

Mobile Phone Appropriation and Migrant Acculturation: A Case Study of an Indian Community in Singapore

RAJIV GEORGE ARICAT¹

Nanyang Technological University, Singapore

VERONIKA KARNOWSKI

Ludwig-Maximilians-Universität Munich, Germany

ARUL CHIB

Nanyang Technological University, Singapore

This research explores how the mobile phone appropriation patterns of an Indian migrant group in Singapore are linked to acculturation strategies. The circular model of mobile phone appropriation was adopted to investigate aspects of *usage and handling*, *prestige and social identity*, and *metacommunication*. Following a pluralistic-typological approach, acculturation patterns identified relate to migrants' maintenance of cultural identity and relationships with the Singaporean host society. In-depth interviews among 33 low-skilled male migrants from an Indian Malayali migrant community reveal that the four appropriation types convenience seeker, experimenter, group communicator, and tabula rasa were linked to three acculturation types observed: culture campaigner, culture connoisseur, and culturally petrified.

Keywords: appropriation, acculturation, communication, migrant, mobile phone, qualitative method

Introduction

Adoption and usage of traditional mass media and interpersonal communication have been identified as key factors in migrants' acculturation to the host society (Hwang & He, 1999; Jeffres, 2000). Growth in telecommunications and, more recently, the diffusion of mobile phones have helped migrants establish cost-viable communication links across borders, especially with their home countries (Vertovec,

Rajiv George Aricat: r.aricat@gmail.com

Veronika Karnowski: veronika.karnowski@ifkw.lmu.de

Arul Chib: arulchib@ntu.edu.sg

Date submitted: 2014-07-10

¹ The study was supported by grants from Strengthening Information Society Research Capacity Alliance program, sponsored by Singapore Internet Research Centre, and from Wee Kim Wee School of Communication and Information, Nanyang Technological University, Singapore (grant number M4080857.060).

2003). Acculturation research has traditionally examined interpersonal communication and mass media usage among well-entrenched migrants (Kim, 1989; Subervi-Velez, 1986), while the mobile appropriation literature has been confined to investigations within single cultures (e.g., Wirth, von Pape, & Karnowski, 2008). This study addresses these research gaps by investigating the phenomena in a more dynamic multicultural setting—that is, among male migrant workers in the cosmopolitan space of Singapore. We situate the investigation among low-skilled male migrants from the south Indian state of Kerala, who constitute the Malayali linguistic community in Singapore.

The study is premised on the knowledge that, just as minority groups endure pressures from the host society in social life, they also have to integrate with the host country's technology context. If the mobile ecosystems are markedly different in the home and host countries—as in the case of India and Singapore—migrants face greater challenges for integration (Aricat, 2015a). Singapore has one of the highest rates of mobile diffusion in the world: As of early 2015, mobile phone diffusion and 3G mobile subscriptions stood at 148% and 80%, respectively (Info-communications Development Authority of Singapore, 2015). India's teledensity, on the other hand, stands at 73.8% (Telecom Regulatory Authority of India, 2014). Differences in the rates of mobile diffusion between the two countries provide a good opportunity to understand how the Malayali migrants negotiated the demands and pressures posed by the host country's information communication technology ecosystem with implications to their acculturation.

Malayalis, along with other Indian ethnic groups, have had a continued presence in Singapore ever since the British colonial times. Among all linguistic communities in India, the Malayali community in recent times has witnessed one of the highest rates of migration to countries in Southeast Asia, the Middle East, and beyond. Hence, acculturation and mobile appropriation have greater salience for the community. Further, the lead researcher's linguistic and cultural commonality with the Malayali community facilitated an in-depth probe into the life experiences of this community. Although the findings of the study are not generalizable, the phenomena studied have relevance to ethnic migrant groups the world over. Despite differences in cultures, the relationship between acculturation and mobile appropriation is a globally relevant question.

Issues related to the integration of temporary migrants have received increased attention in Singapore following the rioting by male migrant workers in December 2013 (Aricat, 2013) and civil society's opposition to a government plan to introduce a Population White Paper aimed at increasing immigration (Sim, 2013). Sustained interaction between the host society and immigrant groups has been found to be important in mitigating tensions (Jiang et al., in press). While mobiles have provided functional advantages to migrants, allowing easy communication with family and friends in their home countries (Thomas & Lim, 2011), a holistic investigation of acculturation issues is lacking. As this article addresses this research gap, it identifies clusters of migrants based on their mobile appropriation and acculturation, and eventually identifies links between the two types.

Migrant Workers' Acculturation and Mobile Phone Usage

The pluralistic-typological approach to acculturation poses two questions to evaluate the phenomenon: (1) To what extent do migrants retain links with their home cultures? and (2) To what

extent do migrants relate to other cultures? (Berry, 2005; Horenczyk & Munayer, 2007). The communication choices migrants make either help retain their cultural heritage or help foster relationships with other cultures. These choices are, however, influenced by a number of factors, such as the acculturation demands posed by the civil society and the level of multiculturalism envisaged by the host government policies (Zick, Wagner, van Dick, & Petzel, 2001). Mobile phones thus provide the power of agency to the migrants to show their cultural preferences in communication while being constrained or enabled by the acculturation context at the macro level.

Retaining Links With the Home Culture

Migrants use mobiles extensively to communicate with friends and relatives in their home countries as well as with friends from their own culture in the host country (Chib & Aricat, 2012; Cohen, 2011). Influenced by a plethora of individual-specific and sociotechnological factors (e.g., concerns about cost), migrants adopt different mobile usage patterns while engaging in cross-border communication (Nedelcu, 2012). Migrants' mobile usage patterns are associated with the personal and professional benefits enjoyed, such as ease of tracking remittances, real-time interaction via video conferencing, and job networking (Wallis, 2011). These associations have been individually investigated in various life domains, such as work, family life, and religious beliefs (Miller et al., 2013). To overcome this compartmentalization approach, this study evaluates migrants' overall engagement with their home culture using mobile phones.

Relating to Host Cultures

Prior research explored how ethnic groups' communication with dominant cultures in a host society via traditional modes influenced their acculturation to work (Peeters & Oerlemans, 2009) as well as social life (Kim, 1977; Subervi-Velez, 1986; Zubrzycki, 1958). Studies on migrants' communication have focused more on migrants' mass media usage in the host society, especially when migrants accessed mass media for affirming their ethnicity, for relaxation and entertainment, for social utility, and in their attempts to acculturate to the host society (Yoon, Kim, & Eom, 2011). With the advent of mobile phones, more research has examined the interpersonal communication of migrants mediated by the technology. Mobile phones provide a new channel for migrants to communicate with the host society, as micro-entrepreneurs in a new culture (Qiu, 2009), as workers with diverse cultural backgrounds working in a team (Chib & Aricat, 2012), and as live-in domestic workers (Peng & Wong, 2013). Functional advantages of such cross-cultural communication via mobiles include improving coordination at work and solving problems in real time. Extending the scope of earlier research, this study investigates the acculturation dimension of such mobile usage.

Migrant Workers' Appropriation of Mobile Phones

We follow the circular model of mobile appropriation (Karnowski, von Pape, & Wirth, 2008)—a simplified version of Wirth et al. (2008)—to explore the link between appropriation and migrant acculturation (see Figure 1). The circular model integrates a range of approaches in diffusion and adoption research, such as frame analysis, cultural studies, and uses and gratifications. As a result, issues such as

the symbolic appeal of new communication devices for their users and metacommunication related to the process of appropriation have received increased attention in this model. Three model components require elaboration: *usage and handling*, *prestige and social identity*, and *metacommunication*.

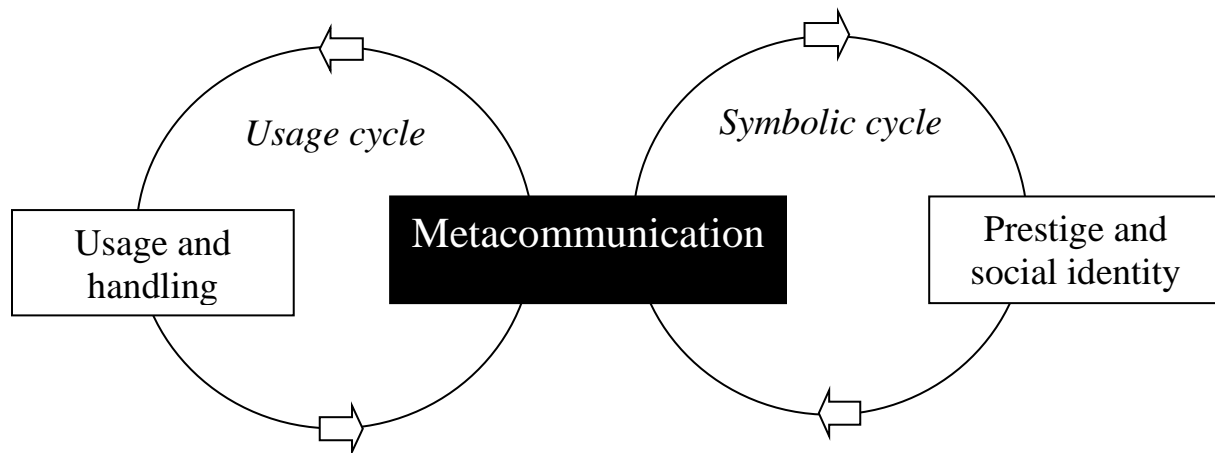


Figure 1. The circular model of mobile phone appropriation. (Karnowski et al., 2008)

Usage and handling denotes ways of using the mobiles for practical purposes as well as specific ways in which these have been melded into users' lives. Migration studies report that *usage* is contingent on technological skills related to various affordances of the phone, communication requirements, and financial resources (Thompson, 2009). Pragmatic goals sought by such behavior include the maintenance of relationships (Law & Peng, 2008), management of daily life (Qiu, 2009), and distraction as pastime (Wei, 2008). *Handling* denotes the specific ways in which mobile users hold, store, wield, and interact with the mobile device and the intensity and frequency of use of various affordances (Ishii, 2006). Work conditions in the industrial sector demand skillful handling of the device by blue-collar migrant workers, often necessitating "choreography of the body in public space" (Katz, 2006, p. 63).

The circular model postulates that the multiplicity of meanings produced as a result of mobile usage and the meanings that determine the self/social identity of the user are as important as the goal-oriented, pragmatic usages of the phone. The *prestige and social identity* component highlights symbolic appropriation of the technology: "How does the user present him/herself with the innovation? Does he/she use it as a *prestige* symbol to enhance his/her *social identity*?" (Karnowski et al., 2008, p. 184). Mobiles have emerged as a prestige symbol for youth (Ling, 2007) and as a marker of social identity for mainstream and minority communities alike (Chuma, 2014). Mobile usage has influenced the personal and social identities of migrants, improving self-esteem, ensuring membership in ethnic groups, increasing productivity, and resulting in peer recognition (Rahman & Lian, 2005; Wallis, 2011).

Metacommunication is defined as communication on communication. Users, in the process of appropriating a technology, reflect on their experiences and share them with others while seeking information and advice from different sources. Metacommunication involves opinion leadership of early immigrants to new arrivals (Cohen, 2011), including the former's advice to the latter on mobile adoption and usage (Rahman & Lian, 2005). Metacommunication includes advertisements and news on mobile services in addition to interpersonal communication among users, and between users and nonusers, on the affordances of the mobiles and users' experiences.

Metacommunication is the process through which both *usage and handling* and *prestige and social identity* are interlinked, thus reflecting the circular nature of the model. Both the *prestige and social identity* and *usage and handling* aspects of mobile communication lead to metacommunication, which again will initiate mobile communication, creating a circular process. The circular model refers to this process as symbolic and usage cycles. By adopting the circular model for guiding the investigation, the recursive and dialectic instances of mobile appropriation have been highlighted. The model draws on prior research on persistent use of technology (Carroll, Howard, Peck, & Murphy, 2003) and avoids a monocausal explanation for the appropriation phenomenon.

For migrants who negotiate with multiple cultures, meaning attribution and social identity in the context of mobile usage require investigation. This study links mobile appropriation patterns and outcomes with the immediate and salient need of migrants for acculturation in both personal and professional life domains.

Research Questions

- RQ1: How do migrants appropriate various affordances of mobile phone technology as reflected in their usage and handling and via negotiations in their prestige and social identity?*
- RQ2: How do migrants acculturate to a host society, negotiating the two possible dimensions of cultural relationships—that is, toward one's own culture and toward other cultures?*
- RQ3: How do different strategies of acculturation relate to different patterns of mobile phone appropriation among migrants?*

Method

In-depth interviews were conducted with 33 male migrant blue-collar workers from a subethnic Indian community (Malayali) in Singapore during the period March 2011 to January 2013. Respondent qualification required possession of a work permit in the industrial sectors (i.e., construction, oil refining, ship building). A convenience sample led to individual interviews. Some interviewees were approached directly by the lead researcher during evenings or weekends at their place of residence, and others were recruited via snowball sampling.

Interviews conducted in Malayalam ranged between 20 and 30 minutes, with some respondents approached a second time for deeper investigation. Institutional Review Board standards of Nanyang Technological University related to privacy and confidentiality were followed. Written consent was obtained, and a modest honorarium (S\$5) was granted.

Respondents ranged in age from 23 to 50, with a mean of 29.1 years. Resident status in Singapore ranged from three months to nine years. Respondents' monthly earnings ranged from S\$500 to S\$2,000, with the majority (61%) earning between S\$500 and S\$999 (S\$1.34 equals about US\$1). Gross national income per capita in Singapore is US\$42,930 (World Bank, 2011); among the migrant workers under study, per capita income is less than US\$10,000. Unlike expatriate professionals, who have better economic entitlements and status privileges, the guest workers are not entitled to benefits leading to their naturalization to the country. On average, a worker spends between S\$200 and S\$300 on food and S\$150 for transport every month, and accommodation in dormitories run by contractors or in shared Housing Development Board flats is provided by the company. Medical benefits are only partial, and the early termination of an unfit worker's contract is legally sanctioned and widely practiced.

As guest workers, most of the respondents perceived their stay in Singapore, and previously in other foreign countries, as a phase in their life (the "migration phase"), spanning 5 to 20 years, during which they save for future with an intention to start a business or retire comfortably in their home country.²

The first part of the interview guide, based on the circular model, included questions on usage history: "For how long have you been using the mobile?" "How has your communication over mobiles to family, friends, and colleagues changed over time, especially during the migration phase?" and "What are the new skills you acquired over time in order to interact with newer and more sophisticated affordances of the mobile?"

The second part involved questions on usage and handling of the mobiles: "How has the mobile helped you maintain relationships with family and friends?" "How has the mobile helped you manage your life in the host society?" and "How do you use the mobile for pastime and distraction?"

The third part explored the prestige and social identity component related to mobile usage. Questions included, "Have you come across situations when you have been identified by others with a particular pattern of your mobile usage?" and "Has your mobile device helped increase your prestige among peers?"

² Migration scholars call this phenomenon "circular migration," wherein migrant workers return to their homeland after the end of a contract and return to the same host country or to a third country on another contract (Constant & Zimmermann, 2011; Rahman & Kiong, 2013). These renewal cycles continue several times, reflecting the circular nature of migration.

Table 1. Mobile Appropriation and Acculturation Categories and Different Migrant Types' Fit to Each Category.

Mobile appropriation categories	Typologies		
	Culture connoisseurs/ Convenience seeker, Experimenter	Culturally petrified, Tabula rasa	Culture campaigner, Group communicator
Functional use ¹	Frequent; both feature phones and smartphones are used.	Frequent, but with careful consideration of cost. Low diffusion of smartphones.	Frequent; low-cost messages widely used to reach a group of people.
Symbolic use ¹	Consider mobiles as status symbols	Gift mobiles to loved ones	No symbolic use observed
Use of advanced features ¹	Frequent	Seldom	Seldom
Cost considerations related to mobile phone usage ²	Average	High	Average
Content of meta-communication ²	Frequent deliberations on what is new in the mobile phone market	On the look-out for uncluttered information in mediated spaces, but also from friends	Frequent deliberations on the low-cost methods available on mobiles to communicate with group members
Acculturation categories			
Amount of communication to home country ¹	High, but independent of the communication to host cultures	High, at the expense of sustained engagement with the host cultures	High; news from home country strengthen cultural identity
Amount of communication to members of dominant host cultures ¹	High, irrespective of high amount of communication to home	Low; engagement restricted to professional spaces and to close friends from other cultures	Low
Extent of relationship with dominant host country cultures ¹	High	Low	Low
Identification with one's own culture ¹	Low	Average	Very high
Level of engagement with co-ethnics in host country ¹	Average	Average	Very high

¹Predetermined categories

²Categories that emerged with data analysis

The fourth part focused on metacommunication. Respondents were asked, "How and what do you communicate with others about your experience of using the mobile?" and "How have you come to know about mobile services in the host society?"

The fifth part explored the acculturation orientations of respondents based on the bidimensional model (Berry, 2005). Questions in this category included, "To what extent do you think you have adapted to the culture of Singapore?" "How does your relationship with the host communities in Singapore affect your identity as a Malayali and/or Indian?" "How do you maintain a bond with your family back home with the help of a mobile?" and "How much have you adapted to the multicultural workforce of your organization?"

All interviews were conducted in Malayalam, the shared mother tongue between the lead researcher and the respondents. Recorded interviews were translated to English by the lead researcher and transcribed and coded on the basis of theorized categories. Categories were also allowed to emerge as the data analysis work progressed (see Table 1). Any meaningful sentence or phrase related to the topic and theoretical frame of the study was chosen to be coded. All authors agreed on the codes, although a few excerpts had to be recoded in multiple categories and some codes had to be renamed by expanding or narrowing their scope. Thematic analyses (Creswell, 2007) revealed technology appropriation patterns that fitted the circular model and the links between acculturation strategies and patterns of mobile appropriation.

Findings

The investigation based on the circular model and on the pluralistic-typological acculturation framework revealed several mobile user types and acculturation patterns. We propose first an appropriation typology, followed by an acculturation typology. These appropriation-acculturation typologies are described theoretically under the rubric of *usage and handling*, *prestige and social identity*, *metacommunication*, and *relating to host and home cultures*. Neither proposed typology constitutes mutually exclusive categories; rather, these personifications are dominant traits observed in the respondents to various degrees. The attempt here is not to associate any single individual's way of mobile appropriation with his acculturation but to assume a narrative approach to cultural evaluation, telling a situated story about technology use and acculturation in general (Mantovani, 2012).

Typology of Appropriation

After analyzing the data, four categories, or traits, of mobile appropriation were identified: the *convenience seeker*, the *experimenter*, the *group communicator*, and the *tabula rasa*.

The *convenience seeker* compares the functionalities of the mobile phone with other mediums and holds an informed opinion on what to appropriate and what not to appropriate. In a different social context in Wirth et al. (2008), these users are called "everyday-life-managers," who "emphasize the pragmatic usage dimensions of 'control' and 'management of everyday life'" (p. 608). Some respondents had separate mobiles for personal and work-related use. Respondents differentiated between a basic

handset meant for rough use at a work site and an advanced handset for relaxation, influencing their usage and handling of the device(s). The latter was left in their rooms under safe conditions during the workday, only to be used in the evenings for accessing entertainment content.

I have two mobiles . . . normally I carry only my normal mobile phone. Every day I bring this one to the work site. But the other one I . . . always keep in my room. After I return from work, I listen to songs, play games, sometimes use the Internet . . . that one is touch screen . . . sometimes, while working, the phone can drop.

Rough usage of a mobile device suggests use in conditions such as a construction work site or a welding pit, but it also implies a cheap mobile device that can be used with little care. Such a low-cost mobile has little emotional value and is evaluated only on the basis of material worth, demonstrating how the symbolic cycle is linked with the usage cycle of the circular model.

The symbolic effects of mobiles on convenience seekers were not projected to the outside world in terms of individual exhibition. Convenience seekers were uninterested in praise or criticism by friends with regard to mobile devices. Instead, satisfaction of their basic utilitarian needs was paramount; additional qualities were superfluous. The aesthetic qualities of mobiles—for example, as a fashion accessory—did not appeal to convenience seekers. They remained apathetic about the aesthetics of the phone, paying attention only to its functionality.

I have never thought of buying an advanced model mobile phone just because it's fashionable. I use Internet calling on a laptop [in addition to normal mobile calling], and it is sufficient for my needs.

Convenience seekers found Internet browsing on mobiles tedious, and thus avoided using the functionality on the phone altogether. Instead, they accessed the Internet on personal computers, a less cumbersome exercise. Convenience seekers were self-aware of their nonappropriation, rationalizing their nonuse by raising concerns of time, lack of motivation, and other internal and external factors.

I had that facility [mobile Internet] earlier. But I'm actually not interested in doing that. . . . I mainly avoid it in my room because I'll be engaged in other tasks, like cooking, dish-washing and many other kinds of work.

I don't use the Internet on my mobile phone. There hasn't arisen such a need for me. . . . I know how to do it, but I don't feel there is a need. Firstly, it is small screen . . . then I have the laptop now. So, since I have this facility already, there is no need.

The personal mobile was the single life organizational tool for convenience seekers. In addition to personal calls, mobiles were used in professional situations. Convenience seekers widely used the alarm functionality on their device to maintain punctuality. This allowed them to wake up early to catch the tightly scheduled company transport vehicle.

The mobile phone helps me to be more punctual. . . . I wake up in the morning after setting the alarm in my mobile phone. In India also I used to do this.

I have to travel fifteen to twenty minutes to reach the work site . . . during that time, I listen to songs . . . FM radio only rarely. I have my own collection . . . favorite songs downloaded.

Convenience seekers share the characteristics of a *bricoleur* in cultural anthropology (Lévi-Strauss, 1966), to whom the task at hand is more important than the tools used for solving it. Thus, mobiles were used to pass time during lull periods at work or commuting. Likewise, since the mobiles provided the easiest way to set an alarm, it invariably got used.

In fact, all the respondents in the study shared traits of convenience-seeking behavior when it came to mobile costs. All respondents balanced the intensity and frequency of use with cost considerations. They carefully aligned the expense for day-to-day mobile phone use with their monthly earnings. Expenditure was prioritized for international prepaid calls, whereas local in-country calls came as virtually free accompaniments. As a result of bulk discounts for international calling, respondents rejected incoming calls originating from their home country and preferred to dial the number back. This eventually led to the “beeping” phenomenon of missed calls (Donner, 2007) from family and friends in India.

At work sites where mobile usage was prohibited, a unique modality of use of mobiles was observed: Workers kept personal mobiles inside their lockers, often switched to silent mode, and checked for calls during breaks or after work. Thus, long mobile-free periods were preceded or followed by intense mobile communication. Although all patterns of mobile appropriation observed among migrants were germane to other users, the usage patterns arising out of price consciousness; the differentiation between rough use and romantic use; the practices of beeping, rejecting, and calling back; and the use of mobiles as alarms and music players had greater meaning and relevance among migrant workers. The specific context of migration—of living away from family and long work-hours in multicultural teams—has determined these appropriation patterns.

The second type, *experimenters*, are positive skeptics who have mastered the common mobile functionalities and have embarked on exploring advanced and unique functionalities. The exploration of unique uses is usually self-motivated, with a primary aim to master the technology as a means to address personal failings.

If I plan to take the exam next time, they [the education authority] instructed me to write with a proper grasp of meaning and understanding the grammar well. . . . [So] I downloaded an English-Malayalam dictionary into my computer. There are two software [apps]. . . . But the industrial words are not there in either of them. But in Apple phone there is software . . . for all words.

Although experimenters were active mobile users, they differed from the “obtrusive multi-users” characterized by Wirth et al. (2008), who “disregard those in the immediate surrounding” (p. 607).

Experimenters acted as opinion leaders, passing on their technical knowledge to peers. As a result, having achieved mobile "wizardry" status for themselves in the community, experimenters were approached by others.

There is one software, if you download that software, then whatever you want to read, whether Malayalam or Tamil [Indian languages], you can read that. Sometimes, I do it for others . . . whatever software they need, I download it for them. When he sees that in his phone, he is surprised and happy.

Experimenters' prestige and social identity in social life is thus intricately linked with their knowledge and practices of mobile usage and handling. Successful improvisations of friends' mobiles helped them gain the status of opinion leaders. However, experimentation was found to have a spiraling effect: Initial success in learning led to greater investments and risk taking. Experimenters overcame their marginalized existence by systematically appropriating mobiles, relying less on "thinking of making money [always]" and instead concentrating on learning.

I plan to buy an advanced model. I'm definitely confident of using the Internet on such phones to fruitful purposes.

Overenthusiasm in experimentation sometimes metamorphosed into overindulgence. Experimenters were interested not only in goal-oriented, message-heavy communication but "raw engagements with entertainment-oriented and social content" (Arora & Rangaswamy, 2013, p. 900). The senior workers in the sample had reservations about the problematic behavior of experimenters, who slacked off at work and risked being victims of work-site accidents.

Only a few senior people like us have been given permission by the company to use mobile phones. . . . It's not calling that is the problem . . . today's camera phone and other features create a lot of problems. Employees become increasingly inattentive toward work . . . people sitting on scaffolds and other high-rise stands, watching movies, listening to songs.

On the other hand, opinions were generated on what kind of mobile usage behooved an ideal worker who was properly attuned to the work environment. Metacommunication linked the usage and symbolic cycles in a perpetual balance of argumentation.

When there is an accident . . . say, fire, one [a worker] will not recognize the siren if he's sitting and listening to a song. . . . It's always better not to use mobile phones in dangerous work sites . . . our company has rules. I think it's good.

The third type, *group communicators*, reach out to groups of people swiftly and cost-effectively. This category includes recipients of group communication, most commonly observed as texting, in addition to the senders. Group communicators were regularly in touch with several people in both their host and home cultures, related to both work and personal life.

I call around twenty people regularly, all my family members, my sister, relatives and friends. I have around forty-something friends in Singapore . . . no, not only Indian, but Bangladeshi, Burmese, etc.

Group communicators often assumed leadership roles in work organizations or social congregations bound together by ethnicity, politics, or religion.

Our organization's main [channel] is message. Message for prayer meetings on every Thursday. . . . Then there is night vigil, on a monthly basis . . . in a single month there would be more than 1,000 messages sent to different people. How many people can you call and intimate about the event? On the other hand, messaging is free here, isn't it . . . simultaneous sending. Put the numbers in the distribution list, press 'send'.

Those with an active political past kept detailed track of national political events and made active interventions through mobile calling, from vote canvassing to giving strategic directions to their coparty workers. In addition to receiving information on party activities, these migrants also do virtual canvassing over the mobiles at the time of elections (Aricat, 2015b).

One person [a candidate in an election] in my village called me and requested me to help him. Since I knew him from the past, even above politics, I tried to influence people at the time of elections using my mobile phone. . . . Specifically, I called my friends [in India] who would listen to me and asked them to help him [in the elections].

The fourth category, the *tabula rasa*, is based on a key concept in behaviorism that states that the human mind is like a blank slate at birth. How humans interact with the world throughout their life is determined by what is incrementally added to the slate over a lifetime. Tabula rasa mobile users were content with their original low-end mobile. They learned basic mobile skills from others with some difficulty and had no interest to explore functionalities themselves. The tabula rasa had limited needs of communication, which were being fulfilled by voice calls and texting, and other common functionalities such as the camera and music player. The advanced functionalities of the mobile were beyond their reach. In contrast to *experimenters'* technology obsession, the tabula rasa were led by a desire for an uncluttered mind. They used mobile phones regularly as if for the first time, constantly returning to the basics, careful in pressing buttons and thinking twice before proceeding from one screen to the next.

I've no such desire [of accessing the Internet on mobiles] . . . no thoughts of doing that. Because there is no need for that. . . . They're calling me if required, and everything is going well. So no such desires. Whatever is happening is because of God's grace.

Cost considerations determined how the tabula rasa evaluated the emerging mobile market. Respondents recalled desisting from mobile Internet browsing or sometimes limited its use for fear of making a dent in their credit balance.

The mobile phone is used here mainly to call home. Then I call my friends here. . . . When we called home a few years back, we could get only a small amount of time, that was in 2004 . . . the call charge was high. It was in the last two to three years that the charges decreased.

My calls to home have definitely increased over these years . . . mainly because call cost has come down.

Lack of enthusiasm to move on to advanced uses of the mobile is characteristic of this user type. This "laggardness" is usually learned and internalized, exacerbated by limited financial resources.

I would like to buy an advanced mobile phone to listen to songs in good-quality sound, camera with good clarity. But since my salary is less. . . . My present mobile phone has a camera, but it doesn't have that much clarity. Other features that I intend to use? No, nothing particular [dismisses any chance of learning to access the Internet on his mobile].

The tabula rasa had a modest method of gaining social identity and prestige by frequently gifting mobile handsets to family and friends back home. This practice was in stark contrast to that practiced by experimenters, who gained prestige among peers after following the arduous route of learning, exploring, and imparting technical knowledge, and also to convenience seekers, who asserted self-dignity by finding utilitarian solutions to their communication needs. Being agnostic toward advanced features, the tabula rasa sent home minimally used smart phones, contenting themselves with the next available model.

[I've changed my mobile handset] so many times . . . approximately eight to ten times [in seven years]. . . . The reason is that when there arises a requirement of a mobile phone in our place [among my relatives], I buy it here and send it to them. . . . Yes, a mobile phone is a gift.

Such gifts cemented tabula rasa's affectionate ties with the home culture.

I gave her [my wife] the phone after our engagement. . . . it was a good model, with camera, video, etc. After marriage I presented her another mobile handset, and recently another one . . . total of three.

Typology of Acculturation and Links to Appropriation Typology

Three acculturation patterns were observed in terms of how respondents related to the host culture and how they maintained their own cultural identity and preferences. The proposed typology includes the *culture campaigner*, the *culture connoisseur*, and the *culturally petrified*. This section establishes the links between the acculturation typology and the typology of mobile appropriation.

Culture campaigners were specialized opinion leaders in the area of current cultural products from their home culture. They regularly promoted the ethos of their own culture, both actively and passively. They took the initiative to share culturally specific news with their fellow migrants, occasionally inviting others to take part in cultural programs.

I volunteered for social activities. Programs related to Onam [a regional festival of the community] . . . to the Malayali Association. We have gone to Yishun, earlier. Then to Timah . . . all part of Malayali cultural festivals.

The regular campaigning for home culture alleviated apprehension about loss of cultural identity due to international migration. Most cultural campaigners joined ethnic, religious, or cultural organizations where their unique bonds could be asserted in interaction with similar individuals. Since respondents were from Kerala, a state with a higher than the national average literacy level and media density (Census India, 2011), culture campaigners had the human capital to use various affordances of mobile devices to access news.

Now I've the opportunity to read up to four Malayalam newspapers on my mobile phone. Print newspaper copies are limited . . . only three reach here, in the shop below our dormitory. Those are high in demand, we don't usually get it. But I read the newspapers on my mobile.

Culture campaigners were likely to adopt the appropriation pattern of group communication, since their main objective was to link with as many coethnics as possible in the least amount of time. However, the converse was not true; group communicators were not necessarily culture campaigners. Group communicators belonging to religious and social groups were not interested in secular expressions of culture. In such cases, group communicators acted merely as opinion leaders propounding religious or moral causes. At the same time, even religious communicators among the respondents may be treated as culture campaigners if the word *culture* is interpreted as encapsulating communal and moral causes.

The second group, *culture connoisseurs*, closely observed the details of cultural life within their immediate environment. Unlike their fellow migrants, culture connoisseurs showed little interest in the mainstream evaluations of local cultural expressions. Instead, they focused on the richness of human agency, appreciating the sociohistorical processes that constituted the cultural practices in Singapore. Hence, in relating to other cultures in the host society, culture connoisseurs made reasoned judgments about unfamiliar cultural practices.

I have traveled and worked in four to five Gulf [Middle East] countries. Compared to them, the culture here is good. Primarily, we have a strong law and order system here. At the very least, at any time, without fearing anyone, we can go to any place and come back.

Culture connoisseurs, compared to the relative isolation of culture campaigners, established and maintained contact with migrant friends from different countries as they coexisted in Singapore. To do so,

they took advantage of prepaid international calling cards that offered local in-country calls that were mainly free.

I have a few friends from Myanmar and Thailand. Also from Malaysia and Philippines. Two days back, my friend went to the hospital . . . some chest problem. This morning I called him. He was hospitalized for three days. . . . We work in the same work site. . . . I inquired about his health when I called.

Almost all respondents plan to return to India upon achieving established financial targets. However, culture connoisseurs were taking advantage of their time in Singapore by making an effort to get to know the host culture. An increase in mobile communication with family members and friends in India had not hindered their cultural education during the period of migration.

It's true that the cost of calling decreased . . . when I call my friends in India, my attachment [with them] has increased. But it need not necessarily weaken our link with the culture here, we're always learning the procedures here, aren't we? We're here . . . we meet many people as we go places . . . we get to know them . . . through all this we're able to understand the procedures of this place.

The diverse usages of mobiles were topics for gossip and the creation of urban legends, as were portrayals of mobiles in advertisements. Culture connoisseurs engaged in metacommunication about the cultural trends relating to technology use, often ascribing an objective vantage point for their own subjective self.

Mobile phone diffusion is all good. But have you noticed the problem here? No one, no girl will look at your face when you travel in a bus . . . everyone is looking at the screens of their mobile phones.

Convenience seekers and experimenters were connoisseurs of culture. As technology-savvy people with informed opinions about the different mobile functionalities available, these appropriation types embodied the positive side of material reality and disregarded the contradictions of experiences inherent in a clash of cultures. For them, what was immediately present required attention and cognition, and what could provide more comfort in real life mattered the most—both in the context of culture and in the context of technology.

I'm trying to get into a better job . . . [in the religious organization] I can get introduced to many Malayali friends . . . from different professions. With them I inquire whether there is a good chance. I also ask them their situations: "How do you work?" "How comfortable is your accommodation?" These dormitories confine us . . . only if we get out and talk to people can we know other things . . . mobile calling, social media, everything becomes important.

These respondents had the underlying objective of career advancement as they related to coethnics or to members of other communities; the mobile phone was a positive supplement that helped them achieve this objective. These respondents used mobiles to actively seek social and cultural interactions in the local milieu and share their experiences with their home networks.

I volunteer at an old-age home. . . . No, not only for Indians, but for the elderly from other races also. It's a branch of a charity mission from Kerala . . . there are many inhabitants—around sixty. When in India, I had been active in this mission. I came here, I inquired about it. . . . I go there on weekly off days. My mobile phone helps to spread the word.

The third group, the *culturally petrified*, did not engage in a critical evaluation of other cultures, basing their disregard on an established and unquestioning preference for their own culture. They held strong opinions about certain aspects of cultural life, such as the status of women in society and the perils of alcohol consumption. Other cultures were evaluated based on these selective areas rather than taking culture in its totality or investigating the intricacies of the issues. Culture became the primary area of contestation that threw open challenges, as "everything was freely allowed." Once the culturally petrified took exception to any single cultural aspect, they completely distanced themselves from that culture. These respondents replied with a categorical *no* about the possibility of settling permanently in Singapore due to a handful of objectionable cultural behaviors or practices observed in the host society.

[The culture here], it's very different. It doesn't go along with my culture.

When talking about Singaporean culture . . . I don't like it. When comparing the culture we've in India and here . . . you see we've a good family atmosphere in India. I don't see the same here.

The culturally petrified spoke highly of the host country on matters related to technological advancement, maintenance of law and order, and safety measures adopted at work sites, but most of them did not see themselves continuing in the country for long.

I'm not interested in staying in Singapore for long-term . . . no, no, no. Earn money and leave, that's all. In my view, another two years, maximum. Yes, that's all. I'll settle in Kerala.

The culturally petrified engaged in metacommunication about local mobile usage patterns. However, unlike the culture connoisseurs' investigation of local culture, the culturally petrified did so to reinforce their prejudices. Metacommunication allowed for derived meanings, which eventually helped them to not only to form an opinion about the host society but situate their own position vis-à-vis the new culture. Metacommunication is not an objective, value-free description that is to be taken for its truth value. Instead, it is often the opinion of users and nonusers of the technology—in this case, the mobile phones. While metacommunication in news stories has the approval of professional gatekeepers, metacommunication as revealed in day-to-day gossip, swearing, and reflections of users is loaded with

sentiments of their cultural affinity and entrenched cultural values. A respondent who had been closely observing trends in smart-phone adoption, thus, did not hide his frustration about not having a smart phone for himself when he made a sweeping generalization on what was happening around him.

When the iPhone was launched . . . girls camped in front of the retail shop throughout the night to book one piece for them. The next day's newspaper carried this photograph . . . iPhone is a craze here.

The *tabula rasa* were likely to exhibit traces of the culturally petrified character. They found cultural learning as tedious as learning new mobile functionalities. The cultural personality trait that was averse to both a higher level of appropriation and cultural learning allowed little space for negotiation. Meaningful engagement with the local culture was, therefore, rare. The following quote is from a semiskilled worker (a heavy motor vehicle driver) who has been with a single company in Singapore for 19 years. Although his pay and visa status allowed him to accommodate his family in the host country, he avoided the prospect because he did not want his children to grow up in this culture.

I've never tried to get a PR [permanent resident status] in this country. The life here is mechanical. Both the husband and wife work; one cannot take rest beyond the time allowed. In our countryside [in India] we have great freedom, life is relaxed. My family—wife, children and parents—come here on visiting visas. We go around and enjoy. I have earned a fortune from Singapore. But beyond that, settling here is out of question.

Discussion and Conclusion

The study evaluated the acculturation orientations of low-skilled migrant workers belonging to an Indian community in Singapore and adopted the circular model to explain the migrants' appropriation of mobile phone technology. Three components of the circular model—*usage and handling*, *prestige and social identity*, and *metacommunication*—helped explain appropriation, and two dimensions of the pluralistic-typological approach—retaining one's cultural identity and relating to other cultures—helped explain acculturation.

The four types of mobile phone users were *convenience seekers*, *experimenters*, *group communicators*, and *tabula rasa*; the three acculturation types that were identified on the basis of migrants' affinity toward their own culture as well as their relationship with other cultures were *culture campaigner*, *culture connoisseur*, and *culturally petrified*. The analysis also led to the linking of appropriation types with the acculturation types: *Culture campaigners* tended to be *group communicators*, whereas *convenience seekers* and *experimenters* were driven by material conditions of culture and were mostly *connoisseurs of culture*. The *tabula rasa* were characterized by a lackadaisical attitude with little need for innovation, and hence were also *culturally petrified* in their approach to acculturation. The findings, however, do not suggest any causal relationships between migrant acculturation and mobile appropriation.

This research adds to the understanding of effects of mobiles on migrant populations, going beyond the fragmentary efforts (e.g., how to overcome employer control, how to garner social support in the host country) of prior studies. By following the integrated approach of acculturation, this study approached migrants' problems in a foreign country in their totality, covering both personal and professional domains. The framework of mobile appropriation and acculturation looks beyond linear relationships between technology adoption and cultural impact to understand the migrant situation in a holistic manner.

Prior studies have acknowledged that migrant acculturation is influenced by such factors as host government policies and the host society's attitudes (Rahman & Kiong, 2013; Zick et al., 2001). Being a low-vitality group, migrants are often persuaded to follow the acculturation strategies preferred by the host society and are influenced by commercial agencies in making their mobile adoption and appropriation decisions. This study did focus on these social determinations of acculturation and appropriation, but not at the cost of disregarding the human agency of individual migrants. We found that mastery of new media indeed goes along with deeper acculturation into a host society. However, due to the vast diversity between different migrant segments, the findings of this study may not be generalized beyond the context of low-skilled male migrants from the Indian Malayali community in Singapore.

The method employed here as well as the findings have implications for government policies and business practices. Using the methodology of this research, it is possible to identify migrant groups with different acculturation orientations, facilitated by mobile communication technologies. In a country where strict immigration rules are in place, this method of categorizing migrants on the basis of their acculturation and mobile appropriation can help the government streamline the immigration process. Businesses can understand the acculturation needs of different migrant types and roll out mobile schemes that are tailor-made for each category. But from a political perspective, such a categorization has the potential to be misused as a means to profiling and control—as a case in point, location-specific punitive measures have been introduced in the riot areas, condemned by some local commentators (Mei Hua Raman, 2014). Authorities' endorsement of optimal acculturation-appropriation strategy among migrants should not be rooted in an economic logic of migration, wherein migrant well-being is translated materialistically to better productivity and increased return on investment for the companies that employ them. On the contrary, an optimal acculturation-appropriation strategy should be a migrant-centric concept, wherein migrant well-being is pursued as an independent goal, not subsumed to the economic logic dictated by the dominant host groups. Adopting a secular, modernist political stance founded on the notion of universal human rights and democratic ideals, we recommend recognition for all kinds of acculturation-appropriation patterns among migrants.

References

- Aricat, R. (2013, December 21). Indian migrant workers rioting in Singapore: Revisiting acculturation paradigms. *Economic and Political Weekly*, 48(51). Retrieved from <http://www.epw.in/web-exclusives/indian-migrant-workers-rioting-singapore.html>
- Aricat, R. G. (2015a). Mobile ecosystems among low-skilled migrants in Singapore: An investigation into mobile usage practices. *The Electronic Journal of Information Systems in Developing Countries*, 68(4), 1–15.
- Aricat, R. G. (2015b). Mobile/social media use for political purposes among migrant laborers in Singapore. *Journal of Information Technology & Politics*, 12(1), 18–36. doi:10.1080/19331681.2014.994156
- Arora, P., & Rangaswamy, N. (2013). Digital leisure for development: Reframing new media practice in the global South. *Media, Culture and Society*, 35(7), 898–905.
- Berry, J. W. (2005). Acculturation: Living successfully in two cultures. *International Journal of Intercultural Relations*, 29(6), 697–712.
- Carroll, J., Howard, S., Peck, J., & Murphy, J. (2003). From adoption to use: The process of appropriating a mobile phone. *Australian Journal of Information Systems*, 10(2), 38–48.
- Census India. (2011). *Provisional population totals*. Retrieved from http://www.censusindia.gov.in/2011-prov-results/paper2-vol2/prov_results_paper2-Kerala.html
- Chib, A., & Aricat, R. G. (2012). Seeking the non-developmental within the developmental: Mobile phones in the globalized migration context. In R. Parker & R. P. Appelbaum (Eds.), *Can emerging technologies make a difference in development?* (pp. 153–167). New York, NY: Routledge.
- Chuma, W. (2014). The social meanings of mobile phones among South Africa's "digital natives": A case study. *Media, Culture and Society*, 36(3), 398–408.
- Cohen, E. H. (2011). Impact of the group of co-migrants on strategies of acculturation: Towards an expansion of the Berry model. *International Migration*, 49(4), 1–22.
- Constant, A. F., & Zimmermann, K. F. (2011). Circular and repeat migration: Counts of exits and years away from the host country. *Population Research and Policy Review*, 30(4), 495–515.
- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: SAGE Publications.
- Donner, J. (2007). The rules of beeping: Exchanging messages via intentional "missed calls" on mobile phones. *Journal of Computer-Mediated Communication*, 13(1), 1–22.

Horenczyk, G., & Munayer, S. J. (2007). Acculturation orientations toward two majority groups: The case of Palestinian Arab Christian adolescents in Israel. *Journal of Cross-Cultural Psychology, 38*(76), 77–87.

Hwang, B.-H., & He, Z. (1999). Media uses and acculturation among Chinese immigrants in the USA. *International Communication Gazette, 61*(1), 5–22.

Info-communications Development Authority of Singapore. (2015). Telecommunications: Statistical charts. Retrieved from <http://www.ida.gov.sg/Infocomm-Landscape/Facts-and-Figures/Telecommunications#2>

Ishii, K. (2006). Implications of mobility: The uses of personal communication media in everyday life. *Journal of Communication, 56*(2), 346–365.

Jeffres, L. W. (2000). Ethnicity and ethnic media use: A panel study. *Communication Research, 27*(4), 496–535.

Jiang, Q., Aricat, R. G., Chib, A., Chia, Z. Y., Tan, S. M., Tan, X. Q., & Woo, Z. W. (in press). Silent but brewing: Reactive ethnicity and interculturality among Chinese students in Singapore. *Journal of Intercultural Communication*.

Karnowski, V., von Pape, T., & Wirth, W. (2008). After the digital divide? An appropriation perspective on the generational mobile-phone divide. In M. Hartmann, P. Rössler, & J. Höflich (Eds.), *After the mobile phone? Social changes and the development of mobile communication* (pp. 177–193). Berlin, Germany: Frank & Timme.

Katz, J. E. (2006). Mobile communication and the transformation of daily life: The next phase of research on mobiles. *Knowledge, Technology and Policy, 19*(1), 63–71.

Kim, Y. Y. (1977). Communication patterns of foreign immigrants in the process of acculturation. *Human Communication Research, 4*, 66–77.

Kim, Y. Y. (1989). Intercultural adaptation. In M. K. Asante, W. B. Gudykunst, & E. Newmark (Eds.), *Handbook of international and intercultural communication* (pp. 275–294). Newbury Park, CA: SAGE Publications.

Law, P.-L., & Peng, Y. (2008). Mobile networks: Migrant workers in southern China. In J. E. Katz (Ed.), *Handbook of mobile communication studies* (pp. 55–64). Cambridge, MA: MIT Press.

Lévi-Strauss, C. (1966). *The savage mind*. Chicago, IL: University of Chicago Press.

Ling, R. (2007). Children, youth and mobile communication. *Journal of Children and Media, 1*(1), 60–67.

- Mantovani, G. (2012). New media, migrations and culture: From multi- to intercultural. In L. Fortunati, R. Pertierra, & J. Vincent (Eds.), *Migration, diaspora, and information technology in global societies* (pp. 21–34). New York, NY: Routledge.
- Mei Hua Raman, S. R. (2014, February 6). New Singapore law will not keep peace in Little India. *The Diplomat*. Retrieved from <http://thediplomat.com/2014/02/new-singapore-law-will-not-keep-peace-in-little-india/>
- Miller, M. J., Yang, M., Lim, R. H., Hui, K., Choi, N.-Y., Fan, X., . . . Blackmon, S. (2013). A test of the domain-specific acculturation strategy hypothesis. *Cultural Diversity and Ethnic Minority Psychology, 19*(1), 1–12.
- Nedelcu, M. (2012). Migrants' new transnational habitus: Rethinking migration through a cosmopolitan lens in the digital age. *Journal of Ethnic and Migration Studies, 38*(9), 1339–1356.
- Peeters, M. C. W., & Oerlemans, W. G. M. (2009). The relationship between acculturation orientations and work-related well-being: Differences between ethnic minority and majority employees. *International Journal of Stress Management, 16*(1), 1–24.
- Peng, Y., & Wong, O. M. H. (2013). Diversified transnational mothering via telecommunication: Intensive, collaborative, and passive. *Gender and Society, 27*(4), 491–513.
doi:10.1177/0891243212473197
- Qiu, J. L. (2009). *Working-class network society: Communication technology and the information have-less in urban China*. Cambridge, MA: MIT Press.
- Rahman, M. M., & Kiong, T. C. (2013). Integration policy in Singapore: A transnational inclusion approach. *Asian Ethnicity, 14*(1), 80–98.
- Rahman, M. M., & Lian, K. F. (2005). Bangladeshi workers in Singapore: The view from inside. *Asia-Pacific Population Journal, 20*(1), 63–88.
- Sim, F. (2013, January 30). Fury over 6.9 million population target for Singapore. *Yahoo News*. Retrieved from <https://sg.news.yahoo.com/fury-over-6-9-million-population-target-for-singapore-103503070.html>
- Subervi-Velez, F. A. (1986). The mass media and ethnic assimilation and pluralism: A review and research proposal with special focus on Hispanics. *Communication Research, 13*(1), 71–96.
- Telecom Regulatory Authority of India. (2014). *Telecom subscription data*. Retrieved from <http://tra.gov.in/WriteReadData/PressRelease/Document/PR-TSD-July,%2014.pdf>

- Thomas, M., & Lim, S. S. (2011). ICT use and female migrant workers in Singapore. In J. E. Katz (Ed.), *Mobile communication: Dimensions of social policy* (pp. 175–189). New Brunswick, NJ: Transaction.
- Thompson, E. C. (2009). Mobile phones, communities and social networks among foreign workers in Singapore. *Global Networks*, 9(3), 359–380.
- Vertovec, S. (2004). Cheap calls: The social glue of migrant transnationalism. *Global Networks*, 4(2), 219–224.
- Wallis, C. (2011). Mobile phones without guarantees: The promises of technology and the contingencies of culture. *New Media and Society*, 13(3), 471–485.
- Wei, R. (2008). Motivations for using the mobile phone for mass communications and entertainment. *Telematics and Informatics*, 25(1), 36–46.
- Wirth, W., von Pape, T., & Karnowski, V. (2008). An integrative model of mobile phone appropriation. *Journal of Computer-Mediated Communication*, 13(3), 593–617. doi:10.1111/j.1083-6101.2008.00412.x
- World Bank. (2011). *World development reports, 2011*. Retrieved from <http://web.worldbank.org/>
- Yoon, T-I., Kim, K-H., & Eom H-J. (2011). The border-crossing of habitus: Media consumption, motives, and reading strategies among Asian immigrant women in South Korea. *Media, Culture and Society*, 33(3), 415–431.
- Zick, A., Wagner, U., van Dick, R., & Petzel, T. (2001). Acculturation and prejudice in Germany: Majority and minority perspectives. *Journal of Social Issues*, 57(3), 541–557.
- Zubrzycki, J. (1958). The role of the foreign-language press in migrant integration. *Population Studies*, 12(1), 73–82.