate in the language.

Let them read English, let them read Hindī. {But} they should speak Sindhī. (21F; translated)

The emphasis on oracy also manifested in the form of fluent speakers regretting the inability of the younger generation to correctly articulate the characteristic implosive stops in Sindhī. No such regret was expressed about youngsters not being able to read and write Sindhī.

Our children study in English-medium schools, so they're unable to pronounce Sindhī words correctly . . . We try and teach them to say [bəkʰri] {'she-goat'}, but they can't say it. They should, but they don't pay attention. (21F; translated)

Some youth, they say "Forget it. Why put in so much effort. It doesn't make any difference whether I say [dūgʰi] {'copra'} or [qūgʰi]. As long as people understand what I want to say." (34F)

As far as the question of reading and writing Sindhī in Roman was concerned, it was felt that Roman would be restricted to beginners who wished to gain a working knowledge of the spoken language.

Keep the originality {Perso-Arabic}. This {Roman} is for people who have no exposure, no idea whatsoever. (50F)

Apart from the RST members, none of the participants felt that Roman would be taken up by those fluent in the language.

People who can talk and understand Sindhī, I doubt they will anyways put any effort into writing Sindhī in the Latin script. (03M)

Two fluent speakers characterised language as a transaction. Against the backdrop of restricted use of spoken Sindhī, they characterised the idea of *writing* in Sindhī—in particular, writing Sindhī in Roman—as putting the cart before the horse.

There's no need for me {to write Sindhī}. Because there's no transaction. What do I write? To whom? (42M)

In any case, inability to speak Sindhī was not seen as having any significant social repercussions. Consequently, inability to read and write Sindhī, in any script, was far from being a hindrance.

We don't use Sindhī much in the written form. So it really doesn't matter. (18F)

In fact, those in the younger generation not fluent in Sindhī had barely given any thought to reading and writing the language.

I haven't even thought about it, actually . . . it's an accepted thing that you're never gonna be able to read or write Sindhī. At the most, you can understand it. And try and speak it. (05M)

Participants brought up the fact that the Sindhī language was not used in official domains, which would have necessitated competence in the written form of the language. They also spoke of the introduction of inexpensive voice-over-internet-protocol (VoIP) software, which enabled them to speak to friends and relatives rather than have to write to them. In this context, participants, young and old, saw the issue of literacy in Sindhī, which was already unimportant to them, as even less important.

Why will they {those who know spoken Sindhī} learn to write Sindhī? They are speaking Sindhī. Why will they read and write? And now there is mobile. There's no need to write letters also. (36F)

It's not the day and age of writing letters. Fewer and fewer people are doing that. People just pick up the phone and call. So, there's no need {of the written form of the language}. (02M)

It was not just technological innovations such as mobile phones and high-speed broadband that were rendering the written form of language increasingly dispensable. Even older, simpler innovations such as the compact disc were enabling access to Sindhī literature while bypassing the need for a script.

You're going for a long drive . . . you put in a CD {audiobook} of Sindhī stories, and you can listen to the stories. Where's the script? What is the need to fight for the script? (19M)

Along these lines, it was felt that popularising or maintaining a language did not depend on it being available in a written form.

If you want to propagate Sindhī stories, Sindhī mythology . . . it can be done in audio format or video format. They {learners} don't have to read it. (12F)

One Sindhī scholar identified a seemingly contradictory behaviour in India towards the written form of language. He noted that people in India were desirous of reading English and consulting dictionaries, in order to improve their command over the language. Yet, the same behaviour was not exhibited when it came to learning Indian languages.

Indians don't have the habit of referring to dictionaries. They'll look up dictionaries in English, but not in their own language. That culture doesn't exist. (38M; translated)

In short, the written form of language was seen as something that enabled asynchronous communication in the language, if desired. It was seen as a nice-to-have, but not as something essential. In general, participants considered writing to be a formal domain that was dispensable in the context of knowing a language.

6.4.3 Analysis

The themes presented and explained in the preceding sections reveal a mentality that is a paradox at first glance. The written form of Sindhī had considerable status, to the extent that certain lay participants were in favour of the Perso-Arabic script continuing as *the* script for the language. The only acceptable alternative was Devanāgarī. Roman, in their eyes, was an improvised script ill-suited for 'correctly' writing Sindhī. In general, language-script associations were rigid; the idea of using another script for a language in a formal manner was somewhat unpalatable.

In any case, reading and writing Sindhī was not a matter of great concern for lay participants. Although the written form of the language had status, it was not something that they were particularly desirous of learning. Rather, they were mainly interested, if at all, in learning and keeping the spoken

language alive. In this endeavour, the written form was not seen as having a major role to play. Hence, participants were generally resigned to letting the Perso-Arabic script fade away, while paying lip service to it. In this sense, the supporters of Perso-Arabic are better understood as those who preferred to see the script fade away gracefully than be artificially displaced. Along the same lines, the supporters of Devanāgarī are essentially those who liked the idea of a visibly Indian script for Sindhī, but who were not necessarily going to actively use the script to read and write the language. Finally, Roman was seen by its supporters as a convenient aid for learning and teaching spoken Sindhī, despite—or because of—it being a quick-and-dirty way of writing.

The prevalence of the rigid language-script associations in participants' minds needs to be investigated further. This stems from a general feeling in South Asia that a distinct language needs to have a distinct script (Masica, 1991, p. 144; Salomon, 2007, p. 111). This is ultimately traceable to the introduction of printing during the British colonial era, which resulted in the consolidation of region-specific script forms (Masica, 1996). This was not restricted just to Indic scripts; even Perso-Arabic scripts like those for Sindhī and Urdū developed printing traditions in the *naskh* and *nastālīq* calligraphic styles, respectively (Shackle, 2014). These styles eventually became quasi-mandatory for the typesetting of these languages. Thus, the advent of printing not only influenced the popular image of scripts, but caused specific scripts and typographical styles to become inextricably linked with the languages they were used for. This, in turn, led to the mindset, displayed by numerous participants in this study, that an independent language *required* a distinct script.

This mindset is further explained by the heuristic of goal dilution (Zhang, Fishbach, & Kruglanski, 2007). This is a fallacy that causes people to feel that “[s]omething that does only one thing is better at that thing than something that does that thing *and* something else” (Sutherland, 2011). In the present context, a lay participant may have felt that a script representing only language X does the job better than a script representing language X *and* language Y. Along these lines, certain participants may have associated Devanāgarī with Hindī, Marāṭhī and Sanskrit, and Roman with several languages worldwide, especially European ones. Perso-Arabic, on the other hand, was likely not associated with any other prominent Indian language, save Urdū. On this basis, lay participants supportive of the script seemed to feel that the script is better suited to Sindhī, since it seemed exclusive to Sindhī in a sense. This explains its characterisation as the “Sindhī script”. In brief, a script that *appeared* to be master of one was preferred to one that seemed like a jack of all trades. These subjective

impressions were aided by nonliteracy in the script and ignorance of the fact that the Arabic script is used for a variety of other languages in the Subcontinent and worldwide.

The symbolic value attached to the Perso-Arabic script may also be illustrative of an endowment effect with regard to script (Kahneman, Knetsch, & Thaler, 1990). In other words, participants may have ascribed more value to the Perso-Arabic script simply because the script was ‘theirs’, that is, belonging to their language, even if of no real communicative or practical use to them personally. The fact that most supporters of Perso-Arabic in this study were nonliterate in the script and unable to factually verify their instinctive impressions of it likely reinforced this effect.

A related phenomenon that also explains this mentality is the package-deal fallacy (Sternberg, 2011). This is an assumption that things commonly associated with each other must always be kept together; else, there will be disorder. In a logical form, the fallacy implies that X and Y usually go together, therefore X cannot be dissociated from Y. For certain participants in the present study, especially linguistically untrained ones, the maintenance of existing language-script associations seemed to induce a semblance of orderliness. For them, writing a language in a different alphabet would have uncertain consequences, and would be acceptable only as a temporary or informal measure. This proceeds from the phenomenon of ambiguity aversion mentioned earlier (§ 6.3.3). In such a scenario, script *replacement* would be considered bastardisation. This substantiates Caldwell’s observation (§ 3.2) that “the force of custom in this old, conservative country [India] is prodigiously great” (1859, p. 252). The sentiment underlying such statements was that fossilisation of the Sindhī language-script system as a purebred was preferable to its survival as a mongrel.

The package-deal fallacy also helps expound the reason why Devanāgarī had a fair share of supporters among participants. Since most major Indian languages are typically written in Indic, that is, Indian-origin scripts, the feeling may have existed among some participants that an Indian language *requires* an Indian script. Hence, irrespective of their own actual fluency in Sindhī, such persons may have deemed Devanāgarī a suitable candidate for Sindhī simply because it is an Indian script. For them, Roman would not do a satisfactory job of representing Sindhī phonology adequately, since it was perceived as originally meant for writing English and other European languages. Indeed, Roman was seen to form a package deal with languages such English, German and French, whose associations with the script are longstanding and

established. Therefore, it is not that Roman is a cultural misfit *per se* in the Indian sociolinguistic context. Rather, aversion to it for an Indian language is an extension of the rigid language-script associations prevalent in India, in that the script that has traditionally been associated with the language is perceived to be the legitimate script. A supplementary or auxiliary script may be used, but only in informal contexts. These implicit constraints on script use for Indian languages are aptly illustrated by the extensive derision that English-dominant Indian political leaders have to face whenever they are caught with notes of their Indian-language speeches transcribed in Roman (Mohanty, 2013; Pillalamarri, 2015).

Participants supportive of Devanāgarī on the basis of its supposed indigeneity asserted that Devanāgarī was the *only* pre-1843 script for Sindhī. The reasons for this assumption could be twofold. Firstly, Devanāgarī, Gurmukhī and the Sindhī scripts are all Indic scripts. Structurally, they are all alphasyllabaries (Bright, 1996, p. 384), also known as abugidas (Daniels, 1996b, p. 4). Apart from the odd script-specific feature, the essential difference between the scripts is visual or external (Masica, 1991, p. 137). Secondly, by the onset of the 20th century, Devanāgarī had eventually developed into a popular script for various languages in the north of the Subcontinent, replacing previous local scripts in vogue (Masica, 1991, p. 144). This might have obliterated from popular memory the fact that several scripts had been in use in the region before the spread of Devanāgarī. Arguments in favour of Devanāgarī's historicity were, thus, largely based on their truthiness (Colbert, 2005), namely, a supposed truth which felt right to participants but was not necessarily authentic or verifiable.

To strengthen their point, both Perso-Arabic and Devanāgarī supporters invoked the appeal to tradition. Those who thought of Devanāgarī as the indigenous script for Sindhī typically argued that “Devanāgarī is the best way to write Sindhī because that’s how we wrote it before Perso-Arabic was imposed by the British”. Similarly, those supportive of Perso-Arabic insinuated that “Perso-Arabic is the best way to write Sindhī because it has always been done this way”. It should be noted, though, that traditionalist Devanāgarī supporters were all literate in Perso-Arabic, and in principle open to any solution that would encourage maintenance of the language. On the other hand, traditionalist Perso-Arabic supporters were mostly nonliterate in it, and wanted to preserve the script for posterity rather than for practical reasons. Such participants were not concerned with what was in the text, but with what spoke to the eye (Coulmas, 2013, p. 32).

In order to contextualise and better understand participants' opinions on the various scripts for Sindhī, the indexical associations or semiotic values (Bunčić, Lippert, & Rabus, 2016) need to be explored. As stated by Bunčić (2016d, p. 234), “every script is more than just a tool to capture speech, it also carries indexical meanings”. These meanings can further be classified into categories based on their nature, as well as their polarity. For instance, the perception of the Perso-Arabic script as “Sindhī” insinuated that Devanāgarī was “less Sindhī”, but by no means did it suggest that Devanāgarī was “not Sindhī”. Similarly, the perception of Devanāgarī as “Indian” indicated that Perso-Arabic was “less Indian”, but not necessarily “not Indian”. Therefore, while these values are indicative of degree, they are independent of polarity per se.

On the other hand, the association of Perso-Arabic with “Muslim” by some participants categorically implied that the other two scripts were *not* Muslim. Similarly, the implication that Devanāgarī was the primordial Sindhī script automatically excluded the other scripts from this label. Thus, these values carry a specific polarity. Table 6.11 provides a consolidated overview of scriptal indexical associations, along with polarities where applicable. Question marks against a particular value mean that a clear indication of participant opinion was not obtained from the data.

Table 6.11. Indexical associations of Sindhī scripts

	PERSO-ARABIC	DEVANĀGARĪ	ROMAN
<i>Geocultural</i>	[Sindhī]	[Indian]	[global]
<i>Religiocultural</i>	[+Muslim] [-indigenous] [-Western]	[-Muslim] [+indigenous] [-Western]	[-Muslim] [-indigenous] [+Western]
<i>Legitimacy</i>	[+authentic] [+formal] [?phonetic] [-convenient]	[?authentic] [+formal] [+phonetic] [?convenient]	[-authentic] [-formal] [-phonetic] [+convenient]

Although potentially contradictory at first glance, the term “Sindhī” in this context is distinct from “indigenous”. The notion of Sindhiness emerged when lay participants attributed values to scripts, without any reference to or knowledge of the historical interplay of Sindhī scripts. In contrast, the notion of indigeneity surfaced in statements on the history of Sindhī scripts.

Despite the above, Bunčić (2016e, p. 325) notes that semiotic values “are not inherent to a script.” Rather, a script acquires these values from its use in a particular context (Bender, 2008). For instance, if a script is used in an informal

context, then it acquires the indexical meaning of informality (Bunčić, 2016c, p. 62). This observation neatly encapsulates the image of Landā in the late 19th century, and Roman today. The Landā forms acquired the image of “traders’ script”, “shortcut script” and “secret script”, precisely because they were used by said user groups in said contexts. Similar is the present-day situation of Roman, where the widespread use of the script for Sindhī on social media and in instant messaging in a makeshift manner has given it an image of “informal script”. This image has inadvertently led to the de-legitimisation of Roman as a formal solution for writing Sindhī. Although Roman has been extensively used in transliterating Sanskrit literature, its systematic use as a formal script for modern Indian languages has been sparse (Masica, 1991, p. 153). For this reason, Roman was only considered useful as a tool for learning spoken Sindhī. It was not considered a potential full-fledged script for the language usable in formal domains such as writing literature.

If Roman was not considered a formal solution to writing Sindhī, then why is Devanāgarī not adopted more widely on social media and in instant messaging, given that Devanāgarī is seen as a formal script solution and has wide technological support on computing devices nowadays? Part of the answer to this question lies in the fact that a full-fledged script may actually be overkill for the intended use. That is, the formal image or superior phoneticity of Devanāgarī is immaterial, since the phonetic accuracy offered by this script is unnecessary for everyday users’ purposes. The idea underlying such practice may be termed the principle of good enough, from a similar concept found in software and technology design (see Capps, 2009; Wilson, 2009). This principle suggests that people would choose a script or orthography that is good enough for their requirements (Rosowsky, 2010), even if more phonologically consistent scripts or orthographies are known to them and are technologically available. That is, if people find that Sindhī or Hindī written in an unstandardised ad hoc Roman orthography got the message across, they would continue to use it, and likely even prefer it over the inherently more comprehensive but intricate Devanāgarī. Similarly, ad hoc Roman would likely be preferred to diacritical Roman, even if the latter were to be known to participants and available on computing and mobile devices, since the phonetic accuracy of diacritical Roman is simply excessive for an everyday situation. This is analogous to Sindhī traders’ preference for a defective Landā in the pre-Partition era. To the traders, phonetic accuracy was immaterial, since the defective script got the message across and was, therefore, good enough. In other words, lay users were not concerned with a linguistically or phonetically

optimal solution for their everyday writing needs. Rather, they preferred a solution that was satisfactory for the situation, and achieved maximum communication with minimum effort. Admittedly, such fluidity in script and orthographic practices often creates tension with modern-day linguistic prescriptivism, where only reasonably standardised ways of writing have status. As observed by Schneider (2016, p. 24), hybridised writing practices serve the needs of the users, but are often not legitimised by the users themselves.

The semiotic values of the various scripts in question are also indicative of the persistence of digraphia in writing the Sindhī language. More specifically, they are indicative of use-oriented digraphia in the written language. Historically, the high-variety or H scripts for the language were Perso-Arabic, Devanāgarī, Gurmukhī and Khojīkī, whereas the low-variety or L script was unstandardised Lanḍā. In present times, Perso-Arabic and Devanāgarī continue to be used for H writing in Sindhī, although they have since been secularised and no longer restricted to the liturgical domain. On the other hand, the place of Lanḍā for L writing has been taken by Roman. This further explains why Perso-Arabic or Devanāgarī were considered by participants to have status: they qualify as H variety scripts for the Sindhī language. Roman, on the other hand, is an L variety script for Sindhī, and does not command the same status. Crucially, the H nature of Perso-Arabic or Devanāgarī mandated that any H variety or formal Sindhī text be written in those scripts, and in a somewhat elevated literary style. Thus, the high bar set for H variety writing actually acts as a deterrent to people taking it up (Khubchandani, 1984). This results in the paradoxical phenomenon noticed in this study of people closely associating the H scripts with the Sindhī language, and holding them in tokenist reverence, but not showing any desire to actually learn or use them. On the other hand, the L script, Roman, is used on a daily basis, but is unlikely to attain an H status in the foreseeable future.

Hence, the data in this study points to the choice of script being determined according to use or situation. This appears to be a logical extension of the choice of language in India being situationally determined (Kulkarni-Joshi, 2015). According to Khubchandani (1984, p. 175), the use-based or domain-based selection of linguistic devices in the Indian situation is characterised by “flexibility and manipulation in adjusting to situational needs”, and is not incompatible with one’s affiliation with a mother tongue (§ 1.2.3). Ndhlovu (2013) has described this practice of drawing on various linguistic resources in one’s repertoire depending on circumstance as “language nesting”. While Ndhlovu’s model is focused on language use, it can be applied to script use as

well. In brief, script and language for the participants in this study were but the medium of communication, and not the message itself. Beyond a point, the message started to matter more than the medium. Yet, this was in no way antithetical to their consideration of Sindhī as their mother tongue.

In any case, the question of a script for the Sindhī language was a moot point for some participants, who were put off by the regurgitated content of existing Sindhī-language publications. Indeed, the issue of content quality forms part of a vicious circle that has affected writing, publication and readership in Sindhī for some time now. The low number of readers in the language invariably results in a dearth of motivated writers, resulting in uninteresting content. In turn, uninteresting content causes the number of readers to decline even further. While it may be hypothesised that a familiar script might attract more readers and consequently encourage more people to write, it is also true that interesting subject matter would ultimately be the main attraction for readers, and in turn writers. This conundrum results in a chicken-and-egg situation of what to address first—the issue of content quality, or of the script?

The question of script was also a moot point in that learning to read and write Sindhī was, in general, not a desideratum for any of the participants nonliterate in the language. In terms of language learning, it may be reasonably claimed that learning to understand and speak a language is hard enough for a layperson. People would typically be unwilling to put in extra effort into learning how to read and write it unless there was some tangible benefit in doing so. This mindset is evidenced by the Sindhī community preferring education in Persian in pre-British Sindh, Perso-Arabic Sindhī in British-era Sindh, and English in the post-Partition era. The tangible economic benefits of knowing the written form of these languages in their respective eras led to them being seen as worthy of acquisition. In modern times, this also involved improving one's proficiency in written English through reading and consulting dictionaries. However, as mentioned by Participant 38M (p. 180), these habits had not necessarily spilled over onto the usage of Indian languages. This may indicate that the written form of a language bereft of evident social or economic benefits would be acquired only because of sheer personal interest in the language, or if it was relatively easily acquirable. Seen as a cost-benefit analysis, the motivational intensity (Brehm & Self, 1989; Kukla, 1972) to learn a script or a language would be proportional to the difficulty involved in doing so, up to a tipping point where the individual decides that the costs involved outweigh the rewards. From the perspective of the participants in this study, the energy one would invest in learning the Perso-Arabic script was very high, while the

importance of success was very low. This resulted in low motivational intensity for this endeavour. In general, there seems to be internalisation of the fact that the Sindhī language has been relegated to the spoken domain. Consequently, motivation to read and write the language is low.

As a result of low motivation levels, certain participants may have felt it to be more convenient to attribute responsibility for the situation of the script, and indeed language, to other parties, often anonymous. This passing-the-buck tendency involves an attribution error, where the seemingly negative outcome, namely, the restricted use of the traditional language in its written form, is attributed to the character or personality of the other party. In contrast, any personal inaction or apathy is attributed to situational constraints. To some extent, this is also noticed on the part of the older generation. The older generation may attribute the younger generation's inability to speak Sindhī to youngsters' supposed lackadaisical attitude, but downplay their own inaction in transmitting the language to the younger generation. In contrast, the younger generation may portray itself as a victim of the situation, and attribute its inability to speak Sindhī to the failure of the older generation to transmit the language to them (Iyengar, 2013). In other words, there appears to be a widespread actor-observer bias (Jones & Nisbett, 1972) when it comes to identifying responsibility for the situation of the script and language today.

At any rate, the attribution of responsibility for inaction on the script issue seems inconsequential when viewed against the backdrop of the traditional Indian attitude towards writing in general (§ 5.3.4). In this regard, Agnihotri (2008) notes that the Indian preference for communicating and transmitting knowledge orally is not restricted to religious or classical texts. Rather, he asserts that "even in everyday life, the spoken word is considered far more reliable than the written one" (p. 275). This is echoed by Salomon (2007), who states that writing, although widely known and used, has always been subordinate to the oral form of language in the Indian Subcontinent. According to him, the oral form has been considered the real language. This statement succinctly captures the view expressed by several participants that it was spoken Sindhī, and not the written form, that was of concern to them. This is also consistent with a similar view reported in the Sindhī diaspora (Khemlani David, 2001, p. 232). In addition, the cultural predominance of orality was demonstrated by participants' ready adoption of newer technologies such as mobile phones and VoIP software to communicate orally in Sindhī with friends and family, rather than attempt to use the language in writing. In a sense, this vindicates Garvin's prediction almost half a century ago that:

[n]otions which from a European perspective seem perfectly obvious and/or necessary may be rejected out of hand . . . some of the nationalities in the former colonies [of European powers] might not necessarily go through a process of literacy and language standardization [in their own languages], but might pass directly into a ‘MacLuhanesque’ period where oral mass communication in the local traditional style would be made possible by the electronic media.

(Garvin, 1974, p. 78)

Thus, even in modern times, it seems that the ability to read and write formally in an Indian language—in the present context, Sindhī—continues to be subconsciously perceived as a secondary or dispensable skill, although spoken ability in it continues to be valued, and acquired rather seamlessly if required. This stands in some contrast to reported instances of language minorities wanting to maintain or promote literacy in their language purely for emotional or identitarian purposes (Martin-Jones & Jones, 2000). Indeed, the participants in this study saw literacy acquisition as inherently need-driven, rather than emotionally driven. In this context, Daswani (2005, p. 20) states that literacy in a language is typically desired only when “one [is] stimulated by one’s vocation and the demands it makes upon the individual’s competence in literacy”. This is echoed by Schneider (2016, p. 23) when she notes the importance of opportunities to actually exercise any literacy skills acquired. In the South Asian context, Ferguson (1996, p. 87) notes that “[l]iteracy is widely regarded as primarily an aspect of formal schooling rather than a resource for everyday living”. These observations are affirmed by the findings of this study, in that everyday oracy in the Sindhī language was desired more than cosmetic literacy in it. While written Sindhī was appreciated and even admired, it was not sought after as a practical skill, since there was no quotidian need for it.

6.4.4 Summary

Roman was widely known among most participants, young and old. However, implicit notions of use-based and domain-based digraphia meant that Roman’s prevalence as an L variety script for Sindhī and other Indian languages made it unsuitable for H variety writing in Sindhī. In contrast, the H variety script, Perso-Arabic, was hardly known among the younger generation, but seen as the emblematic Sindhī script by a few. Since literacy in Sindhī was not particularly sought after, there prevailed in some quarters the notion of allowing this fading cultural icon to be antiquated with dignity. This was considered preferable to replacing the script with a synthetic one, and in the process, bastardising the entire language-script complex.

Conclusions and recommendations

This study set out to address the questions of how and why certain scripts were used for the Sindhī language, both in the past and in the present. It also sought to gain insights into what the Indian Sindhī community today may feel about using the Roman script to write the Sindhī language. In doing so, the study aimed to identify solutions showing promise in aiding Sindhī language maintenance in India, and to investigate the potential Roman had in this regard, at least as far as written Sindhī was concerned.

The study's findings indicate that historical and present-day script use in the Sindhī community, and prevailing opinion on script and writing, show patterns that are consistent with traditional Indian writing practices. However, these patterns stand somewhat in contrast to prevalent practice and opinion in other parts of the world. At the same time, external influence on Indian practices in the recent past has seen the standardisation and propagation in written form of many Indian languages. Yet, vestiges of traditional practices persist, leading to modern-day hybrid practices that may be interpreted in some quarters as paradoxical. This chapter explains and contextualises the diachronic and synchronic findings of this original exploratory study on the subject, and on their basis, makes recommendations for confirmatory future research.

7.1 Conclusions of the study

Language and script use based on need-filling and appropriateness

The results of this study point to the use of language and script being informed by their need in everyday life and appropriateness in a given context. The results, therefore, affirm and augment Khubchandani's observation on the factors behind language choice in the Indian Sindhī community (1963, p. 56; see also § 3.1). In the eyes of certain participants, Perso-Arabic and Devanāgarī were appropriate formal scripts for Sindhī, while Roman was only a stop-gap script. However, written English, and not written Sindhī, filled their daily practical needs. Given the rigid associations of language and script in India, using Roman for Sindhī in a *formal* manner was seen as inappropriate, and was perceived by some as disrespectful to the language.

At the same time, most participants were not keen on learning or improving their knowledge of either Perso-Arabic or Devanāgarī Sindhī, since they had no need for them. Rather, participants' needs for everyday functioning were fulfilled by the spoken forms of English, Hindī, Marāṭhī and other languages, and by written English. As revealed in the literature and reaffirmed by this study, Sindhī was not seen as an economically beneficial language in modern India, due to which community interest in formal Sindhī-language education remained low. As a result, the official recognition of the language by the Indian government and money and resources being allocated for its development remained inconsequential to an extent. While this apparent lack of interest in the Sindhī language is often bemoaned by language activists, the results of the study reveal that it is simply a continuation of a pragmatic outlook towards education and language that has been characteristic of the Sindhī community through the ages.

According to the historical review in this study, the court language in pre-British times was Persian, making it a High or H language in society. Consequently, spoken and written Persian was learnt by both Muslim and Hindū Sindhīs desirous of securing jobs in the administration. Sindhī, although spoken by the bulk of the population, was not a language patronised by the court. Its use in writing was limited to informal mercantile records and communication, typically in defective scripts. However, when used to compose religious or liturgical works, Sindhī and related vernaculars constituted H variety languages. Hence, standardised and phonologically precise scripts were used for writing down such material. There was thus a neat division of labour and domain complementarity not just between languages, but also scripts. The fully developed and standardised scripts such as Perso-Arabic, Devanāgarī, Khajikī and Gurmukhī were used for H writing, either in the H languages or H varieties of the vernaculars. In contrast, the defective or unstandardised Landā forms were used for informal L writing in the vernaculars. The use of various languages and scripts was thus based on practical considerations of need and appropriateness in a given context, rather than dictated by notions of ethno-linguistic loyalty.

With the British takeover of Sindh, and their policy of running local administration in the local language, European ideals of linguistic standardisation were introduced. Sindhī was made the official language of the government and a standardised Perso-Arabic script was adopted. Thus, the prerequisite for government jobs, and consequently the preferred medium of education, changed from Persian to Perso-Arabic Sindhī. Thus, both Muslim

and Hindū Sindhīs dispensed with Persian-language education and took to Perso-Arabic Sindhī for the economic benefits it offered. British attempts at promulgating religion-specific scripts were rejected by the Hindū Sindhīs, who saw no economic benefit in learning a script that did not lead to jobs. Merchants not involved in government work continued using *Landā*. While the H languages (Arabic, Sanskrit, Persian) and H scripts (Devanāgarī, *Khajikī*, Gurmukhī) remained respected, they were not studied on a mass scale, as they had no direct economic benefit. During this period, written Sindhī in Perso-Arabic became firmly entrenched as an H variety.

After Partition, most Hindū Sindhīs migrated to independent India. For them, the Sindhī language once again ceased to have any direct economic benefit. The vehicles of economic success were now English, Hindī and the regional languages in their respective scripts. Consequently, English became the preferred language of education for the community, just as Persian was in the pre-British era. Spoken Sindhī continued to have some value as an everyday L variety, although relegated to the home and community domains. Written Sindhī remained an H variety, but only symbolically. Given the weak links of the Sindhī language with Sindhī culture and group identity, and domain complementarity in language and script use in India, the Sindhī language, especially in the written form, is not considered a practical or cultural necessity for the Indian Sindhī community. Written Sindhī, especially in Perso-Arabic, continues to have a positive image in the community, but no longer fulfils everyday needs.

Thus, on the basis of the historical review and fieldwork data in this study, it emerges that the Sindhī outlook towards language was and is a pragmatic one. The Sindhī community has typically acquired and drawn on various linguistic resources available to it depending on situation and necessity. This is consistent with communication patterns traditionally prevalent in the Subcontinent, which have tended to be domain-based and situationally driven (Khubchandani, 1984). This results in multiple languages being used in daily life in the region (Kulkarni-Joshi, 2015). In other words, in the lay Indian context, communication is considered primary, the language(s) used secondary, and script tertiary.

However, in a modern world, there exists a tension between the traditional Indian (and Sindhī) ways of using language and script, versus Western ones. In this regard, allegations of community apathy towards the Sindhī language, especially towards the written form, can be attributed to an approach that conflates language with ethnicity (Ndhlovu, 2009). This perspective engenders

the binary dichotomy that a community that does not actively use and promote its language is guilty of neglecting its language. These monolithic notions seem hardly applicable to the Sindhī community, and indeed, to the Subcontinent in general. As evinced by the literature and reaffirmed by the historical review and fieldwork data in this study, there seems to be no intrinsic link between the Sindhī language and Sindhī identity, let alone script and identity. This reiterates the idea that language is not a core value of Sindhī identity (Iyengar, 2013; Smolicz, 1999). Due to this, language learners are few and motivation is fleeting.

The lack of economic use for the Sindhī language, and its apparent dispensability to Sindhī identity does not, however, mean that the language does not have significance in the community. Rather, the fieldwork data in this study shows that knowledge of the Sindhī language was considered a luxury, and not a necessity. In line with the need-driven outlook towards language use, Sindhī oracy had value and study participants were nominally desirous of acquiring or improving their command of it, as long as it did not involve unreasonable effort. Written Sindhī was respected, but acquiring Sindhī literacy in the Perso-Arabic script was not on anyone's to-do list. Therefore, the results of this study indicate that the acquisition of *spoken* Sindhī needs to be made as easy as possible, in order to attract potential language learners.

Oracy more important than literacy

The results of the study suggest that the Sindhī language, especially in the written form, was dispensable in participants' daily life. This outlook was part of the overall mindset of writing not being an end in itself. It was only a tool for communication, and used only to the extent needed. If defective writing, replete with abbreviations and scant attention paid to spelling, got the message across, then it was used. This explains the use of Lanḍā in the past and ad hoc Roman in the present for informal communication. Phonologically precise writing was only used when the context demanded it, namely, when the content was formal or liturgical. This principle applied across languages, whether Sindhī, Hindī or English. In this sense, the utilitarian aspect of literacy has been succinctly summarised by Olson. According to him, "[w]hat matters is what people do with literacy, not what literacy does to people" (1985, p. 15)

Indeed, both the historical review and the fieldwork data show that scripts prevailing in the community have certain semiotic values closely associated with them, which make it difficult for them to be used beyond their expected domain of use. The use of Roman for informal writing in Sindhī has given the script an image of informality. This creates a feedback loop, where Sindhī texts written in Roman come to be seen as informal. This means that the use of

Roman is generally considered acceptable only for short, ephemeral writing. Therefore, the use of Roman typically becomes restricted to writing that is inherently informal, such as text messages or social media posts. Longer texts, which index formality, require a formal script, such as Perso-Arabic or Devanāgarī. For this reason, it would be unlikely to find a lengthy text in Sindhī, or any Indian language typically written in a non-Roman script, written entirely in Roman.

It is true that semiotic values are not inherent to a script and emerge because of their use for a particular purpose (Bunčić, 2016e, p. 325). In theory, if Roman began to be frequently used for Sindhī in formal contexts, it would achieve the semiotic value of a formal script for Sindhī. Regardless, breaking the mould proves an uphill task for any script. This is compounded by the fact that there exists no pressing need to use Roman in this manner for Sindhī, as formal written communication between Sindhīs can be carried out in other languages and scripts. Add to this the predominance of orality in India, and the emergence of new technologies facilitating oral communication across large distances, and the prospect of formally using Roman for Sindhī becomes ever more unlikely. In fact, the persistence of domain complementarity among languages and scripts within the Sindhī community, and in India in general, makes it unlikely that any one script will win out as the dominant script for the language in the near future. In India, Perso-Arabic and, increasingly, Devanāgarī would continue to be used for Sindhī formal or high domains, such as in literary works. In contrast, Roman would persist in informal or low domains, such as text messaging. This situation of H and L multiscryptality, or digraphia, will likely continue to prevail in the Sindhī context for the foreseeable future. Indeed, the very fact that this status quo exists in the first place means that the aforementioned digraphic divide is considered normal by the community. The layperson is content with carrying out informal written communication in Sindhī in a piecemeal manner using a makeshift Roman orthography. On the other hand, an ever-dwindling ivory-tower-dwelling country club of writers and intellectuals continues to flog the dead horse of whether Perso-Arabic or Devanāgarī should be the primary script for the language.

At this stage, it may be argued that the written form not being important to people contradicts the emphasis laid earlier on the need for consistency in orthography and letter forms (§§ 5.1.3, 5.2.3). Hence, this aspect requires further clarification. The written form not being important to people was not a problem in pre-Partition Sindh, where Sindhī was the undisputed language of everyday communication. In other words, oral competence in Sindhī could be

taken for granted, even if only a very small percentage of the population were literate in it. In the post-Partition era, though, the uprooting of the Hindū Sindhī community, in conjunction with their inherent mobility, has caused the inadvertent erosion of stable Sindhī-speaking environments. To the extent that such environments are present, they are largely in smaller Indian towns. However, small-town Sindhīs aspire to migrate to larger cities, thus perpetuating the process of erosion of language environment. Given the increasing instability of natural Sindhī-speaking environments in India, artificial or planned teaching activities assume an increasingly important role in spreading knowledge of the oral language. It is evident that planned teaching of a language in modern times, even if laying emphasis on the spoken form, can hardly be envisaged without involving the written form to some extent.

Hence, the written form not being important to people cannot be taken to mean that an anything-goes approach can be adopted as far as the orthography and letter forms are concerned. On the contrary, the secondary nature of the written form of the language makes the harmonisation of orthographic variation ever more important. If people are desirous of acquiring the written form of a language, they are usually motivated enough to overcome inconsistencies in it, much the same as motivated learners of written English overcome the inconsistencies of English orthography. However, if people are not keen on learning the written form of a language, as is the case with Sindhī, then the written form only plays a supporting role to the aural medium in language learning. Therefore, in a supporting role for a language where interested learners are often few and far between, and where learning the language is seen as a luxury rather than a necessity, the written form would do well to have as many chinks ironed out as possible. This would enable the written form to do its job effectively and be an asset, rather than a liability, in language learning. Indeed, variation, especially of an arbitrary nature (see Figure 5.3, p. 106) makes the written form a liability rather than an asset for learners.

The results of this study thus indicate that a consistent written form benefits learners, even if secondary in the context of Sindhī language learning. For this reason, matters of orthography assume as much importance as matters of script in the present scenario, where the written form only acts as a crutch for teaching and learning the spoken language.

Both Devanāgarī and Roman advantageous as pedagogical tools

As stated earlier, knowledge of Sindhī in present-day India has no tangible economic benefit and, therefore, does not have demand in education. Knowledge of spoken Sindhī is useful in intragroup communication, but only

as a feel-good exercise. On the other hand, knowledge of written Sindhī is not essential for any kind of communication. Therefore, knowledge of spoken Sindhī is desired only to a limited extent, whereas knowledge of written Sindhī is hardly desired at all. This situation vindicates Karan's (2006, p. 259) observation that if "there are no negative social consequences for being a non-reader, one cannot expect a person to make the effort, financial sacrifice, and time investment to become literate".

Hence, in a scenario where written Sindhī is revered but not sought after, proposing that the language be written in Roman is missing the point. It appears that Roman for writing Sindhī serves a purpose only if used as a facilitator for learning the spoken language, at least for the layperson who is typically not concerned with everyday reading and writing in Sindhī. Therefore, even a slightly complicated orthography runs the risk of failure. An aspirant Roman Sindhī orthography will have to be as intuitive as possible and cause minimum possible transfer-induced errors, if it is to find any adoption. The evolving phonology of the language, with the younger generation losing the characteristic reduced vowels of Sindhī, has meant that Devanāgarī Sindhī orthography, too, deserves a re-evaluation for purposes of reducing transfer-induced errors.

At the same time, the fact remains that the written form of the language has applicability in a modern age, where Sindhīs are no longer clustered together in Sindhī-dominant colonies or neighbourhoods where the language can be maintained solely through oral means. Therefore, even if for restricted use in informal pedagogical contexts, the question still remains as to what script would be most beneficial for learners of Sindhī. In this regard, the fieldwork data show that both Devanāgarī and Roman have their strengths and weaknesses. Roman is more widely known, but has inherently fewer letters than Devanāgarī. If augmented with diacritics, it is considered visually off-putting. If left unaugmented, it becomes phonologically imprecise. Devanāgarī is considered phonologically more precise and has nominally wide-ranging support in India. However, city-bred English-dominant Sindhī youth tend to have weak Devanāgarī reading skills. Moreover, the data show that both scripts have their strengths and weaknesses in representing Sindhī's phonological features. Vowel length and place of consonantal articulation are apparently clearer in Devanāgarī, while reduction in vowel articulation is clearer in Roman.

Thus, the results of this study suggest that the individual advantages of both Devanāgarī and Roman need to be optimally harnessed in order to maximise ease of learning and minimise transfer-induced errors for prospective learners.

7.2 Contributions of the study

As noted in Section 1.1.3, this study makes some original and significant contributions to the body of literature. Empirically, three key contributions are noteworthy. One, the study's simultaneous approach to the research question from synchronic and diachronic sociolinguistic perspectives reveal that language and script use in the Sindhī community were and continue to be informed by notions of perceived utility and appropriateness to the language in question. In this regard, the results of the study indicate the kind of expectations that a multilingual, highly educated and urbanised community may have of a writing system for its language, especially when the language is emically viewed as somewhat dispensable to the community's identity. Two, the findings of the study challenge the monolithic portrayal in the literature, whether inadvertent or deliberate, that minority ethnolinguistic groups are desirous of seeing their language in written form. In a sense, the results of this study reveal quite the opposite, and point to the inherent diversity in community opinion. The results also throw light on the differing opinions that subgroups within the community may have on writing their traditional language, and on writing in general. Three, the findings of the study affirm the subtle shift in Indian Sindhī phonology from the older to the younger generation, which in turn has implications for orthography design. Together, these findings indicate that maintenance and literacy promotion efforts for a language not in high demand, where the target group is highly educated, urbanised, and has recourse to prestige languages, need to address a very different set of factors as compared to similar efforts among largely monolingual, rural or disadvantaged communities.

The study's theoretical and conceptual contributions are twofold. First, the results of the study reveal how orthographic transfer, both in Devanāgarī and Roman, has an impact on pedagogy in a lesser-learned language such as Sindhī. In doing so, it highlights the implicit restrictions that linguists and pedagogues may be subject to when designing or modifying an orthography for a lesser-learned language, in terms of keeping orthographic conventions as familiar as possible to the target audience. Second, the study's findings point to the persistence of domain complementarity in language use in urban India, and how the Sindhī community makes language choices based on perceived utility and appropriateness in a given context. The findings of the study extend the phenomenon of domain complementarity to script, and reveal that there exists a scriptal diglossia, or digraphia, in the Sindhī community. In other words,

script use in the Sindhī community was and continues to be based on notions of need and appropriateness. While noting that domain separation of languages and scripts is not unusual in the Indian sociolinguistic milieu, the results draw attention to the resistance that a particular script may face when used in a domain that it is not normally used in.

Finally, the study's methodological contributions lie in its approach of harnessing synchronic and diachronic viewpoints to explain a particular sociolinguistic phenomenon. This approach helps to corroborate the present-day phenomena of domain complementarity and digraphia with past occurrences of them, thus demonstrating that these phenomena may not be unusual, but rather the norm in that context.

7.3 Recommendations for future research

Whereas the spoken form of the Sindhī language may have some value in the community, its transmission and maintenance is highly dependent on a critical mass of speakers. Considering the dispersal of the Sindhī community in India and their high mobility, this is increasingly difficult to achieve. In such a scenario, how can the transmission of the spoken language be ensured across time and space, in a modern world? More importantly, how can the reality of Sindhī multiscriptality be effectively harnessed, and turned from a perceived impediment into a helpful conduit for learners of the language?

The traditional method of asynchronous transmission for a language has been through books. However, books are overwhelmingly script-dependent, and in the current situation, represent a return to square one. The good news is, new technologies such as video-sharing websites and smartphone apps have the potential to reduce dependency on script, thanks to the audio and visual element they can incorporate into language learning. These technologies also have the potential of being engaging and interactive, thus acting as a carrot to prospective learners. Well-made language-learning videos or apps targeted at various user levels can overcome the dullness of content that participants in this study complained about. While such solutions may be reliant on a script to some extent, their audio-visual character means that script can be backgrounded. In short, they permit audio, that is, the spoken language, to be the primary mode of instruction. In such contexts, the script used could be Roman, since it is secondary and backgrounded, but also widely understood. In this way, Roman could effectively be used as a medium to teach the spoken language, and not as an end in itself. Admittedly, even a backgrounded script of

the kind mentioned above would benefit from a modicum of orthographic standardisation, both for reasons of pedagogical readability as well as social image. Attempts at standardisation would benefit from the insights into orthographic transfer described in this study.

In this context, the use of *pīnyīn* romanisation for teaching Chinese is of particular interest. Although *pīnyīn* is widely used as a tool to teach spoken Mandarin to Chinese and foreign learners, it is almost never used as an independent writing system for the language. Indeed, Mandarin-language texts written solely in *pīnyīn* are extremely rare (DeFrancis, 2006). In contrast to the the Sindhī situation, though, *pīnyīn* is taught in Chinese schools and has governmental backing and funding. Nevertheless, it remains a useful source of ideas for potential ways forward in Sindhī-language pedagogy.

Another writing practice of potential interest to Sindhī-language pedagogy is the Japanese-language practice of *furigana*, or ruby text. This is a “metalingual auxiliary device” that involves writing the same text simultaneously in two scripts, where one script acts as an interlinear transliteration for the other (Tranter, 2008, p. 134). This helps readers decipher complex or unknown characters in one script with the aid of the other script. In a situation where Devanāgarī and Roman both have certain phonological advantages, the concept of Devanāgarī Sindhī text, annotated with Roman Sindhī as auxiliary ruby text, appears worthy of consideration.

A third concept that appears to hold promise for Sindhī-language learning is that of Same-Language Subtitling (SLS) (Kothari, B. & Bandyopadhyay, 2010; Kothari, B., Pandey, & Chudgar, 2004). This refers to a karaoke-style subtitling of songs in the same language, where the words appearing on screen change colour as they are sung. This system has also been used in the past by television music channels in India to subtitle popular Hindī songs in ad hoc Roman Hindī for the benefit of those weak in or unfamiliar with Devanāgarī. While the focus of SLS has been on harnessing songs as language-learning material due to their popularity, the endeavour is also informed by the fact that “phonemic awareness . . . is reciprocally linked to reading and writing development” (Kothari, B., Pandey, & Chudgar, 2004, p. 30). Evidently, the SLS method is primarily targeted at improving the literacy of people already orate in a language—in some sense, the opposite of the situation covered in this study. Nevertheless, simultaneous exposure to both spoken and written Sindhī has potential to ensure that “the basic skills of speaking, listening, reading, and writing reinforce each other in a close-knit cycle” (Mair, 2014). The use of SLS with Devanāgarī as the main text, and Roman as ruby text, is also conceivable.

Most importantly, using popular language media such as songs underscores the point made by participants in this study that it is ultimately the content, and not the language, that is the main attraction for people. Hence, all the aforementioned ideas for future research on harnessing Sindhī multiscryptality and improving Sindhī-language pedagogy presuppose the availability of interesting content in the language. Fortunately, the development of such content is not restricted to the purview of academic research. In fact, it was lay community initiatives in proposing the Roman script for the language that formed the basis for this study in the first place. It is hoped that such community initiatives to promote and cultivate the Sindhī language in oral and written form continue to thrive, ably supported by academic research where required.

* * *

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Supplementary tables

Table A-1. Comparison of various Sindhī scripts and orthographies
based on Trumpp (1872, pp. 534-535)

PERSO-ARABIC			DEVANĀGARĪ (CURRENT)	ROMANISATION (LEPSIUS, 1863)	IPA
PRE-1853	POST-1853 (CURRENT)	TRUMPP'S RECOMMEN- DATION			
ا	ا	ا	<i>vowel holder</i>	<i>various</i>	<i>various</i>
ب	ب	ب	ब	b	b
پ	پ	پ	ब्र	ḃ	ḃ
ت	ت	ت	भ	bh	b ^h
ٿ	ٿ	ٿ	त	t	t̪
ٺ	ٺ	ٺ	थ	th	t̪ ^h
ڻ	ڻ	ڻ	ट	ṭ	t̪
ڙ	ڙ	ڙ	ठ	ṭh	t̪ ^h
س	س	س	स	θ	s
پ	پ	پ	प	p	p
ڦ	ڦ	ڦ	फ	ph	p ^h
ج	ج	ج	ज	j̥	d͡ʒ̥
ڄ	ڄ	ڄ	ञ	j̄	f
ڇ	ڇ	ڇ	झ	j̥h	d͡ʒ̥ ^h
ڱ	ڱ	ڱ	ञ	n̄	ɲ
ڳ	ڳ	ڳ	च	č	t͡ɕ
ڳ	ڳ	ڳ	छ	čh	t͡ɕ ^h
ح	ح	ح	ह	h̄	ɦ
خ	خ	خ	ख	χ	x
د	د	د	द	d	d̪
ڌ	ڌ	ڌ	ध	dh	d̪ ^h
ڏ	ڏ	ڏ	ड	ḍ	d̪
ڍ	ڍ	ڍ	ड	ḍ	d̪ ^h
ڙ	ڙ	ڙ	ढ	ḍh	d̪
ڙ	ڙ	ڙ	ज़	ḍ	z

PERSO-ARABIC			DEVANĀGARĪ (CURRENT)	ROMANISATION (LEPSIUS, 1863)	IPA
PRE-1853	POST-1853 (CURRENT)	TRUMPP'S RECOMMEN- DATION			
ر	ر	ر	र	r	r
ر	ر	ڑ	ड़	r̥	r̥
-	(ڑھ)	ڑھ	ढ़	r̥h	r̥ ^h
ز	ز	ز	ज़	z	z
-	(ژ)	(ژ)	-	(ž)	ž
س	س	س	स	s	s
ش	ش	ش	श	ś	ɕ
ص	ص	ص	स	s̥	s
ض	ض	ض	ज़	z̥	z
ط	ط	ط	त	t̥	t̥
ظ	ظ	ظ	ज़	ṭ̥	z
ع	ع	ع	<i>various</i>	ː	∅
غ	غ	غ	ग	ɣ	ɣ
ف	ف	ف	फ़	f	f
ق	ق	ق	क़	q	q
ک	ک	ک	क	k	k
ک	ک	کھ	ख	kh	k ^h
ک	گ	گ	ग	g	g
ک	گِ	گِ	गु	g̃	g̃
ک	گھ	گھ	घ	gh	g ^h
نک	نگ	نگ	ङ	ṇ	ɳ
ل	ل	ل	ल	l	l
م	م	م	म	m	m
ن	ن	ن	न	n	n
ن	ن̇	ن̇	ण	ṇ	ɳ
و	و	و	व	v	u
ھ	ھ	ھ	ह	h	h
ي	ي	ي	य	u	j

Table A-2. Simplified romanisation scheme modelled on Grierson (1919, pp. ix-x)

ROMAN	PERSO-ARABIC	DEVANĀGARĪ	IPA
a	اَ	अ -	ə
ā	آ	अ -	ə
ai	اِيْ	ऐ ै	ɛ ~ əɪ
au	اُوْ	औ ौ	ɔ ~ əʊ
ā	اَ آ	आ ा	a
b	ب	ब्	b
b̄	پ	ब्	b̄
bh	پ	भ्	bʰ
ch	چ	च्	tʃ
chh	چھ	छ्	tʃʰ
d	د	द्	d̪
dh	ذ	ध्	d̪ʰ
ḍ	ڊ	ड्	ḍ̪
ḍh	ڊھ	ढ्	ḍ̪ʰ
ḍ̄	ڊَ	ड्	ḍ̪
e	يِ	ए े	e
f	ف	फ्	f
g	گ	ग्	g
gh	گھ	घ्	gʰ
ḡ	گَ	ग्	ḡ
gh̄	غ	ग्	ɣ
h	ح ه	ह	ɦ
i	اِ	इ ि	ɪ
ī	اِيْ	ई ि	ɪ
ī	يِ	ई ी	i
j	ج	ज्	dʒ
jh	جھ	झ्	dʒʰ
ĵ	جَ	ञ्	ʃ
k	ک	क्	k
kh	کھ	ख्	kʰ
kh̄	خ	ख्	x
l	ل	ल्	l

ROMAN	PERSO-ARABIC	DEVANĀGARĪ	IPA
m	م	म्	m
n	ن	न्	n
ṇ	ڻ	ण्	ɳ
ṅ	گ	ङ्	ŋ
ñ	ج	ज्	ɲ
o	و	ओ ो	o
p	پ	प्	p
ph	ف	फ्	p ^h
q	ق	क्	k
r	ر	र्	r
ṛ	ڙ	ड़	ɽ
(ṛh)	(ڙھ)	ढ़	ɽ ^h
s	ث س ص	स्	s
sh	ش	श्	ʃ
ṣh	(ش)	ष्	ʃ
t	ت	त	t̪
th	ٹ	थ्	t̪ ^h
ṭ	ٽ	ट्	ṭ̪
ṭh	ٺ	ठ्	ṭ̪ ^h
u	ؤ	उ ु	ʊ
u	و	उ ु	ʊ
ū	و ُ ُو	ऊ ू	u
v/w	و	व्	ʋ
y	ي	य्	j
z	ز ذ ض ظ	ज़्	z
ẽ	ن	ं	ẽ

Notes: a) In the Devanāgarī column, the sign on the right represents the diacritic form of the character. Devanāgarī (अ) has no diacritic form.

b) Grierson (1919, p. 22) notes that the Sindhī implosives are generally transliterated (ḃ), (ḋ), (ḡ) and (ḵ), but himself chooses to transliterate them as if they were geminate plosives, namely, as (bb), (ḋḋ), (gg) and (jj). This study retains the former convention, namely, of representing the implosives as (ḃ), (ḋ), (ḡ) and (ḵ).

Table A-3. Overview of salient participant viewpoints

Legend

LP	Layperson (participant)
S	Scholar (participant)
RS	Roman Sindhī
PAS	Perso-Arabic Sindhī
DVS	Devanāgarī Sindhī

	OLDEST		MIDDLE-AGED		YOUNGEST		TOTAL
	LP	S	LP	S	LP	S	
Total	9	9	10	2	19	1	50
Literate in Roman	9	9	10	2	19	1	50
Reading in RS (limited, informal)	8	9	10	2	16	1	46
Supportive of RS	3	4	5	2	9	1	24
<i>Of these, living outside India</i>		3	2		7		12
<i>Of these, never seen RS</i>					4		4
Supportive of PAS	1	1	3		4		9
<i>Of these, nonliterate in PAS</i>			3		4		7
Uncommitted to any particular script	1	2			4		7
Diacritics in RS							
<i>Of these, see diacritics as useful</i>	2	3	4	1	7	1	18
<i>Of these, see diacritics as complicated</i>	5	3	3		10		21
Literate in Perso-Arabic	8	9		1			18
<i>Of these, supportive of PAS</i>	1	1					2
<i>Of these, supportive of DVS</i>	2	3					5
<i>Of these, supportive of RS</i>	4	3		1			8
<i>Of these, uncommitted</i>	1	2					3
Aware that PAS made official by British in 1853	1	10		1		1	13
Literate in Devanāgarī	9	9	9	2	19	1	49
Not heard of DVS			1		13		14
<i>Of these, supportive of DVS</i>					1		1
Never seen DVS, but heard of it	5				2		7
<i>Of these, supportive of DVS</i>	1		2				3
Limited reading in DVS	4	4	5			4	17
<i>Of these, supportive of DVS</i>	1				1		2
Fluent in DVS but no education in it	1	4	1	1			7
<i>Of these, supportive of DVS</i>	1	2					3
Fluent in DVS; at least some education in it	1	1		1		1	4
<i>Of these, supportive of DVS</i>	1						1

Supplementary figures



Figure B-1. Selection of seals unearthed at Mohenjo-daro, Sindh,
with undeciphered symbols

From *Harappa.com*, 1995, (<https://www.harappa.com/sites/default/files/styles/large/public/images/url.jpg>). Copyright 1995-2017 by J. M. Kenoyer, Courtesy Dept. of Archaeology and Museums, Govt. of Pakistan. Reprinted with permission.

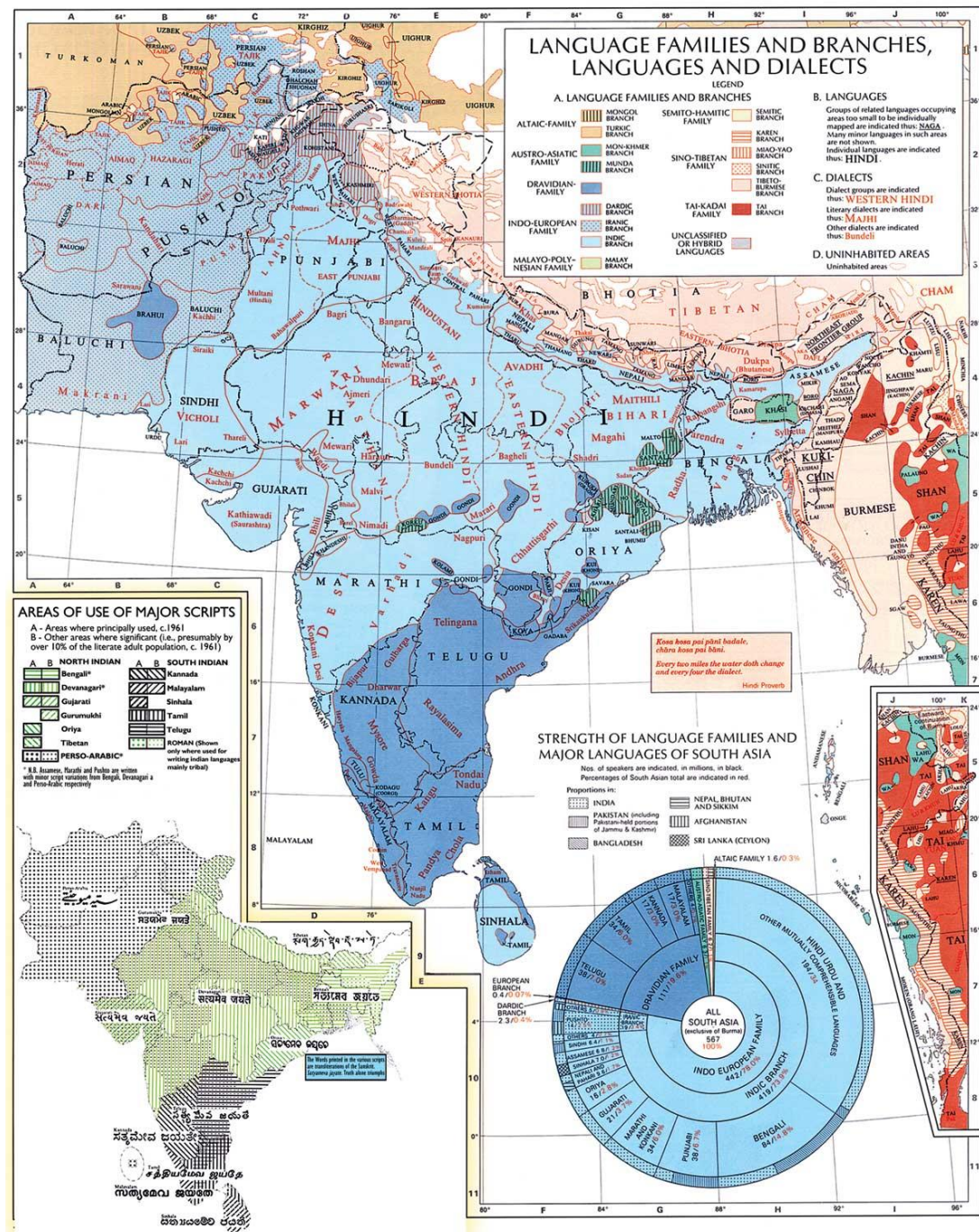


Figure B-2. Distribution of languages in South Asia

From *A historical atlas of South Asia*, (p. 100) by J. E. Schwartzberg, 1992
(<http://dsal.uchicago.edu/reference/schwartzberg/pager.html?object=137>). Copyright 1992 by Joseph E. Schwartzberg. Reprinted with permission.

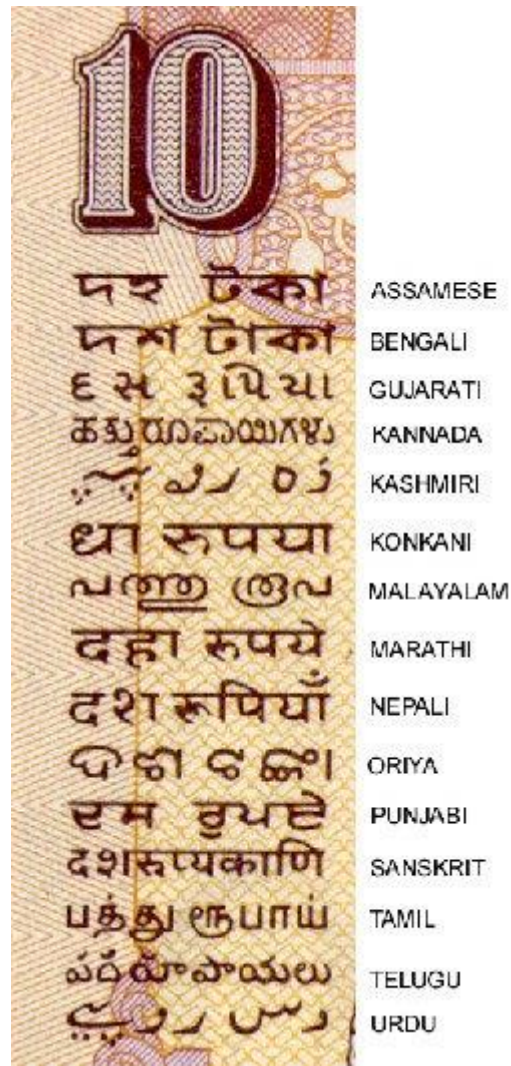


Figure B-3. Language panel on the reverse of a contemporary Indian 10-rupee note

From Bank Notes, in *Reserve Bank of India*, n.d. (https://www.rbi.org.in/scripts/ic_languagepanel.aspx). Copyright by Reserve Bank of India.

Data collection tools

1 Interview outline

- Age, hometown, highest level of education;
- Self-estimation of Sindhī abilities;
- Extent of formal education in Sindhī;
- Ability to read/write and frequency of reading/writing in Sindhī;
- Ability to read Perso-Arabic Sindhī and Devanāgarī Sindhī;
- Extent of familiarity with Sindhī in Roman; e.g., in text messages or social media posts;
- Opinion on debate between Perso-Arabic or Devanāgarī as the script for Sindhī;
- Opinion on proposal to write Sindhī in Roman;
- Disadvantages and advantages of writing Sindhī in Roman;
- Ability to read three different sample texts from Year 2 Sindhī textbook, in Perso-Arabic, Devanāgarī and diacritical Roman, respectively;
- Opinion on the script and orthography of each text, including any difficulties faced;
- Opinion on how to potentially incorporate 50-odd phonemes of Sindhī into the 26 basic letters of Roman;
- Effect of such script augmentation on readability and aesthetics;
- Potential reaction, in their opinion, of older and younger generation of Sindhīs to writing the language in Roman;
- Association of religion with Perso-Arabic, Devanāgarī and Roman;
- Extent to which Roman should be used for writing Sindhī, if at all;
- Seriousness with which, in their opinion, the proposal of writing Sindhī in Roman will be considered in the community.

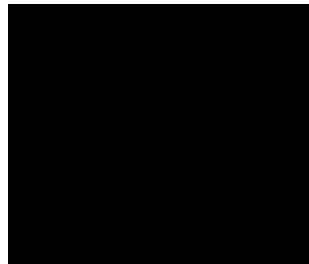
2 Information sheet for participants

I wish to invite you to participate in my research project, described below.

My name is Arvind Iyengar and I am conducting this research as part of my PhD in the Linguistics Programme, School of Behavioural, Cognitive and Social Sciences at the University of New England. My supervisors are Dr Finex Ndhlovu and Dr Cindy Schneider (details below).

Research Project	Sindhi in the Roman Script: An Investigation into Community Acceptance
Aim of the research	The research aims to analyse community members' opinions on the viability and acceptability of the Roman script for the Sindhi language, and draw conclusions based thereon.
Interview	I would like to conduct a one-on-one interview with you at a location of your choice. The interview will take approximately half an hour. With your permission, I will make an audio recording of the interview in order to ensure that I accurately recall the information you provide. Following the interview, a transcript will be provided to you if you wish to see one.
Confidentiality	Any information or personal details gathered in the course of the study will remain confidential. No individual will be identified by name in any publication of the results. All names will be replaced by pseudonyms; this will ensure that you are not identifiable.
Participation is Voluntary	Please understand that your involvement in this study is voluntary and I respect your right to withdraw from the study at any time. You may discontinue the interview at any time and do not need to provide any explanation and without consequence if you decide not to participate or withdraw at any time.
Questions	The interview questions will not be of a sensitive nature: rather they are general, aiming to enable you to enhance my knowledge of the linguistic issues described above under 'Aim of the research'.
Use of information	I will use information from the interview as part of my PhD thesis, which I expect to complete by February 2017. Information from the interview may also be used in journal articles and conference presentations before and after this date. Information you provide may be quoted but <u>only under a pseudonym as described above</u> . At all times, I will safeguard your identity by presenting the information in ways that will not allow you to be identified.
Upsetting issues	It is unlikely that this research will raise any personal or upsetting issues but if it does you may wish to contact your local Community Health Centre or, if based in Pune, Inlaks & Budhrani Hospital, 7 Koregaon Park, Pune – 411001, Tel: +91 20 6609 9999
Storage of information	I will keep hardcopy recordings and notes of the interview in a locked cabinet at the researcher's office at the University of New England's School of Behavioural, Cognitive and Social Sciences. Any electronic data will be kept on a password protected computer in the same School. Only the research team will have access to the data.

Disposal of information	All the data collected in this research will be kept for a minimum of five years after successful submission of my thesis, after which it will be disposed of by deleting relevant computer files, and destroying or shredding hardcopy materials.
Approval	This project has been approved by the Human Research Ethics Committee of the University of New England (Approval No HE14-196).
Contact details	<p>Feel free to contact me with any questions about this research by email at aiyengar@myune.edu.au or by phone on +91 9881477746 (India) or +61 474797220 (Australia).</p> <p>You may also contact my supervisors. My Principal supervisor's name is Dr Finex Ndhlovu and he can be contacted at fndhlovu@une.edu.au or +61 2 6773 2133, and my Co-supervisor's name is Dr Cindy Schneider and she can be contacted at cindy.schneider@une.edu.au or +61 6773 2483.</p>
Complaints	<p>For any serious issues, you may contact Dr. Sundri Parchani, PhD (University of Pune), based in Pune, at sparchani@yahoo.com or +91 9822448828.</p> <p>Should you have any complaints concerning the manner in which this research is conducted, please contact the Research Ethics Officer at:</p> <p>Research Services University of New England Armidale, NSW 2351 Tel: +61 2 6773 3449; Fax: +61 2 6773 3543 Email: ethics@une.edu.au</p> <p>Thank you for considering this request and I look forward to further contact with you.</p> <p>Regards, Arvind Iyengar</p>



3 Consent form for participants

Research Project
Sindhi in the Roman Script
 An Investigation into Community Acceptance

I,, have read the information contained in the Information Sheet for Participants and any questions I have asked have been answered to my satisfaction. Yes/No

I agree to participate in this activity, realising that I may withdraw at any time. Yes/No

I agree that research data gathered for the study may be published using a pseudonym. Yes/No

I agree that I may be quoted using a pseudonym. Yes/No

I agree to the interview having my audio recorded and transcribed. Yes/No

I would like to receive a copy of the transcription of the interview. Yes/No

I am older than 18 years of age. Yes/No

.....

Participant



Arvind Jyengar
Researcher

.....

Date

.....

Date

4 Sindhī-language sample texts

Perso-Arabic

مهاتما گاندي

مهاتما گانديءَ کي راشترپتا کري مڃيو ويندو آهي. مهاتما گانديءَ جو جنم ۲ آڪٽوبر ۱۸۶۹ تي سؤراشتر جي پوربندر ۾ ٿيو. سندس نالو موهنداس هو. پتا جو نالو ڪرمچند ۽ ماما جو نالو پتلي ٻائي هو. سندس ماءُ ڏاڍي ڌارمڪ ويچارن جي هئي. ننڍي هوندي هو بُريءَ سنگت جو شڪار ٿيو. پر جيئن ئي پاڻ سنڀاليائين، پنهنجي پيءُ سامهون پڇتاءُ ظاهر ڪيائين. پوءِ اڳيان هلي هو آدرشي انسان بڻيو.

Adapted from “Mahātmā Gāndhī” (p. 71), 2008, *Sindhī Bāl^abhāratī: Darjo Ṭiyō* [Sindhī *Bāl^abhāratī*: Standard Three], Pune: Maharashtra State Bureau of Textbook Production and Curriculum Research. Copyright 2008 Maharashtra State Bureau of Textbook Production and Curriculum Research.

Devanāgarī

कसिरत

असां लाइ तंदुरुस्तु रहणु तमामु ज़रूरी आहे. शरीर खे तंदुरुस्तु रखण जा केतिरा ई तरीका आहिनि. इन्हनि सभिनी में कसिरत तमामु सवलो उपाउ आहे. शरीर जे कंहिं बि उज्वे हलाइण खे कसिरत चवंदा आहिनि.

हाकी, फुटबालु, वालीबालु, क्रिकेट, कबड्डी, डोड़ वगैरह रांदियूं कसिरत जा अलगु अलगु ज़रिया आहिनि. इन सां शरीरु मज़िबूतु थिए थो.

Adapted from “Kasⁱrat^a [Exercise]” (p. 57), 2007, *Sindhī Bāl^abhāratī: Darjō Bīyō* [Sindhī Bāl^abhāratī: Standard Two], Pune: Maharashtra State Bureau of Textbook Production and Curriculum Research. Copyright 2007 Maharashtra State Bureau of Textbook Production and Curriculum Research.

Roman

Qaumī Jhaṇḍo

Asāṇjō qaumī jhaṇḍo ṭirango āhe. Hin^a mẽ ṭe rang^a āhinⁱ. Mathā^ẽ kesⁱrī rang^u āhe. Vich^a mẽ achho rang^u āhe. Heṭhā^ẽ sāo rang^u āhe. Jhaṇḍe je vich^a mẽ ashok^a chakar^u āhe.

Asā^ẽkhē pāhⁱje jhaṇḍe lāi izat^a āhe. 15 āgaṣṭ^u āi 26 janⁱvarī te iskūlanⁱ, kālejanⁱ āi sarⁱkārī āfisanⁱ mẽ asī^ẽ ṭirango jhaṇḍo jhūlāindā āhⁱyū. Sabh^u gaḍⁱjī rāshṭrīy^a gīt^u gāindā āhⁱyū.

Adapted from “Qaumī Jhaṇḍo [The National Flag]” (p. 48), 2007, *Sindhī Bāl^abhāratī: Darjō Bīyō* [Sindhī Bāl^abhāratī: Standard Two], Pune: Maharashtra State Bureau of Textbook Production and Curriculum Research. Copyright 2007 Maharashtra State Bureau of Textbook Production and Curriculum Research.