INFORMATION SEEKING AND UTILIZATION BEHAVIORS OF

ADULT BILINGUALS

by

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ABSTRACT OF THE DISSERTATION

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The purpose of this research is to understand the information seeking and

information utilization behaviors of Armenian-English adult bilinguals, while paying

particular attention to the contextual and experiential as well as to the affective and

motivational aspects involved.

At a meta-theoretical level, the study is rooted primarily in the symbolic

interactionism of George Herbert Mead, Herbert Blumer, and Erving Goffman and the

social constructionism of Peter L. Berger and Thomas Luckmann. Its central

underpinning assumption is that the generation, seeking, and utilization of information

are social and collective behaviors.

At a theoretical level, this exploration of the human information behavior of adult

bilinguals is informed by ELIS (Everyday Life Information Seeking) and the scholarship

of Reijo Savolainen, Kimmo Tuominen, and Sanna Talja, together with the works, among

others, of Jerome S. Bruner and his notions pertaining to narrative construction, Elfreda

Chatman and her small worlds and life in the round, Ross J. Todd and his information

intents, and Marcia J. Bates and her berrypicking. The central assumption here is that, because language plays a key role in social construction, bilinguals – with two or more languages at their disposal – occupy a distinct position within this social process.

The research uses mainly qualitative methods, based primarily on the grounded theory of Juliet Corbin, Anselm Strauss, Kathy Charmaz, Thomas R. Lindlof, and Bryan C. Taylor and the narrative-inquiry method of D. Jean Clandinin and F. Michael Connelly, while also drawing upon biographical methods, as described by Joanna Bornat, Zhiwei Chen, Sanjeev Sonawane, and Brian Roberts, the thick description of Clifford Geertz, and the case study method of Robert K. Yin.

The study is also inspired, among others, by the andragogy of Malcolm S. Knowles, the existential phenomenology of Martin Heidegger, the many notions, including language games, of Ludwig Wittgenstein, the bilingualism of François Grosjean, the communities of practice of Etienne Wenger, the deschooling of Ivan Illich, the hierarchy of needs of Abraham H. Maslow, and the zone of proximal development of Lev Vygotsky.

The value of this endeavor inheres in making a contribution toward understanding the information behaviors of bilinguals, which is prerequisite to designing information products and services optimized for them. Given that half of humanity is bilingual and in view of the paucity of research in this arena, the need for basic research on the human information behavior of adult bilinguals is both evident and pressing.

DEDICATION

I dedicate this dissertation to my mother, Nazely (née Partamian) Sanentz, and to my late father, Paren (Kazanjian) Sanentz.

Their vision, toil, and sacrifice made it possible for their family to ascend, within one generation, from Hoellüg – near Aleppo, Syria, where survivors of the Armenian Genocide had huddled – to Harvard.

I share their lifelong passion for learning and embrace them back with boundless love and gratitude.

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CHAPTER 1: INTRODUCTION

A language is a dialect with an army and navy
– Max Weinreich

This study focuses on the information seeking and information utilization behaviors of adult bilinguals. It gives special attention to the contextual and experiential as well as to the affective and motivational aspects of this process.

One-half of the population of the world is bilingual. Bilinguals are persons who use two or more languages or dialects on a regular basis; but they are not two monolinguals rolled into one (Grosjean, 2010). Given their distinction from monolinguals, the information behavior of bilinguals is worthy of exploration.

Distributed over 200 countries are 6,900 languages, with 30 languages, on average, being spoken in each country (Romaine, 2013). Of the total US population, 20% is bilingual, and by 2030, a projected 40% of all school-age children in the United States are expected to be LEP (Limited English Proficient) (González, 2008). Eight years ago, English had already dropped to a level where it accounted for only 30.6% of total Internet usage (He & Wang, 2009). Yet there is a paucity of research on the information seeking and utilization behaviors of bilinguals.

In view of the growth of single markets and tumbling trade barriers spurring economic competition across the globe, bilingual capital begets economic advantage.

Globalization, increases in Web usage, increased language diversity on the Web, and impacts on critical areas such as national security, access to patents and medical information, all point to the fact that the priority of bilingualism is ascending (Baker & Jones, 1998).

Bilinguals – with their access to two or more sets of social constructions, corresponding to the two or more languages in their lives – are likely to amplify generally existing variations among individuals, thereby raising research questions. For example, how do bilinguals' multiple social constructions (multiple worldviews, multiple social norms and types) influence their information seeking and utilization behaviors? Which purposes, domains, and people corresponding to each of a bilingual's accessible languages come into play when, why and how? Bilinguals can choose to seek and utilize information in two or more linguistic and cultural domains; how bilinguals choose which domain to tap, when to tap it, whether to tap multiple domains simultaneously, or whether to switch from one domain to another consecutively, are all aspects of information behaviors, which remain largely unexplored. Much research remains to be done on how adult bilinguals, in their everyday lives, navigate their two or more linguistically and culturally constructed social realities in their attempts at sense-making; how they decide which social reality to inhabit, reference, or address and when; how they reconcile their realities when they become discrepant; how they translate constructed notions from one sociocultural context into another, and so on.

DEFINITION OF TERMS

Key terms germane to this study are presented below, in alphabetical order. Expansions of these definitions are included throughout this document, where needed.

Adult.

Knowles et al. (2015) offer four definitions of an adult: 1) biological, marked by the age when one attains the ability to reproduce; 2) legal, marked by the age at which the law of the land states one can vote, etc.; 3) social, marked by the age when one begins to perform adult roles, e.g. parent, spouse, etc.; and 4) psychological, marked by one's attaining a self-concept of independence and responsibility.

Given that this study presumes the primacy of the social dimension, of the above four definitions of an adult, the study will adopt the third.

Bilingual [as a noun].

A bilingual is a person, who uses two (or more than two) languages or dialects in his/her daily life (Grosjean, 2010).

Adult bilingual (AB).

An adult bilingual (AB) is a person, who uses two (or more than two) languages or dialects in his/her daily life (Grosjean, 2010) and who has begun to perform adult roles, e.g. parent, spouse, etc. (Knowles et al., 2015).

Bilingualism.

Bilingualism is the use by persons of two (or more than two) languages, on a regular basis (Grosjean, 1992).

Defining bilingualism is quite challenging, because it comprises intricate variations along multiple dimensions. Thus, there is the ability to speak versus the extent of actual usage; levels of proficiency across writing and reading (literacy skills) and speaking and listening (oracy skills); the degree of dominance of one language over another; levels of competence across purposes and functions as compared to monolinguals; and variations in proficiency over time and due to changing circumstances (Baker & Jones, 1998).

Biographical methods.

"'Biographical methods' is an umbrella term for an assembly of loosely related, variously titled activities: narrative, life history, oral history, autobiography, biographical interpretive methods, storytelling, auto/biography, ethnography, reminiscence" (Bornat, 2008, p. 344).

Biographical research is a rapidly expanding field, which "seeks to understand the changing experiences and outlooks of individuals in their daily lives, what they see as important, and how to provide interpretations of the accounts they give of their past, present, and future" (Roberts, 2002, p. 1). Terminological variation – life story, oral history, life history, personal narrative, autobiography, biography, etc. – continues to generate confusion in this young field, which is in flux.

Information behavior.

Information behavior is "the many ways in which human beings interact with information, in particular, the ways in which people seek and utilize information" (Bates, 2009, p. 2381).

Information behavior is the many "activities a person may engage in when identifying his or her own needs for information, searching for such information in any way, and using or transferring that information" (Wilson, 1999, p. 249).

For the purposes of this research, information behavior is defined as the ways in which individuals interact with information, in context.

Information seeking (IS).

Information seeking (IS) is the information behavior that "arises as a consequence of a need perceived by an information user, who, in order to satisfy that need, makes demands upon formal or informal information sources or services, which result in success or failure to find relevant information" (Wilson, 1999, p. 251).

Information utilization (IU).

Information utilization (IU) is the use to which people put information, which they have either actively sought and acquired or passively come upon and absorbed (Todd, 1996).

Note: After a careful review of the literature on what constitutes information utilization, noticing that the terms information use, information utilization, knowledge use, and knowledge utilization are used interchangeably, and consistent with previous work in human information behavior, only the term information utilization will be employed in this study. It will distinguish between the *doing* as either a process or an end result, as either a behavioral or a cognitive doing, and classified as an instrumental, a conceptual, or a symbolic utilization (Todd, 1996). Overall, the concept of information utilization is vaguely defined and a diversity of definitions is extant in the literature (Kari, 2010).

Language Choice Event (LCE).

Language Choice Events (LCEs) are episodes of language selection by bilinguals, during their information seeking and utilization behaviors.

Narrative identity.

"Narrative identity is the view of self in relation to others and the social, as told through stories" (May, 2004b, p. 77).

"Narrative identities are invariably social constructions. Individuals construct their identities with the help of ontological narratives, in which they position themselves in relation to the grand narratives in their society" (May, 2004b, p. 77).

Narrative inquiry.

"Narrative inquiry, the study of experience as story [is] first and foremost a way of thinking about experience" (Clandinin et al., 2007, p. 22).

> It "is a collaboration between researcher and participants, over time, in a place or series of places, and in social interaction with milieus. An inquirer enters this matrix in the midst and progresses in this same spirit, concluding the inquiry still in the midst of living and telling, reliving and retelling, the stories of the experiences that make up people's lives, both individual and social" (Clandinin and Connelly, 2000, p. 20).

This chapter has stated the focus of this research study, asserted the reasons why the study is timely and worthwhile, and defined key terminology to be employed throughout the dissertation text below.

CHAPTER 2: THEORETICAL FRAMEWORK & LITERATURE REVIEW

META-THEORETICAL AND THEORETICAL LITERATURE

The present research study is founded upon the theories of social constructionism and symbolic interactionism, is informed by the philosophy of language and the history of linguistics, and is inspired primarily by notions pertaining to Everyday Life Information Seeking (ELIS) and andragogy, while always acknowledging and focusing upon the central role of language in society and human civilization.

The purpose of this chapter is to provide a brief overview of the history of linguistics that is relevant to this study and to outline the meta-theories and theories – social constructionism, symbolic interactionism, and Everyday Life Information Seeking (ELIS) – which are at the foundation of this research.

In view of the fact that this research project is focused upon the information behaviors of adult individuals, who are bilingual, this chapter begins with a succinct overview of the history of linguistics.

A brief history of linguistics.

In ancient Greece, Plato was first to observe the distinctions between letters and syllables and verbs and nouns (Ryle, 1960). But it was not until 1786, that Sir William Jones posited the notion of a proto-language (Fournet, 2011), ushering in the era of comparative grammars, followed by the so-called Neogrammarians or Young Grammarians, in the late Nineteenth Century, who discerned the principle of regular

sound correspondences among languages and regular sound changes over time (Porkhomovsky, 2016), bringing us to the Twentieth Century, when Ferdinand de Saussure, often regarded as the Father of Modern Linguistics, introduced the concept of structural linguistics (Saussure, 1959), only to be himself challenged by Noam Chomsky and his ideas, among others, of generative grammar, universal grammar, and the distinction between competence and performance (Everaert et al., 2015).

Furthermore, given the advent of the linguistic turn in the Twentieth Century, with Saussure, Wittgenstein, Foucault, Derrida, Rorty, and their ilk, at its helm, language has become increasingly problematic in both the humanities and the social sciences, spawning a wealth of ideas, ranging from the communicative competence of Dell Hymes (Johnstone & Marcellino, 2010), to the cultural dexterity of Sheryll Cashin (Cashin, 2013) and the intersectionality of Kimberlé Crenshaw (Collins, 2015). What the aforementioned thinkers share in common, as one reads their works, is the recognition that the phenomenon of language is fundamentally a social phenomenon.

Controversies abound and many questions remain unanswered as one delves into the present research study of the information behaviors of adult bilinguals. Regardless of which linguistic epoch or paradigm one ponders, however, one notices how the addition of a bilingual dimension engenders intriguing queries and complications. To illustrate how this plethora of linguistic paradigms might impact the present study of the information behaviors of adult bilinguals, consider how Saussure's (1959) notions of signifier, signified, referent, and sign would need to be adjusted to account for the bilingual. To wit, what would happen when two speech communities, represented by the two languages of a bilingual, coexist within that bilingual? Dog and chien may be

equivalents in English and French, respectively, but they have connotations and usages, that are sometimes quite distinct. Consider the idiomatic expression "sick as a dog," for instance, which might be equivalent to "malade comme un chien," but there is no French expression "chien mange chien" to match "dog eat dog;" instead, one might use "panier de crabes" (a basket of crabs), to express the same idea. This example is indicative of the socially, culturally, and historically constructed nature of languages, wherein Saussurian delineations are inadequate.

Intersecting fields pertinent to this study.

If one were to conceive of the meta-theoretical and theoretical structures upon which this dissertation on the information behaviors of adult bilinguals was based as a tree, then one would discern, at its roots, existential phenomenology entwined with American pragmatism and the philosophy of language; at its trunk, the social constructionism of Peter L. Berger and Thomas Luckmann and the symbolic interactionism of George Herbert Mead and Herbert Blumer; and, at its branches, the scholarship of Reijo Savolainen, Kimmo Tuominen and Sanna Talja, together with the works, among others, of Jerome S. Bruner and his notions pertaining to narrative construction, of Elfreda Chatman and her small worlds and life in the round, Ross J. Todd and his information intents, and Marcia J. Bates and her berrypicking; as well as the andragogy of Malcolm S. Knowles, the bilingualism of François Grosjean, the communities of practice of Etienne Wenger, the deschooling of Ivan Illich, the hierarchy of needs of Abraham H. Maslow, and the zone of proximal development of Lev Vygotsky. It is further argued here that the fields of education and information science are entwined. Learning results from information seeking and utilization.

Figure 1 depicts the three overlapping areas of this study. Within this Venn diagram, the horizontal gridlines indicate that it is mainly focused on the area where human information behavior (HIB) and adult bilingualism overlap and the vertical gridlines added atop the horizontal lines further emphasize that the particular areas of anticipated research relevant to this study pertain to adult learning within bilingual information science.
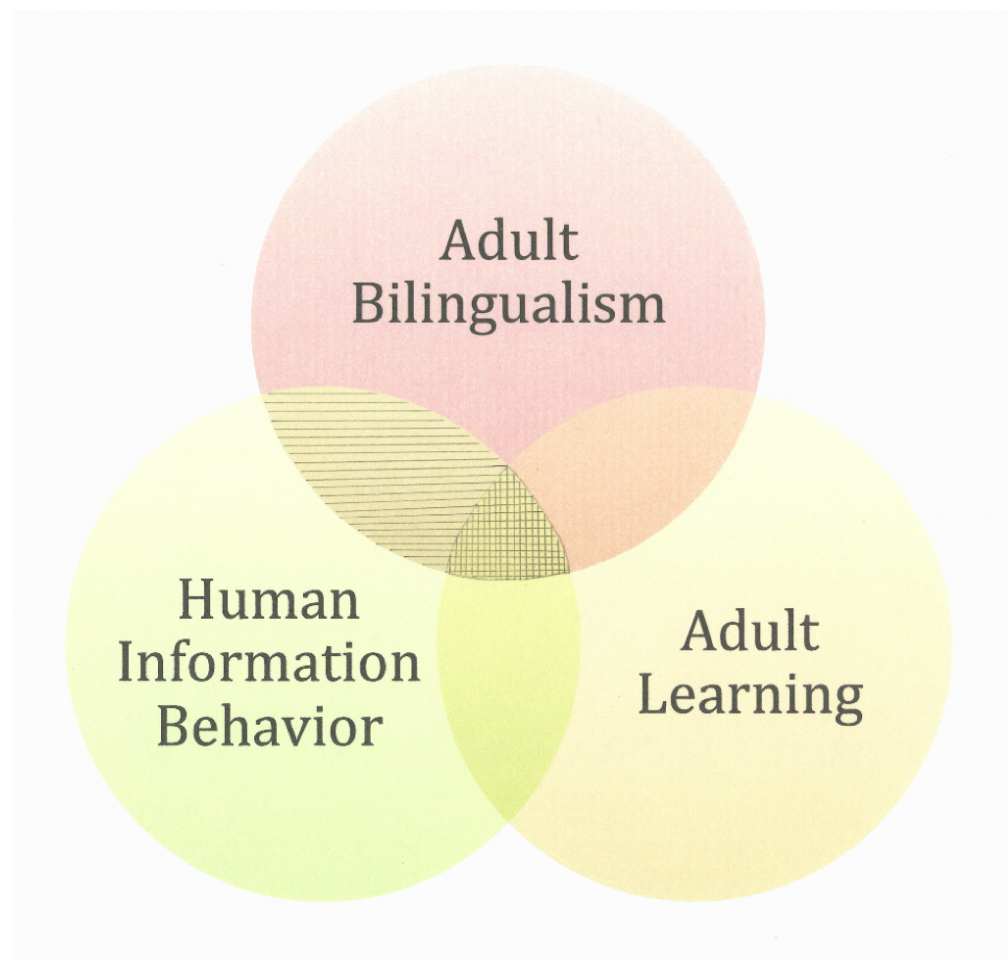
Figure 1. Intersecting fields pertinent to this study: HIB & Adult Bilingualism (horizontal lines); HIB, Adult Bilingualism, and Adult Learning (horizontal + vertical lines)

Finally, worthy of note is the fact that this research study will not pursue the wider aspects of learning among adult bilinguals, such as with non-native language acquisition and ELL (English Language Learning), but might consider learning outcomes that result during the processes of the information behaviors of adult bilinguals, especially along the lines of lifelong learning and self-education, because these issues are constitutive of information utilization.

Social constructionism and symbolic interactionism.

This study reflects a paradigm of human information behavior, which underscores the centrality of society, with social constructionism and symbolic interactionism as its meta-theoretical foundations. It is argued here that the generation, seeking, and utilization of information are social and collective behaviors. As Patrick Wilson (1983) would have put it, this research study uses the lens and perspective of social constructionism and symbolic interactionism, and takes an intellectual approach that joins these two philosophies. The former does so at a macro-sociological level and the latter, at the micro-sociological. Thus, they complement each other.

The work of Berger and Luckmann (1967) is seminal to social constructionism as a meta-theoretical set of assumptions. It asks: How do we come to know reality? What are the processes that turn a body of knowledge into a socially established reality? According to Berger and Luckmann, human beings experience everyday life as a taken-for-granted, ordered, pre-established, and shared reality, as they interact with one another in typical patterns, generating social structures (Berger & Luckmann, 1967). These subjectivities become objectivated in products (such as tools) and, more importantly, in

signs (such as language).

Language, as an immensely variable and complex sign system, is a crucial objectivation. It has the power to build up semantic fields, zones of meaning, classification schemes, and objectivated and selectively retained biographical and historical accumulations. It is these accumulations and sedimentations that constitute the shared stocks of knowledge of human societies. Furthermore, habits help humans deal with everyday life and such individual habitualization eventually leads up to societal institutionalization (Berger & Luckmann, 1967).

Institutions arise, over time, as actor types are matched with action types: Actor x performs action y; institutions allow actors to predict one another's actions; actions beget identity; and the accumulation of actions constitutes the social self. Once institutions are well established, their meanings must be taught to all future actors, via an educational process. The institution hardens during transmission and becomes a coercive reality (Berger & Luckmann, 1967).

In addition to the problem of integrating meanings, there is the problem of legitimating some roles over others. Conflicts will erupt. Methods of legitimation will vary. Divisions of labor arise, with insiders and outsiders – as in doctors versus patients (Berger & Luckmann, 1967). Wilson (1983) would add that some individuals would influence and convince others.

In order to legitimate institutional order and individual biography, society generates symbolic universes (SUs). SUs are matrices of the integrated totalities of subjectively real, objectivated and social meanings. Even though they are merely social

products with histories, SUs are presented as inevitable. Identity, when placed within a SU, is legitimated. At an even higher level, reification renders the objectivated world supra human, endowing it with presumed religious or spiritual legitimacy – as being divinely constituted (Berger & Luckmann, 1967).

According to Mead (1934), the self is formed as a result of a period of biological and social development, during which the natural and human environment are mediated by significant others. Certain individuals – Mead's "I"s – establish the institutions. Everybody else then simply inhabits the taken-for-granted SU. All SUs are incipiently problematic, because all social phenomena are constructions and all institutions have tensions. In addition, the transmission of a SU is intrinsically problematic, because socialization is imperfect and humans are idiosyncratic. An even greater challenge arises when the SUs of two distinct societies collide and need to be reconciled. In the final analysis, all SUs or Mead's "Me"s are human creations. They are created by individuals, that is, Mead's "I"s (Berger & Luckmann, 1967).

All realities are socially constructed and all social reality is precarious. Institutionalization is reversible. Sectors can get deinstitutionalized, as Illich (1971), with his vision of deschooling society, observes. De-reification occurs when objectivations are challenged, such as when segregated societies merge (Berger & Luckmann, 1967).

Mead (1934) contends that socialization – the induction of an individual into society – begins in childhood with primary socialization, where the significant others in the life of the child are at the helm. The child identifies with the significant others. The roles and attitudes of the significant others are abstracted to what he calls "the

generalized other" (Mead, 1934, p. 154).

When a consciousness of the generalized other is crystalized, society itself is internalized, as language is internalized, simultaneously. Language constitutes the most important vehicle as well as the most important content of this internalization. The specific contents of internalization vary with language and institutionalized programs. These programs differentiate one's identity from others'. One can see how bilinguals get two or more of these. Primary socialization is and remains both incomplete and imperfect (Mead, 1934).

Secondary socialization becomes necessary because societies have divisions of labor and distributions of knowledge. Secondary socialization, therefore, is necessary for the internalization of the consequent sub-worlds, with their attendant semantics and affective components (Mead, 1934). In fact, Wittgenstein (2009) has quite a bit to say about this, with his dual notions of language games and forms of life. Confusion and miscommunication are engendered, when individuals socialized secondarily into certain forms of life – such as with subject-area specializations – misinterpret the communications of other individuals, socialized secondarily into other forms of life. For adult bilinguals, the two or more forms of life, corresponding to their two or more languages, would add another layer of complexity.

Because socialization is never complete, society must continuously maintain, safeguard, and transform subjective reality. In reality maintenance, one can also distinguish between significant others and less important others. The significant others are the principal agents for the maintenance of one's subjective reality (Berger &

Luckmann, 1967).

Conversation is the primary instrument of reality-maintenance. While speech occupies the privileged position in communication, most reality-maintenance is, in fact, implicit. Thus, conversation has a taken-for-granted world as a backdrop. "Language realizes the world, in the double sense of apprehending and producing it" (Berger & Luckmann, 1967, p. 153) – a Whorfian notion of linguistic relativity, involving a move away from positivistic and essentialist views of the world and toward more process-oriented and phenomenological notions of how language influences understandings of reality (Subbiondo, 2005).

Successful socialization entails the establishment of symmetry between subjective and objective realities, as well as the creation of an identity. Dialectic between society and individual begets identity. Thus, not only do social processes produce identities, but also identities impact social structures and potentially modify them. Human history is replete with individuals, who have reshaped society (Berger & Luckmann, 1967). Even after an individual is essentially socialized, remaining within is a biological substratum in an ongoing internal dialectic with society.

In an opinion survey of sociologists conducted at the turn of the century by the International Sociological Association, this seminal work of Berger and Luckmann (1967) was voted as the fifth most influential sociological book of the twentieth century (International Sociological Association, 1998). Among the many notable scholars who have built upon this work is Kenneth Gergen, who asserts that the confluence of the works of Wittgenstein (2009) and those influenced by him in the larger context of literary

theory, the works of Foucault (1978) and those influenced by him in the larger context of

critical theory, and the works of Kuhn (1970) and those influenced by him in the larger

context of social theory, bring us up to our more current conceptions of social

constructionism (Gergen, 2008; Gergen, 2015).

Another scholar worthy of note in this same vein is Norman Denzin, whose notion

of critical performance pedagogy, for instance,

"leads to an examination of the ways in which everyday language and the ideologies of
culture are used to instill compliance with the needs of global capital. The intent is to
produce spectacles of resistance that challenge the local power structures that circulate
in the media, in schools, and in the market place. The goal is to create a critical
consciousness that leads empowered citizens to take action in their neighborhoods and
communities" (Denzin, 2010, p. 63).

Thus, Denzin adds political color to current thinking in social constructionism and

his ideas have implications for information science, educational research, and other

realms.

According to Mead (1934), experiences are inaccessible, whereas attitudes appear

as the beginnings of acts. Humans do not function on the basis of stimulus-response.

Instead, they analyze the field of stimulation, pick out a stimulus or only an aspect of a

stimulus, hold on to the response that belongs to it, combine that response with other

responses or break them up into parts, create possible response chains, and then select a

course of action, from among the multiple chains imagined. By controlling the stimulus,

humans control the response, thereby achieving foresight and choice. Attention supplants

association in psychology. Gestures are intended to indicate subsequent behaviors

(attitudes) to others, thereby adjusting the responses of others, provided that they

understand the meanings of the gestures. Over time, social groups develop a shared

universe of mutually understood gestures. Such gestures constitute a set of significant symbols, which are rendered more efficient and effective in language (Mead, 1934).

The vocal gesture is unique. Language selects and indicates stimuli. It makes it possible for us to pick out responses and hold onto them. Language implicitly arouses the same response in the speaker as the response the speaker expects to explicitly arouse in the listener. What is peculiar and crucial in human communication is that humans can take the role of others when communicating, thereby directing and controlling their process of communication and greatly enhancing cooperative activity. The taking of the attitude of the other toward one's self and one's behavior makes mind, self, thought, language, and consciousness possible (Mead, 1934).

What distinguishes intelligent behavior from mere reflex is the weighing of future alternatives in determining present action. It is this reflection, which distinguishes us from animals. For this weighing of future alternatives to occur, a delayed response is essential. If one must act immediately, one cannot have the time to go through the alternatives in one's mind and to select an action. Intelligence is the ability to solve present problems in consideration of the past and the future and by taking the attitude of the other toward oneself (Mead, 1934).

Language develops the self, by arousing the same response in speaker as in listener. Elementary selves gradually constitute a complete self. The various aspects of the self reflect the various structures of the social process (Mead, 1934). Children invent imaginary companions and play by taking on different roles. But when it comes to a game, the child must have the capacity to take on the attitude of all the players involved

in the game. "The organized community or social group which gives to the individual his unity of self may be called 'the generalized other'" (Mead, 1934, p. 154). The self is an ongoing social process involving the "I" and the "me." Thinking is the carrying on of an inner dialog between the "I" and the "me." "The 'I' is the response of the organism to the attitudes of the others; the 'me' is the organized set of attitudes of others which one himself assumes" (Mead, 1934, p. 175). The generalized other controls the conduct of the individual. The organized attitudes of the group lead the individual to govern his conduct accordingly. However, individuals do get their day in court. They do alter the attitudes of their communities, thereby effecting social change (Mead, 1934).

Using the hand to isolate physical objects is as important in the evolution of human society as speech. One might say that, in humans, speech and hand go hand in hand, because "there has to be some phase of the act which stops short of consummation if that act is to develop intelligently" (Mead, 1934, p. 237). We pick things up; then, before doing something with them, we first manipulate them. This delay stimulates thinking. Other animals control and manipulate their environment, too, but the extent of manipulation and control are far more pervasive in humans (Mead, 1934).

Institutions comprise organized and generalized social activities and attitudes and common responses or certain ways of doing things (Mead, 1934). Mead does not address information science directly. Perhaps that is why the field largely ignores him. However, his insights are both fundamental to information science and complementary to social constructionism. Information and knowledge are created in a social process, where selective attention based on what is deemed meaningful by the group comes to constitute the common knowledge of that group, with language playing a key role in this process of

consensus building.

Blumer (1969) derives three fundamental premises of symbolic interactionism from the work of Mead, namely, "Human beings act toward things on the basis of the meanings that the things have for them; the meaning of such things is derived from, or arises out of, the social interaction that one has with one's fellows; meanings are handled in, and modified through, an interpretive process used by the person dealing with the things he encounters" (Blumer, 1969, p.2). He later adds a fourth, "The complex interlinkages of acts that comprise organization, institutions, division of labor, and networks of interdependency are moving and not static affairs" (Blumer, 1969, p. 50).

Blumer (1969) further asserts that symbolic interactionism is founded upon six basic ideas, namely, the natures of group life (where society consists of actions), of social interaction (where society comprises interacting individuals), of objects (where society constructs a world of objects with shared meanings), of humans as actors (whereby humans make indications to others and interpret others' indications by having a self), of human actions (whereby humans first make indications to themselves, interpret the situation, and then construct, select, and guide their actions), and of the interconnections of actions (where, upon making indications and interpretations, selves coordinate their acts jointly). Some joint actions are stable, clearly understood, and repetitive, thereby creating a social order and complex chains of actions beget institutions.

Perhaps Blumer (1969) – pursuant to Mead (1934) – lays a foundation for the Everyday Life Information Seeking (ELIS) of Savolainen (2005), when he states,

"A society is seen as people meeting the varieties of situations that are thrust on them

by their conditions in life. These situations are met by working out joint actions in which participants have to align their acts to one another. Each participant does so by interpreting the acts of others and, in turn, by making indications to others as to how they should act" (Blumer, 1969, p. 72).

Objects in the environment do not specify what they ought to mean. It is a group of individuals, a society, which brings meaning to each object. Thus, a community, via consensus, determines what objects in the environment end up meaning. Different communities decide differently and a variety of social constructions result. The prime means for creating social constructions is symbolic interaction – which amounts to mainly human communication, using language. Information scientists must be cognizant of these variations in social construction and recognize that, even when value neutral in their interactions with users and even when willing to meet users on their turfs, users – for instance, bilingual users – will often come to them with more than one set of social constructions. Comprehending, as best they can, where a user is coming from is, therefore, key to a fruitful interaction.

There is theatricality to the reference interview (Goffman, 1956), wherein an information professional plays the role of a cognitive authority. But at a deeper linguistic level, a language game is being played, as Wittgenstein (2009) would say.

Symbolic interactionism as microsociology complements social constructionism as macrosociology. In Mead's "I" and "me," the creative and individualistic self (I) – in contradistinction to the social self (me) – helps explains how social change and progress are wrought. In this manner, social constructionism and symbolic interactionism complement and complete each other, in that the former explicates the social dimension fully, while the latter explores phenomena at the level of the individual. The present study

requires both perspectives, in order to achieve a comprehensive view of the information behaviors of the adult bilingual.

In sum, individuals tend to act jointly. To act jointly, they must align their actions. To align their actions, they must interpret the actions of others and must influence others, by making indications to them as to how to act. There is a dialectic between individual and society. Individuals both respond to the attitudes of others and alter attitudes within their communities, thereby reshaping groups and societies. By exploring phenomena at the level of the individual, the symbolic interactionism of Mead complements social constructionism and helps explain social change. Information, knowledge, and social structures are generated and constructed by individuals, who derive meaning through symbolic interaction with one another, primarily through the use of language. Given their knowledge of two or more languages, bilinguals have access to two or more sets of social constructions.

Everyday Life Information Seeking.

Savolainen (2005), whose Everyday Life Information Seeking (ELIS) is founded upon social constructionist ideas, states that the creation of the ELIS model was motivated primarily by a need to address sociocultural factors in human information behavior and secondarily by a need to address all information seeking behaviors – not just the peculiar, but the quotidian. Thus, socioculturally shaped thought processes, perceptions and value systems, internalized by the members of a society, influence the choices and information behaviors of individuals within that society.

For his part, Savolainen (2005) uses two phrases, namely, way of life and order of

things. They amount to an individual's preferred activities, experienced as being normal and meaningful. Such normalcy does get occasionally disrupted, however, in which case it is up to the individual to re-establish order by wielding mastery-of-life and problem-solving skills, guided by values, which are socioculturally shaped. It is here that the information seeking element, of central interest to information science, enters the ELIS model, as part and parcel of mastery of life, rectifying the incongruence between the way things are and the way they ought to be.

This characterization of the essence of information seeking is in line with the sense-making of Dervin (1992), the information intents of Todd (2005), and the Anomalous States of Knowledge (ASK) of Belkin (1982), but with a decidedly strong social dimension added. Furthermore, Savolainen (2005) cautions that preferences alone do not determine how one seeks information. Preferences provide general criteria only. It is the features of a specific situation (such as the availability of a source or the acuteness of a problem) that determine the information behavior that results.

Finally, Savolainen (2005) acknowledges that, his model notwithstanding, much qualitative research is needed to fully comprehend the nuances and complications of these phenomena and arrive at what Geertz (1973) calls thick descriptions. He also suggests that discourse analysis might be fruitful, in this regard, which links with Goffman's (1956) ideas on the presentation of self in everyday life, in that his dramaturgical approach characterizes social interactions as performances of roles, wherein individuals use all the cultural tools at their disposal to make a certain desired impression on others, and thereby – possibly – compromising their genuine purposes in information seeking and utilization.

Savolainen (2005) pays tribute to Chatman (2000) and characterizes her theory of normative behavior as being related to ideas that have inspired ELIS. The present effort examines Chatman's models and theories primarily in order to ensure that the forces she has identified as being detrimental to desirable information seeking behavior are not allowed to play havoc with the virtual small worlds, toward the creation of which this research project is aimed, longer term. The idea is to be cognizant of and vigilant about social norms and types, as well as worldviews, deception, secrecy, and so on, which might all vitiate the information behaviors of adult bilinguals, participating in healthy and productive online affinity groups.

After acknowledging the seminal work of Dervin and Nilan (1986), which heralded the transition from a system-centric to a user-centric paradigm in information science, Talja (1999) goes further and underscores how historically and socially embedded all objects of information research are. She advocates for a more interpretative approach, where sociocultural values and meanings, which shape the context within which an individual information seeker and user acts, are key to our understanding of human information behavior. Similarly, Tuominen and Savolainen – upon lauding Dervin's (1992) sense-making theory for supporting social constructionist viewpoints, in that she holds out the possibility of studying "information use as constructive action" – assert that one ought to go further and study "information use as discursive action" (Tuominen & Savolainen, 1997, p. 81). The present study appreciates this emphasis, because the emphasis embraces the centrality of language and communication in the study of human information behavior, in general, and in the study of the information behaviors of adult bilinguals, in particular.

The perspective from bilingualism.

A *fractional* view of the bilingual asserts that "the bilingual has (or should have) two separate and isolable language competencies; these competencies are (or should be) similar to those of the two corresponding monolinguals; therefore, the bilingual is (or should be) two monolinguals in one person" (Grosjean, 1992, p. 52). This view is eschewed by Grosjean, who proposes instead a *holistic* view of the bilingual, asserting that

> "the bilingual is an integrated whole which cannot be decomposed into two separate parts. The bilingual is NOT the sum of two complete or incomplete monolinguals; rather, he or she has a unique and specific linguistic configuration. The co-existence and constant interaction of the two languages in the bilingual has produced a different but complete language system." And "The bilingual is a fully competent speaker-hearer; he or she has developed competencies (in the two languages and possibly in a third that is a combination of the first two) to the extent required by his or her needs and those of the environment. The bilingual uses the two languages – separately or together – for different purposes, in different domains of life, with different people. Because the needs and uses of the two languages are usually quite different, the bilingual is rarely equally or completely fluent in the two languages. Levels of fluency in a language will depend on the need for the language and will be extremely domain specific" (Grosjean, 1992, p. 54-55).

As Patrick Wilson (1983) might have observed, a bilingual sees the world through a hybridized lense, colored by a unique sociolinguistic amalgamation.

The above paragraph raises at least two questions, pertinent to human information behavior and relevant to this study: a) how does this third, combination language system come into play in the information seeking and utilization behaviors of adult bilinguals and b) in information seeking and utilization, which purposes, domains, and people corresponding to each of an adult bilingual's accessible languages come into play when, why and how? As instances of language selection by bilinguals, during their information

seeking and utilization behaviors are studied and analyzed in this research study, it is these types of questions, to which answers will be sought.

Bates (2002) not only integrates the twin information-searching and information-seeking models, but goes further and strives to integrate the twin models into the layers of life, be they physical, chemical, geological, astronomical, biological, conative, cognitive, affective, social, historical, anthropological, esthetic, or spiritual. Such a holistic and comprehensive approach holds great appeal.

Perhaps one manner of adapting the many theories and models of human information behavior to the information behaviors of adult bilinguals is to append the element of a multiplicity of sociocultural dimensions to each. Thus, in the case of Chatman (1999), this would beget lives in multiple rounds; for Todd (2005), complete pictures, changed pictures, clearer pictures, verified pictures, and positions in pictures; for Sonnenwald (1999) and her notion of information horizon, linguistically and socioculturally broadened information horizons, and so on. The next step would be to attempt to understand the processes, inherent in reconciling these multiple perspectives in their minds, bilinguals will face. Similarly, the berrypicking model of Bates (1989), which is essentially two-dimensional – by way of analogy, a relatively flat berry patch, upon which an information seeker roams – would need at least a three-dimensional space, wherein seekers can switch, if you will, from one patch to another.

As for knowledge itself, it is created in a social process, where selective attention, based upon what is collectively deemed meaningful to a group, is compiled to constitute the common knowledge of that group, with language playing a key role in this process of

consensus building (Berger & Luckmann, 1967). Adult bilinguals not only straddle at least two such communities, but also do so in two or more languages. As such, they constitute a fertile ground for the exploration of symbolic interactionist and social constructionist perspectives on human information behavior. Much research remains to be done on how adult bilinguals, in their everyday lives, navigate their two or more linguistically and culturally constructed social realities in their attempts at sense-making; how they decide which social reality to inhabit, reference, or address when; how they reconcile their realities when they become discrepant; how they translate constructed notions from one sociocultural context into another, and so on.

No information carries the same meaning for everyone, everywhere, and at all times. Berger, Luckmann, Wittgenstein, Mead, Wilson, and others have all, in various ways, pointed out this context-induced variability of the meaning of the same information. Information must be qualified somehow, to alert the user as to its provenance and peccadilloes, and translated somehow, to become accessible.

Interconnecting multiple everyday lives, as described above, in such a way as to enable people to understand one another across the disparate realities thereby generated is no small feat. Bilingual information science is well suited to contribute to this effort. Once bilingual information science matures and achieves its requisite critical mass, it will usher in a new era in the social sciences.

RESEARCH LITERATURE

The purpose of this section is to provide an overview of the extant research on the information behaviors of adult bilinguals. The section examines ten core studies. They are reviewed and analyzed below. With the exception of the article by Rieh and Rieh (2005), the remaining articles, albeit suggestive of research paths forward, are tangential; notwithstanding the engagement of their researchers with what are likely bilingual subjects, they do not address the bilingual dimensions of human information behavior directly.

Table 1 below compiles the core research studies relevant to the information behavior of adult bilinguals, together with the research questions (RQs) posed by each study and the key findings corresponding to each study.

AUTHORS	RQs	KEY FINDINGS
Rieh and Rieh (2005)	"1) To what extent do bilingual Korean scholars conduct multilingual searches on the Web? 2) How do the Korean scholars decide which search engines to use when searching for multilingual information? 3) What preferences do the Korean scholars have for integrated multilingual search tools?" (p. 250)	Bilingual scholars select the language surmised to be most suitable to their information-retrieval task, express language-associated concerns about quality and reliability, and do not use search engines as bilingual tools. They use both Korean and English information sources, but they do not use available language-selection features during search sessions, using bilingual search engines as though they were monolingual, instead; they select the language at the outset only. Mostly, English was used for scholarly research (as scholars believed that their searches could be stated more

		accurately and that retrievals would be more abundant, credible, current, and novel) and they and Korean, for everything else. Scholars wished to see a feature wherein they would specify the display of retrievals as language-segregated or English-Korean integrated.
Sin and Kim (2013)	"1) What types of information needs are considered important by international student respondents? 2) How frequently do the respondents use SNS (social networking sites) for finding everyday life information? 3) How useful is the acquired everyday life information in helping respondents meet their everyday needs? 4) What are the relationships among individual characteristics (e.g., gender, age, level of study, and the five personality traits), SNS use for ELIS, and the perceived usefulness of the acquired everyday life information in meeting daily needs?" (p. 109)	Top five information needs are finance, health, news of one's home country, housing, and entertainment – suggesting that news of one's home country and entertainment at least in past be accessed in the bilingual's home-country language.
Khoir et al. (2015)	"1) What sorts of information do Asian immigrants need for their settlement in South Australia? 2) How do Asian immigrants seek information to satisfy their everyday needs? 3) Where do Asian immigrants usually meet and share information?" (p. 3)	Information grounds comprised virtual spaces (e. g., Skype), physical spaces (e. g., restaurants), associations or groups (e. g., churches), and social events (e. g., barbeques), suggesting that at least in some of these cases (e. g., social gatherings) information needs would be met via the native language.
Oh et al. (2014)	"1) How do new international students seek and acquire information during settlement in an unfamiliar environment? 1-1: What information is important to new international students? 1-2: What information sources are used to satisfy new international students' information needs?	Co-national students are tapped to serve as human information sources during the orientation of international students, suggesting that the native language was likely used in such communications.

	2) What factors affect information behaviors of new international students during their settlement? 2-1: Do social networks play a role in information behaviors of new international students? 2-2: Do information behaviors of new international students differ across different demographic characteristics?" (p. 2)	
Ishimura (2013)	"1) What factors are involved in Japanese students' information behavior during the research tasks? 2) What information literacy skills are present in their behavior?" (p. 21)	When seeking information, students experience English as an additional and time-consuming challenge.
Yoon and Kim (2014)	"1) What are the characteristics of Korean graduate students that influence online health information-seeking behaviors? 2) How do Korean graduate students seek and evaluate health information on the internet?" (p. 119)	Health information searches were sometimes conducted in Korean and sometimes in English. Korean families and friends became information sources. Those with higher English proficiency rated the usefulness of English information higher.
Singh et al. (2015)	"1) To find the awareness and use of library resources by the foreign students. 2) To identify the types and range of information resources used currently by the foreign students. 3) To investigate the availability of information resources that affects the information seeking patterns and communication process of foreign students. 4) To determine whether or not different kinds of information need leads to different information seeking behavior and communication channels. 5) To analyze the possible reasons for not using information sources, if any. 6) To understand the problems confronted by the foreign students while seeking information. 7) To suggest measures for enhancing the use of information sources." (pp. 28-29)	Foreign graduate students use information for their studies; research scholars use information for their research papers. Most use the Internet (databases, e-dissertations, and e-journals) and books.

Sin (2015)	"1(a) How frequently do the respondents use a variety of sources and channels (e.g., libraries, Web search engines, social networking sites, social question and answer sites, and family members) for their ELIS? 1(b) Do the uses of information sources differ by demographics (particularly by the gender-study level category and problem solving styles)? 2(a) How difficult is it to find information in various information domains (e.g., health, finance, and local news)? 2(b) Do the levels of difficulty differ by demographics? 3(a) To what extent is their ELIS affected by various problems (e.g., difficulties with computer systems, non-credible information)? 3(b) Do the levels of problem differ by demographics?" (p. 467)	For ELIS, top sources were "Web search engines, social networking sites, new friends, printed resources, and traditional mass media" (p. 466). Accessing everyday information was perceived to be more difficult than accessing academic information, with outdated, irrelevant, and non-credible information being top problems. Males were more reluctant than females to ask personal questions.
Chung and Yoon (2015)	"1) What are the information needs of international students in their everyday lives? 2) What information sources do international students use in their everyday lives? 3) What information devices do international students use in their everyday lives? 4) What are the characteristic relationships among information needs, information sources, and information devices?" (p. 38)	Academic information needs form a small part of the overall quotidian needs of international students. The type of information need influences the type of information source and the type of digital device used.
Adeyoyin and Oyewusi (2015)	"1) What are the health information needs of young adults in Ogun State, Nigeria? 2) How accessible are health information to young adults in Ogun state through media resources? 3) What are the sources of health information used by young adults in Ogun state Nigeria? 4) What is the frequency of use of media resources for health information by young adults in Ogun state Nigeria?	In terms of ranking health information needs, nutrition was highest, then water treatment, sanitation, and diagnosed medical conditions. Also needed were health information on pregnancy, abortion, and HIV/AIDS. Access was through textbooks, newspapers or magazines, radio, television, the Internet, and mobile phones. Religious

	5) What are the problems that hinder effective health information utilisation among young adults in Ogun state, Nigeria?" (p. 4)	beliefs against drug use hindered health information utilization.

Table 1. Core research studies relevant to the information behavior of adult bilinguals, their corresponding research questions, and key findings

An overwhelming majority of the empirical articles in the published literature

(90% of the articles reviewed here) have institutions of higher learning as their contexts.

The sole exception, the 2015 article by Khoir et al., may appear to be broader in scope, in

that its stated focus is on Asian immigrants, but it studies university-educated immigrants

by using university e-mail networks and a snowball sampling technique. Therefore, it

stands to reason that, given that only a small percentage of humanity is college educated

– 6.7 percent (Barro & Lee, 2010) – research findings derived from such studies will be

skewed and will not be representative of human information behavior, writ large. There is

a dire need for research, which covers much wider swaths of humanity. University

settings comprise rarified environments. One cannot help but surmise that it was simply

the convenience of conducting research on campus, while working on one's graduate

degree, that encouraged these scholars to conduct their research on these samples. Such

research, however, remains inadequate to satisfy the perspectives, which an ELIS

approach would require – that is, information seeking and utilization in mundane

situations and quotidian lives. Moreover, 100% of the articles reviewed here use either

questionnaires and/or interviews to gather data.

In 40% of the empirical-research articles, the researchers supplemented the data, which had been acquired via their questionnaires and/or interviews, with either a) photovoice – that is, photographs taken by the subjects and then collected for analysis (Khoir et al., 2015); b) cognitive mapping – a map drawn by the subject of the subject's neighborhood, marking top 5 places during his/her initial settlement, followed by another map drawn with the top 5 places marked, at the time of the experiment (Oh et al., 2014); c) research portfolios and flowcharts – wherein subjects would record their information behaviors, together with flow charts depicting their strategies and search steps taken (Ishimura, 2013), or d) online diaries – where subjects would keep a daily journal of their information behaviors (Chung & Yoon, 2015).

Whereas this study considers interview methods, in general, and narrative and biographical methods, in particular, to be the best means of attaining the thick descriptions necessary for gaining insights into the mysteries of the information behaviors of adult bilinguals, it would have been desirable to have access to extant research, which had used a much wider variety of approaches and methods to gather data, because were the methodological variations not to yield discrepant data, confidence in the veracity of congruent findings would have been higher.

Of the empirical studies included in this review, two relied on interviews only (Rieh & Rieh, 2005; Ishimura, 2013), two others on a combination of questionnaires and interviews (Oh et al., 2014; Khoir et al., 2015), and the remaining six on questionnaires only. Perhaps as a result of the heavy demands made by the interview method, sample sizes were significantly smaller when interviews (or questionnaires and interviews) were used – with sample sizes ranging from 8 to 28 subjects. In contrast, studies that used the

questionnaire method exclusively had significantly larger samples, ranging from 54 to 1,500. Compare the aforementioned with a study analyzing the integration of quantitative and qualitative data in the social sciences, which found that collecting data via questionnaires or structured interviews and mixing these with data collected via unstructured or semi-structured interviews was the predominant combinatorial research method in 57% of articles using mixed methods, published between 1994 and 2003 (Bryman, 2006).

Even though the thrust of their research is concerned with information retrieval rather than information behavior, Rieh and Rieh (2005) come closest to grappling with matters pertaining to the information behaviors of adult bilinguals (see Table 1). As they focus on multilingual web searching and on how users choose query-term and retrieved-document languages when searching, they find that their English-Korean bilingual university faculty and doctoral students select the language surmised to be most suitable to their information-retrieval task, express language-associated concerns about quality and reliability, and do not use search engines as bilingual tools.

While their bilingual Korean scholars used both English and Korean information resources, they did not utilize available language-selection features during search sessions; essentially, they used bilingual search engines as though the engines were monolingual. Language selection was made only at the outset, when subjects selected either a Korean-language or English-language approach, leading them into either Korean-language or English-language documents, respectively. Bilingual searches, per se, were not conducted. English-language searching was largely limited to searches related to their scholarly research projects – with 78.6% ($n = 22$) of subjects relying heavily on English-

language documents for their scholarly research – while Korean-language search engines were used for everything else, suggesting that what determined language choice was search-task type. When choosing English-language search engines, scholars did so because they believed that their search terms would be specified more accurately in English and because they believed that English-language documents would be more abundant, credible, current, novel – in a word, better than Korean-language documents (Rieh & Rieh, 2005). Furthermore, when asked about features they would wish to see made available in integrated bilingual searching, they expressed a preference for having more flexibility and control when reviewing their search results; for instance, they wished to control the presentation of their retrievals, such that they might display either English-Korean-integrated or language-segregated lists of search results (Rieh & Rieh, 2005).

In the remaining literature, only hints and clues suggestive of the need for further exploration are offered. Thus, given that the top five everyday life information needs of international students at a large public university in the United States were finance, health, news of one's home country, housing, and entertainment, "news of one's home country," at a minimum, would likely be accessed at least in part in the international student's home-country language. The same would likely apply to at least a portion of the information on "entertainment" that is accessed (Sin & Kim, 2013).

In pursuing their research question (see Table 1), "Where do Asian immigrants usually meet and share information?" Khoir et al. (2015) find that their information grounds comprised virtual spaces (e. g., Skype), physical places (e. g., restaurants), associations or groups (e. g., churches), and social events (e. g., barbeques). It would be reasonable to expect that, if nowhere else, then at their association or group information

grounds and at various social gatherings, Asian immigrants would likely satisfy their everyday life information needs, at least in part, using their native language. However, the article presents no data, in this regard.

Similarly, when Oh et al. (2014) speak of their subjects – international students at the University of Maryland – using co-national students as human information sources during settlement in the United States, these international students would probably prefer to use their shared native language during their communications. Exploring the impact of this presumed preference on information behavior should be quite rewarding. However, the authors do not offer any information on this aspect.

At issue is the fact that the research questions selected by the investigators are not focused on bilingualism, per se (see Table 1). To wit, for the 54 Korean graduate students at eight United States universities surveyed, the top source of health information was the Internet, with 70.4% ($n = 38$) saying that they sometimes conducted searches in Korean and 66.7% ($n = 36$) saying that they sometimes did so in English, and with 61.1% ($n = 33$) saying that they used Korean families and Korean friends as sources, as well. These statistics suggest that their information behavior was involved with both of these languages. Moreover, 32% ($n = 16$) stated that they experienced English as a language barrier to obtaining health information. Perhaps most intriguing was the revelation that a significant correlation was found between perceived usefulness of online health information and English proficiency, with those with higher-English-proficiency rating the usefulness of the obtained health information higher. For 36% ($n = 18$) of respondents, among the most compelling reasons for searching on the Internet was the availability of the information in Korean, and Naver – a South Korean Web portal, with a

proprietary search engine – was the engine used most frequently. These percentages point to the significant role that bilingualism can play in information behavior (Yoon & Kim, 2014).

Underscoring the importance of studying ELIS is the work of Chung and Yoon (2015), who find that information needs, which might be characterized as academic, form a small part of the overall quotidian information needs of international students. In addition, they find that the type of information need influences the type of information source and the type of digital device used. Further research is needed to ferret out these intricate correlations, especially vis-à-vis language choice.

It has been noted that information that is too difficult to obtain often discourages humans from engaging in its pursuit. Ishimura (2013) finds that, when it comes to time allocation, Japanese-born students, now undergraduates at Canadian universities, experience English as an additional and time-consuming challenge. Assessing the impact of this additional barrier on English Language Learners (ELLs) is worthy of exploration.

The aforementioned extant research appears to suggest that researchers have data on the information behaviors of adult bilinguals within their reach, yet they opt not to collect or analyze it. The prospect of gathering such rich and thick data is inviting. It is quite evident that significant gaps remain in the field of the information behaviors of adult bilinguals. Most importantly, as Chatman's (1999) work and theorization has amply demonstrated, research on the information behaviors of adult bilinguals must include samples from a wide variety of population segments, in order to yield the thick descriptions (Geertz, 1973), which are necessary to understanding complex and

historically and contextually rich phenomena.

Table 2 presents the methods used in the empirical studies reviewed in this section, together with their corresponding sample counts. As the means clearly indicate and as would be expected, once labor-intensive interviews become involved (with or without questionnaires), the sample counts are reduced by more than a factor of 5 (from a mean of 99 to a mean of 18) – even after considering the 1,500-questionnaire count of the Adeyoyin & Oyewusi (2015) article an outlier and eliminating it.

STUDY AUTHORS	METHODS & PARTICIPANT COUNTS		
	Questionnaire Only	Questionnaire+Interview	Interview Only
Rieh and Rieh (2005)			28
Sin and Kim (2013)	180		
Khoir et al. (2015)		16	
Oh et al. (2014)		20	
Ishimura (2013)			8
Yoon and Kim (2014)	54		
Singh et al. (2015)	88		
Sin (2015)	112		
Chung and Yoon (2015)	60		
Adeyoyin and Oyewusi (2015)	1,500		
Total	1994		
Mean numbers of participants	(− Adeyoyin=outlier) **99**	**18**	**18**

Table 2. Methods used in key research studies and their corresponding participant counts and means

Measuring bilingualism.

Pinning down the various parameters of bilingualism is challenging, because bilingualism is a highly complex and multifaceted phenomenon. Before one can determine whether an individual is bilingual, one must determine whether the two or more languages, which that person uses, are separate and distinct or merely two or more dialects of the same language; one must also define and decide whether, for example, a particular set of two dialects used by an individual qualify that individual as a bilingual. With so many languages and dialects in contact (Wheeler, 2015), a lack of consensus on what is a dialect and what is a language is the primary reason why estimates of the total number of languages in the world vary greatly, ranging from lows in the 3,000s to highs in the 7,000s (Baker & Jones, 1998).

In addition, key components of bilingualism in need of measurement, including competence, processing ability, and psychosocial factors (such as attitudes toward languages) fluctuate over time. The extent of bilingualism within an individual – such as with the languages and dialects used, fluency, code-switching, interference, borrowing, and biculturalism – waxes and wanes over the years (Grosjean, 2010).

Several instruments taking on this assessment challenge have been devised and the prominent four among them are the Bilingual Language Profile, BLP (Birdsong et al., 2012), the Language Experience and Proficiency Questionnaire, LEAP-Q (Dunn & Fox Tree, 2009), the Bilingual Dominance Scale, BDS (Marian et al., 2007), and the Self-Report Classification Tool, SRCT (Lim et al., 2008).

Of the aforementioned assessment instruments, BLP is the best, by far, due in part to the fact that it had the benefit of adopting the best features and avoiding the shortcomings of the other three instruments, that preceded it (Gertken et al., 2014). Hence, its adoption and incorporation, with very minor adaptations (substituting "Armenian" for "Arabic"), into the present research study (see Appendix B). BLP comes in both paper-and-pencil and online formats; none of the others offer an online option, being either paper-and-pencil only (SRCT) or adding the option of oral administration to the paper-and-pencil format (in the case of the BDS) or a writeable PDF format (in the case of the LEAP-Q). BLP is also self-scoring; none of the others are, requiring instead either manual scoring (in the case of the BDS and the SRCT) or lacking a scoring procedure altogether (in the case of the LEAP-Q). In addition, BLP features a scoring system with four equally weighted modules, whereas no scoring procedure is identified in LEAP-Q, language-score differences along three dimensions are assigned points in SRCT, and each item is separately weighted in BDS. Furthermore, BLP comprises 19 items (versus 31 for the LEAP-Q, 24 for the SRCT, and 12 for the BDS) with all-scalar, multiple-choice responses, whereas the others have either no or only some scalar responses, incorporating also fill-in-the-blank, pull-down-menu, and rankings responses. Finally, with its completion time of under 10 minutes, BLP is well positioned among the other three options of 15 to 25 minutes for the LEAP-Q, and under 5 minutes, for the SRCT and the BDS. Worthy of mention is the fact that BLP generates both a continuous dominance score and descriptive profiles for each of its four modules, whereas BDS and LEAP-Q yield only a continuous dominance score or a descriptive profile, respectively, and the SRCT generates only discrete dominance groupings (Gertken et al., 2014).

Pilot study.

The present researcher conducted a pilot study, in anticipation of the present study. This pilot study replicated the work of Rieh and Rieh (2005), whose research questions (adapted to this pilot) were: RQ1. "To what extent do [adult bilinguals] conduct multilingual searches on the Web?" RQ2. "How do [adult bilinguals] decide which search engines to use when searching for multilingual information?" RQ3. "What preferences do [adult bilinguals] have for integrated multilingual search tools?" (Rieh & Rieh, 2005, p. 250).

The pilot comprised a convenience sample of five bilingual participants, all of whom were doctoral students at the School of Communication and Information, Rutgers University. Four were male and one was female, with ages ranging from the early twenties ($n = 1$), through the early thirties ($n = 3$), to the late thirties ($n = 1$).

All participants were interviewed and all interviews were digitally audio-recorded. All recordings were subsequently transcribed and the transcripts were analyzed. Each interview lasted 30 minutes or slightly longer. The filling out of a survey questionnaire preceded each interview.

Translations (from Korean into English) of both the survey questionnaire as well as the set of interview questions used in the pilot study were secured from the original researchers.

In order to not reveal participants' identities and to protect their privacy, codes were used not only for each participant, but also for their non-English languages spoken,

and the search engines besides Google, which they used.

The pilot study generally confirmed the findings of the original researchers – namely, that users select the language surmised to be most suitable to their information retrieval task, that users express language-associated concerns about quality and reliability, and that users do not use search engines as bilingual tools – with the exception that this pilot study also suggested that the incipient stage of the use of the Web as a bilingual tool might be upon us, in that the interviews revealed participants' occasional use of Google's multilingual search capabilities. To wit, one participant said: "If I want to search in [non-English-language x], I tend to use Google, because it has function and strong functionality about [non-English-language x] searching. I type in [non-English-language x] in Google." Because these capabilities were launched in earnest in 2007, Rieh and Rieh (2005) had not come across this phenomenon (Sanentz, 2013).

The pilot study proved very useful to the subsequent dissertation study, in several ways:

- The researcher gained useful additional participant recruiting and scheduling experience
- The researcher gained invaluable additional interviewing experience
- The researcher attained a more realistic sense of the challenging natures of transcription and data analysis
- The pilot demonstrated that interviews yield useful data
- The pilot demonstrated how certain areas explored by the pilot study – such as exploring the use of the Internet as a bilingual tool – were in need of special

attention during the dissertation-study interviews and thus was helpful in refining the semi-structured dissertation-study interview questions, which emerged.

- Most importantly, the pilot study stimulated the thinking of the researcher toward what eventually became the notion of a Language Choice Event (LCE). This new coinage was necessary to capture a key surmised phenomenon in the information seeking and utilization behaviors of adult bilinguals and was defined as an episode of language selection by bilinguals, during their information seeking and utilization behaviors. In fact, LCEs then became an integral part of the research questions that were formulated. The contention was that, throughout their information seeking and utilization behaviors, adult bilinguals would engage in LCEs at various points. With the notion of LCEs in sharp focus and incorporated into the three formulated RQs, the researcher expected to document any and all episodes, where participants would select a language option, deselect one, or switch from one language option to another and to then ask probing questions of the participants about such episodes. The task would become one of determining, as best as posible, the "how" of the matter.

CHAPTER 3: STUDY OBJECTIVES, METHODOLOGY, & ANALYSIS

RESEARCH QUESTIONS

This section will present the primary objectives of this research project, by identifying the research questions upon which it will focus.

The overarching purpose of this investigation is to explore how adult bilinguals seek and utilize information. More specifically, following from the review of the literature and the pilot-study results, this study will seek answers to the following four research questions:

RQ1. How do adult bilinguals (ABs) seek information and how, if at all, are ABs' Language Choice Events (LCEs) associated with their information seeking (IS) behaviors?

RQ2. How do ABs utilize information and how, if at all, are ABs' LCEs associated with their information utilization (IU) behaviors?

RQ3. What, if any, are the contextual factors, which are associated with the IS and IU behaviors of ABs?

METHODS, PROCEDURE, AND ANALYSIS

This section compares and contrasts the various research methods considered for this study and the selections made. It also identifies the procedures, which were followed to gather the data and to subsequently analyze it, pursuant to the requirements of the Institutional Review Board (IRB), at Rutgers University.

Methodologies considered.

Four methodological approaches in the study of the information behaviors of adult bilinguals are critiqued in terms of their potential fit and use in the present study. These are the ethnographic, case-study, narrative, and biographical research methods.

Table 3, below, summarizes the strengths and limitations of these methodologies.

Methodologies	Case Study	Ethnographic	Narrative	Biographical
Strengths	In-depth exploration of each case = adult bilingual	View of culture from informants' points of view and in informants' words.	Focus on stories or narrations of personal experiences and on social constructions	Thick descriptions and longitudinal or life-long perspectives
Limitations	Sub-units within larger units (e.g. families) not considered	Living among subjects and collecting samples of tools not pursued	Risks associated with intimacy between researcher and subject	Early-life bilingual experiences less relevant

Table 3. The four methodologies and their pros and cons, vis-à-vis the present study

The case-study method was not chosen, because it is better suited for research projects, where a variety of sub-units are being considered, all within one particular unit of analysis. A classic example would be a school as one's unit of analysis, where students, teachers, parents, administrators, and the community are all involved.

Similarly, the ethnographic method was eventually not selected, because it is more appropriate for research, which involves living among one's informants, experiencing their daily lives, collecting and studying the quotidian tools and materials with which they interact, and taking field notes. An example here would be the study of an indigenous tribe, where the researcher lives among the members of this tribe and both carefully observes and experiences their lives.

Methodologies selected: Narrative and biographical.

The present study used a blend of the narrative and the biographical methods. Key methodologists, upon whose scholarship the study focused, are Jerome Bruner (1990), D. Jean Clandinin (2000), and Vanessa May (2004a), on the narrative side, and Brian Roberts (2002), Tom Wengraf (2006), and Joanna Bornat (2008), on the biographical side.

The narrative methodology asserts that human beings live and tell stories and, more profoundly, that these stories define who they are and shape who they become. The role of the researcher is to gain insight and understanding into human experiences by listening to the stories of others and living stories with others. This method is research

with subjects and not on subjects (Clandinin, 2006). That is why, in narrative research,

subjects are referred to as participants. Furthermore, by sharing stories with one another,

groups and societies color, shape, and construct realities for themselves. The narrative

approach eschews the existence of an objective reality and presumes instead that realities

are constructed, during the telling and retelling of stories.

Theoretically, the narrative method is founded upon Deweyian notions of

continuity and interaction, which are two inseparable experience criteria. As Dewey puts

it, "The continuity of any experience, through renewing of the social group, is a literal

fact. Education, in its broadest sense, is the means of this social continuity of life" (1966,

p. 2). Continuity begets issues pertaining to temporality, people, actions, and certainties

and interaction begets issues pertinent to context, people, actions, and certainties

(Clandinin & Connelly, 2000, pp. 32-33).

Defining the field of narrative studies definitively is a difficult task, because it is

both interdisciplinary and multidisciplinary. "Narrative inquiry, the study of experience

as story … is first and foremost a way of thinking about experience" (Clandinin et al.,

2007, p. 22).

> It "is a collaboration between researcher and participants, over time, in a place or series
> of places, and in social interaction with milieus. An inquirer enters this matrix in the
> midst and progresses in this same spirit, concluding the inquiry still in the midst of
> living and telling, reliving and retelling, the stories of the experiences that make up
> people's lives, both individual and social" (Clandinin & Connelly, 2000, p. 20).

The 1960s witnessed the beginnings of what came to be known as a narrative turn

in the social sciences. Since then, narrative methods have spread to many fields and have

become more prevalent (May, 2004a).

Contemporary understandings of narrative analyses hold that social realities and texts are related. Thus, social relations are embedded in linguistic practices and narratives are embedded in social actions. Humans get to know themselves and their social realities through narratives (May, 2004a).

As Bruner puts it, "[We] organize our experience and our memory of human happenings mainly in the form of narrative – stories, excuses, myths, reasons for doing and not doing, and so on" (Bruner, 1991, p. 4).

In line with social constructionism, May asserts that humans construct their identities and make sense of their world, through stories. In line with symbolic interactionism, she asserts that a key concern of the narrative approach is the interplay between the individual and the social (May, 2004a). Narrative methodologists explore more than the telling of stories. The Deweyian notion of life as lived experience is central to the narrative approach.

In designing narrative studies, three commonplaces and eight design elements must be considered. Clandinin et al. (2007) determined that the three commonplaces of narrative inquiry were temporality (events and moments), sociality (people and contexts), and places (locations).

Furthermore, Clandinin et al. (2007) posit that there are eight narrative inquiry design elements:

1. Justification: Why is the study important (with personal, practical, and social aspects)?
2. Naming the phenomenon: The "what." Adopting a narrative view of a

phenomenon (telling and retelling, moving backwards and forwards in time, moving inward and outward between personal and social, and moving from one location to another).

3. Specific methods used: a) Thinking about the puzzle, imaginatively (becoming aware of everything occurring within a dynamic and changing life space) and b) determining what the needed field texts (to collect data) are, while remaining attentive to the commonplaces. Invoking the metaphor of a parade: "Each participant in the landscape, in the parade, has a particular place and a particular set of stories being lived out at any particular time" (Clandinin et al., 2007, p. 27). Interconnecting the stories of various parade participants, begets a narrative map, in effect, describing this dynamic parade.

4. Analytic and interpretation processes: Narrative inquiry stresses the importance of taking the relational and contextual into account. The three commonplaces can become scaffolds for analysis and interpretation. They must be defined and balanced.

5. Positioning: Positioning has to do with literature review (ontological and epistemological assumptions), complexities of contexts, and related inquiry forms.

6. Uniqueness: What is unique about phenomenon x?

7. Ethical aspects:

"In narrative inquiry, inquirers must deepen the sense of what it means to live in relation in an ethical way ... Ethical considerations permeate narrative inquiries from start to finish: at the outset as ends-in-view are imagined, as inquirer-participant relationships unfold, and as participants are represented in research texts" (Clandinin et al., 2007, p. 30).

8. Type of research text intended: Here, there are six considerations:

- "continue to think narratively, crafting the research text with careful attention to the narrative inquiry commonplaces. The text needs to reflect the temporal unfolding of people, places and things within the inquiry, the personal and social aspects of inquirer's and participants' lives, and the places in the inquiry" (Clandinin et al., 2007, p. 31);

- consider various textual forms (photo albums, snapshots, memorybank movies, etc.);

- research-text writing itself is a narrative act;

- the significance of the audience/s (often, multiple audiences are imagined – inquirer, participants, readers, etc.);

- judging criteria, still evolving in narrative inquiry (three commonplaces and eight design elements, authenticity, adequacy, plausibility, and resonance);

- social significance of the work.

Individuals move from the telling to the retelling and the reliving of stories, with attention to phenomena, methods, the three commonplaces, and the eight design elements. They move from telling to narratively inquiring, thereby making familiar practices strange (Clandinin et al., 2007).

During the narration, the way the narrator speaks – as in emphasizing certain aspects of the story, repeating something already said, stammering, whispering, and so on – reflects the inner world of the narrator, to a certain degree (Chen & Sonawane, 2015). While acknowledging the myriad types of methods that are subsumed under the biographical method – autobiography, biography, life history, oral history, and narrative inquiry – Chen and Sonawane (2015) draw distinctions between the biographical research

methods and ethnography, the latter being a primarily anthropological method involved with observing, recording, and participating in the quotidian lives within a culture, via fieldwork. Thus, biographical and ethnographic methods differ in their emphases, as concerns their objects and purposes (societal versus individual) and strategies (synchronous or current versus diachronic or longitudinal), respectively (Chen & Sonawane, 2015, pp. 356-358). The question then becomes one of figuring out how to study diversity in social science, in a meaningful and useful way (Saleh et al., 2014). Relationships are central to the narrative approach. "People shape their daily lives by stories of who they and others are and as they interpret their past in terms of these stories" (Saleh et al., 2014, p. 272). Narrative researchers study experiences as stories. Narrative researchers espouse the view that experiences, expressed in stories, are phenomena to be studied. The researchers bring their own stories into their inquiries. In this way, narrative research must be autobiographical (Saleh et al., 2014). As Clandinin puts it, "As narrative inquirers engage in inquiry, they realize that they, too, are positioned on this landscape and both shape and are shaped by the landscape" (Clandinin, 2006, p. 47).

Through the telling and then retelling of one's stories of who one is and who one is becoming – within the temporality-sociality-space inquiry space – one gains social-scientific insights. Through learning other people's told and retold stories, one challenges one's assumptions and understandings and refines and deepens one's knowledge, over time. "Inquiring into who we are and are becoming as researchers allows us to be present to the ways we frame our experiences within habitual modes of perception" (Saleh et al., 2014, p. 278). Thus, stories shape and are shaped by other stories. Humans story others

and are storied by others.

The narrative approach is harmonious with social constructionism in that it holds that personal, linguistic, familial, cultural, institutional, and social narratives mold individuals. Bruner (1990) has been a major exponent of the narrative method. In his seminal work, *Acts of Meaning*, Bruner insists that meaning making is at the center of all studies of the human condition and that folk psychology, "the culturally shaped notions in terms of which people organize their views of themselves, of others, and of the world in which they live" is at the foundation of personal meaning making, cultural cohesion, and institutional order; that this folk psychology "is an exercise in narrative and storytelling;" that the young, by virtue of natural endowment and exposure, use language in general, and narrative discourse, in particular, to participate in the culture surrounding them; and that selves are constructed through a process of meaning making, reflecting not only the physical and biological, but also the cultural and historical (Bruner, 1990, pp. 137-138). As Bamberg asserts, "*[Narrative] as method* implies a general approach that views individuals within their social relationships as actively conferring meaning onto objects in the world, including others and selves; the way this happens in everyday situations as well as in interviews or surveys, is necessarily subjective and interpretive" (Bamberg, 2012, pp. 79-80). Beyond giving form to experience,

> "narratives in the way they are practiced in everyday interactions also are the testing grounds for compliance and resistance to dominant versions, in which ambivalence can interactively be displayed and tried out in different communities of practice and in which these narrative practices are the grounds in which identities and sense of self can constantly be innovated and redefined" (Bamberg, 2012, p. 92).

Here, the association of the narrative method with Berger and Luckmann's (1967) social constructionism and Etienne Wenger's (1998) communities of practice is evident. Dissociating the process of sense-making-through-stories from the settings and sociocultural milieus whence they have sprung, is anathema to the narrative approach. We are the stories we hear and tell, thereby giving meaning to our everyday lives.

Wengraf's particular brand of narrative methodology, namely, the Biographic-Narrative Interpretive Method (BNIM), facilitates the understanding of "both the 'inner' and 'outer' worlds of 'historically-evolving-persons-in-historically-evolving-situations', and particularly the interactivity of inner and outer world dynamics." He contends that BNIM is particularly well-suited for researchers intent upon studying psycho-social phenomena, where the psychological and the sociological are equi-dominant and where they are both understood as being situated historically (Wengraf, 2006).

Biographical research denotes "work which uses the stories of individuals and other 'personal materials' to understand the individual life within its social context" (Roberts, 2002, p. 3). Materials or data gathered, comprising field texts, vary widely and may include research interviews, biographies, autobiographies, letters, diaries, family artifacts, memoranda, photographs, electronic communications, and so on.

This narrative or biographical turn builds upon the linguistic turn in the social sciences. Tapping into the repudiation by phenomenologists, existentialists, and symbolic interactionists of basing the social sciences on the assumptions of positivism, functionalism, and the natural sciences, and espousing humanistic tenets instead, the narrative turn embraces the concerns of the linguistic turn – with language and

representation – and adds its renewed emphasis on the active and creative role of the individual, expressed in stories and over time, to them.

Roberts asserts that "'truth' and related epistemological issues can be seen in ways that go beyond the standardized notions of reliability, validity, and generalizability" including also "a range of alternatives used by writers, including adequacy, aesthetic finality, accessibility, authenticity, credibility, explanatory power, persuasiveness, coherence, plausibility, trustworthiness, epistemological validity and verisimilitude and so on" (Roberts, 2002, p. 6).

As concerns the debate between realism (wherein a story reflects reality) and constructionism (wherein a story reflects cultural meanings and is shaped both in the telling and the interpretation), this proposal adopts the latter position.

As Roberts explains, when it comes to the analysis of data, the two prominent strategies are the analytic-inductive and the grounded-theory approaches. The former relies on the careful scrutiny of one case, followed by a search for similarities and differences between it and other cases. The latter generates tentative theories during the process of data gathering, wherein empirical fit is sought between the data and the theory under consideration and cases cease to be considered once no new aspects are identified through the study of additional cases – the research process thereby said to have attained theoretical saturation. Furthermore, once data are gathered, one can either reason paradigmatically or narratively. In the former mode, one looks for categories within the data. In the latter, one strives to produce a storied account. In either case, one can use a coding scheme, which evolves and is refined during the research process. Finally, the role

of the researcher has evolved recently from one of empathetic yet objective observer and interpreter to one of engaged collaborator, wherein the researcher's relevant experiences are allowed in. Ethical concerns escort this evolution. It might be said that three approaches can be ascertained: a realist approach, using induction, unfocused interviews, and saturation; a neo-positivist approach, using deduction and focused interviews; and a narrative approach, using an exploration of ongoing storied constructions by unique individuals and focused on the interviewer-participant interplay (Roberts, 2002).

Even though the decision was made not to use ethnography as the primary research method for this study, it is recognized that ethnography offers insights that are useful in conducting narrative research, in that ethnography is concerned with a view of culture from informants' points of view and in informants' words. "Rather than *studying people*, ethnography means *learning from people*" (Spradley, 1979, p. 3).

> "By word and by action, in subtle ways and direct statements, [ethnographers] say, 'I want to understand the world from your point of view. I want to know what you know in the way you know it. I want to understand the meaning of your experience, to walk in your shoes, to feel things as you feel them, to explain things as you explain them. Will you become my teacher and help me understand?'" (Spradley, 1979, p. 34).

This focus on the informant is very much in line with the narrative approach.

Narrative differs from ethnographic, however, in that the latter is focused upon understanding meaning *systems*, within cultures (Spradley, 1979). In order to make cultural inferences, ethnographers rely on what people say (speech), what people do (behavior), and what people use (artifacts). The narrative approach in this study will focus on what people say.

The rationale for considering and then opting not to use the case-study method is

similar. Once again, case study focuses on a *system* as its unit of analysis (Yin, 2014). This study will focus on the life history of individuals.

Given the concern of this research study with bilingualism, an ethnographic lens on the role of language was retained. Expressing his affiliation with symbolic interactionism and social constructionism, Spradley (1979) proclaims, "Language is more than a means of communication about reality: it is a tool for constructing reality" (p. 17). Different cultures categorize experiences differently. Even when everyone appears to be speaking the same language, semantic differences often exist. Spradley's approach "involves discovery procedures for the study of the meanings inherent in the way people use their language" (Spradley, 1979, p. 21).

Notwithstanding, this study leaned toward life histories and, given the Armenian-English bilingual skills of the researcher, translated transcriptions, as needed.

Qualitative research interviewing.

In its data gathering, this study relied primarily on the research interview and followed the guidelines provided by Kvale and Brinkmann (2009), conceiving of the research interview as "an inter-view, where knowledge is constructed in the inter-action between the interviewer and the interviewee" (p. 2). More specifically, this study used "a semi-structured life world interview, in part inspired by phenomenology" (Kvale & Brinkmann, 2009, p. 14).

Of the two contrasting epistemological metaphors proposed, namely, interviewer as traveler – constructing knowledge – and interviewer as miner – collecting knowledge –

this study subscribes to the former (Kvale & Brinkmann, 2009). This stance is in line

with the social constructionist perspective, undergirding this study (Berger & Luckmann,

1966).

Concerning language itself, Kvale and Brinkmann (2009) assert that the linguistic

turn

> "has been radicalized in postmodern philosophy: In some versions of postmodernism, language constitutes reality, each language constructing reality in its own way. The focus on language shifts attention away from the notion of an objective reality, and also away from the individual subject. There is no longer a unique and sovereign self who uses language to describe an objective world or to express itself; it is the structures of language that speak through the person" (Kvale & Brinkmann, 2009, p. 52).

In this study, this position was advanced forward, in accordance with the work of

the later Wittgenstein (2009), who argued that the meanings of words vary and arise out

of their use in various language games that are context sensitive and socially situated.

Kvale and Brinkmann (2009) take Geertz' (1973) thick description a step further

and present the notion of "'thick ethical description,' the ability to see and describe

events in their value-laden contexts, and judge accordingly" (Kvale & Brinkmann, 2009,

p. 67).

Furthermore, in line with grounded theory (Charmaz, 2006), Kvale and

Brinkmann (2009) explain how new aspects of a phenomenon might reveal themselves

during the course of an interview and how the interviewer ought to be open to learning

and adaptation, continually.

Kvale and Brinkmann eschewed the pursuit of generalizability. In their view,

what mattered was "a transferability of knowledge from one situation to another, taking

into account the contextuality and heterogeneity of social knowledge" (Kvale & Brinkmann, 2009, p. 171). "In a postmodern approach the quest for universal knowledge, as well as the cult of the individually unique, is replaced by an emphasis on the heterogeneity and contextuality of knowledge, with a shift from generalization to contextualization" (Kvale & Brinkmann, 2009, p. 261). And, "What matters is not arriving at context-independent universal knowledge, but producing thick descriptions of situated knowledge from the interviews" (Kvale & Brinkmann, 2009, p. 303).

Whereas "[the] question 'What is the correct valid transcription?' cannot be answered – there is no true, objective transformation from the oral to the written mode. A more constructive question is: 'What is a useful transcription for my research purposes?'" (Kvale & Brinkmann, 2009, p. 186), care was exercised in transcribing the recorded interviews, in that first, the transcriptions were made verbatim and then a process of smoothing was applied, in order to make the transcripts more readable (Connelly & Clandinin, 1990). Put another way, "[to] facilitate comprehension, the spontaneous oral speech should in most cases in the final report be rendered into a readable written textual form" (Kvale & Brinkmann, 2009, p. 280). Quite importantly, all identifying information was removed from all portions of transcript quoyed, such that the privacy of participants would be protected, as per the IRB guidelines. Thus, "[the] interview passages presented in the final report are more or less edited. Names and places, which break with confidentiality, will have to be altered."(Kvale & Brinkmann, 2009, p. 281).

Of the two approaches to coding, concept-driven, wherein codes are developed by researchers in advance of interviews, versus data-driven, wherein codes are developed after transcribing and reading the interviews, this study adopted the latter, as it is in line

with a grounded theory approach (Charmaz, 2006).

Kvale and Brikmann (2009) warn of the dangers of "'expertification' of meanings where the interviewer as 'the great interpreter' expropriates the meanings from the subjects' lived world and reifies them into his or her theoretical schemes as expressions of some more basic reality" (p. 218). This research study resisted the temptation of over-interpreting the notions elicited during its interviews, by abstracting up from the identified codes to various categories, patterns, and then themes.

The study adopted a *bricolage* interpreting form of meaning generation from interview data, preferring to assemble the data under codes, tabulating counts of code occurrences, creating a figure to visualize the data, and so on, without adding excessive amounts of the researcher's own ideas of the meanings generated, thereby leaving room for and inviting readers to add their own interpretations, based upon their own knowledge and experiences.

> "*Bricolage* is something put together using whatever tools happen to be available, even if the tools were not designed for the task at hand. The *bricolage* interpreter adapts mixed technical discourses, moving freely between different analytic techniques and concepts. This eclectic form of generating meaning – through a multiplicity of ad hoc methods and conceptual approaches – is a common mode of interview analysis, contrasting with more systematic analytic modes and techniques such as categorization and conversation analysis. The interviewer craftsman may read through the interviews and get an overall impression, then go back to specific interesting passages, perhaps count statements indicating different attitudes to a phenomenon, cast parts of the interview into a narrative, work out metaphors to capture key understandings, attempt to visualize findings in flow diagrams, and so on. Such tactics of meaning generation may, for interviews lacking an overall sense at the first reading, bring out connections and structures significant to a research project. The outcome of this form of meaning generation can be in words, in numbers, in figures and flow charts, or in a combination of these" (Kvale & Brinkmann, 2009, p. 233-234).

This study solicited feedback from participants, because "[It] is by allowing the objects investigated to object to the natural scientists' interventions that maximum objectivity is obtained" (Kvale & Brinkmann, 2009, p. 243). And, "When the interviewer's interpretations refer to the subjects' own understanding of their statements, the interviewee becomes the relevant partner for a conversation about the correct interpretation, involving what has been termed 'member validation'" (Kvale & Brinkmann, 2009, p. 255).

Benefiting from anthropological- and ethnographic-style research techniques (Spradley 1979), this study kept "Notes & Thoughts" logs, following interviews, and used the freshly-captured insights therein later on, during the data analysis phase. Along these lines,

"If everything is data, interview researchers should develop practical ways of keeping track of what they are doing, which may involve logbooks and diaries of different sorts, and here they may learn from anthropologists doing fieldwork, who often work with a number of different books in which they register what they observe and learn, and also note personal reflections that may prove to be important and useful when reporting" (Kvale & Brinkmann, 2009, p. 271).

Whereas three approaches to telling a tale exist, namely, the realistic telling, where the focus is on the known, the confessional telling, where the focus is on the knower, and the impressionistic telling, where the focus is on the knowing process, this study used the realistic approach, by focusing on the participant's points of view.

Finally, accentuating the centrality of language in this process, Kvale and Brinkmann assert,

"We exist in a conversational circle, where our understanding of the social world depends on conversations and our understanding of conversation is based on our

understanding of the social world. This is not a vicious circle, but, in a hermeneutical sense, a *circulus fructuosis*. The problem is not to get out of the conversational circle, but to get into it the right way" (Kvale & Brinkmann, 2009, p. 313).

Research participants.

As the research literature section above demonstrates, given the paucity of research on the information seeking and utilization behaviors of adult bilinguals, this research began at the beginning, aiming to address the most basic questions.

This study focused on adult individuals, who were bilingual, and, through a wide-ranging interview, strove to gain insight into their information behaviors, by eliciting their linguistic biographies, while paying special heed to their attestations pertaining to their everyday-life information seeking and utilization behaviors and the associations of these behaviors with the societies around them, past or present.

Prospective participants, who were 30 years old or older, were sought. Whereas this age cut-off was somewhat arbitrary, it was intended to increase the likelihood that informants will have had a wealth of life experiences, such that they might contribute significantly to the research study; it was presumed that they would be more likely to have had work experiences, geographic relocations, adult romantic relationships, children or aspirations of parenthood, and so on.

Being fluent in English and Armenian, the present researcher possessed the life experiences of an adult bilingual, furnishing him with the capacity to have access to a large number of qualified participants as well as to fully engage with them, on a cultural and linguistic level, including interactions involving Language Choice Events (LCEs).

Having experienced the bilingual way of life personally and being a professional English<>Armenian translator and a court-registered English<>Armenian interpreter, this researcher was in an advantageious position to pursue the present line of research.

There is a concentration of communities of Armenian-English adult bilinguals in the general New York/New Jersey area. Estimates vary, because data are difficult to obtain. The latest available figures from the United States Census Bureau (2000) indicate that there are about 35,400 Armenians in the Greater New York-New Jersey-Connecticut-Pennsylvania area, whereas, according to Vartanian (2002), the Greater New-York region counts some 150,000 Armenians, only 10,000 of whom live in Manhattan. According to the 2011 American Community Survey, there are 483, 366 Armenian-Americans in the United States, while the 2016 American Community Survey puts that same number at 467,890, and the 2010 Statistical Abstract of the US estimates that 22 percent of these Armenian-Americans (or some 100,000) live in the northeastern United States. Khachikian (2015) asserts that whereas, according to the latest available census estimates, there are 476,543 individuals of Armenian ancestry in the United States, it will be only the decennial census in 2020, which will strive to measure (for the first time in United States history) the Armenian-American population, by adding a new "Middle Eastern or North American" category, wherein an individual might indicate a specific ethnicity, such as the Armenian. Several sources offer much higher numbers. Thus, the New York Review of Books and Spiegel Online both put the number at 1,200,000; the Los Angeles Times, at 1,400,000; and Reuters, at 1,500,000. Furthermore, worthy of note is the fact that, according to the 2010 Statistical Abstract of the United States, the Armenian language is spoken in 222,000 households across the United States.

Being an Armenian-English adult bilingual, who was well-networked into the

Armenian-American community in the New York/New Jersey area, this researcher

gained relatively easy access to prospective Armenian-English adult bilingual

participants. Subsequent to recruiting an initial few successfully – be it through personal

contacts within the Armenian-American community or by posting notices on church and

other community-center bulletin boards – this researcher then used snowball sampling to

contact others. Because this study needed to have an exploratory design, an effort was

made to interview a wide variety of individuals, in order to see if any preliminary patterns

emerged. As mentioned earlier, this researcher remained "practice-close" in that he was

an Armenian-English adult bilingual himself.

The autobiographical prerequisite.

Before embarking upon the exploratory phase, an autobiographical narrative,

which delves into the experiences of the researcher as an adult bilingual – including his

bilingual information seeking and utilization behaviors – was completed. The narrative

methodology considers the completion of this autobiographical narrative step a

prerequisite to narrative inquiry and analysis: "Narrative inquiry characteristically begins

with the researcher's autobiographically oriented narrative associated with the research

puzzle" (Clandinin & Connelly, 2000, p. 41). Here, research puzzle is virtually

synonymous with research question or research problem.

The purpose of first creating such an autobiographical narrative was to sensitize

the researcher to what was to come; more specifically, to enable the researcher to have a

visceral and personal experience of the narrative process, which was about to transpire

with each upcoming participant. As Miles and Huberman (1994) would describe it, this self-sensitization helped generate an emic perspective, with the researcher having, in effect, walked in the shoes of prospective participants and understood the world from their perspectives. This autobiographical step sensitized the researcher to the limitations of the narrative approach as well, such as with intimacy risks, that is, risks associated with intimacy between researcher and subject.

One possibility was to use Flanagan's (1954) Critical Incident Technique, together with the Constant Comparisons Method (Charmaz, 2014), to discern themes and patterns in the interview data collected (Radford et al., 2017). With the Critical Incident Technique, a researcher "asks about an experience that is memorable … leaving it up to the participant to decide what was most memorable" (Connoway & Radford, 2017, p. 288). The Constant Comparisons Method, on the other hand, "is the analytic process of comparing different pieces of data against each other for similarities and differences" and doing so continually (Connoway & Radford, 2017, p. 298). As for implementation, reflexivity "is the philosophical lodestar that ensures our path of discovery is pointed in a sensible, responsible direction" (Lindlof & Taylor, 2011, p. 97).

Research protocol and data collection.

Eight semi-structured interviews were conducted (see Appendix E for a list of interview questions). Interviews were conducted, until "new data no longer [added] much of significance to the concepts that [had] been developed" (Lindlof & Taylor, 2011, p. 117). As Charmaz (2006) puts it, categories of an emerging theory will be refined, until no further properties emerge and saturation is attained: "Categories are 'saturated' when

gathering fresh data no longer sparks new theoretical insights nor reveals new properties of these core theoretical categories" (p. 113).

Below is an outline of the research-project design for the present study, pursuant to a structure recommended by Lindlof and Taylor (2011).

A most basic what-is-going-on-here research question – what Lindlof and Taylor (2011) characterize as "the root question of qualitative inquiry" (p. 75) – is: How do Armenian-English adult bilinguals seek and utilize information? The intuition behind it is that bilinguals' ways of seeking and utilizing information will be in some ways distinct, because they straddle two (or more) languages and cultures, while, as per symbolic interactionism and social constructionism, languages and contexts are key.

Whereas there is extant research on bilingualism, in general, as well as on information seeking and information utilization, when the qualifier "bilingual" is added to the latter two – bilingual information seeking and bilingual information utilization – little remains available.

A convenient place and time for meetings and interviews was negotiated with prospective participants, who were informed that they would first be asked to fill out a survey questionnaire (Appendix A) and an informed consent form (see Appendices C and D), followed by a one- to two-hour audio-recorded interview. As Bruner (1990) recommends, interview questions were largely open-ended and asked only when necessary (see Appendix E). In addition, however, a prepared list of specific questions and prompts was at hand and used, if and when necessary. Toward the end of interviews, participants were also asked whether they would be willing to be contacted a second

time, for a much shorter follow-up interview, lasting under one hour – after their recorded

interviews were transcribed by the interviewer, and then analyzed and shared with them –

such that any matters in need of clarification may be addressed and such that they might

provide any participant feedback they might have.

Table 4 presents the amounts of time spent on interviewing the eight participants

initially, the amounts of time spent on their follow-up interviews, as well as totals.

Participants P1-P8	Time spent on initial interview	Time spent on follow-up interview	Participant total
P1	51 minutes	33 minutes	1 hour & 24 minutes
P2	1 hour & 36 minutes	54 minutes	2 hours & 30 minutes
P3	32 minutes	11 minutes	44 minutes
P4	58 minutes	34 minutes	1 hour & 32 minutes
P5	2 hours & 7 minutes	45 minutes	2 hours & 52 minutes
P6	1 hour & 14 minutes	46 minutes	2 hours
P7	1 hour & 43 minutes	24 minutes	2 hours & 7 minutes
P8	2 hours & 17 minutes	10 minutes	2 hours & 27 minutes
Grand totals	11 hours & 18 minutes	4 hours & 17 minutes	15 hours & 35 minutes

Table 4. Times spent with each participant on initial and follow-up interviews, together
with totals.

The data in Table 4 demonstrates the flexibility maintained throughout the

interview process, in that participants continued to be interviewed, so long as the

interview proved fructuous. Thus, some had longer while others had shorter interviews,

with the total mean time spent per participant being 1 hour and 57 minutes.

Whereas structured interviews, driven by researchers' questions, are perfectly acceptable within the narrative inquiry method, the method recognizes that a research project begins amidst researchers' and participants' "nested set of stories" (Clandinin & Connelly, 2000, p. 63) and that interviewers are engaged in continual negotiations with participants, as regards the purposes of their research projects, their relationships with the participants, their transitions to concluding the interview processes, and so on.

Unlike quantitative methods, no specific hypotheses were held. Purposes, foci of exploration, puzzles under scrutiny, changed organically and continuously, during the research process. Thus, rather than attempting to iteratively adapt and adjust their interview questions, narrative researchers are focused upon a continual negotiation of the interview process with each participant.

Whereas intercoder reliability measures were not undertaken in view of their post-positivistic character, which is antithetical to the methodologies selected for this research study, intra-coder reliability was used, to ensure that the analysis of the data remained stable, over time. Thus, as Miles and Huberman (1994) recommend, after coding and analyzing a transcript once, the interviewer revisited the same transcript "a few days later," (p. 64) coded and analyzed it anew, and determined whether the results remained largely stable over time or not, with the goal of achieving agreement "up in the 90% range" (p. 64).

Interviews were audio-recorded, upon securing the written consent of participants, as per the approved IRB protocol. However, visual media or mobile interpersonal photographic communication were not used.

Given how qualitative researchers "are seldom interested in extrapolating their findings to an entire population. The chief value of qualitative research lies in achieving in-depth understanding of social reality in a specific context" (Lindlof & Taylor, 2011, p. 109), purposive sampling was used; that is, educated decisions about whom it would be best to interview next were made.

Finally, as concerns human subject protections, the researcher abided by the ethical requirements concerning human research, as determined by the Institutional Review Board (IRB). He secured prospective participants' informed consents, before any data was collected; communicated to informants that their participation was voluntary; explained what the study will require of them; and presented to them the benefits and risks of their participation.

The protocol for the interviews was included in this researcher's IRB submission. Steps were taken to ensure, as best as possible, that vulnerable adults, such as the physically or mentally disabled, were not inadvertently included in the study; that the data gathered was not shared with any unauthorized individuals; that it was kept in a safe and secure location; and that it was used solely for the purposes enunciated in this research project. Names and any information revealing participants' identities were redacted from the data. Pseudonyms and letter-and-number codes were used. Participants received copies of the transcripts of their interviews, as well as transcripts of their follow-up interviews, upon request.

Beyond the procedural ethics (consent, confidentiality, privacy, safety, etc.) promulgated by the IRB process, narrative researchers ought to be alert and sensitive not

only to instances of situational ethics (harmful disclosures, expressed discomfort, pleas

for succor, etc.) arising in the field, but to relational ethics, which "requires researchers to

act from [their] hearts and minds, acknowledge [their] interpersonal bonds to others, and

take responsibility for actions and their consequences" (Ellis, 2007, p. 3). Table 5

indicates which RQs were supported by each of the ten questions, in the interview

protocol.

INTERVIEW PROTOCOL QUESTIONS	SUPPORTED RQs
1. Please tell me the story of the languages in your life.	1, 2, 3
2. Please describe what might be a typical day for you, vis-à-vis the languages/dialects you now use.	1, 2, 3
3. Please choose two recent events/situations, where you used your languages/dialects, and tell me in as much detail as you can the who, what, where, when, why, and how.	1, 2, 3
4. Please tell me about how you linguistically interact with the most significant others in your life.	1, 2, 3
5. Please tell me about some sources of information you typically use in your everyday life, when seeking information, specifying the languages/dialects involved and describing your processes – How do you decide or what decides which languages/dialects you will use, when seeking information?	1
6. Please also describe how/if you then put the information you found (in Questions 5) to use.	2
7. Do you do anything to maintain/advance your knowledge of your languages/dialects or to acquire new ones? If yes, what motivates you/why do you do it/how do you do it?	3
8. How do you see your bilingual life evolving into the future? Please describe some possible scenarios.	3
9. What are your feelings about each of the languages/dialects in your life and about being bilingual, in general? How does your emotional world play into your choice of language?	3
10. Is there anything else you would like to tell me? Is there anything you would like to ask me?	1, 2, 3

Table 5. Interview protocol questions and the corresponding RQs they support.
RQ1. How do adult bilinguals (ABs) seek information and how, if at all, are ABs' Language Choice Events (LCEs) associated with their information seeking (IS) behaviors? RQ2. How do ABs utilize information and how, if at all, are ABs' LCEs associated with their information utilization (IU) behaviors? RQ3. What, if any, are the contextual factors, which are associated with the IS and IU behaviors of ABs?

In sum, below are the steps of the methodology for this research study, which comprised eight participants:

1. Prepare and analyze the researcher's own autobiographical narrative

2. Recruit first participant (thereafter, recruitment continued till saturation attained)

3. Conduct survey

4. Conduct interview

5. Transcribe interview

6. Analyze survey and transcription; generate initial write-up

7. Share initial write-up with participant and conduct follow-up interview

8. Repeat steps 3 through 7 above with Participant #2

9. Repeat steps 3 through 6 above with Participant #3

10. Repeat steps 3 through 6 above with Participant #4

11. Repeat steps 3 through 6 above with Participant #5

12. Repeat steps 3 through 6 above with Participant #6

13. Repeat steps 3 through 6 above with Participant #7

14. Repeat steps 3 through 6 above with Participant #8

15. Generate final write-up

Data analysis.

Of the two main data-analysis approaches, namely, analytic-inductive and grounded-theory, this study chose the latter, thereby generating emergent claims. Furthermore, upon analyzing the gathered data, the study strove to produce storied accounts of information behaviors, such as when participants described their various LCEs (Roberts, 2002). Along these same lines, the study rejected the approach of developing a coding scheme prior to collecting interview data and opted instead for a data-driven coding approach, whereby codes emerge as interviews are transcribed, read, and re-read (Charmaz, 2006).

Qualitative data analysis methods, as per Miles and Huberman (1994), together with coding methods outlined in Connoway and Radford (2017) were used to analyze and code the interview data. Furthermore, the researcher was engaged in memo-writing, throughout the data collection and analysis process (Charmaz, 2006). Furthermore, as per anthropological- and ethnographic-style research techniques, the study also made use of logs, after interviews – called "Notes & Thoughts" – thereby capturing insights while they were fresh in the researcher's mind (Spradley, 1979).

The coding scheme evolved and was refined during the entire data collection and analysis process and the researcher included his own relevant experiences and views, as per the narrative approach. Thus, preliminary emergent codes were revised in later iterations or two tentatively established emergent codes were merged into one upon further consideration, such as with "information seeking in multiple languages" and "code switching during information seeking," subsumed under the latter; or with

"utilization of certain types of information to learn languages" and "utilization of L1 music to learn L1," merged under the former. A concomitant factor in such decisions, besides the conceptual affinity of the two codes merged, was the low numbers of code occurrences calculated for the two preliminary codes under review.

The study resisted the temptation toward expertification, that is, the tendency to expropriate participants' meanings and abstract them upward toward theoretical schemes and adopted instead a bricolage mode of assembling data under emergent codes, tabulating code-occurrence counts, and so on, without imposing the researcher's own meanings and thereby also leaving space for readers to speculate and add their own experiences and knowledge. Using an iterative approach to coding, the researcher read through the transcripts multiple times, coding and re-coding. Then, after the emergent codes were stabilized, went back one additional time, in order to ascertain intra-coder reliability (Kvale & Brinkmann, 2009). Also, whereas post-positivistic intercoder reliability measures were shunned, as per Miles and Huberman (1994), intra-coder reliability at the recommended agreement level of 90% or higher was used, to ensure that the analysis of the data remained stable, over time. Thus, after coding and analyzing transcripts, the researcher revisited a subset of transcripts several weeks later and coded and analyzed them anew, to determine whether the results remained largely stable over time, and noted an agreement level of 93%.

Miles and Hubermann (1994) concede that there is no way to guarantee the validity of emergent codes generated by a qualitative research study.

"Miles and Huberman (1994) emphasize that there are no canons or infallible decision-making rules for establishing the validity of qualitative research. Their approach is to

analyze the many sources of potential biases that might invalidate qualitative observations and interpretations; they outline in detail tactics for testing and confirming qualitative findings. These tactics include checking for representativeness and for researcher effects, triangulating, weighing the evidence, checking the meaning of outliers, using extreme cases, following up on surprises, looking for negative evidence, making if-then tests, ruling out spurious relations, replicating a finding, checking our rival explanations, and getting feedback from informants (p. 263)" (Kvale & Brinkmann, 2009, p. 250).

Thus, to enhance validity, this study made use of the emic autobiographical prerequisite of narrative inquiry; probed further during the follow-up interview, when surprising statements were made during the initial interview; sought counter-examples in the data and found them; and, based upon particular findings, added new questions to a set of questions just used, in order to see whether the next interview might replicate those findings.

In addition, putting aside the philosophical objections of qualitative researchers to the validity requirements promulgated by quantitative research, additional steps were taken to bolster the qualitative validity of data collection and analysis. Thus, sending the transcript of the initial interview to a participant for review and feedback, prior to conducting the follow-up interview with that participant, enhanced credibility. Data collection through several methods – survey, the Bilingual Language Profile, initial interview, and follow-up interview – increased trustworthiness, as did separate iterative processes of coding, spread out over time (Lincoln & Guba, 1985).

Being founded on social constructionism, this dissertation study was cognizant of the fact that "[the] interview report is itself a social construction in which the author's choice of writing style and literary devices provide a specific view on the subjects' lived world" (Kvale & Brinkmann, 2009, p. 267). The present study strove to mitigate the

impact of this factor by "[staying] close to the data" (Charmaz, 2014, p. 120).

Finally, the RQs of the study served as a useful means of sorting emergent codes into categories, while always keeping in mind that the areas identified by these emergent codes often overlapped and that, in fact, the two RQs pertaining to information seeking and information utilization overlapped extensively, also.

CHAPTER 4: FINDINGS

This chapter presents the findings of this study, in answer to its three research

questions, namely, RQ1, how do adult bilinguals seek information and how, if at all, are

adult bilinguals' Language Choice Events (LCEs) associated with their information

seeking behaviors?; RQ2, how do adult bilinguals utilize information and how, if at all,

are adult bilinguals' Language Choice Events (LCEs) associated with their information

utilization behaviors?; and RQ3, what, if any, are the contextual factors, which are

associated with the information seeking and information utilization behaviors of adult

bilinguals? The findings are first organized under each research question and then further

subdivided under the codes pertaining to particular findings. The areas identified by these

codes do overlap, at times. More broadly, information seeking and information utilization

overlap extensively, thereby blurring any fine lines one might attempt to draw between

them and rendering the RQ1 and RQ2 of this research study less distinguishable than one

might like. Notwithstanding, the codes are helpful in getting a handle on and in gaining

insights into the massive body of data, generated by the interviews. The information

seeking and utilization behaviors of the principal researcher of this study will be

interwoven into the data presented below, as per the narrative method. The principal

researcher will henceforth be identified as PR, in abbreviation, with the eight study

participants bearing designations of P1 through P8.

AUTOBIOGRAPHY AND COMPOSITE BIOGRAPHY OF PARTICIPANTS

    Autobiography.

    As the narrative methodology stipulates, completing an autobiographical narrative focused upon the experiences of the PR as an adult bilingual is a prerequisite step to narrative inquiry and analysis.

    PR is over 30 years of age and is an Armenian-English adult bilingual, in addition to being conversant in Arabic, French and Turkish. He immigrated to the United States as a teenager, emigrating from Beirut, Lebanon. PR was born into an ethnically Armenian yet bilingual household, where the primary language was Armenian, with the other languages being Arabic, French, Turkish, and English. During his kindergarten years, Armenian was the primary language at school. He also attended both elementary and secondary schools in Lebanon, with the languages of instruction being – in addition to the omnipresent Armenian – Arabic, French, and English. Upon arriving in the United States immediately after high-school graduation, PR earned a bachelor's degree, as well as two master's degrees and is currently pursuing his doctorate, with the language of instruction during his post-secondary years being primarily English, throughout. He is strongly affiliated with the Armenian Church and community in the United States. Whereas his first marriage ended in divorce, he has since remarried, with both of his spouses being ethnically Armenian. He has no children. Presently, in addition to pursuing his doctorate and working as an adjunct professor, PR runs two Limited Liability Companies (real-estate leasing & development and language-consulting). He makes extensive use of his language skills in his personal and professional lives.

Composite biography of participants.

Whereas the study originally envisioned compiling substantial individual biographies of the eight participants, two factors suggested the adoption of a composite-biographical approach instead: Upon analyzing the totality of interview transcripts, it became evident that the eight biographies shared a great deal in common; in addition, given how small and relatively tight-knit the Armenian-American community in the Northeastern United States is, presenting the occasional, yet distinguishing, particulars within each biography individually would run the risk of inadvertently exposing the identity of some of the participants – a concern of paramount importance. Therefore, below is a composite biography of all eight participants, instead.

First and foremost, all participants were over 30 years of age and were, at a minimum, Armenian-English bilingual, as stipulated in the requirements for this research study. They all immigrated to the United States as either teenagers or young adults, with two being in their teens, four in their twenties, and two in their thirties. They all emigrated from either Armenia or a Middle-Eastern country, with three having been born in Beirut Lebanon, two in Baghdad, Iraq, two in Yerevan, Armenia, and one in Istanbul, Turkey. Four were male and four were female. They were all born into ethnically Armenian yet bilingual households, where one of the languages was always Armenian, with the other languages being various levels and combinations of Arabic, Russian, Turkish, French, and/or English. For those who attended kindergarten, Armenian was the primary language at school. All attended both elementary and secondary schools in their native countries, with the languages of instruction being – in addition to the omnipresent Armenian – various levels and combinations of Arabic, Russian, Turkish, French, and/or

English. Additionally, all but three completed either some post-secondary education or held bachelor's degrees (or higher) before emigration from their native lands, with their languages of instruction during their college years comprising various levels and combinations of Arabic, Russian, French, English, Classical Armenian, Classical Latin, Attic Greek, Koiné, and Hebrew. All expressed either some or strong affiliation with the Armenian Church and community in the United States. Of those who were married, all but one (who had a French spouse) had an ethnically Armenian spouse. Six of the eight participants had two or three children and two had none. Two had been divorced and were presently single and one was never married. Six had sojourned in various European or Middle-Eastern countries (and, in one case, in India) for either brief or extended periods (ranging from one month to ten years), before finally settling in the United States, thereby garnering opportunities to further sharpen their language skills. All were current professionals, with vital careers. All had made and continued to make either some or extensive use of their language skills in their personal and professional lives.

SURVEY OF PARTICIPANTS' LANGUAGES

Prior to each initial interview session, participants were asked to fill out a brief survey questionnaire, disclosing the languages and/or dialects in their lives and the extent to which they knew them, as evidenced by their abilities to understand (U), speak (S), read (R), and/or write (W) each language and/or dialect. Table 6 is a compilation of the data garnered by this survey questionnaire.

Table 6 indicates that all eight participants understood, spoke, read, and wrote both English and either Eastern Armenian, Western Armenian, or both, as required under

the participant-qualification criteria for this study. So did PR. Above and beyond that, however, all participants were polyglots, in that they spoke a total of anywhere from four to six languages and/or dialects. In fact, given a competency level of understanding or higher, five of the eight participants spoke six languages and/or dialects, two spoke five, and one spoke four. PR spoke six.

As for PR, his languages and/or dialects and the extent to which he knew them were: English, USRW; Armenian – Western, USRW, Armenian – Eastern, UR; Arabic, USR; French, USR; and Turkish, US.

Language/dialect & U=Understand S=Speak, R=Read, W=Write	P1	P2	P3	P4	P5	P6	P7	P8	U S R W TOTAL
English - Understand	U	U	U	U	U	U	U	U	8
English - Speak	S	S	S	S	S	S	S	S	8
English - Read	R	R	R	R	R	R	R	R	8
English - Write	W	W	W	W	W	W	W	W	8
Armenian-Western - Understand	U	U	U	U	U	U	U	U	8
Armenian-Western - Speak	S	S	S	S	S	S	S	S	8
Armenian-Western - Read	R	R	R	R	R	R	R	R	8
Armenian-Western - Write		W	W	W	W	W	W	W	7
Armenian-Eastern - Understand	U	U	U	U	U	U	U	U	7
Armenian-Eastern - Speak	S	S	S	S	S		S	S	6
Armenian-Eastern - Read	R	R		R	R	R	R	R	6
Armenian-Eastern - Write	W	W		W			W		3
Arabic - Understand		U			U	U	U	U	5
Arabic - Speak		S			S	S	S	S	5
Arabic - Read		R			R	R	R	R	5
Arabic - Write		W			W		W	W	4
French - Understand	U		U		U			U	4
French - Speak	S		S		S			S	4
French - Read	R		R		R			R	4
French - Write	W		W		W				3
Turkish - Understand		U	U		U		U		4
Turkish - Speak			S		S		S		3
Turkish - Read			R		R		R		3
Turkish - Write			W				W		2
Russian - Understand	U			U					2
Russian - Speak	S			S					2
Russian - Read	R			R					2
Russian - Write	W			W					2
Hebrew - Understand							U		1
Hebrew - Read							R		1
Hebrew - Write							W		1
Arabic dialects - Understand								U	1
Arabic dialects - Speak								S	1
Arabic dialects - Read								R	1
Attic Greek - Understand				U					1
Attic Greek - Read				R					1
Latin - Understand				U					1
Latin - Read				R					1
Dutch - Understand		U							1

Table 6. Languages and/or dialects participants understand, speak, read, and/or write.

BILINGUAL LANGUAGE PROFILES (BLPs) OF PARTICIPANTS

Given that the Bilingual Language Profile (BLP) generates both a continuous language-dominance score and descriptive profiles for each of its four modules, the researcher administered this instrument, before each initial participant interview, with the aim of exploring potential correlations between what the instrument measured and what the subsequent interviews revealed. Below are the data generated by these eight BLP administrations. Furthermore, as per the Narrative Inquiry method, researchers begin by administering instruments to themselves. Therefore, PR completed the BLP and his scores were also calculated and presented (in Tables 7, 8, and 9 below).

The raw (un-weighted) scores for all four modules of the BLP were collected and are presented in Table 7, for participants P1 through P8 and PR. However, because the goal of the BLP is to produce one global relative language dominance score for a language pair per bilingual, these raw module scores were then weighted (Table 8). It is only upon reviewing the English versus Armenian weighted module totals of each participant, in Table 7, that meaningful information begins to emerge from the data. The corresponding data for PR is also included at the bottoms of both Tables 7 and 8.

PARTICIPANTS	MODULES			
	Language History	Language Use	Language Proficiency	Language Attitudes
P1 English	88	35	24	24
P1 Armenian	76	14	18	21
P2 English	63	16	17	19
P2 Armenian	92	28	17	24
P3 English	48	32	13	6
P3 Armenian	87	3	12	20
P4 English	49	13	20	18
P4 Armenian	120	35	24	24
P5 English	97	21	21	18
P5 Armenian	115	24	21	21
P6 English	63	22	24	24
P6 Armenian	106	28	20	24
P7 English	67	21	24	17
P7 Armenian	109	27	24	24
P8 English	76	22	24	9
P8 Armenian	94	26	24	24

PR English	94	37	24	20
PR Armenian	97	13	23	24

Table 7. Raw scores for the four modules of the Bilingual Language Profile for Participants P1-P8, followed by the corresponding raw scores for the researcher (PR).

PARTICIPANTS	MODULES				MODULE TOTALS
	Language History	Language Use	Language Proficiency	Language Attitudes	
P1 English	39.952	38.15	54.48	54.48	187.062
P1 Armenian	34.504	15.26	40.86	47.67	138.294
P2 English	28.602	17.44	38.59	43.13	127.762
P2 Armenian	41.768	30.52	38.59	54.48	165.358
P3 English	21.792	34.88	29.51	13.62	99.802
P3 Armenian	39.498	3.27	27.24	45.4	115.408
P4 English	22.246	14.17	45.4	40.86	122.676
P4 Armenian	54.48	38.15	54.48	54.48	201.59
P5 English	44.038	22.89	47.67	40.86	155.458
P5 Armenian	52.21	26.16	47.67	47.67	173.71
P6 English	28.602	23.98	54.48	54.48	161.542
P6 Armenian	48.124	30.52	45.4	54.48	178.524
P7 English	30.418	22.89	54.48	38.59	146.378
P7 Armenian	49.486	29.43	54.48	54.48	187.876
P8 English	34.504	23.98	54.48	20.43	133.394
P8 Armenian	42.676	28.34	54.48	54.48	179.976

PR English	42.676	40.33	54.48	45.4	182.886
PR Armenian	44.038	14.17	52.21	54.48	164.898

Table 8. Weighted scores for the four modules of the Bilingual Language Profile and module totals for Participants P1-P8, followed by the corresponding weighted scores for the researcher (PR).

Table 9 goes further by calculating the BLP relative dominance scores, for either English or Armenian, for each participant, as well as PR; that is, the degree to which English is dominant over Armenian, or vice versa, for P1 through P8 and PR. It is at this level that the BLP's primary objective of establishing a dominance score for a particular language pair becomes evident.

Participants	Module total English	Module total Armenian	English dominant by	Armenian dominant by
P1	187.062	138.294	48.768	
P2	127.762	165.358		37.596
P3	99.802	115.408		15.606
P4	122.676	201.59		78.914
P5	155.458	173.71		18.252
P6	161.542	178.524		16.982
P7	146.378	187.876		41.498
P8	133.394	179.976		46.582

PR	182.886	164.898	17.988	

Table 9. Module totals for English and Armenian and relative dominance scores for English or Armenian for participants P1-P8, followed by the corresponding module totals and relative dominance score for the researcher (PR).

Figure 2 below proffers a graphic representation of the data from Table 9.
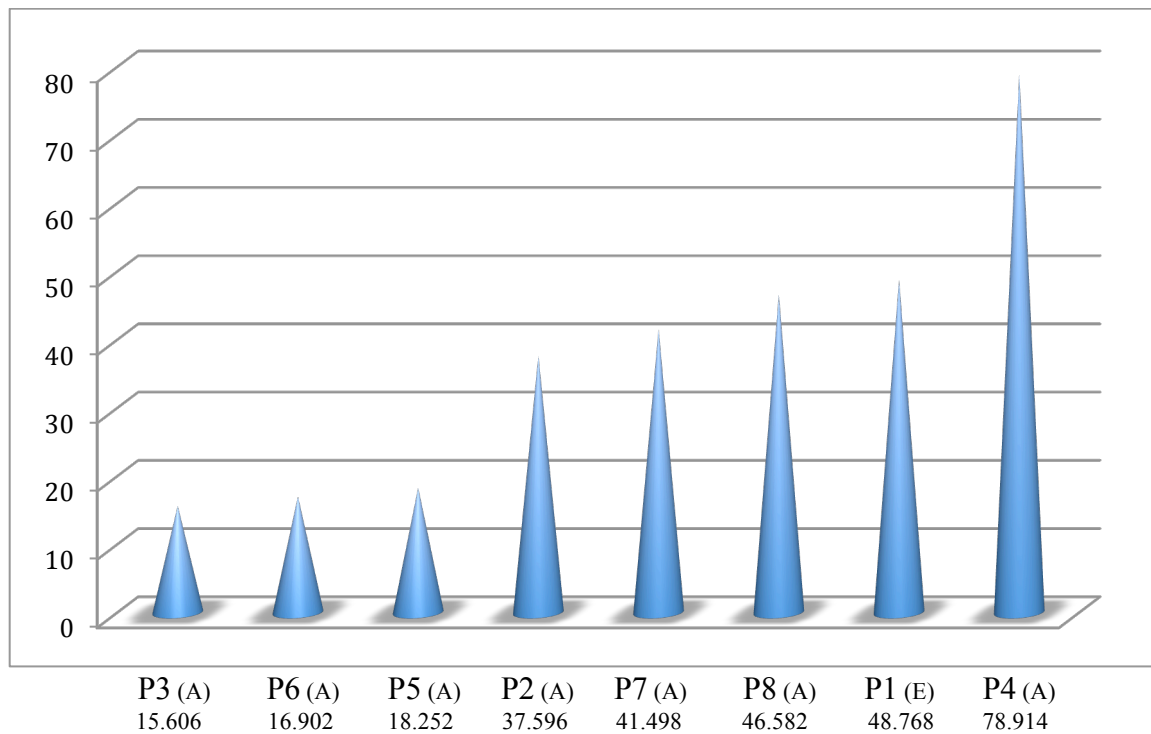
Figure 2. Participants' ranked BLP relative dominance scores for English (E) or Armenian (A).

Figure 2 reveals, among other things, that whereas P3, P6, and P5 have similar

Armenian-language dominance scores, 15.606, 16.902, 18.252, respectively – suggesting

balanced English-Armenian bilingualism with a slight Armenian dominance by all three

– the interview data from P3 reveals that both his English and Armenian, although

balanced relative to each other, are similarly weak, whereas the English and Armenian of

P6 and P5 are both strong, in that they have professional-level English<>Armenian

translation experience and expertise, whereas P3 makes heavy use of his Turkish, given

his background-history, relegating both his Armenian and English to a lower tier. This is

simply one instance of how complex and multifaceted bilingualism can be and how

contumacious it is of attempts at dissection and measurement. Along similar lines, PR,

with his English-language dominance score of 17.988 is an English-Armenian balanced

bilingual, but with a slight English (not Armenian) dominance, even though his background-history is not unlike P6 and P5.

Examining the other end of this spectrum of participants depicted in Figure 2, although P1 and P4 are both from Armenia originally, both immigrating to the United States and both becoming exposed to the English language along similar, albeit not identical trajectories, they arrive at completely different relative dominance scores, with P1 becoming significantly English dominant (48.768 English) and P4 remaining very highly Armenian dominant (78.914 Armenian).

In sum, although using the Bilingual Language Profile instrument yielded valuable data, descriptive of the bilingualism of the eight participants, attempting to associate these findings with the rich and thick descriptions attained by the interviews proved to be a fool's errand. When it comes to the BLP, perhaps associating its findings with data collected from a much larger group of participants, using mostly quantitative methods, would be more fruitful.

INFORMATION SEEKING BEHAVIORS OF ADULT BILINGUALS

This section summarizes findings related to RQ1, which asks: How do adult bilinguals seek information and how, if at all, are adult bilinguals' Language Choice Events (LCEs) associated with their information seeking behaviors? Table 10 tabulates the pertinent codes identified under the rubric of this first research question, together with their frequencies and code occurrence and participant totals. The table is followed by

evidence presented, under each code, in the form of a narrative, with key quotations from interviewed participants undergirding the emergent claims made.

CODE	P 1	P 2	P 3	P 4	P 5	P 6	P 7	P 8	TOTAL BY OCCURRENCE
Technological obstacles and affordances	2	10	1	5	7	5	5	6	41
Language hierarchy		6	1	5	1	3	5	4	25
Zipf's Law		4		2	3	4	5	5	23
Armenian dialects (Eastern and Western)	2	1		4	5	3	4	1	20
Mass media and social media					2	2	6	5	15
Dictionaries		4		1	2	6	1		14
Code switching during information seeking	1	3	2					2	8
Search topic		1	1	2	1			1	6
Trusting the source when information seeking	2								2
Information seeking with e-translation tools		2							2
Cross Language Information Retrieval		1							1
TOTAL BY PARTICIPANT	7	32	5	19	21	23	26	24	157

Table 10. Frequencies of RQ1 codes associated with each participant and totals by code occurrence and participant

In Table 10, the counted unit is an instance of a code occurring during an interview session. A total of eleven RQ1 codes were identified. As this table indicates, the code "Technological obstacles and affordances" received the highest number, by far, with its total across all eight participants comprising 26% of the grand total of all code occurrences for all participants. Significant also is the fact that all eight participants had comments, which were accrued under this code. The codes "Language hierarchy," "Zipf's Law," and "Armenian dialects (Eastern and Western)" followed in diminishing frequencies – at 16%, 15%, and 13%, with seven, six, and seven participants having relevant corresponding comments under each code, respectively.

Technological obstacles and affordances.

Technological obstacles and affordances refers to a conglomeration of phenomena, arising from the accessibility or lack thereof of computer and communications technologies, including computer hardware, software, and related paraphernalia, digital or analog, which influence the information seeking behaviors of adult bilinguals, thereby shaping their LCEs.

All eight participants had comments concerning technology and its influence on their information behaviors and LCEs. Of a total of 41 comments, 32 (78%) commented on technology negatively, as an obstacle, and 9 (22%), positively, as an affordance.

During the interviews, as a general indicator of the extent and nature of participants' engagement with technology, Google was mentioned the most – a total of 56 times, across all participants; Facebook was mentioned 36 times and YouTube, 23 times.

Emergent claim: Computer and communications technologies result mostly in obstacles along the information seeking paths of adult bilinguals and force LCEs toward English and away from non-English languages, notwithstanding some of the affordances they furnish.

On the negative, technological obstacles, side (78%), P1 stated, "I can't search in Armenian, because I don't have an Armenian keyboard." Similarly, P8 indicated, "Unfortunately, you cannot pdf in the Armenian language." Referring to her cellular phone, P5 said, "I write in Armenian. My daughter has downloaded it. I don't know how to download it." P8 came up with a workaround to the technological barrier of not having Armenian fonts: "There are sites that I know, because I put them in my Google sites and

save them, where you just type in Armenian – there's a little board online, a keyboard –

and then you copy and paste." Describing another workaround, P5 said, "Everything I do,

I have to pdf, because when I do presentations, they cannot read the Armenian fonts. So,

that is my solution."

When potentially desirable technological hypotheticals were proposed as a means

of probing the influence of technological barriers further, all eight participants' responses

were positive. Thus, to the question, "How would it be if the technology were such that

this English keyboard, instead of having physical letters, had an LED display and with

pressing one button, you could change it to an Armenian keyboard?" P5 responded, "Oh,

that would be great; absolutely." P4 was similarly enthusiastic and then added, "And I

wouldn't just be happy for myself, but for the new generation of Armenians, because they

lack this kind of technology and if it were easy for them to use it, they would use it

more."

Along these same lines, when presented with the suggested hypothetical "There's

this voice recognition technology now, that's slowly coming up – it's not ready for prime

time – but let's say it got so good eventually, that you could just speak in Armenian and it

would transcribe what you were saying, in Armenian," P6 responded, "I would love that.

Especially for people who can read Armenian. After all, not everyone who speaks

Armenian can read Armenian." Implicit in the hypotheticals generated and presented by

the researcher is PR's own desire to see these technologies becoming available.

All eight participants' responses also suggested that, were technological

affordances more accommodating or even robust, participants would arrive at different

LCEs and further embrace Armenian-language information seeking and utilization. As P4 stated, "On the computer, everything is getting easier, even the cell phones, smart phones. So, I'm trying to avoid the transliteration. I am slowly changing it into Armenian, if I am contacting an Armenian person." PR's experiences are congruent with P4's in that his use of English transliteration in his textual communications has decreased over the years.

P2 attributed her failure to teach her child Armenian to a combination of technological, economic, principle-of-least-effort, language preservation, and intergenerational factors. Thus, P2 stated,

"The iPad and the TV has a very strong effect on kids. I think that was our mistake. I was working, my husband was working, my mother-in-law was by herself and I think the easiest thing to do [with the child] was just say 'take your iPad and sit.' That's all in English and it's easy and it's fun. I had Armenian DVDs, like Talin songs, but my mother-in-law didn't know how to use the DVD. So, the iPAD was easier for her."

All eight participants reported that when they sought information pertaining to Armenia and Armenians, their searches were conducted mostly in English. To the question, "Do you ever google and look for Armenian information?" P7 stated, "Yes, but in English. I do that all the time." PR also conducts most of his information seeking on Armenia and Armenians in the English language.

On the positive, technological affordances, side (22%) – technologies, which facilitated Armenian-language information seeking and utilization – P4 said,

"I would google St. Gregory of Nareg. His entire book is online, in Armenian and in English translation. I can use it. There is no need to type from a book in the computer. You can just copy-paste, if you need a quote. In searching for Armenian holidays, there are websites created in Armenia. I can get information about the holiday, let's say, Vartavar. Most of this information, I was able to find in English."

Here, once again, one notices how the information pertaining to Armenia and

Armenians is available mostly in English.

Again, on the positive side, P6 reported the following:

"It's not only that it's a bible. It also gives you ways to search some things, electronically. If I'm looking for a word and I know where that word is, I can go to that text and if I can click on that word, it shows me all the occurrences of that word in the Bible, in the Armenian Bible, concordance style. It also shows you all the variations of the same word, with the same root. So, it becomes a very useful tool."

As an adult bilingual, PR can also attest to the many affordances technology furnishes. To name a few, given his interest in bilingual lexicology and natural language processing, he highly appreciates the Nayiri site of multiple monolingual and bilingual electronic dictionaries; and prizes his ability to have been able to conduct, during his doctoral career, two research projects, which required the various tools of modern information technology, to arrive at two posters, which were presented at the annual meetings of the American Society for Information Science and Technology, on the use of natural language processing tools as editorial aids (Sanentz, 2013) and on a preliminary exploration of translation looping, leading up to a postulated semantic stability index (Sanentz, 2015).

Findings from data analysis suggest that, as adult bilinguals engage in information seeking behavior, a key obstacle they encounter is technological. This obstacle tends to favor a choice of English and to work against a choice of Armenian or other non-English language. Thus, for instance, adult bilinguals struggle with keyboards and fonts and the forced LCE that is generated is an apparent decision to forego the option of an information search using Armenian-language search terms, because a certain technology, namely, an "Armenian keyboard," is unavailable, thereby making the choice of an

Armenian-language search moot.

At times, the younger, more computer-savvy generation saves the day. P5's LCE, which would have gone P1's way above, was salvaged by her daughter, who removed the technological obstacle on behalf of her mother, thereby opening up the Armenian-language choice for her. On several occasions, PR has consulted his nephew, who holds a computer-science degree, regarding matters technological, to good effect.

Finally, notwithstanding the desirable affordances made possible by technology, the sheer volume, ubiquity, and technological accessibility of English-language materials appears to overwhelm the Armenian-language choice, enticing adult bilinguals to opt for the more accessible and feasible English-language.

Language hierarchy.

Language hierarchy refers to a potentially evolving ranking, which adult bilinguals appear to hold in their minds, of the languages in their lives, with said ranking influencing their information seeking behaviors and shaping their LCEs.

Emergent claim: A language hierarchy, which adult bilinguals appear to hold in their minds for the languages in their lives, results in preferences for higher-ranked languages over lower-ranked ones, during information seeking and LCEs.

As P4 stated,

"English was the third option. In my mind, English was always number three. So, number one Armenian, number two Russian, number three English. For some reason, my mind would not let me bring English forward, to replace Russian. As for French, unfortunately, I studied only two-three years. It was very limited and I had no

opportunity to practice. For me, Russian, French, and Spanish are the languages that we should know and learn."

Worthy of note is the fact that, in filling out the survey questionnaire, P4 had not even mentioned French as one of the languages in his life. P4 appears to believe that, below a certain level of competency, a language is not worth a mention.

Similarly, to the question as to which language held the highest rank, P6 responded: "I would probably go with Armenian. I am biased. It is my language, it is my mother tongue, my heritage. So, there is a different level of attachment there. It gives me identity. There is a bit of primitive hierarchy there. Your language, your culture is part of your identity."

In a related vein, P8 commented: "I never made an effort to listen to Arabic music. But always French and English. The Beatles and rock and roll. I loved rock and roll. And then the French station from Monaco – all European music – Radio Monaco."

Preferences are also suggested by these two comments by P2: "When we go to Sunday mass, they have the book in Armenian, in Armenian but written in English [transliterated], and in English. I read the Armenian. I sing; I do the mass. I use the Armenian side." And, referring to a choice they made as parents on behalf of their son, P2 said, "My spouse said, we either keep the Arabic or the Armenian. English is a must, because he is living here. We keep the Armenian and we don't speak Arabic with him. We put the Arabic on the side."

Western Armenian is PR's mother tongue and his prized possession. Having now lived in the United States for over forty years, however, American English has steadily

gained in ascendancy in his life, such that he now has become a truly balanced bilingual, as his BLP score (above) attests. As for the other four languages or dialects in his life, Eastern Armenian has a special place in his heart, as he remembers how sweet the dialect sounded to his ears as a child and as he continues to engage with the dialect in his readings and professional translation and interpreting work; French ranks fourth, due to its mellifluousness, but has weakened over the years due to lack of use; Arabic, perhaps due in part to being a lower prestige language, ranks below these top four and has also weakened over the years due to a lack of use; and finally, Turkish – learned only through conversations with his grandmother, who was a survivor of the Armenian Genocide and could only speak Turkish, because Turks would cut off the tongue of any orphan, who spoke Armenian – is ranked lowest, because attitudes toward the language are darkened by raw emotions evoked by the transgenerational trauma of the Armenian Genocide.

Thus, participants appear to rank in their minds the languages in their lives and to have opinions about which languages are worthy of their higher esteem, which are higher in priority and, therefore, worth learning or using, and similar considerations. Thus, whereas the factors determining the hierarchy vary – and these factors may also vary over time – the presence of a hierarchy of languages is evident.

Zipf's law.

Zipf's law refers to phenomena, identified under the rubric of the Principle of Least Effort (Zipf, 1949), that lead adult bilinguals to choose the language that offers the easiest path forward, in their information seeking behaviors and thus shapes their LCEs.

The principle of least effort is evident in participants' LCEs. All eight participants

expressed, in various ways, how choosing English made life easier for them.

Emergent claim: The Principle of Least Effort is apposite in the tendency of adult bilinguals to prefer the ease-of-use of English and to disfavor non-English languages during their information seeking and LCEs.

As P4 stated, "It is easier in English, because on the computer, I don't have the Armenian letters on the keyboard. Knowing where the letters are does not come fast. But English is already there. It is much easier." PR can attest that typing in Armenian is much slower for him than typing in English and this does discourage his Armenian-language typewriting and texting.

Similarly, concerning texting in Armenian, P6 said,

"Although I have the fonts, it is a little bit too much trouble, because the keys are in different places and you are texting, because you want to be fast, you want to move. So, you do it in transliteration. Even when I am typing in Armenian, usually it is very slow, because you don't know exactly where the keys are. But how often do I do that? It is not a daily reality. That is why, going back to English is easier, faster, more convenient."

Concerning writing in Facebook, P7 commented, "I am writing in English. I was doing it in Armenian, but it is a pain. It takes too long, the keyboard and everything. So, I do it mainly in English." He added, "A lot of my friends say, why are you not writing in Armenian? Because it is a slower process. Sometimes it will not accept the word. When I am doing it in transliteration, [the spellchecker] comes up with another word. Ugh! You change it; you change it again. It is a pain." On many occasions, PR has been irked by overzealous spellcheckers, which interfere with transliterated text and mis-correct transliterated Armenian words back into necessarily wrong English words.

Commenting on how the Language Choice Event takes shape, P8 said, "If I have time, then I [text using Armenian fonts]. Otherwise, it goes in English." And "If I don't have time, it quickly goes in English, because, in Armenian, you have to find where the fonts are."

Referring to searching with the use of hashtags, P8 explained, "Some of the sites have Armenian letters; they show up in Armenian letters. But the search, I cannot do in Armenian. People search in English, so the hashtags are in English. Unless I have the keyboard, that is a lot of work. I don't have the time. My time is limited. I will do whatever helps me be fast."

P6 also referred to critical mass, in effect, when he reported, "I said, give me ten people, who want to have this class conducted in Armenian and I will do it for you. But I cannot do a bilingual class. It will be a very long program."

Thus, adult bilinguals, as all other humans according to Zipf's Law, appear to opt for the easier path during their information seeking and LCEs. This tends to result in choosing English more often than other languages, when seeking information. It follows, then, that the preservation of linguistic diversity entails, among other measures, making it as easy as possible for bilinguals to select their native languages – or languages other than English – when confronted with LCEs.

Armenian dialects (Eastern and Western).

Armenian dialects (Eastern and Western) refers to the influence of the two primary dialects of Modern Armenian on the information seeking behaviors of adult bilinguals, thereby shaping their LCEs.

Presently, there are two main extant dialects of the Modern Armenian language, namely, Eastern Armenian and Western Armenian. Statistics vary, but a total of approximately eleven million Armenians live in the world today. Of that total, a little over half, live in the Republic of Armenia and in the various states of the former Soviet Union and speak primarily the Eastern Armenian dialect, with this dialect also being the official language of the Republic of Armenia; the approximately five million remaining Armenians live in the remainder if the Armenian diaspora and speak primarily Western Armenian.

Six of the eight participants as well as PR, having been born in various Middle Eastern countries, speak primarily Western Armenian. The remaining two participants, born in Yerevan, Armenia, speak primarily Eastern Armenian. Table 6 and the discussion which follows it provides further details on participants' and PR's overall language competencies.

Emergent claim: The two primary extant dialects of Armenian, namely, Eastern and Western Armenian, create a linguistic schism among Armenians, together with a tug of war as to which dialect ought to be preserved and promoted, thereby influencing the information seeking behaviors and LCEs of Armenian adult bilinguals.

Referring to the feasibility of arriving at a united orthography for Eastern and

Western Armenian, P4 said,

"As someone who has studied Classical Armenian, I really would like to see all Armenians write in the Mesrobian orthography, which is the classical writing style and which is used mostly by Western Armenians. But it is not easy to unite. It is a great challenge, because I know there are Western Armenians, who have very strong feelings about the way they write. We have a developed language now and we cannot go back, just like that. If you talk to some other Armenians from Armenia, they might say, no, come on, we have been writing in this way for almost two centuries now. That is why it is very difficult. I think it is impossible to make one spoken language, but there is a small possibility of uniting the orthography."

P5 said,

"Now, all our Armenian language learning textbooks in the United States are in Western Armenian. Most of the new breed of teachers is Eastern speaking. The first thing they want to do is teach Eastern. That is what they know. But I feel that it is easier for the Eastern Armenian teacher to learn Western Armenian than for the whole classroom of different, diverse students to learn and get confused between Eastern and Western, since all the textbooks are in Western Armenian. Of course, there is a lot of opposition, there are a lot of strong feelings; resistance."

P6 commented on the challenge of understanding the Eastern Armenian dialect, thusly: "I can handle it, because we have a lot of Armenians, who come here from Armenia, so we're used to it." And then he added, "Although, I have to say, when I first came to this country, I remember playing soccer with Armenians from Armenia and they would say things, which I would not be able to understand. But you get used to it. As we say in Armenian, 'your ears fill up.'"

Regarding differences in pronunciation and the prospects for unity between Eastern and Western Armenian, P7 opined,

"The pronunciation is still sometimes strange. It is, like, funny. Both sides are very entrenched. Their belief in the superiority of the Western- or the Eastern-Armenian language, makes unity anathema. Eastern Armenians feel they need not compromise, because they think Western Armenian is a dying language anyway. Outlive the language! Also, they are more attached to the language right now than Western

Armenians. They have been in America for only two generations; Western Armenians have been here for four or five. Their keeping in touch with Armenia will help them keep the language alive. In California, when you are shopping and you hear Armenian, 90% of the time it is Eastern. Western Armenians speak English. Western Armenians do not have the kind of devotion to the language that Eastern Armenians do."

PR believes that preserving Western Armenian will prove impossible, in the longer term, and advocates a stratagem, whereby the demise of Western Armenian is delayed to the extent possible, in order to give more time to the efforts to graft the valuable qualities of the Western-Armenian linguistic heritage onto the Eastern Armenian, while at the same time focusing the lion's share of resources on promoting and enhancing Eastern Armenian, both in Armenia and in the Armenian diaspora.

Therefore, we see that, in the particular case of English-Armenian adult bilinguals, a tension exists between Eastern- and Western-Armenian language speakers. Proponents on either side are often staunch and contentious, convinced that supporting and promoting their dialect over the others' is the right path forward for Armenians. This rift is likely to promote information seeking and LCEs in one dialect to the detriment of the other. Thus, a mélange of strong affect, identity issues, Zipf's Law, and other factors, produce LCEs in this arena.

Mass media and social media.

Mass media and social media refers to a conglomeration of print and broadcasted mass communication channels, including television, motion pictures, radio, newspapers, and magazines, in the case of the former, and digital communications, including the Internet, WWW, and mobile networks, in the case of the latter, which influence the information seeking and utilization behaviors of adult bilinguals and shape their LCEs.

Emergent claim: Adult bilinguals appear to be passive consumers of mass and social media, by and large, with only a minority interacting actively with mass and digital communications.

P2 stated,

"I listen to Radio Arev from Lebanon, on Facebook. They have live shows and I listen to that; they have songs. For news, there is the Armenian Radio; sometimes I listen to that; whenever I turn on the radio, if I find it, I listen. Whenever I have the time and I am home and I know that the show is about to start, I watch the Armenian Hour on TV, because it reports on everything that happened in Armenia."

Referring to reading Armenian books and newspapers, P4 said, "Mostly online. I just go to Facebook, because my friends share information there. I go there and see what people have written about – politics, church feasts, lives of saints. I have books, too. So, I do both. Online and books."

P5 said, "We watch Voice of Armenia, yes. Actually, I get the link embedded in an e-mail. So, I watch it at home. I watched the Velvet Revolution online. Everybody was watching. So I said, where are you watching it? It was Azadoutiun something. This was online, so we watched Pashinyan talk. It was live streamed."

P5 also stated, "I receive information about symposia and lectures, electronically. From California, I get an e-mailed newsletter, which has dates for seminars, workshops, and stuff. I get a lot of different things from Armenia."

P6 said, "I probably read Hairenik online. Very rarely do I go to Lebanon to Aztag, if I am looking for something special. So, either Hairenik or the Armenian Weekly

– it is the same thing, its English version. I get it on a regular basis. I go to YouTube and watch things, read things."

P7 said, "I look at Facebook. There is some Armenian; I would say it is bilingual. I also post. You like and you share with other people." And

"I am always reading a lot of news from Armenia. Facebook friends post them. Based on what I am reading, I write my own interpretations, in English. They put up a lot of literature on Facebook. I read all that stuff. They put Baruyr Sevag and I write a commentary. Some people do not understand Armenian, so I translate or write about the gist of the poem. But sometimes I translate, also. People really enjoy it. Because they demand that you translate, sometimes. I tell them the gist of what it is about, but they say, please translate. I always have print newspapers in Armenian. I pick them up at the church. Hairenik, Asbarez, whatever. So, when I am there, I am looking at them and also pick them up every Sunday. They are in my car. Then, after a while, they start getting discolored. Then, I throw them away."

Referring to her childhood years, P8 said, "We did not have a TV, but we always listened to the Armenian Cyprus station on the radio – Yerevan speaks." Here, P8 is referring to a weekly radio program, broadcasted from the Island of Cyprus, with a clear signal being received in Beirut, Lebanon. Armenian families in Beirut would gather round religiously to enjoy this Eastern-Armenian radio program of music and news from then Soviet Armenia. PR also fondly remembers this radio program from his childhood.

P8 also said, now as an adult,

"I keep track of Armenian [information] in a blog, but it is in English; whenever I come across something interesting about Armenians. I know about hashtags, when I digitize documents. That is another thing; I OCR it. I can make it a searchable pdf in 24 languages. So, you type in the word and it will pick out all of them. In my blog, I have things listed by topic. On YouTube, if you wish to disseminate further, there is a B for Blogspot. You click on that and you directly send it. Then, when I have time, I could type more things, a hashtag, and so on."

PR's experience with mass and social media is very similar to the above. He, too, receives Armenian newspapers electronically, accesses YouTube and Facebook regularly,

and listens to Armenian radio and television programs sporadically, primarily as a passive consumer and rarely as an active contributor.

For English-Armenian adult bilinguals, mass and social media are largely arenas of passive consumption. Only P8 takes a truly active role in organizing or generating content herself, via her compilations, and her use of indexing and hashtags.

Dictionaries.

Dictionaries refers to the influences of both print and electronic dictionaries on the information seeking behaviors of adult bilinguals, thereby shaping their LCEs.

Emergent claim: English-Armenian adult bilinguals seek information in both print and electronic, monolingual and bilingual dictionaries, and exhibit a certain level of sophistication and discrimination – as in which dictionary to choose when, for what task, or for what purpose – in their information seeking behaviors and LCEs.

P2 stated, "For school, we use the online dictionary. I think they call it the Nayiri dictionary." P4 stated, "There is a very good Armenian dictionary called Nayiri. I like it because you can actually go to the real source. They have digitized the greatest dictionaries, for Eastern and Western Armenian." P6 said,

> "I have dictionaries online. I use the Bedrossian, which is for Classical Armenian. Sometimes I use Nayiri. Nayiri taps into a lot of different dictionaries. If the meaning of the word is not clear, I just go there, type in the word and Nayiri, with so many different dictionaries, will give me an idea about what the word is. But if I am working with classical text, I go to the Bedrossian." And "There is the Haigazian and there are other dictionaries. But Bedrossian is the only one that is Classical Armenian to English. Pretty soon after working with Classical Armenian, you come to realize that certain words in Armenian have evolved from Classical Armenian to our Armenian. We use a

lot of the same words, but sometimes those words mean something different in Classical Armenian. So, you always have to go back, look at the Haigazian and see what the different variations of meanings are."

P5 offered an explanation of her use of print dictionaries:

"I have several that I consult. One is from the Mkhitarian library and it is very old. I don't think it is in print anymore. It will help me with etymology and usage. A dictionary that I love the most is written by Ardashes Der Khatchadurian. It is Armenian to Armenian, which is the most difficult one to compile. In my view, it is the most authoritative dictionary of Western Armenian. I don't part with it, because it is unique and I don't think you can find it anymore. It is called "Hayots Lezvee Nor Pararan" and it was published in 1968. I love it. A lot of the dictionaries that we have, unfortunately, copy each other and if you want a certain meaning and you cannot find it in the dictionary and you open another dictionary, you will see the same [mistake] perpetuated. There is another dictionary I use, although it is in Eastern Armenian. I just use it for root words and proper nouns. I am a stickler for accuracy and I will spend ten to fifteen minutes on one word, just so that I am fully confident that it is the most accurate word that has been translated. So, I use the dictionaries for translation purposes. I use them for research purposes, too. For instance, I sometimes look up a word, its synonyms, and its definition in Armenian. I then need to find its English equivalent. So, I go to the [bilingual] dictionaries to find the English equivalent. If I cannot find the word or definition in English, I try one of the [Armenian] synonyms. It is becoming exceedingly difficult, because there are a lot of technical words, which are used in Armenia. They Armenianize English words. I try to see if there is a true Armenian equivalent."

P6 said, "I don't have the electronic version of the Haigazian Dictionary; two huge volumes, Armenian to Armenian; Classical Armenian to Modern Armenian." He added,

"I usually look at Haigazian. Haigazian has a little bit more detail. Bedrossian gives you a summary of what is in Haigazian, really. Haigazian is very elaborate. If you look up a word in Classical Armenian, it shows you the Greek word for it. If you read further you get the Arabic word, the Latin, the Turkish, and so forth. You get a sense of the word. Translating is an art. It is not a science."

Due to his particular commitment to bilingual lexicology, PR goes above and beyond the average English-Armenian bilingual in that he is keen on designing and deploying bilingual platforms and virtual spaces for bilingual lexicography and other

bilingual activities. Additional details on this topic are provided in Chapter 5, under Future directions.

Thus, English-Armenian bilingual adults are sophisticated in their information seeking behaviors with print and electronic, monolingual and bilingual dictionaries and engage in LCEs, discriminately.

Code switching during information seeking.

Code switching during information seeking refers to an adult-bilingual information behavior, where a seeker shifts from one language to another, during the course of looking for information, thereby producing LCEs.

Emergent claim: Adult bilinguals switch from one language to another, during information seeking episodes, either using the retrievals from one language as stepping stones into a search in another language and/or cognizant of the potential of retrieving additional information in another language.

P1 described one way Armenian information might be retrieved: "The other day, somebody was asking what is "nargis" [narcissus] in English. So, you just type "nargis" and then "nargis" will come up in Armenian and then you have to be able to read that and then figure out what's the flower in English."

P2 described an information seeking event involving code-switching, thusly:

"Yesterday, I met with my friend. We were looking for a Russian food. We typed in Arabic, we typed in English, and we typed in Armenian, but we could not find it. Then she said – she is from Armenia, so she knows Russian – 'Let me type it in Russian.' Google came up in Russian, the Russian ad came up, and we found the food; we found the recipe."

Referring to her habits of googling in Arabic, P2 said:

"The other day, we were talking about a flower; how it is good for your health to drink the water of the flower. I saw the picture of the flower, which my boss was showing me. She was looking into a healthy recipe and this flower had come up. She said it is a pink flower and they boil it. I remembered and said, you know, this sounds like 'karakdih;' this is a picture of 'karakdih.' I searched in Arabic. It gave me hibiscus. So, it turned out well. I was right."

Regarding the keyboards and fonts he used when searching, P3 said, "English keyboard fonts. I do two or three languages, when I search. First, in Turkish. Then, when I know the word, the exact word, in English. Or, if I know the exact word in English, I search in English first, and then in Turkish. Armenian, more rare."

P3 commented on the need to seek information by using a Turkish term, after having searched for that very same information, using the English equivalent of that Turkish term: "Turkish gives some extra things. The people in Turkey don't understand English, they post material about the topic in Turkish. If you search in English, you will never find it. The typing is different, names, spellings, etc."

Thus, adult bilinguals appear to be aware that they have the option of approaching their information seeking tasks variously, using all the languages that they know, and they do tend to exercise that option. Ingenuity and creativity accompany and inspire their LCEs, as they nimbly switch from one language to the other, in order to achieve what they anticipate will be better results.

Search topic.

Search topic refers to the influence of the subject matter of an information search on the information seeking and utilization behaviors of adult bilinguals, thereby shaping their LCEs.

Emergent claim: Adult bilinguals appear to be aware that certain languages yield better retrievals depending on the search topic and this awareness influences their information seeking behavior and their LCEs.

P2 described how certain topics take her to sources in Arabic: "I search in Arabic for meanings, I search for actors, I search for doctors, and for places. For instance, if I wanted to read about Alexandria, I would read it in Arabic. They have the Arabic Wikipedia. I search for doctors or medical information – what they call Arabic medicine – that comes from herbs and teas; how you make it."

P4 explained when he would opt for Armenian sources: "Perhaps when comparing the theology of the Armenian Church and the Catholic Church; finding the similarities and differences. After all, we have our own theologians and their translations of writings from Classical Armenian to Modern Armenian. I could also use Modern Armenian sources and translate them into English."

Adult bilinguals know that certain topics go better with certain languages and they engage in LCEs accordingly.

The remaining three codes under RQ1, namely, "Trusting the source when information seeking," "Information seeking with e-translation tools," and "Cross

Language Information Retrieval," occurred only once or twice each and were commented upon, in all three cases, by only one participant each. Therefore, insufficient data exists to make any claims. Notwithstanding, the notions they elicited were intriguing enough to warrant distinction and capture.

Trusting the source when information seeking.

Trusting the source when information seeking refers to the levels of confidence adult bilinguals have in the sources they are accessing and the influence of these levels on their information seeking and utilization behaviors, thereby shaping their LCEs.

P1 said, "Growing up in a communist regime, where they had two newspapers and neither one provided the truth, I cannot trust any newspaper, pretty much, nowadays. They all push their agendas. Nobody just says this is what happened. It is always their interpretation of what happened and I don't appreciate that."

Information seeking with e-translation tools.

Information seeking with e-translation tools refers to the use of electronic translation tools, such as Google Translate, by adult bilinguals as they look for information, thereby influencing their information seeking and utilization behaviors and shaping their LCEs.

P2 stated,

"If I want to translate English to Armenian, I can use Google translate. It is easy. It gives you two slots. You key in the Armenian or you key in the English and it gives it to you in Armenian or vice versa. When it is my brother's or my uncle's birthday – they are in Holland – I key in happy birthday and it gives it to me in Dutch. I then copy and paste it in their Facebook."

PR also finds Google Translate to be a convenient tool for quick

English<>Armenian word look ups, but recognizes that the Armenian offered there is the

Eastern dialect.

Cross Language Information Retrieval.

Cross Language Information Retrieval (CLIR) refers to the influence of variations

in information retrieval caused by one LCE versus another on the information seeking

and utilization behaviors of adult bilinguals.

Describing how she searched for music titles, P2 said,

"You put in, let's say, Um Kulthum. You type Um Kulthum, in Arabic. If you type it in English, it will also give you Um Kulthum. However, for an Armenian song, I cannot type in Arabic to search for Armenian songs. If I wanted to look for Paul Baghdadian's songs, I would type Paul Baghdadian, in English, or I would type it in Armenian letters. Now, sometimes, there is an Armenian letter that they substitute with x. So, when I write in English letters, to find that song, YouTube will not understand. Google will not find it. So, I switch to Armenian letters. They use x instead of kh."

PR has experienced this English<>Armenian CLIR quirk, himself. For instance,

when seeking information on a person by the last name of Babakhanian, retrievals may

not include instances where a transliteration of Babaxanian is used. Transliterations are

far from being standardized.

In sum, the information seeking behaviors and the Language Choice Events of

adult bilinguals are influenced and shaped by a mélange of wide-ranging factors, ranging

from technological obstacles and affordances, the ranking they assign to the languages in

their lives, and ease-of-use to code switching, their search topics, and CLIR.

INFORMATION UTILIZATION BEHAVIORS OF ADULT BILINGUALS

This section summarizes findings related to RQ2, which asks: How do adult bilinguals utilize information and how, if at all, are adult bilinguals' Language Choice Events (LCEs) associated with their information utilization behaviors? Table 11 tabulates the pertinent codes identified under the rubric of this second research question, together with their frequencies and code occurrence and participant totals. The table is followed by evidence presented, under each code, in the form of a narrative, with key quotations from interviewed participants undergirding the emergent claims made.

It is important to point out, pertaining to findings related to RQ2, that in this dissertation, language utilization is considered to be a subset of information utilization, in that information inheres in languages and, therefore, using a language is a form of using information.

In Table 11, the counted unit is an instance of a code occurring during an interview session. A total of sixteen RQ2 codes were identified. As this table indicates the code "Interlocutor's language skills" received the highest number, with its total across all eight participants comprising 16% of the grand total of all code occurrences for all participants. All eight participants had comments, which were accrued under this code. The codes "Language utilization for professional advantage," "Language utilization as secret code," and "Aural esthetics" followed in diminishing frequencies – at 13%, 10%, and 10%, with seven, eight, and six participants having relevant corresponding comments under each code, respectively.

CODE	P 1	P 2	P 3	P 4	P 5	P 6	P 7	P 8	TOTAL BY OCCURRENCE
Interlocutor's language skills	1	5	2	5	10	3	2	3	31
Language utilization for professional advantage	6	1		2	2	7	5	2	25
Language utilization as secret code	1	7	1	2	2	1	3	3	20
Aural esthetics	2	7		1		2	5	2	19
Utilization of Language 1 to assist with or to check Language 2	3	4		2		4	2	2	17
Educational concerns		1		2	4	2		7	16
Transliteration behaviors	2	4	1		1	1	2	1	12
Counting and numbers	2	3	1	2	3			1	12
Language maintenance and enhancement				1	1	2	5		9
Surmises regarding the communicativeness of languages		3		3	1	2			9
Negative attitudes toward code-switching	1	1	1	3	1				7
Reading movie credits		2	1	1	1		1	1	7
Utilization of certain types of information to learn languages	4	1							5
Code switching when writing					2		1	2	5
Code switching and language competency	1	1							2
Language utilization level as a cause of guilt feelings	2								2
TOTAL BY PARTICIPANT	25	40	7	24	28	24	26	24	198

Table 11. Frequencies of RQ2 codes associated with each participant and totals by code occurrence and participant

Interlocutor's language skills.

Interlocutor's language skills refers to adult bilinguals' presumptions, regarding the language skills of individuals with whom they are communicating, which influence their information utilization behaviors and shape their LCEs. All eight participants had comments concerning the influence the language skills they presumed their interlocutors to have on their information utilization behaviors and LCEs.

Emergent claim: Adult bilinguals strive to attune themselves to the language skills and preferences of those with whom they communicate and modulate their language

utilization to improve communications, thereby influencing their information utilization behaviors and LCEs.

Regarding the choice of language used when wishing someone a happy birthday, P2 said, "If they are close to me and I have them on my phone, I say happy birthday, in English; I do not say [happy birthday in Armenian]. If they are Arabs, I say, [happy birthday in Arabic]."

Confronting a similar choice, P7 said, "I write in Armenian. People enjoy that."

As regards handwriting a Christmas card in Armenian, English or both, P5 said, "Both. To people who know Armenian, I will write in Armenian and to those who will not be able to read it in Armenian, I will write to them in English."

Along these same lines, P8 said, "If I am writing greeting cards to friends and I know that they know Armenian, I write in Armenian. But [this friend] told me that she learned the Armenian language verbally; she doesn't know how to read and write. So, I talk to her in Armenian, but I write to her in English."

Commenting on the language she used when communicating with her family back in the Middle East via handwritten letters, P8 said, "Western Armenian. I have kept Xerox copies of some of them. Some day, I am going to go back and look to see what I wrote to my Mom."

P2 said,

"I found some of my Mom's old pictures at my auntie's house. We did not have the Internet before, so they used to send letters or postcards to one another and everything

was written in Armenian, in the back. But when my Mom was in [Europe] and she sent me a letter, she wrote it in Arabic. Maybe because when she used to send them to her Mom or to her sister, Armenian was easier for them to read. She wrote me in Arabic because she knows that it is easier for me. She bases her decision upon the person that she's sending the letter to. Same thing with Facebook. For people who have just come to the United States, I write to them using Armenian words in English transliteration [the English transliteration of may God rest his soul in Armenian] or [the English transliteration of what a pretty girl, in Armenian]. I do not write in English, because I assume that they will not understand; they are new in the States."

As concerns public speaking, P4 said, "I started doing first Armenian and then English. Complete Armenian, finishing, and then doing English and finishing. Later on, I learned that there are some, who deliver totally different speeches. I don't like that." When I probed further regarding how he made his language choice decisions when speaking, P4 said, "Some faces might tell me which language to start with. They might tell me with their eyes what language to start with. Sometimes, I think that I need to respect them equally. Even though Armenian is very important for me, I feel I need to keep a balance. I am there to respect every single person."

Regarding the reasons behind delivering a eulogy in three languages – Russian, Armenian, and English – P4 said,

"Because they want to hear it in Russian. They want to hear a little bit of Armenian, because they have this national pride and they want to please the diseased person, even though the person is dead; English, because there are some neighbors, friends, who might want to understand what is going on. Some of them might know English, but I know they want to hear it in Russian, because for them English is a fake language. It is the language they are supposed to know, in order to communicate, but when it comes to this very special moment, it has to be done in the real language."

P5 explained,

"When I do presentations, which deal with Armenian themes, I feel obligated to also use English. I am forced to switch to English, because you have to reach them in the language they understand. Once, I offered a cultural presentation, which was bilingual. In my last segment, I combined Armenian traditional proverbs with illustrations by

Saroukhan. It was a means to engage people, but I had to explain each one in English, because most of the people in the audience, although they were Armenian, they were English speakers. You have to say the proverbs in Armenian, and then to translate."

P6 explained,

"When I am lecturing, I would have the classical scripture open, in English, but I keep a close eye on the Classical Armenian, because that is the text you want to rely on. I am usually lecturing in English, but if there are some key words that I want to emphasize, I use the Classical Armenian. I bring in the terminology, to make various connections. Sometimes, the original language helps you to understand things better. I always have a Classical Armenian Bible open. Sometimes, depending upon the audience, you would need to switch between Armenian and English, when you're speaking. Sometimes, out of sentimental value, people say, why don't you say this in Armenian? I look at the audience. If there are a couple of people who really don't know English, who have difficulty, then I throw in Armenian. But, generally speaking, my lectures are in English. When I announce the program in English, people assume that it is going to be conducted in English."

P6 explained,

"When I was younger, there was never a problem for us to speak Armenian. It came naturally. With the younger generation, sometimes we feel we need to communicate in English, in order to better communicate with them. They don't have the same competence. So, if you want to communicate something sophisticated, you switch to English. For small talk, Armenian is fine."

Adult bilinguals also appear to use languages in unusual and creative ways. As P8 mentioned, "I make jokes also. We all get a lot of spam. Sometimes, when I answer the phone, I say, [Who is it, in Armenian]. It turns off the person. If it is spam, they will shut up. I use Armenian creatively, to ward off spam. If they are Armenian, they will continue talking." P8 added, "I want to respond to the other person in Armenian, because they know it also and it is nicer. They say, 'Oh, Armenian!'" PR routinely takes his interlocutors' language skills into account during his communications and has personally experienced most of the phenomena described above.

Thus, adult bilinguals choose the languages they use in accordance with their

assessment of their interlocutors' language-skill levels and language preferences, in order to enhance their communications in various ways.

Language utilization for professional advantage.

Language utilization for professional advantage refers to the deployment of adult bilinguals' language skills in professional settings to good effect, thereby influencing their information utilization behaviors and generating LCEs.

Emergent claim: Adult bilinguals utilize the languages at their disposal for career advancement in a variety of ways, including performing translation tasks, securing perquisites, impressing colleagues, teaching the languages that they know, and so on, thereby bringing forth information utilization behaviors and LCEs.

P1 said, "When I went to college, because my French was so good, my professors actually were using me as a teacher's assistant. Then, they volunteered me to study in Paris for six months, all expenses paid. I did professional translations, actually, for money, also. They were paying me a lot of money, translating medical documents." She added, "Russian is a very hard language to learn and it is valuable. My CEO was Russian, so I used it."

P5 said, "I do use other languages when I do translation work, but it is mostly Armenian to English. Sometimes, Armenian to French and the reverse. A few times, Arabic." P6 said, "I can read and translate Classical Armenian very comfortably and I have done a lot of translation from Classical Armenian into English." P6 said,

"First, you want to get the big picture, to see what the text is all about. Then, you start looking for the grammatical structure of the piece. Grammar in those ancient languages

is kind of tricky. The texts lend themselves to multiple translations. So, you start asking yourself, could it be this? Maybe it is this. I come to a passage where I know it can be translated in three different ways. So, I start to eliminate the ones that do not make sense, given the context."

P2 said, "I am applying to be an Arabic-English translator for the government, for UNICEF, and for the United Nations. I am thinking about teaching Armenian."

Being the founder of a language consulting company and an active professional translator and interpreter, PR has utilized his language skills for professional advantage extensively throughout his adult career and continues to do so today.

There are various career and professional advantages, which knowing more than one language bestows upon its exponents. Information utilization behaviors and LCEs are concomitantly generated, when such language-skills are deployed.

Language utilization as secret code.

Language utilization as secret code refers to an adult-bilingual information behavior, where a particular language is used for communication with certain people, while at the same time intending to exclude certain others from that communication, under the presumption of these certain others' lack of or inadequate knowledge of that particular language, thereby influencing adult bilinguals' information utilization behaviors and leading to LCEs. All eight participants had comments concerning the influence of their utilization of languages as secret codes on their information utilization behaviors and LCEs.

Emergent claim: Leveraging the relative language-deficits of those who have access to their communications, adult bilinguals transform languages appropriate to the

occasion into de facto secret codes, thereby producing information utilization behaviors and LCEs.

In certain instances, the secret code is used by adults as a means of excluding children who are within earshot of the communication. P2 said, "When they wanted to send us to sleep, but they wanted to hide it from us, they wouldn't say, 'They have to sleep.' They would say, ['They need to go to bed', in Turkish]. But I still remember the words I wanted to understand."

Along these same lines, P2 explained, "When my mother-in-law wants to tell us about something the kids have done, she tells it in Arabic. But, then, the conversation stays in Arabic." Similarly, P4 reported that, when he was a child, his "parents used Russian. When we were little kids, we did not understand." Regarding using a language with his wife now, which their children do not understand, he said, "My wife's Russian is not that good, but she has the basic knowledge. So, she can understand what I am saying and she responds with eye contact."

P5's experience was no different: "Turkish was the secret language, as was French. Of course, you learn it, because it is a forbidden language. When my father and mother wanted to say something in front of us, they would use French. But we learned it, in order to figure out what they were up to." She then added, "Arabic was the language that our kids didn't understand and my husband and I used it to talk to each other."

P7 and P8 reported similar experiences, as well. P7 said, "When I was younger, we didn't have a command of Turkish. So, if my aunts wanted to say something, they used Turkish. We knew that something was going on that we weren't supposed to know.

Secrets or squabbles."

Nowadays, P7 utilizes Armenian as a secret language, thusly: "With my cousins, who are non-Armenian, and their children. Some of them don't understand Armenian. So, we speak Armenian, to keep things private. Sometimes, we speak Arabic."

P8 said, "Sometimes the elders [used Turkish], but I used to make an effort to understand what they were talking about. I didn't want to learn the language, but I wanted to know the important words, so that I would understand."

In addition to utilizing this approach with children, adult bilinguals also utilize this tactic to create virtual privacy for themselves in a variety of settings. Explaining what her husband does when he calls her at work, P1 said, "During the day, if he has to say something to me that he doesn't want anybody to hear, he will say it in Armenian."

Responding to whether her husband utilized Arabic, when he called her at the office during the day, P2 said, "No, Armenian. But if there are people around who do not understand Arabic, then he will say it in Arabic, so they won't understand. It depends on the situation."

When texting, P2 described her Language Choice Event, thusly: "It depends on the situation. I don't have my texts on private. So, anyone can read them right then and there. I would choose Arabic, because then nobody around would understand what the text says. I would rather receive texts in Arabic than English or Armenian."

Whereas P4, too, reported generating privacy for himself in a public space, on occasion, he cautioned that one ought to be "careful, because there might be an Armenian

person nearby. Sometimes, you would not imagine that a person is Armenian. They might

look English, Scandinavian, or even darker than our color, but they might understand

Armenian. They might be mixed Armenian or know basic Armenian. I don't want to get

into trouble."

Similarly, P6 utilized this tactic,

"Discretely. If I am in the subway, we can talk Armenian, because people around us
don't have to know what we are talking about. But if we are with some people who
don't understand Armenian and we speak Armenian, then I don't think it would be
polite to do that. My [relative] has a business. When I visit him, although we can speak
Armenian with each other, when there are customers around, we switch to English, out
of respect. You don't want to give the impression that you are talking about them. But,
in the marketplace, in the subway, we speak Armenian, without even considering
whether we are creating a private space for ourselves or not."

P7 expressed his own societal concerns regarding using Armenian to create

privacy: "Oh, definitely. But we don't want to use it too much, because in this society

that is considered rude. Somebody might think that's not nice. I understand and I agree.

They might take it personally or they might think I am talking about them. Paranoia!"

There was a gleam in her eye, when P8 said, "Yes, if the other person knows

Armenian, I switch to Armenian. It comes in very handy."

PR recalls, as a child, his parents' and grandmother's attempts to utilize Turkish

and French as secret codes to no avail – he picked up both languages effortlessly and

quickly, thwarting their attempts at obfuscation. As an adult, PR and his wife mix in

Armenian words, on occasion, to create a modicum of privacy for themselves, in certain

public settings.

Thus, adult bilinguals fashion a secret code out of a language they know, in

various ways, in order to exclude certain others from their communications.

Aural esthetics.

Aural esthetics refers to the influence of songs and their lyrics in various languages, the various ways languages sound, and related phenomena, on the information utilization behaviors of adult bilinguals, thereby shaping their LCEs.

Emergent claim: Adult bilinguals' aural esthetics – as with the pleasing sounds of certain languages, associations between songs and lyrics in a particular language, and the like – leads them to favor one language over another, thereby influencing their information utilization behaviors and LCEs.

Regarding French, P5 said, "I loved the language. There was no affiliation, no sense of attachment to the language, except that it was beautiful and I wanted to use it. The way it sounds is beautiful." PR is also enamored of the aural beauty of the French language.

Similarly, regarding Hebrew, P2 said, "I don't know. I just like the sound."

Regarding his musical preferences, P6 said,

"Oh, my love of Armenian music, church music. The board of trustees of the Church took us out to lunch, to thank us for our volunteer service. All of a sudden, impromptu, we started singing all kinds of Armenian songs. It was real fun. I enjoyed it. It is not as though you would get emotional about an English or Arabic song, whereas when it comes to Armenian music – the mass, the folk songs – it is a different emotional experience. I know a lot of English songs, but I do not know their words by heart. I could sing forty, fifty Armenian songs by heart. No problem. That is not the case with Arabic, Turkish, or Hebrew, either."

PR recalls being so moved by Armenian liturgical music as a youngster, that he

would tearfully emote, while singing.

P6 commented on his feelings about liturgical music, thusly:

"I am exposed to all three, but I enjoy listening to orthodox services by Antiochian Arabs from Lebanon. They are Arabs, but they are orthodox. Theirs is an Athenian tradition. I like that kind of singing, those kinds of melodies. They do it in Arabic. It sounds just like Greek orthodox chanting – same melodies, same style of singing – but it is in Arabic. I enjoy that."

P2 explained, "Mass media was in Arabic, but my mom used to listen to the FM radio, in English. So, I used to sing English songs, when I was little, even though I did not know what the songs meant. To this day, when I hear that old music, I remember where I was sitting, what I was doing, while that song was broadcasting." PR, too, remembers watching American TV series (e. g., Bonanza), cartoons (e. g., Bugs Bunny), and commercials (e. g., for Kent cigarettes), without understanding the English words, yet recalls some of the scripts, verbatim and by rote, to this day – which, given his present language skills, he can retrospectively decipher.

P4 explained,

"Because I wasn't as good in English when I was a child, I wasn't able to understand clearly what the singer was saying in English. It became an issue for me. Even though my English is much stronger now, when I hear music in English, I still have a feeling that I don't understand what the singer is saying. But then I say, come on now, I know this language."

P1's son listens to a lot of Armenian music. P1 said, "He loves Armenian. He loves the music. That's the only thing he listens to. When he gets in his car, he listens to Armenian music."

P2 said, "I like old stuff. I like some Iraqi songs. Like, a few days ago, I was

singing this song. I know that this song is very old, when I was little. I googled it. I wish I had never googled it, because I started to cry, cry, and cry. From the beginning of the song to the end and then would start again and again. I could not stop. Music is powerful."

There appears to be a strong association between musicality and language and adult bilinguals appear to be influenced by the aural appeal of languages or by the esthetics of the fusion of melodies and lyrics in their information utilization behaviors and LCEs.

Utilization of Language 1 to assist with or to check Language 2.

Utilization of Language 1 to assist with or to check Language 2 refers to the adult-bilingual information behavior of using information available in one language to help with information in another, or to verify information available through another, thereby begetting information utilization behaviors and LCEs.

Emergent claim: Adult bilinguals appear to leverage the information inherent in one language to either assist with or to double check the information in another, thereby generating information utilization behaviors and LCEs.

In certain instances, one language is utilized to assist with another. Thus, in explaining how her French helped her to learn English, P1 said, "At my high school, one of the high-school teachers was actually Haitian. So, he was translating from French to English for me." She then added, "I would listen to the music and follow the words. I used to do that with the Beetles. That's how I improved my English. Plus, I knew

French." PR has utilized his knowledge of French to assist with his acquisition of English, when he immigrated to the United States.

Along these same lines, P2 utilized Armenian in a peculiar way, when she was helping her son with his homework: The paper he needed to write was to be written in Armenian. However, in their information seeking efforts, they initially tapped into English sources instead and, upon finding relevant materials, they translated them into Armenian, before including them in the paper. They surmised that this would be a surefire way for them to avoid plagiarism.

The utilization of one language to assist with another easily bleeds into the utilization of one language to check another. Thus, P6 said,

"When you are studying, you need to look at both the Greek and the Armenian text. Classical Armenian is so close to the Greek. When you see genitive in Greek, you see genitive in Classical Armenian. When you see a verb, you see the same kind of verb. Then, the word order; it makes a difference; for emphasis; whether one word is before the other. These things all matter, when you are doing exegesis. I look for these things. Then, when you put two or three English bibles next to each other, you see that there is a problematic text. Each one is translated a little differently. Then you know there is a difficulty there."

Elaborating further, P6 explained, "Greek is the original. Then, there are the other languages that the Bible was translated into. This is for the New Testament. The Old Testament, obviously, was in Hebrew. Christians also have the Septuagint, which is the Greek translation of the Hebrew. And the Armenian Old Testament is, basically, the translation of the Greek Old Testament."

P8 said, "I used to read all these magazines in Arabic. In 1991, when things were happening in Iraq, I wanted to see what the Arab world was saying. For me, to compare

the two was important."

Upon receiving an English-Armenian bilingual newsletter, P1 said, "Sometimes I read the Armenian side also, just to make sure; just to see if the translation is correct or not."

P4 explained what he would do, if he received a similar flyer:

"It is interesting. Most of the flyers or invitations come in majority English, with a little Armenian. That is why I go with the English. I might look at the Armenian, after I get the information; when, what, where. Then, I see what the Armenian part is saying. Also, from my dialect experience, I can recognize right away that the Armenian is Western Armenian. Sometimes it would drive me crazy, because I could see that it was not a good translation of the English. I could see that it was a literal translation from English into Armenian. It is 'Englanian.' It is not Armenian, nor is it English. It is 'Englanian.' I can see that the person is not fluent in Armenian."

PR, too, feels compelled to read both the English and Armenian portions of bilingual flyers, because he is both interested in the quality of the translation work done and because this provides him with a modicum of enjoyment.

P2 said, "Sometimes I count money in Arabic, sometimes in Armenian, and sometimes in English. You know what, I do it to double check, as well."

Thus, adult bilinguals utilize the information inherent in the languages in their lives in a variety of ways, as with using one language to support another or to help learn another and using one language to double check the information in or derived from another.

Educational concerns.

Educational concerns refers to the adult-bilingual information behavior of producing information utilization behaviors and LCEs, with an eye at pedagogic or andragogic considerations.

Emergent claim: Adult bilinguals appear to utilize the languages at their disposal to advance or enhance teaching and learning processes, such as with selecting the language best suited to a learning task or most appropriate for a learner, thereby influencing their information utilization behaviors and LCEs.

P4 said, "I know there are people who really appreciate hearing the same [speech], first in Armenian and then in English, because it helps them to improve their Armenian. I am teaching, helping them to improve, to remember, to recall the words."

P5 said, "The Arabic had its Arabic-language history and, in Armenian, we had Armenian history. When it came to world history, that was taught in English and sometimes there was an overlap. The history taught in Armenian would overlap with the history taught in English."

Similarly, P6 said, "Our classes, aside from Armenian language, history, and religion, were all conducted in Arabic." P6 then confirmed that Armenian history was taught in Armenian and Arabic history was taught in Arabic.

In arguing in favor of Western-Armenian over Eastern-Armenian, P5 said,

"What I say is, in your homes, you speak the language that you know best. But especially because the Western Armenian language is dying, I want that preserved. I

say, if you have two different teachers, you can teach the same content, one in Western Armenian to the Western speakers and the other, in Eastern Armenian. But the preference should be to go with the variant of the branch that is in the textbook, which is Western. In one Armenian school, that is what they did. I knew that there were a lot of Iranian Armenians, who attended that school. At home, they spoke Eastern Armenian. But as soon as they entered the school, they switched to Western Armenian. They could do it! It is very easy for small children to do it. And then we will be the richer for it. I do believe that it might confuse them, but my passion for Western Armenian and for its survival supersedes. I have to believe that, especially in the diaspora. There is a whole mass of people in the diaspora, who speak Western Armenian. Why are we discounting those people, neglecting them, and kind of giving up? We have to step up to it. But nobody is taking a stance."

P5 added, "Recently, I got something [from Armenia], where they were asking for our opinion – about how they could be helpful to us. I make everything that I receive from them available to all. I forward the e-mail."

When PR pointed out that she appeared to love languages and to have a high aptitude for them, P8 opined,

"Languages were not my specialty. Actually, you might remember how, in Lebanon, for the baccalaureate, they put you in either the science or the art track. They put me in science. I didn't know that I was really good in the arts and I liked to be creative. But then I brought my creativity to my job. So, it is not about language, it is about acquiring knowledge."

Thus, in various educational settings, adult bilinguals leverage their language skills to improve educational outcomes, while altering their information utilization behaviors and their language choices.

Transliteration behaviors.

Transliteration behaviors refers to the adult-bilingual information behaviors of transferring words from the alphabet of one language to the alphabet of another, thereby bringing about LCEs.

Emergent claim: Adult bilinguals utilize transliteration selectively, such as with considering the language skills of those for whom the transliterated text is intended or the affordances of the language into which they are transliterating, during their information utilization behaviors and LCEs.

To PR's question as to with whom and in what languages she texted, P2 replied,

"I text in English. I write in English, but in Armenian language. For example, I say, [what are you doing, in Armenian, but in English transliteration], but it's i-n-c-h … But if I want to write an e-mail or a greeting on Facebook to my relatives, who don't know English, I write to them in Armenian [Merry Christmas and a Happy New Year, in Armenian]. I send e-mails in Armenian."

P2 avoids transliterating in Arabic,

"because the Arabic letters, their pronunciations, when you turn them into English, it is a bit harder. If we say, 'kef halek?' [How are you? In Arabic], the kef, we can write k-e-f. But halek, we don't have the [Arabic phoneme] 'h,' so we substitute the letter with the number 7, which looks like [the Arabic letter] 'h.'"

P3 said, "I have friends in Armenia. When texting, I can write in Armenian or I can write in Armenian with English letters."

P5 said,

"When I text in Armenian, people who don't have the fonts, will write back to me in transliteration, which makes me happy, because they are making the effort. My cousin's daughter just came from Lebanon. Anytime she wants to write to me, she writes in transliteration. I write back in Armenian. But if it is something quick that I need her response on, because I know how busy she is, I will write it in English. When she comes here, all of us are always talking in Armenian, because she makes it a point to speak Armenian."

P6 said, "My family is far away. But we do speak quite frequently. And if I do text in Armenian, it is in Latin letters – not Armenian letters. I could do it in Armenian letters, but it seems that one just comes much easier."

P7 said, "My aunts, they don't understand English. They still don't, even after all these years. Once in a while, we exchange texts, transliterated."

PR's experiences with transliteration are similar to what has been described above. He utilizes transliteration particularly when texting, although the overall extent to which he utilizes transliteration has declined, over the years.

Thus, adult bilinguals do transliterate, whenever it suits their purposes to do so, thereby bringing forth information utilization behaviors and LCEs.

Counting and numbers.

Counting and numbers refers to the information behavior of producing LCEs as a consequence of mathematical and related numerical activities by adult bilinguals, during information seeking and utilization.

Emergent claim: When it comes to numbers, counting, or mathematics in general, adult bilinguals behave in peculiar ways, such as sometimes utilizing one language and at other times utilizing another – perhaps governed by childhood experiences or adult habits – without exhibiting a clearly discernable pattern.

In her BLP, P1 had not mentioned that she counted in French at all, even though she had attended a French-language school as a child. She confirmed that she, in fact, did not and does not and then added, "Weird. I don't know why. I can't explain it."

P2 said, "Sometimes I count money in Arabic, sometimes in Armenian, and sometimes in English. I use them all. But I can count faster in Arabic. I can 'eat' part of the word in Arabic, so I can count quickly."

Regarding giving out her phone number to bilinguals, P2 said, "I say it in English. My ear is trained on that music. But if you were to ask me for a phone number from my old country, I will tell it to you in Arabic. I would be forced to say it in Arabic, even to Armenians who ask for it." She then added, "Sometimes, when I am teaching math to my daughter, I say, 'my dear, how much is one and one – in Armenian?" I surmise that it will be easier for her, but I believe it is only I who feels that this would be easier for her, but for her the English is easier. I surmise that, if I were to say it in Armenian, she will comprehend it better."

P4 said, "We speak in English when we are helping our kids with their homework, because the homework is in English. But for math, we mix the languages, because when I am explaining something, I use both languages, to make it clear for them, to help them understand more fully, what I am trying to tell them."

P5 said that, in her case, "More and more, it is becoming English, but a lot of times, I count in Armenian also. I guess I would count in English if I have to count out loud and there are English speakers around me. But, no, not even then. I have counted in Armenian in those situations, probably to impress them."

As regards counting in her head, if she were alone, P5 said, "I think it would be in Armenian." When giving out her phone number to bilinguals, P5 does it in "English. If it is a close friend, I will say it in Armenian, but more often than not, they will repeat the numbers in English. I think they make a connection between addresses, which you cannot give in any other language but English. I guess that is why they feel more comfortable, writing it in English."

P7 gives out his phone number in English, as well: "Yes. It takes a long time to get it in Armenian. It has become second nature; most of the time you are giving it out in English."

Distinguishing between giving out a phone number and counting, P8 said,

"What I do is, I try to [give out my phone number] in Armenian, but it is much faster in English. Because the majority of people are not Armenian, so you are so used to saying it in English. So, it just goes to English. I think it has to do with usage. But if I am thinking of a number on my own, I say it in Armenian. I count in Armenian. It is faster in Armenian."

PR tends to count in Western Armenian, almost all of the time, because he has studied arithmetic, in general, and the multiplication table, in particular, in Western Armenian, in elementary school.

PR also acknowledges that it takes extra cognitive effort to give out phone numbers in English.

Thus, when it comes to numbers, counting, or mathematics in general, the information utilization behaviors and LCEs of adult bilinguals appear to occur in erratic ways, but might be primarily influenced by their childhood educational experiences with arithmetic and/or their adult language-utilization habits.

Language maintenance and enhancement.

Language maintenance and enhancement refers to the efforts and plans of adult bilinguals to keep and sharpen their language skills, thereby influencing their information behaviors and bringing about LCEs.

Emergent claim: Adult bilinguals are keen on maintaining and enhancing their

language skills and they do so primarily by reading, thereby influencing their information

utilization behaviors and LCEs.

Regarding maintaining and enhancing her languages, P2 said,

"For English, almost every day is an improvement for me. All the news is in English. I read the news on my iPad. For instance, the CNN news. Before you log into Yahoo, they give you news. Whenever I hear from people about goings on, I search, I read, I google, I read. Anything that has to do with health, diet, child improvement, money managing, financing. I read online. Anytime I am at Starbucks, I pick a book I am interested in, just for pleasure."

Similarly, P4 strives to maintain and enhance his languages. He said, "For

English, I try to read more and watch discussions on TV or on YouTube. For Armenian, I

will read articles from online sources, in order not to forget the Eastern and to strengthen

the Western. Mostly, news articles."

In order to maintain and enhance her languages, P5 said,

"I read. I read a lot. I read a lot in Armenian. I read a lot of newspapers, I print them. For English, the news. What Trump has been up to. Entertainment, culture, geography, movies. And for French, I read books. All the classics. I have them and then I download in my home library. I have a lot. Also, on kindle, anything published before 1923 is public domain. It is free. And for Arabic, I try to read a little more Arabic, but I don't have the time. I would love to read more Arabic. I can do it online and I should make an effort to spend more time doing that."

Similarly, P6 maintains and enhances his languages, thusly: "You start reading.

You start devouring books. Mainly historical and theological. That is my area of interest.

But then, soon after, I started doing Classical Armenian, too, on my own. You find a lot

of books on Classical Armenian and start studying them."

As regards readings in the Armenian language, P2 said, "Only for studying

purposes; only for homework or for the church. At our meetings, we speak Armenian.

We have books, which give you the choice of reading in Armenian or English. I read the

Armenian part."

P7 is also striven to maintain and enhance his languages:

"The English, I always like to upgrade. If I hear an unusual word that I am not very familiar with, I write it down, and I check it on Google. Most of the time, I know the Armenian equivalent of the word. For my Armenian, when I am reading, I jot down all the words that I can use one day, when I start writing. I make a list. A whole list of words, in Armenian and in English, which are striking words that you could use when you write. I write these in a notebook. You look at the word and you can write something about that word. It gives you ideas. Most of the words I am familiar with. Just a reminder."

However, P7 did not do anything comparable with Arabic, Hebrew, or Turkish.

P7 added,

"I was just reading a very interesting philosophy book – all the different philosophers from Aquinas. If I see a word, even if I know what it means but I like the word, for example, stymied, I underline the word, it is a nice word. I feel that, some day, I will use it. I google it. The definition is right there and I try to remember it. The other day they used the word impetuous. I knew the word, but I wanted to make sure. So, I googled it and then I used it. I wrote something on Facebook and I used the word impetuous. And the same way, if I am reading something in Armenian. I know the words, but because I don't use the language, you forget the words. So, this is like a revision – reminding yourself of all the Armenian words."

Given his professional and academic engagements, PR naturally maintains and

enhances his English and Western Armenian language skills on a daily basis. He does

read Eastern-Armenian language materials, as well. He makes it a point to speak Arabic

at the Middle-Eastern store, with store staff, and at every other opportunity he can

muster. He has very few opportunities to speak French and Turkish, but he will

enthusiastically engage with interlocutors in these languages, should an occasion present

itself.

Thus, adult bilinguals strive to maintain and upgrade their language skills in a variety of ways but primarily through reading, thereby influencing their information utilization behaviors and LCEs.

Surmises regarding the communicativeness of languages.

Surmises regarding the communicativeness of languages refers to assumptions adult bilinguals make, regarding how communicative a certain language is to a certain interlocutor, thereby shaping their information utilization behaviors and LCEs. The communicativeness of a language refers to the relative efficacy of a language to get a message across to specific interlocutors.

Emergent claim: Adult bilinguals appear to hold opinions about the relative communicativeness of certain languages to certain interlocutors and adjust their information utilization behaviors and LCEs, accordingly.

P2 said, "My colleague can use her words like, ['Oh moon, of honey,' in Arabic]. But if you say it in English, it doesn't work. [I eat your liver, in Armenian]. I eat your liver. What is he talking about?" She also said, "In the morning, I try to wake my daughter up in Armenian. Then, when she starts saying, 'Uh, uh, I can't,' in English, I feel like I have to speak with her in English to connect with her." P4 said, "When I see Russian speaking persons [in the audience], I would add a few sentences, only for those persons, even though I might feel that those persons know English. I would say a few words in Russian anyway, to make them feel at home." P6 said, "One time, we were talking and one woman asked, 'What language do you do the Bible Study in?' I said, 'Generally, in English.' 'I wish you would do it in Armenian,' she said, 'it just doesn't

feel right for me to hear these things in English.'"

PR supports the contention that deeper and nuanced emotions cannot be expressed in just any known language and that there is a rich cultural backdrop, which inspires a level of spirituality that is lost in translation. Nowhere is this more evident than in attempts at translating poetry.

Thus, adult bilinguals appear to recognize that different people respond differently to different languages and modulate their information utilization behaviors and LCEs, accordingly.

Negative attitudes toward code-switching.

Negative attitudes toward code-switching refers to the surmises of adult bilinguals that shifting from one language to another in the middle of acts of communication is not desirable and is best avoided to the extent possible, and the information behaviors and LCEs that these surmises produce.

Emergent claim: Most adult bilinguals exhibit negative attitudes toward code switching, such as with striving to avoid code switching or considering it uncouth to code switch, thereby influencing their information utilization behaviors and LCEs.

Five of the eight participants had negative comments about code switching.

P1 said, "Yes, that is what we do. We jump around from one language to the other, unfortunately." P1 also said, "I hate it when people start texting in Armenian, with English letters. I have no idea what they are saying. Can you pick one language?"

Explaining what it was about transliteration that turned her off, P1 said, "Because it is hard to figure out what they're trying to say. You can't really write the words like that. You are making up English words – Armenian words, with English letters – they just don't come out right. I have to figure out, to decode, what they are trying to say."

P2 said, "We mix, but we try not to mix. We try as hard as we can, so we can preserve the Armenian language." The languages with which P3 chooses to converse, when calling his sister, who lives in the Middle East are "Turkish and then Armenian. We don't mix. It is either all Armenian or all Turkish."

As regards preparing his to-do list, a quick note to himself, and so on, P4 said, "Sometimes, it is just English and sometimes it is just Armenian." Concerning mixing, that is code switching, P4 then added,

> "I don't like it. Part of this comes from my previous experience. Before I came to this country to do my master's, I needed to study more English. I realized that I was having difficulties, so I decided not to use any Armenian at all, as much as possible. I felt like if I wanted to learn this language, I had to do my best to keep it 100%. Of course, it was not 100%, but it became the majority. I was not watching any Armenian programs, I was not reading any Armenian books. I was trying to avoid anything other than English."

P4 expressed his feelings about the incorporation of lots of Russian words into Eastern Armenian. He said, "I feel strongly about that. We should not do it. Actually, it is mostly done in the spoken language or street language, but we need to avoid it. Some people are trying to avoid it, but others feel it is natural."

Regarding giving out his phone number in English, P4 said,

> "It is interesting. I used to. But recently, I am trying to stick with Armenian. Before I felt like I should give out numbers in English, because I would be clear with the numbers. Then I realized I just needed to speak very clearly, but I should use Armenian

instead of English. If I am speaking Armenian, why should I say the phone number in English? If I am saying things in Armenian, why not give the phone number in Armenian, as well?"

PR harbors no negative attitudes toward code switching, as he regards it as a natural and healthy part of being a bilingual and celebrates his attitude by indulging in and relishing bilingual puns.

Thus, most adult bilinguals appear to eschew code switching, as an undesirable behavior, thereby influencing their information utilization behaviors and LCEs.

Reading movie credits.

Reading movie credits refers to the adult-bilingual information behavior of scanning the rolling credits at the end of a motion picture screening, with the aim of descrying the names of individuals likely to share the moviegoer's own ethnic or cultural background.

Emergent claim: Most Armenian adult bilinguals exhibit the information utilization behavior of looking for Armenian-sounding names in movie credits.

Regarding looking for Armenian-sounding names in movie credits at the end of motion pictures, six of the eight participants said they did.

P2 said,

"Yes, I do that. There are Egyptian movies, old black and white, such as with Abdel Haleem and Um Kulthum, where the cameramen, the designers, and many others all have names like Krikorian, Asadourian. I love to read those names. Isn't that funny? Because back then we had lots of Armenians, who worked in the movie industry in Iraq. They were light engineers, staging people, talented people, all Armenians. So, when I was a little kid and I watched a movie, I would go 'Mama, Mama, Mama … this is an Armenian name.' It made me happy. That is how it has stayed with me."

P4 said, "Always. Again, it comes from childhood, when most of the things were in Russian, but we knew that, even though we were a minority in the Soviet Union, there were many Armenians, who were very well educated and were very successful in the movie arts. Not just actors, but Armenians, who were behind the scenes."

P5 said,

"Of course, for Armenian names. Oh, absolutely, that is one of our pass times. Every Armenian does that. I think I have a clear explanation for this. We have always, in school – and I am sure you have probably experienced this as well – we have been told that Armenia is unique, Armenia is the best, our people are heroic, Saint Vartan lost the battle, but he had a moral victory. This has been inculcated in us, saying that we should revere what is Armenian and we should be proud of what is Armenian. Especially with the Genocide, when we could have had the potential of millions of additional Armenians being born, had the Genocide not happened. This small nation, if it is producing people, who are becoming famous, by reading their names in the credits, it gives you a sense of pride, that they have achieved something, despite all the tribulations and the troubles, that they underwent. Being proud to have an Armenian succeed and to say the Turks failed and we are prevailing."

P7 said, "We are desperate for an Armenian name. I still do it. I did not grow up. You want to see that Armenian name. That ian or yan."

P8 said, "Oh, we always look for ian; Armenian endings. I don't know. We are happy to be who we are and we are always happy to see an Armenian who has succeeded, I guess."

PR and his wife are also "guilty" of this charge. It is something that most Armenians appear to do.

Thus, Armenian adult bilinguals appear to engage in the information behavior of looking for Armenian-sounding names in movie credits, presumably in order to utilize that information to bolster their feelings about their cultural identity.

Utilization of certain types of information to learn languages.

Utilization of certain types of information to learn languages refers to the adult-bilingual information behavior of using particular types of information in order to facilitate language acquisition.

Emergent claim: Adult bilinguals appear to engage in a variety of tactics to help themselves learn languages, including using songs, movies, videotaped recordings, television programs, and so on, thereby influencing their information utilization behaviors and LCEs.

P1 said, "I don't want to forget Russian. So, what I do is I actually download Russian songs and I listen to them every day and I follow the words. I also watch Russian movies. On TV, on YouTube, I watch Russian videos; they celebrate parties; this way, I do not lose that conversational piece." P1 also said, "You know how I learned English? I got a gift from my teacher, because I did a good job grading the papers. He gave me a record by Billy Joel and, in the back, they had the words to the songs. So, I would listen to the music and follow the words. I did that with the Beatles, too. That is how I learned."

P8 pointed to a particular relationship between music and language: "When you are learning a language, listen to music in that language, write down the words you don't understand, and ask somebody. That is how you can learn."

PR recognizes his utilization of the lyrics of songs as mnemonic devices in learning the English, French, and Turkish languages.

Adult bilinguals are keen to enhance their knowledge of languages and tap into all

manner of channels available to them, in order to do so.

Code switching when writing.

Code switching when writing refers to the adult-bilingual information behavior of shifting from one language to another, during the course of a writing episode and the LCEs that this behavior generates.

Emergent claim: When writing, adult bilinguals sometimes switch from one language to another, in the middle of their authoring process, thereby influencing their information utilization behaviors and LCEs.

When authoring articles for a monthly publication, P4 writes "Sometimes only English, but sometimes I am doing both languages. It is a bilingual publication. I am doing it in Western Armenian."

Concerning the languages she might utilize when preparing her to-do list, a quick note to herself, etc., P5 said, "Mixed. For instance, if I want to say peas, I am not going to write [pea in Armenian]. I am going to write peas, so that my daughter can understand it, too."

Regarding the languages he might utilize when preparing his to-do list, a quick note to himself, and so on, P7 said, "I mix in, actually. Weird. Whichever works. I mix it up." P8 said,

> "My friends send me Arabic videos and things, on Facebook. I understand them. They are from Lebanon and Egypt. So, they send me Armenian, French, all those languages. I know them from church. Margaret was born in Egypt. She doesn't know that much Arabic, but she understands. One of my bosses was Arabic, also from Egypt, so she

sends me some Arabic things. Everything Virginia writes to me usually would be in French. She likes to talk a lot. She's very expressive. So, all my languages are used. If there is something important, I compare to things from Lebanon. On Instagram, some people write in Arabic. Here is Kourken. He is Armenian, but he is in Dubai. He has used Armenian and English, as you can see [We did not fall, we prevailed, in Armenian]. An then, here, he writes in Arabic [There is no difference between the color of sugar and the color of salt; they are both the same color. But you will know the difference, when you taste them, in Arabic]."

Concerning the languages she might utilize when preparing her to-do list, a quick note to herself, etc., P8 said, "I don't use Arabic. It is a mix of Armenian and English. I mix automatically, not consciously."

PR mixes English and Armenian, when preparing shopping or to-do lists, but not Arabic or any of the other languages he knows.

Thus, adult bilinguals will not necessary remain in one language throughout a writing session, but will instead switch, on occasion, from one language to another.

The remaining two codes under RQ2, namely, "Code switching and language competency" and "Language utilization level as a cause of guilt feelings" occurred only twice each and were commented upon by only two or one participant, respectively. Therefore, insufficient data exists to make any claims. Notwithstanding, the notions they elicited were intriguing enough to warrant distinction and capture.

Code switching and language competency.

Code switching and language competency refers to the adult-bilingual information behavior of shifting from one language to another, due to the disparity in one's competencies in those two languages, thereby leading to LCEs.

P2 said, "My son started picking up Arabic from us, because of the amount of Arabic that we speak together. He started picking up words. Now, when we say something like ['He is not doing his homework; he is playing,' in Arabic], he says – in Armenian – 'I was not playing.'

Language utilization level as a cause of guilt feelings.

Language utilization level as a cause of guilt feelings refers to the adult-bilingual information behavior of feeling guilty when experiencing shifts in one's level of use of one language over another, thereby engendering LCEs.

P1 said, "My younger son was more interested in learning Armenian, when he was in Japan. He used to call me; he wanted to talk in Armenian, which never happened here. It was weird. I said, you waited until you went thousands of miles away to speak Armenian? He said, when I come back, can you teach me how to write in Armenian?"

P1 explained how when her son moved to Japan, he started picking up the Japanese language a lot faster and he became concerned that it might become more dominant than his Armenian. He did not wish to see this happen, because it was incongruous with his Armenian identity. He felt guilty. This motivated him to call his mother and ask her to support him in his plan to beef up his Armenian, upon his return to the United States.

To summarize, the information utilization behaviors and LCEs of adult bilinguals are associated with and influenced by a wide variety of factors, ranging from the language skills of their interlocutors, professional advantages, and the utilization of

languages as secret codes to aural esthetic, the maintenance and enhancement of their

language skills, and their notions about the communicativeness of particular languages.

CONTEXTUAL FACTORS ASSOCIATED WITH THE INFORMATION SEEKING AND UTILIZATION BEVAVIORS OF ADULT BILINGUALS

This section summarizes findings related to RQ3, which asks: What, if any, are

the contextual factors, which are associated with the information seeking and information

utilization behaviors of adult bilinguals? Table 12 tabulates the pertinent codes identified

under the rubric of this third and final research question, together with their frequencies

and code occurrence and participant totals. The table is followed by evidence presented,

under each code, in the form of a narrative, with key quotations from interviewed

participants undergirding the emergent claims made.

In Table 12, the counted unit is an instance of a code occurring during an

interview session. A total of eight RQ3 codes were identified. As this table indicates the

code "Intergenerational components" received the highest number of code occurrences,

followed closely by the code "Cultural components" with their total numbers across all

eight participants comprising 23% and 22% of the grand total of all code occurrences for

all participants, respectively. For both codes, all eight participants had comments, which

were accrued under each code. The codes "Locational components" and "Affective

components" followed, both at a lower frequency of 15% each, with seven and six

participants having relevant corresponding comments under each code, respectively.

CODE	P 1	P 2	P 3	P 4	P 5	P 6	P 7	P 8	TOTAL BY OCCURRENCE
Intergenerational components	4	8	5	4	8	3	4	3	39
Cultural components	6	11	4	4	2	4	3	4	38
Locational components	2	2		2	1	9	4	6	26
Affective components	2	12	1	5	3		3		26
Social components	3	2		1	3	2	3	3	17
Political components and the Armenian Genocide	1	2		3	1		3	4	14
Religious components						8			8
Economic components	1	2			1				4
TOTAL BY PARTICIPANT	19	39	10	19	19	26	20	20	172

Table 12. Frequencies of RQ3 codes associated with each participant and totals by code occurrence and participant

Intergenerational components.

Intergenerational components refers to the dynamics among individuals in different age groups, within extended families, and the influence of this dynamics on the information seeking and utilization behaviors of adult bilinguals and their LCEs.

Emergent claim: Adult bilinguals strive to promote the utilization of their mother tongue by their progeny and among members of their extended families, in order to preserve it, thereby influencing information seeking and utilization behaviors and LCEs.

All eight participants had comments concerning the influence of intergenerational components on their information seeking and utilization behaviors and LCEs.

P1 said, "I think it is very important that my kids see that I use Armenian, because I can't be a hypocrite and say that I want them to speak Armenian when I don't speak Armenian at all." Along similar lines, P2 said, "The other day, I started telling my daughter why it is important to talk Armenian. So, regarding the privacy, the other day,

she told me, 'Oh, Mom, you know, I like the idea of talking Armenian, because nobody will understand what we are saying, when we are outside.'" P3's French wife did not speak any English when they first came to the US together. P3 said,

> "She had to learn it here. In the beginning, we spoke French. After the children were born, it became English. She was mixing French and I was trying to talk Armenian, in the beginning, but then I gave up, because it was not working. All my life I have spoken Armenian. My daughters have to speak with my parents and my sister. My older daughter speaks Armenian, actually. I never hear her, but when we get together as a family, she speaks."

P4 expressed his aspirations for his children, thusly: "I want them to be fluent in Armenian, first of all. I think that has to be number one priority for them. English is going to happen naturally. I also want them to learn other languages. They just started taking after-school classes in French. I will try to teach them a little Russian, too. Right now, my daughter started taking basic French lessons."

Concerning the languages he utilized, when communicating with various family members, P6 said, "I speak Armenian with my parents and my uncle. But with my cousins, it is usually English. The younger ones – niece, nephew – we generally speak English." Commenting on the pressures that families place on the next generation to speak Armenian, read Armenian, be Armenian, P7 said,

> "Well, that has become a very sensitive issue. If you start bringing it up too many times, they think you are being very pushy and insensitive to their needs. We live in America. Many of my cousin's children married non-Armenians. I don't want to use the big word, but assimilation has become a factor. Even my grand niece, my niece's daughter, Mandy, so sweet, she went to Armenian school and then Saturday school, but now, she knows a few words, but her father is not Armenian. So, you could throw some words at her and she would understand, but communication starts becoming English. We take the easy way out."

PR recalls his efforts to encourage his very young nephew to speak Armenian and

concedes that, now that his nephew is an adult, their conversations often naturally turn to being in English.

Whereas adult bilinguals do make an effort to promote the utilization of their mother tongue within their extended families, tensions do arise when they do so, and their information seeking and utilization behaviors and LCEs are affected.

Cultural components.

Cultural components refers to a conglomeration of factors, including identity, belonging, returning to one's roots, pride, and language preservation, which influence the information seeking and utilization behaviors of adult bilinguals, thereby shaping their LCEs.

Emergent claim: Adult bilinguals express a strong affiliation with their native language and culture and a desire to preserve, promote, and transmit their mother tongue and their cultural heritage to future generations, thereby influencing their information seeking and utilization behaviors and LCEs.

All eight participants had comments concerning the influence of cultural components on their information seeking and utilization behaviors and LCEs.

P1, speaking of caring about the utilization of the Armenian language, said, "I do care, because there are not too many Armenians left to carry on the language." P1 added, "It is a matter of pride. We always say that one, language is going to keep us going and two, religion, into the next century, as Armenians. It is very important to me that my boys speak Armenian and understand, because I don't want our language to go to waste."

P2 and her husband opted to send their children to Armenian school. P2 explained their rationale, as follows:

> "We want them to learn Armenian, to keep the language, to keep the culture. There are only ten million Armenians in the whole world; only three million in Armenia, itself. If the other seven million don't keep their identity and their language, we are not going to expand. So, now it is our turn, to make them feel connected to Armenia, to love their language, so that when they grow up, they may do same thing with their kids. We are not saying don't be loyal to the English language. But this is your identity. You are Armenian. Your ancestors sacrificed their lives, to get us to where we are. You cannot just come and destroy this. That is how we feel about it."

P2 then added, "In Armenian life, there is always trouble over the language, over keeping the language and over using the language." P3's two daughters had attended Armenian school for six full years. Regarding how his French wife felt about that, P3 said, "She wanted to do same thing in French. She was complaining that, because of me, she couldn't do that." P4 had a strategy for achieving his very ambitious top priority of having his children master Armenian fully:

> "Always making the visits to Armenia. Annually. They usually go earlier than myself with my wife. They spend two-three months there. Maybe this will become shortened, as they grow older. Maybe, in the future, it will become one month. But I also send them to Sunday Armenian school, to strengthen the Armenian a little bit more. And they go to Sunday school to learn religion, the Bible. We will do as much as we can. I hope that in the future, we will add private lessons in Armenian, when they go on vacation in Armenia."

Concerning his rationale for having this as such a high priority, P4 explained, "Because we have that legacy, which we need to continue. Because our forefathers sacrificed a lot to create and to preserve it. We have the obligation to continue that legacy. Otherwise, we will not be worthy of being called Armenian." P5 said,

> "First of all, Western Armenian is dying. So, I feel a total moral obligation. We should not let it happen on our watch. We cannot let it happen. I feel that Western Armenian is not just a language. It has a whole ethos attached to it. There is a whole culture within

that language. The literature in Western Armenian has all of that. By discounting it, by letting it go by the wayside, that part of our identity would be lost and we would be allowing it to happen – our identity, our history, and our culture."

P5 added, "My personal feeling is to teach Western Armenian. To preserve it and to transmit it, for as long as we can. Eastern Armenian has a homeland; a whole state. Western Armenian doesn't. It is totally stateless." Commenting further, P5 said, "We, from oversees, feel that with every church there should be a school and the school should be as important; whereas, here, it is not. We do believe religion is first, but language is first also."

P3's future aspirations for his daughters are as follows: "If they were born in Turkey, 90%, 95%, they will marry Armenian. Here, it is more difficult. But my wish is always that they find somebody Armenian." As to why P3 felt this way, he said,

"My whole family is Armenian, we speak Armenian, we have our culture and our culture is different. I know I married a French woman, I loved her, but then, after many years, when you get older, you will feel the difference. In the beginning, you don't. But later, you want to speak Armenian, you want to do everything Armenian. You feel that something is missing in your life."

Similarly, P5's aspirations for her daughters are as follows:

"Oh, my God, and they know it very well. I would love them, preferably, to marry Armenian, although it doesn't look like it is in the cards. I would love them to raise their kids as Armenians, go to church, have that religious component in their identity, and I would like them to speak Armenian more. I also want them to influence others, their peers, to speak the language, as well. I have always thought of starting something online, on Facebook, maybe saying, if you know the language, speak it, if you don't know it, learn it; something like that. Because I feel very strongly that knowing the language is important for your identity."

On the other hand, P6 said,

"If you were to ask me, how much of your identity is where, the top would be Christianity. Some people in my community would put Christianity and Armenian on

the same level. I don't do that. I see levels of your family, your culture, your nation, your language, your political community, your social community, and so forth. So, there are different levels of identity."

However, P6 later added,

"I tell young people, you may not appreciate it now, but later on you will. Just remember that. Your life will be so much richer for having spent time and energy to learn Armenian. It is part of your identity. It gives you a stronger identity. I am not saying that people who don't speak Armenian lack that identity; no. But it does strengthen your Armenian identity. I know a lot of Armenians, who don't speak Armenian, but they are very good Armenians. But it enriches your life and gives you a different level of appreciation of your culture."   P6 also asserted, "We live in a bilingual environment. We live in two cultures and two worlds."

P7 told this story:

"One of my students, when I was teaching: Who is John Phillips? It's me. What is it? You have an Armenian girlfriend? You want to learn Armenian? No. He has a thick voice. I am Armenian. You are Armenian? Really? How about this Phillips, then, what happened? Well, my grandparents changed the name. What are you doing in New York? I am going to law School. Very good. When are you graduating? In two years. What else? I am in the jewelry business. What's your Armenian last name? Tarpinian. You know what that means, right? Yes, I know. Do you promise everybody here, that one of the things you will do – your first move – when you become a lawyer, will be to change your last name to Tarpinian? Do we have a deal? He tells this story to everybody now, 'The reason I am doing all this in Armenia is because of P7.'"

Regarding his cultural heritage, P7 said,

"I love, of course, Armenian. I was born with it. Also, anything Armenian is inspiring. Armenian music. I really enjoy our music. I read our literature. I enjoy it. I think it is about being proud to be Armenian. Even though I am a proud Lebanese, too. That is why I enjoy Arabic, but Armenian is the priority, the center. It is about enjoying the culture that you grew up in. Pride in the culture, pride in our folklore. Even though, like I said, I have the Arabic, also. Now, I am not that big on English literature. It is not the same. Divine liturgy, even though I have been doing it for three years now, I still enjoy it. When you hear Gomidas, the Dlé Yaman. Nothing can replace that. It doesn't mean I don't like the others, but I love the Armenian. Anything Armenian. It is the way we are wired. It hits us. Take food, for example. How you enjoy Armenian food and how you just eat non-Armenian food. You eat. Our appetizers, everything, you enjoy. The others, you fill up your stomach; it is just food."

Elaborating further, P7 said,

"I feel like a lot of the stuff I did in the business world, no matter how you slice it, was a waste of time. You are not doing anything constructive for your people, for Armenianism, for your roots, and for your identity. Our identity is Armenian. You want to do whatever you want to do for Armenians, for your identity, for your culture, for your language. Whatever you can, to make it not become extinct. That is how we grew. In kindergarten and elementary school, they instilled that Armenianism, that Armenian identity, Armenian nationalism in us, very strongly. That is why I am thinking, I have so many options, I would rather help out the Armenians."

P8 said,

"I used to read a lot. I loved reading. Armenian literature to me is better than any other. It is a shame that nobody now knows about it. So, one of my aims is to somehow find enough people to promote Armenian culture. I grew up, I got exposed, it is personal. There is a lot of wisdom, a lot of things I owe to my culture. I learned a lot from my mother. Why would my husband want to marry an Armenian and not any other person? He doesn't know the answer, but there must be something he likes about the Armenian people."

PR enjoys a very strong sense of Armenian cultural identity, while concomitantly celebrating his American citizenship and considers the Armenian language part and parcel of his identity.

Thus, adult bilinguals not only have very strong feelings about their cultural heritage and their mother tongue, but also wish to transmit them to the next generation, thereby influencing their information seeking and utilization behaviors and LCEs.

Locational components.

Locational components refers to geographical and spatial factors, which have influenced or influence the information seeking and utilization behaviors of adult bilinguals, thereby shaping their LCEs.

Emergent claim: Adult bilinguals acknowledge the influence of location – past or

present – such as with which language was utilized or should be utilized where, on their and others' information seeking and utilization behaviors and LCEs.

P1 said she trusted English sources more than Armenian ones "because I spent most of my years here [in the US] versus there [in Armenia]." Speaking of the languages utilized in her place of employment, P1 said, "The official language of the company is English. You are not allowed to write in any other language, although they all speak German."

P2 said, "They don't speak Arabic in [the Armenian community's athletic club], because they want to keep the Armenian community. They don't want us to feel that it is okay to speak Arabic, because then you start losing the value of the Armenian language. That is what they taught us." Describing the behavior of his children, P4 said,

> "It is interesting that somehow they developed a mechanism where, when they are talking with us, they speak Armenian. This is happening naturally. But when they come to church and they see a person, whom they know as one who can speak in Armenian, for some reason they speak in English with that person. They seem to feel that, here, one is supposed to speak English. This is a different space. The other interesting thing is that, when they go to Armenia, they switch off the English part completely. One time, in Armenia, their grandmother asked them to say a few words in English, when they were on the bus, because there was a foreigner, whom the bus driver could not understand. But my son said, 'No, I am not saying anything.' I think they have a mechanism in their brain to switch off something completely and just have the other part. They just feel like this is the world of this language and that is the world of the other language."

Regarding the languages utilized at this place of employment, P6 said, "If I am speaking with my colleagues, it is generally in Armenian. English comes in when I get phone calls or if I am interacting on a personal level. That does not happen very often, because I am not on the phone a lot. All the correspondence and all the writings that we do at work are in English, except when I am translating."

P6 watches Armenian-language television only when he visits his parents: "When I go to there, then there is no English. The conversation is in Armenian. I forget English, for the weekend." Regarding the logic behind bilingual flyers, P6 said,

"When we do that, we want to underscore that, okay, we are using Armenian, as well. You may or may not conduct the whole business in both languages, but you want to do it that way, because sometimes people will say, oh, there is not one word of Armenian. It is a legitimate concern. People say, this is an Armenian church, but you don't use any Armenian in your flyer. So, we might put something, such as the title in Armenian or the name of the church in Armenian; something, so that people can associate with that, even though the whole thing is going to be conducted in English. There are certain people who make it a policy that, whatever we, we are going to do it in both languages. Well, this is an Armenian church. Whenever you send out a flyer, it has to be bilingual. I am assuming that if you just put English then the program is going to be conducted in that language, so you are going to attract that kind of audience. We don't have a policy, but if you ask me, if you are going to do something in Armenian, you have to say that. You have to say that very clearly in the flyer; a bilingual flyer and then the lecture will be in English or the lecture will be in Armenian. When I do flyers for Bible Study, you know, people call and ask if it is going to be in Armenian or English. Or, they ask the priest or they ask someone."

Describing the curricular languages during her younger school years and their impact, P8 said,

"In kindergarten, we started with three languages. Armenian, French, and Arabic. Our school was known for French. When I was in second grade, they switched [from French] to English. Our school changed its curriculum. They gave more importance to English. I think it was a wise move, because otherwise if I had more French education, I might have ended up in Montreal, because when I came to this country, my girlfriend from Lebanon was going to get me a job in Montreal. But my French was not strong enough, so I ended up here."

Thus, adult bilinguals are aware of how location has influenced or influences their and others' information seeking and utilization behaviors and LCEs.

Affective components.

Affective components refers to the emotional components associated with language utilization and their influence on the information seeking and utilization behaviors of adult bilinguals and their LCEs.

Emergent claim: Adult bilinguals have various feelings about each of the languages in their lives and those feelings influence their information seeking and utilization behaviors and LCEs.

P1 said, "I just love Russian. I think I love the Russian language and I don't want to forget it." Similarly, P2 said, "I always wanted to learn more languages. I like languages. I love French, I love German, I love Greek, I like Hebrew. I love Turkish. For the pleasure." Speaking of her father, P1 said, "That is why my father wanted me to go to that [French] school. He loved French." P4 said,

> "Of course, Armenian comes from my heart. Russian is natural, but sometimes I feel weird, because that is the language that is not so common here. It makes me unique. I have a feeling of pride and I think Russian is closer to me than English. It is easier for me to express myself in Russian than in English. It is closer to my feelings than English. There isn't a boundary, as between me and English. English does not really speak of my feelings very well."

P4 added, "I do like the French language and I always wanted to learn more, so that I could communicate. I really like that language." P4 went on to say, "I feel like I need to know many languages. I want to communicate with people in their own language. That is a strong feeling within me. I see how they feel happy, when I switch to their language."

Emoting considerably, P5 said,

"When I speak Armenian, I feel like I am expressing the whole ethos of a nation and in the back of my mind there is always this idea that it is upon my shoulders to be able to speak it and transmit it and make it available to others and have my children speak it. So, there is this patriotism that goes with it. I feel the same way about Arabic. Although we didn't speak much Arabic, but we lived in a country where I always felt that people should use the language and learn the language of the country and I would be extremely upset, when I saw Armenians in the Bourj Hammoud area, who did not feel the need to learn Arabic. I felt that it was the duty of all Armenians living in a host country to learn the language of the country. But Armenian is a little more. Because we were raised as Armenians. It was a conscious thing that my parents instilled in us. Going to Armenian school and being surrounded by Armenians. I was Armenian. To me, being Armenian was always number one. So, being Armenian and speaking Armenian had that hold on me, the top position. French was a beautiful language, so I had this desire to learn it and to speak in it and to read everything that came out in French literature and I did that, whenever I had the chance. I still do. Also, as I said, all the media, all the newspapers and magazines that came to the house were in French. No Armenian, no Arabic, only French. So, it was something that I loved. As far as English, to me, English felt like the international language. So, if I knew English, everybody in the world would be able to understand me. It felt that it was something I needed to know. It had a functional feel to it. I enjoyed the literature that was published in English. Shakespeare in college was phenomenal."

Expressing her affections, P8 said, "Classical Armenian. I love it. A beautiful

language. I wish we spoke that. Many people don't understand it, but I can acquire it. I

even understand Armenia's Armenian; Eastern Armenian."

Nostalgia or a sense of wistfulness was also present in participants' responses. P2

said,

"I have a hairdresser, who feels so comfortable speaking with me in Arabic, because she misses the language, she misses speaking it, so whenever she sees me, we speak. Same thing, in college, I have a few [people], who are from Jordan, Egypt, and Iraq. They love to speak to me in Arabic. Once they know that I am Arabic, they love to speak to me. I think I just make them feel at home. They feel that I am closer to them."

P2 said, "I feel connected, when I speak Arabic. Same thing with Armenians.

When I see people talking together in Armenian, right away I say, [Are you Armenian? in

Armenian]. I speak Armenian with them. I feel my self. It feels good." P2 then added,

"We speak Armenian in the morning. All of a sudden, my husband says, "Get me the

bread from the fridge [all but the word fridge is in Arabic]."

PR espouses a deep-seated an abiding love for the Armenian language, music, and

culture. He, too, considers English the functional, international language, in his life. He

particularly enjoys the mellifluousness of French, while enjoying the more exotic,

Semitic distinctions of Arabic, as well as the nostalgic connection he has to Turkish, due

to his grandmother, even though his nostalgia is marred by transgenerational trauma.

Adult bilinguals harbor a variety of emotions vis-à-vis each of the languages in

their lives and these emotions shape their information seeking and utilization behaviors

and LCEs.

Social components.

Social components refers to a conglomeration of group-related phenomena, such

as shame, guilt, politeness, and respect, which influence the information seeking and

utilization behaviors of adult bilinguals, thereby shaping their LCEs.

Emergent claim: Adult bilinguals appear to be susceptible to social pressures,

such as with feeling ashamed, embarrassed, or guilty about using or not using a certain

language, which influence their information seeking and utilization behaviors and LCEs.

Speaking of guilt, P1 said, "I guess this should be a wake-up call for me that I

should do more with Armenian also. You have made me feel guilty." Expressing being

shamed and then objecting to it, P2 said,

"When we were new here, we went to the supermarket. When we got to the cashier, I spoke in Armenian with my husband. He said, [Wrap it up, in Armenian]. That is, speak in English [he was ashamed to speak Armenian, in Armenian], because we had different ideas about how people don't like other foreigners to speak. [Once, twice, in Armenian], I said, you know what, I see others speaking Spanish, I said, don't ever tell me [don't speak Armenian, it's embarrassing, in Armenian]. Don't ever tell me don't speak Armenian, because [the Jews, in Armenian], the Spanish, they all speak their languages and we don't care. We should do the same. He didn't know. It is different with him. He didn't know. He didn't think that way. He said, thank you for letting me know that."

Along similar lines, P5 said,

"When my colleague and I leave work and we are on the bus and I want to speak in Armenian, I don't want people on the bus understanding what we are saying, she feels very uncomfortable speaking in Armenian. I think she feels it is disrespectful, when I feel that we are talking privately and it shouldn't feel that like. I see a lot of Spanish people and they don't seem to have a problem. They are not saying anything that affects or concerns anyone on the bus, right?"

Expressing politesse and deference, P5 said, "My brother is married to an Armenian, who doesn't speak Armenian. So, when she is around and we write to each other or we text each other, we do it in English, and he speaks to me in English. But when he and I are alone, we speak Armenian." P5 added, "In the case of my brother, I will not write him a Christmas card, because I am going to see him. Because his wife is Armenian but does not speak Armenian, if I were to write, I would have to write it in English, out of respect for her."

PR has experienced the frustrations of not being able to communicate with his sister in Armenian more than he does, because her husband is non-Armenian, thereby necessitating a switch in conversations to the English common to all.

Thus, adult bilinguals feel the various social pressures around them as they engage in their information seeking and utilization behaviors and these pressures alter

their behaviors and their LCEs.

Political components and the Armenian Genocide.

Political components and the Armenian Genocide refers to governmental or public affairs, which influence the information seeking and utilization behaviors of adult bilinguals, thereby shaping their LCEs.

Emergent claim: Political events, such as with the Armenian Genocide, the creation of the State of Israel, and the fall of the Soviet Union, result in adult bilinguals' rejection of the utilization of the Turkish language, the learning of Hebrew, and the rejection of the Russian language, respectively.

Six of the eight participants commented on the relationship between the Armenian Genocide and their attitudes and feelings toward the Turkish Language, with the emergent claim here being that negative attitudes and feelings toward the Turkish language would result in a rejection of Turkish-language utilization, as a LCE.

Of the ten comments made by these six participants, six were negative, that is, suggesting a potential rejection of Turkish-language utilization, one was mixed, and three were positive.

On the negative side, P4 said,

> "I just feel that every Armenian is really supposed to know his or her mother tongue, Armenian, first of all, and learn other languages, such as English, French, Russian, Spanish. Because we have become a nation, which lives in all places of the world, every single Armenian is an ambassador of Armenia, telling about Armenia, Armenian culture, church, and Genocide. Unfortunately, the Genocide is not widely recognized and we need to continue to work on that. I can see that other people appreciate it when

they see that we can speak their language."

Similarly, regarding the Turkish language, P4 said, "Of course, that is the enemy's language and I do have negative feelings, but logically I understand that I think we should know it, because there is the saying that you should know your enemy's language."

Also negatively, P5 said,

"As far as Turkish, it was another secret language, I had no intention of learning it. It was through osmosis that I learned it and it was because my relatives on my father's side spoke it. They spoke Turkish and used it as the secret language. When I was first exposed to Turkish, it didn't seem like an odd thing, because my family was conversant in it, but over here, in the United States, when I hear it, it stirs a lot of negative emotions in me, because I associate it with the crimes by the Turkish government towards Armenians, the Genocide. When I hear Armenians speaking in Turkish, here, in the United States, it somehow bothers me, because of what happened about this unresolved situation with the failure to recognize the Armenian Genocide. I cannot go to a Turkish restaurant without having knots in my stomach. I know a lot of Armenians patronize Turkish restaurants. But, again, it goes back to the same thing; it is the Genocide. I had an aunt, who perished in the Genocide."

Along these same lines, P8 said, "My grandmother didn't know Armenian, so she spoke Turkish, and she wanted me to learn, but I refused to learn Turkish. I didn't like what the Turks had done to the Armenians. My grandmother kept saying you are as many people as the languages you speak." P8 added, "What they did to our people, to my grandfather, they took all his land, all our possessions. So, I didn't want to know anything about their kind or the language of those people. But they do say you should know the language of your enemy."

Regarding the Turkish language on the positive side, P1 said, "I have nothing against the Turkish language and the songs, because my father used to listen to them and I don't think that has anything to do with the Ottoman Empire. So, I still listen to the

songs that my dad used to listen to. I know the singers and everything. I enjoy it. I don't

feel that I am doing something wrong." Similarly, P7 said, "I am familiar with the

cultures of these languages. With all five of them, the feelings are positive, even in the

case of Turkish. We are supposed to feel a certain way about the Turks. I don't. It is not

negative, it is all positive, because I'm familiar with the folklore and the music of these

cultures. So, to me, I enjoy all of them." Also positively, P8 said,

> "But then I became friends with Turkish people. They would say, oh, your grandpa is coming. He used to come and trust all his things with me. He was in his 80s. He used to say, my only thing is I want Turkey to be part of the EU and then I am going to stop. So, I just listened, but I told him one day – sometimes I would see him in the café and I would go sit with him; he trusted me; he even showed me his house – I said my grandfather had land in Turkey. How can I find out about it? He said, write to the Municipality."

Referring to a change in the set of languages taught at his secondary school, P7

said, "Armenian, English, Arabic, and Classical Armenian. When I went there in 1965 it

was under Jordanian rule. In 1967, the Jews came. They added Hebrew. We then had five

languages." As regards the Russian language, P4 said,

> "Our initial years were in Russian school, but then, when the Karabagh movement started and we gained independence, then my parents switched my school to Armenian, because we became more nationalistic, in a positive way. We became more focused on our cultural and national identity and our values and they felt that we needed to go to Armenian school. I was really part of that movement. I would go and take part in the protests. We were making banners and stuff to take part in the protests."

The transgenerational trauma of the Armenian Genocide weighs heavily on PR, as

well, and colors his feelings about the Turkish language. The continued and egregious

Turkish denial of these atrocities makes healing and closure impossible. On the other

hand, sweet memories of sharing Turkish with his grandmother as well as the many

wonderful Turkish individuals with whom PR has interacted over the years, mitigates the

pain, somewhat.

The remaining two codes under RQ3, namely, "Religious components" and "Economic components" occurred only eight and four times each and were commented upon by only one or three participants, respectively. Therefore, insufficient data exists to make any claims. Notwithstanding, the notions they elicited were intriguing enough to warrant distinction and capture.

Religious components.

Religious components refers to spiritual faith, which influences the information seeking and utilization behaviors of adult bilinguals, thereby resulting in LCEs.

P6 said, "Although I love the language and I want us to preserve it, it doesn't seem to be one of my causes; those who do it, more power to them. I want them to do it. It is good. But it is not my cause. You have to pick and choose how you are going to spend your time. For me, it is a medium for communication."

P6 confirmed that it would be fair to say that, in his case, faith supersedes. He said, "What drove me to study Classical Armenian was to communicate about and to understand the scriptures better. So, it was a vehicle for me. Mine was, as you said, the scriptures. I wanted to get to the scriptural text in the original language. I was impressed by the language for a different reason."

Economic components.

Economic components refers to financial factors, such as the cost of goods and services, which influence the information seeking and utilization behaviors of adult bilinguals, thereby shaping their LCEs.

P2 said,

"I love languages, but it is a matter of time and financial issues. How many languages can I learn? I bought so many CDs to learn Spanish, because I wanted to learn when I was not working. When I first came here, I started using it. I learned the verbs. But then I started working, the kids and I forgot and I did not use. If I go online, they give you the first few courses for free, but when you feel you are confident, when you want to continue, they charge you a monthly charge. Then I stop."

Concerning economic pressures being part of the reason that her three daughters stopped going to Armenian school, P5 said, "That was part of the pressure."

In sum, the information seeking and utilization behaviors and LCEs of adult bilinguals are associated with and influenced by a host of broad contextual factors, ranging from the intergenerational, cultural, and locational to the social, political, and economic.

KEY FINDINGS

Whereas this section clearly demonstrates the complexity of phenomena associated with the information seeking and utilization behaviors of adult bilinguals, the research study has identified a set of key emergent claims, which are presented below under the research questions to which they pertain and in summary form:

RQ1. How do adult bilinguals (ABs) seek information and how, if at all, are ABs' Language Choice Events (LCEs) associated with their information seeking (IS) behaviors?

- Computer and communications technologies result mostly in obstacles along the information seeking paths of adult bilinguals and force LCEs toward English and away from non-English languages, notwithstanding some of the affordances they furnish.

- A language hierarchy, which adult bilinguals appear to hold in their minds for the languages in their lives, results in preferences for higher-ranked languages over lower-ranked ones, during information seeking and LCEs.

- The Principle of Least Effort is apposite in the tendency of adult bilinguals to prefer the ease-of-use of English and to disfavor non-English languages during their information seeking and LCEs.

- The two primary extant dialects of Armenian, namely, Eastern and Western Armenian, create a linguistic schism among Armenians, together with a tug of war as to which dialect ought to be preserved and promoted, thereby influencing

the information seeking behaviors and LCEs of Armenian adult bilinguals.

- Adult bilinguals appear to be passive consumers of mass and social media, by and large, with only a minority interacting actively with mass and digital communications.

RQ2. How do ABs utilize information and how, if at all, are ABs' LCEs associated with their information utilization (IU) behaviors?

- Adult bilinguals strive to attune themselves to the language skills and preferences of those with whom they communicate and modulate their language utilization to improve communications, thereby influencing their information utilization behaviors and LCEs.

- Adult bilinguals utilize the languages at their disposal for career advancement in a variety of ways, including performing translation tasks, securing perquisites, impressing colleagues, teaching the languages that they know, and so on, thereby producing information utilization behaviors and LCEs.

- Leveraging the relative language-deficits of those who have access to their communications, adult bilinguals transform languages appropriate to the occasion into de facto secret codes, thereby producing information utilization behaviors and LCEs.

- Adult bilinguals' aural esthetics – as with the pleasing sounds of certain languages, associations between songs and lyrics in a particular language, and the like – leads them to favor one language over another, thereby influencing their information utilization behaviors and LCEs.

- Adult bilinguals appear to leverage the information inherent in one language to either assist with or to double check the information in another, thereby generating information utilization behaviors and LCEs.

- Adult bilinguals appear to utilize the languages at their disposal to advance or enhance teaching and learning processes, such as with selecting the language best suited to a learning task or most appropriate for a learner, thereby influencing their information utilization behaviors and LCEs.

RQ3. What, if any, are the contextual factors, which are associated with the IS and IU behaviors of ABs?

- Adult bilinguals strive to promote the utilization of their mother tongue by their progeny and among members of their extended families, in order to preserve it, thereby influencing information seeking and utilization behaviors and LCEs.

- Adult bilinguals express a strong affiliation with their native language and culture and a desire to preserve, promote, and transmit their mother tongue and their cultural heritage to future generations, thereby influencing their information seeking and utilization behaviors and LCEs.

- Adult bilinguals acknowledge the influence of location – past or present – such as with which language was utilized or should be utilized where, on their and others' information seeking and utilization behaviors and LCEs.

- Adult bilinguals have various feelings about each of the languages in their lives and those feelings influence their information seeking and utilization behaviors and LCEs.

- Adult bilinguals appear to be susceptible to social pressures, such as with feeling

  ashamed, embarrassed, or guilty about using or not using a certain language,

  which influence their information seeking and utilization behaviors and LCEs.

CHAPTER 5: DISCUSSION & CONCLUSION

This chapter will begin by discussing the links between the findings of this study and the existing literature. It will then turn to identifying the limitations of the study and the directions for future research. Finally, the chapter will end with an overall conclusion.

LINKING FINDINGS TO EXISTING LITERATURE

It is important to restate that this exploration covers largely unchartered territory. To date, only tangentially relevant published research on the information behaviors of adult bilinguals has been extant. Hence, there is next to no prior literature to which to firmly connect the findings of this dissertation. Notwithstanding, in this section, potential linkages, however tenuous, will be identified, in an effort to associate findings to the body of hitherto available scholarly knowledge – venturing outside the field of human information behavior, where appropriate – bearing in mind that the characteristics of the groups of bilinguals involved in these extant research studies are divergent and do not match the characteristics of the participants in the present research study. In fact, one very common difference between past studies and the current one is that the former have relied heavily on participants from university campuses, that is, mostly university students or faculty – an endemic feature of many research studies and, perhaps, a testament to the fact that researchers, being human, are not immune to Zipf's Law, themselves – while the latter has accessed adult bilinguals, at a variety of stages in their lives – mid- or late-career professionals; married, divorced, or single; with or without children; and so on – and interviewed them about their everyday bilingual lives.

This is the first study since Rieh & Rieh (2005) specifically in this subject area and strives to extend their work significantly. This dissertation study identifies a plethora of emergent claims relevant to Everyday Life Information Seeking behaviors (Savolainen, 2005). As one of the key findings of this study indicates, for adult bilinguals, technological barriers, which force LCEs toward English and away from non-English languages, are a significant issue in need of redress. Information science might work to facilitate, not impede, access to the cornucopia of knowledge available to civilization in a wide variety of languages. Furthermore, during the interviews, the keyboard emerged as a prominent technological obstacle. This is in line with research on issues pertaining to keyboard designs and standards and their impacts, spanning multiple decades (Everson, 1994; Bi et al., 2012; Pravin Satpute, 2018). Removing this basic barrier in the path of bilinguals engaged in information seeking and utilization behaviors could be pursued.

The "Search topic" emergent claim identified in this study, that adult bilinguals appear to be aware that certain languages yield better retrievals depending on the search topic and that this awareness influences their information seeking behaviors and their LCEs – with five of the eight participants commenting on this matter – is in line with past research that bilingual scholars select the language surmised to be most suitable to their information-retrieval tasks – they select English for scholarly research and Korean for everything else (Rieh & Rieh, 2005). Similarly, Sin and Kim found that the LCE of their bilingual subjects was determined, at least in part, by the topics at hand – news of home country and entertainment being accessed primarily in the native language (Sin and Kim, 2013). Furthermore, Chung and Yoon (2015) had also found that the type of information

need influenced the type of information source selected. Finally, these findings are also in line with the findings of the pilot study to this dissertation (Sanentz, 2013). Even though, in this dissertation, other search-topic criteria determined the LCE, the concept that bilinguals will choose the language, which in their view is most appropriate for their particular topic, remains.

In contrast, both the pilot and this dissertation do not fully support the finding that bilingual scholars do not utilize search engines as bilingual tools (Rieh & Rieh, 2005). This latter finding appears to be out-of-date, in that bilingual information seeking functionalities were added to the Internet more broadly and definitively, mostly by Google, in 2007 – after this 2005 study was published. The present study found that adult bilinguals do utilize search engines as bilingual tools, to the extent technologically possible, and are aware of the advantages and pitfalls of doing so, as described primarily under the sub-headings Technological obstacles and affordances, Zipf's Law, Code switching during information seeking, and Cross Language Information Retrieval (see Chapter 4). These findings lend further credence to the notion that adult bilinguals will utilize bilingual technological functionalities, once technological obstacles are removed and replaced by affordances. Worthy of note is how bilingual scholars had expressed their wish to see a technological functionality, wherein displays of retrievals could be customized by language/s, adding further support to the notion of the desirability, among bilinguals, of bilingual technological affordances (Rieh & Rieh, 2005).

The finding of this dissertation that locational components influence the LCEs and information seeking and utilization behaviors of adult bilinguals supports the previous finding that bilinguals favor their native language, when they are at particular

locations – for instance, at social gatherings (Khoir et al., 2015).

Ishimura's finding that bilingual Japanese students experience English as a time-consuming, extra challenge (Ishimura, 2013), was not supported by the findings of this dissertation. Here, the English-Armenian adult bilinguals considered English the easier language in which to seek information, for a variety of reasons, under technological obstacles and affordances and Zipf's Law, among others (see Chapter 4). Perhaps this discrepancy in findings is due to the different overall levels of English-language competency between these two studied groups. This latter surmise is supported, in fact, by a previous research finding that higher English proficiency leads to a more favorable evaluation of English as a language utilized in information seeking (Yoon and Kim, 2014).

The previous finding that most bilinguals utilize the Internet, such as with electronic journals and books (Singh et al., 2015), was essentially supported by the findings of this dissertation study, in that participants reported their information behavior of accessing Google or Facebook and generally reading periodicals, be they in Armenian or English, online (on the Internet) and using books, such as dictionaries, in either print or electronic formats.

As Sin had found, the present study generally confirmed that, for Everyday Life Information Seeking (ELIS), the top sources accessed were "Web search engines, social networking sites, new friends, printed resources, and traditional mass media" (Sin, 2015, p, 466), in that the findings of this dissertation study also indicate that participants utilize Google, Facebook, dictionaries, and radio and television, as sources of their information.

The wider political, economic, and cultural factors, identified in this study suggest the importance of these larger contextual factors in arriving at rich and thick descriptions of information behaviors. The presumption of transgenerational trauma due to the Armenian Genocide, in particular (Lipstadt, 1994; Lipari, 2017), exhibiting itself in negative attitudes and feelings toward the Turkish language or anything Turkish, significant as it was, was only partially borne out, likely indicating the complexity of factors, which must be considered together in understanding the information behaviors of adult bilinguals.

The language hierarchy in the minds of bilinguals might be due, in part, to the recognized phenomenon of prestige languages (Baker & Jones, 1998). For instance, English and French are prestige languages, whereas Arabic and Turkish are not.

In fact, the aforementioned two factors or rather the impacts of the transgenerational trauma due to the Armenian Genocide and language prestige, when combined, on the one hand, with the tug of war between Eastern and Western Armenian, in general, and Armenian orthography, in particular, and, on the other, with compromised retrievals when searching in Armenian due to transliteration irregularities and a zeal to preserve Western Armenian as an endangered language (Moseley, 2010), comprise some of the special facets of the Armenian language experience, from an information-science perspective.

It appears that too many bilinguals harbor the notion that code switching is undesirable and, therefore, it ought to be avoided. Five of the eight participants in this study expressed negative attitudes toward code switching. These attitudes must be

dispelled. Code switching is, in fact, a natural part of being bilingual, with its own particular dynamics, as the markedness model (Myers-Scotton, 1993) and numerous studies since then attest.

Upon further probing, it was ascertained that the reignited motivation within P1's son to learn more Armenian had been due to the rapid ascendancy of the Japanese language (vis-à-vis the Armenian) in his life, while he resided in Japan, thereby threatening his cultural identity. The widening gap between his Armenian- and Japanese-language competencies felt incongruent to him. Perhaps cognitive dissonance was a factor, in this instance (Festinger, 1957).

There is a very special connection between language and music. Recall how P2 said that she gives out her phone number in English, because her "ear is trained on that music." She will have a tendency to give it out in Arabic, however, if it is an old number from Iraq. This "music" appears to determine the LCE and appears to harken back to old, childhood memories. The same applies to counting, where elementary school memorizations of the multiplication table – hearing or recalling that "music" from childhood – determines an adult LCE. PR has experienced this clearly and personally.

P2 utilizes Arabic, when she does not wish her son to understand what is being said. Interestingly, the son knows enough Arabic to glean what is being said, but not enough to respond in Arabic. Therefore, he responds in Armenian. In addition, the son understands enough Arabic to crack the language code and comprehend the accusation, yet chooses to utilize Armenian to air his objection to it, presumably because he feels more confident in his ability to express himself in Armenian rather than in Arabic. Thus,

his LCE is based upon his own assessment of his relative competency in these two

languages, namely, the Armenian over the Arabic. This comes across as a highly complex

and multifaceted behavioral phenomenon in bilingualism.

The researcher is fully aware that the emergent codes that were generated by this

study could have been organized in a myriad other ways and that both alternative

emergent codes as well as further mergers of emergent codes could have been reasonably

enacted. To illustrate, under RQ2, it would have been perfectly reasonable to generate an

emergent code entitled "Sources," which would have subsumed the variety of

information access points utilized by participants, such as their utilizations of Facebook,

Google, dictionaries, radio, and television, and then citing the significant number of

quotations from participants – which have already been included under other emergent

codes in Chapter 4 – particularly under the section on the information utilization

behaviors of adult bilinguals. Thus, the researcher is far from asserting that the set of

emergent codes enacted above is the only one possible.

Finally, during this analytical effort, the decision to avoid abstracting up from

codes to categories, patterns, and themes, was deliberate and in line with the spirit of the

narrative method. Especially given how this is a grounded-research study, retaining the

rich details elicited from participants, while organizing and structuring them and resisting

the temptation to prematurely merge them into obscure abstractions resulting in a loss of

transparency, prevailed.

As regards how the data from the surveys, the BLP questionnaires, and the

interviews, were related, worthy of note is the fact that the surveys and the BLP

questionnaires only provided very general descriptive data, revealing only perhaps how, despite significantly common life trajectories, the language dominance scores of the eight polyglots for the English-Armenian language pair varied substantially, without suggesting a clear pattern. The key findings remained with the interviews, where the true intricacy and complexity of bilingual phenomena, as they pertain to the information seeking and utilization behaviors of adult bilinguals, became abundantly clear and where numerous phenomena worthy of further research and exploration were identified.

To link the present study to the theoretical frameworks within the field of information science and to discuss how this study potentially extends those frameworks forward, worthy of note is how Tuominen and Savolainen (1997) not only laud Dervin's sense-making theory – which supports social constructionist viewpoints, in that Dervin is open to the notion of studying "information use as constructive action" – but assert a need to go further and to study "information use as discursive action" (p. 81). Their emphasis on the centrality of language and communication jibes well with the findings of this study and this researcher anticipates taking his findings forward still, by further exploring the philosophical hermeneutics of Gadamer (1997) and the existential phenomenology of Heidegger (1962). Talja (1999), similarly acknowledges Dervin and Neelan's (1986) transition from a system-centric to a user-centric paradigm and she advocates for going further, arguing that objects of information research are all socially and historically embedded and that an interpretative lens – where cultural values and meanings within which information seeking and utilization behaviors take place – is most suitable for the study of human information behavior. This researcher would argue that going beyond the user-centric paradigm to a context-centric paradigm is, in fact,

warranted. Dervin, herself, underscored the centrality of context, in her later work (Dervin, 2003).

The findings of this dissertation study support Grosjean's (1992) contention that "The bilingual uses the two languages – separately or together – for different purposes, in different domains of life, with different people" (p. 55). Grosjean's notion of a third, combination language system coming into play in information seeking and utilization behaviors of adult bilinguals is amply evident in the findings, be it in code-switching when seeking, the utilization of one language to check another, and so on.

Appending the element of a multiplicity of sociocultural dimensions to Todd's information intents – which is founded upon a cognitivist view – generates a valuable link to the information seeking and utilization behaviors of adult bilinguals, as conceived in this study, founded upon a social-constructist view. Thus, instead of a complete picture, changed picture, clearer picture, verified picture, and position in a picture, one would consoder complete pictures, changed pictures, clearer pictures, verified pictures, and positions in pictures, respectively (Todd, 2005). The next step would then become to explore the processes and challenges adult bilinguals face, as they strive to reconcile these multiple perspectives. For instance, when a bilingual adds a specific detail to get a complete picture utilizing Language A, and then gets a similarly relevant detail, which conflicts with the one gotten via Language A, utilizing Language B, the bilingual is faced with the need to resolve a conflict. One potential research question, among many, then becomes: How, if at all, do prestige languages influence the information intents of adult bilinguals?

Similarly, the berrypicking model of Bates (1989) is two-dimensional, in that a

berry patch within which an information seeker presumably roams is, by way of analogy, two-dimensional. When more than one language becomes involved in the information seeking and utilization behaviors of adult bilinguals, an information seeker would switch, if you will, from the berry patch of Language A to the one of Language B. The findings of this study demonstrate how information seekers, in fact, do just that and suggest a need for further study to explore when, how, and why such "berry-patch switching" might occur.

Savolainen (2005) acknowledges that Chatman's (2000) theory of normative behavior inspired his ELIS. The present study pays heed to Chatman's models and theories with an eye at understanding the forces detrimental to desirable information seeking behaviors, which she has identified – negative worldviews, social norms and types, deception, secrecy, and so on – such that better information systems may be designed for adult bilinguals.

STUDY LIMITATIONS AND FUTURE DIRECTIONS

Limitations of the study.

This qualitative research study had only eight participants. All eight had Armenian – either Western (6) or Eastern (2) – as their native language and had emigrated either from Armenia or from various parts of the Middle East to the United States. All were well-educated and accomplished in professionals. All were polyglots, having four to six languages in their lives. Further research is warranted to explore whether an alternative set of participants – with other language pairs, different numbers of languages, alternative socioeconomic statuses, and a host of other demographic,

background or contextual characteristics – might yield additional insights.

Whereas the extent of validation employed in this research study was limited, the study did attain a certain level of member checking, by sending the transcript of the initial interview to participants for review, prior to their follow-up interviews and soliciting their feedback. As Kvale and Brinkmann (2009) affirm, "[It] is by allowing the objects investigated to object to the natural scientists' interventions that maximum objectivity is obtained" (p. 243).

Furthermore, the fact that memoing and coding were conducted solely by this researcher constitutes a limitation in the data collection and analysis process of this study, which future studies might wish to avoid, in that an argument can be made in favor of incorporating intercoder reliability measures into the research process (Connaway & Radford, 2017), post-positivistic as these may be.

Future directions.

Perhaps a quantitative exploration of areas of interest identified by this preliminary foray – with input from a much larger number of respondents, using Amazon's Mechanical Turk, a crowdsourcing marketplace that has been used in social science research recently – might prove fruitful. This entails converting interview statements into questionnaires. "With a large number of subjects, the questionnaire could then check the generality of the views stated by [an interviewee], a generality which would require too many resources to test by the more time-demanding qualitative interviews" (Kvale & Brinkmann, 2009, p. 114).

Further study is required to establish the extent to which prestige languages play a role in LCEs. Prestige languages have long been recognized as holding significant sway in bilinguals' minds and as influencing their behaviors (Baker & Jones, 1998).

This study is but a preliminary foray into uncharted territory. Among other matters, it anticipates further research on adults, who are bilingual in language pairs other than the Armenian-English pair studied here, as well as comparative studies among adults, who are bilingual in a variety of language pairs. Furthermore, this research expects to inform information systems enhancements, which take the information behaviors of adult bilinguals into account.

One anticipated contribution of this research study is the design of an affinity space (Gee, 2005), comprising various affordances aimed at facilitating and nurturing the information seeking and utilization behaviors of adult bilinguals. This affinity space, situated on a wiki platform, will incorporate collaborative-system paradigms (such as those in Bryant et al., 2005; Haythornthwaite, 2002; and Haythornthwaite, 2009) and will be informed by DBR (design-based research) principles (Brown, 1992 and Collins, 1992). Savolainen (2005) speaks of how culture and society condition the choices and preferences of individuals, who have internalized systems of perceiving, thinking and evaluating, thereby arriving at a way of life. These notions are in line with ideas on belonging and identity (Maslow, 1954). People perceive language preservation and expansion as valuable and meaningful. Bereiter & Scardamalia (2003) adopt the same phrase, "way of life," to describe an immersive approach that strives to transform creative, collaborative, flexible and innovative thinking into quotidian behaviors, that become lifelong.

McWorter (2014) claims that, at a cognitive level, there is only an infinitesimal difference, if at all, between a word in one language and its equivalent in another – and the same holds largely true at the syntactic level – thereby leaving only the arguments of scientific curiosity and community-cohesion promotion as the compelling ones for preserving global linguistic diversity. However, as attempts at poetry translation demonstrate, it is the affective component imbuing source-language words and expressions that is hardest to render in a target language. This component derives its potency from thick and deep cultural roots, which the words and expressions of the source language betoken. That is a compelling reason for linguistic and cultural preservation, which McWorter overlooks, and that is why narrative research will remain a particularly well-attuned means of studying affective aspects of linguistic and cultural phenomena.

Furthermore, "Perhaps the most important force behind the quiet ethnographic revolution is the widespread realization that cultural diversity is one of the great gifts bestowed on the human species" (Spradley, 1979).

It takes fourteen languages to gain access to 90% of the economically significant markets in the world and yet the majority of websites support a maximum of six languages (DePalma, 2016). Understanding the information behaviors of adult bilinguals would contribute toward the improved management of challenges involving full market penetration in a global economy. Thus, for instance, a corporation serving global markets that moves from supporting the typical maximum of six languages at its website to supporting the aforementioned fourteen key languages instead, would reach far more customers and markets and be richly rewarded.

A remark by Dongho Choi constitutes an illustration of the myriad areas in need of exploration, at the confluence of human information behavior, adult learning, and adult bilingualism: Whereas looking up a term in a bilingual dictionary requires the physical effort of getting to a dictionary, locating the term of interest within it, and even, possibly, jotting it down, with today's easy access to online bilingual dictionaries, such expenditure of time and energy becomes unnecessary (personal communication, April 11, 2017). The efficiencies and conveniences furnished by technology raise intriguing questions about how adult bilingualism and adult learning might be impacted into the future, in view of the recognized tendency of human beings – sometimes referred to as Zipf's Principle of Least Effort (Morville, 2005) and also known as Zipf's Law – to favor sources of information, which take the least amount of time and effort to track down (Hirsh & Dinkelacker, 2004).

A most important force in the upcoming revolution in bilingualism is the notion of translanguaging. It is founded upon the well-established postulate that named languages are social constructs. It "refers to the act of deploying all of the speaker's lexical and structural resources freely. To repeat, translanguaging refers to using one's idiolect, that is, one's linguistic repertoire, without regard for socially and politically defined language labels and boundaries" (Otheguy et al., 2015, p. 297). Concomitantly, "a text possesses a translingual sensibility if it embodies an awareness of both the power and the limitations of its own verbal medium" (Kellman & Stavans, 2015, p. 6). Thus, languages are sociocultural inventions.

CONCLUSION

Perhaps the incipience of the intellectual quest, which led up to this dissertation, harks back to 1982, when this researcher, then a young man with a freshly minted Master of Education degree from Harvard University, was hired as a special assistant to the CEO of the largest diasporan Armenian philanthropic organization and began to work in its education department. It was there that he authored his Principle of Amphibianism, which touted the merits of balanced bilingualism and advocated in favor of its adoption as a key tenet in the organization's educational philosophy. While this proposal was filed and forgotten at the time, the passion, which inspired it simmered on for decades, until the time was ripe to pursue it anew.

Now, both symbolic interactionism and social constructionism consider language to be central to all that human beings are, do, and become. Language and information are inseparable. Language utilization is a form of information utilization. Thought itself is impossible without language. The narrative inquiry method is founded upon the premise that humans are the stories they tell themselves and to one another. These stories are told primarily in words, but those words come in thousands of languages. Languages are sets of symbols or codes and these sets are shared by subgroups of humanity for purposes of communication, interaction, division, and cultural transmission. It is to a preliminary exploration of the significance of these symbolic systems to information science, when two or more of these symbolic systems coexist within one adult individual, that this research study is dedicated.

The ultimate goal of this endeavor is to work toward the day, when languages will no longer be barriers to human communication. Notwithstanding the subjugating power

of the language of a stronger group foisted upon that of a weaker group, thereby

compromising or supplanting the language of the weaker group, the Anglosphere ought

to shirk and shun provincialism and xenophobia and to embrace and foster bilingualism

and biculturalism, instead. Linguistic imperialism (Phillipson, 1992) is anathema to

justice and a spiritually enlightened world. It behooves the developed world to nurture

linguistic diversity (McWorter, 2014), if for no other reason than for its own larger and

longer-term benefit.

A significant body of research strongly suggests that there are multiple cognitive

advantages to bilingualism, which can benefit persons throughout their life spans, from

childhood to very old age, and thereby benefit humanity. Thus, early childhood

experience with bilingualism is a factor in enhancing performance in mental tasks that

involve creative problem solving and flexibility (Cushen & Wiley, 2011). In fact, from

the time when Peal and Lambert (1962) published their watershed article on how the

performance of balanced bilinguals on cognitive tests (both verbal and nonverbal) was

significantly better than monolinguals' – effectively challenging the then held orthodoxy

that monolinguals measured higher than bilinguals on most tests of verbal intelligence

and nonverbal ability – to today, much research has been done to demonstrate the

advantages of bilingualism (Bialystok, 1999; Bialystok et al., 2007; Deary et al. 2012;

Alladi et al., 2016; Mehmedbegovic & Bak, 2017; Polinsky, 2018; to name just a few).

Languages are cultural assets and there is a correlation between linguistic

diversity and human welfare and economic development (Gorter et al., 2005).

Concomitantly, neologisms stemming from non-English languages have enriched English

vocabulary, over time. Especially important, in this regard, will be the redesign of

computer systems and the deployment of information technologies, which enable and facilitate bilingual interactions and communications, globally. Furthermore, given that languages are but social constructs, bilinguals are properly perceived as having access to two such social constructs. Thus, when one speaks of languages, monolinguals, or bilinguals, one is speaking primarily of social and not linguistic matters (Otheguy et al., 2015, p. 304).

A note apropos of the terms information seeking and information utilization is, perhaps, in order here. Neither of these terms is fully satisfying for two reasons: The two overlap too much and are too cognitive in their connotations. What might be more in line with symbolic interactionist and social constructionist views of the very same information behaviors is to speak of them – using one term to cover both behaviors – as information interactions, that is, the interactions of individuals or groups with other individuals or groups and with all manner of information. The other advantage of using this one term would be that it anticipates the more and more intensively cyborgian future that is, for all intents and purposes, the destiny of humanity. This futuristic anticipation envisions humans becoming integrated with machines, over time, such that they interact with them more and more seamlessly, to the point where distinctions between the two entities become essentially moot.

The implications of a symbolic interactionist and social-constructionist mindset in the study of bilingual information behavior and bilingual education, which have ignited and inspired the scholarship of this researcher, are profound. This dissertation is merely an early step in an intellectual odyssey. Philosophically, the next steps would be to explore more fully the works of Martin Heidegger, Ludwig Wittgenstein, Jacques

Derrida, Michel Foucault, Jürgen Habermas and, perhaps most importantly, Hans-Georg

Gadamer and his philosophical hermeneutics, in general, and his notion of the fusion of

horizons, in particular.

Appendix A

SURVEY QUESTIONNAIRE

Today's date: _____

Your name: _____

Your address: _____

_____

****

The languages/dialects in your life today:

Languages and/or dialects	Please specify as many as apply: **U**=Understand **S**=Speak **R**=Read **W**=Write

Appendix B

Bilingual Language Profile: English-Armenian

We would like to ask you to help us by answering the following questions concerning your language history, use, attitudes, and proficiency. This survey was created with support from the Center for Open Educational Resources and Language Learning at the University of Texas at Austin to better understand the profiles of bilingual speakers in diverse settings with diverse backgrounds. The survey consists of 19 questions and will take less than 10 minutes to complete. This is not a test, so there are no right or wrong answers. Please answer every question and give your answers sincerely. Thank you very much for your help.

II. Language history
In this section, we would like you to answer some factual questions about your language history by placing a check in the appropriate box.

1. At what age did you start learning the following languages?
English

Since birth 1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20+

Armenian

Since birth 1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20+

_____

2. At what age did you start to feel comfortable using the following languages?
English

As early as I 1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20+   not yet
can remember

Armenian

As early as I 1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20+   not yet
can remember

_____

3. How many years of classes (grammar, history, math, etc.) have you had in the following languages (primary school through university)?
English

0   1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20+

Armenian

0   1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20+

_____

4. How many years have you spent in a country/region where the following languages are spoken?
English

0   1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20+

Armenian

0   1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20+

_____

5. How many years have you spent in a family where the following languages are spoken?
English

0   1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20+

Armenian

0   1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20+

_____

6. How many years have you spent in a work environment where the following languages are spoken?
English

0   1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20+

Armenian

0   1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20+

III. Language Use
In this section, we would like you to answer some questions about your language use by placing a check in the appropriate box. Total use for all languages in a given question should equal 100%.

7. In an average week, what percentage of the time do you use the following languages with friends?

English

| 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |

Armenian

| 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |

Other languages

| 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |

8. In an average week, what percentage of the time do you use the following languages with family?

English

| 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |

Armenian

| 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |

Other languages

| 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |

9. In an average week, what percentage of the time do you use the following languages at school/work?

English

| 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |

Armenian

| 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |

Other languages

| 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |

10. When you talk to yourself, how often do you talk to yourself in the following languages?

English

| 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |

Armenian

| 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |

Other languages

| 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |

11. When you count, how often do you count in the following languages?

English

| 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |

Armenian

| 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |

Other languages

| 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |

IV. Language proficiency
In this section, we would like you to rate your language proficiency by giving marks from 0 to 6.

		0 = not well at all		*6 = very well*

12.	a. How well do you speak English?	0 1 2 3 4 5 6
	b. How well do you speak Armenian?	0 1 2 3 4 5 6

13.	a. How well do you understand English?	0 1 2 3 4 5 6
	b. How well do you understand Armenian?	0 1 2 3 4 5 6

14.	a. How well do you read English?	0 1 2 3 4 5 6
	b. How well do you read Armenian?	0 1 2 3 4 5 6

15.	a. How well do you write English?	0 1 2 3 4 5 6
	b. How well do you write Armenian?	0 1 2 3 4 5 6

V. Language attitudes
In this section, we would like you to respond to statements about language attitudes by giving marks from 0-6.

0 = disagree   *6 = agree*

16.   a. I feel like myself when I speak English.   0   1   2   3   4   5   6

        b. I feel like myself when I speak Armenian.   0   1   2   3   4   5   6

___

17.   a. I identify with an English-speaking culture.   0   1   2   3   4   5   6

        b. I identify with an Armenian-speaking culture.   0   1   2   3   4   5   6

___

18.   a. It is important to me to use (or eventually use)   0   1   2   3   4   5   6
        English like a native speaker.

        b. It is important to me to use (or eventually use)   0   1   2   3   4   5   6
        Armenian like a native speaker.

___

19.   a. I want others to think I am a native speaker of   0   1   2   3   4   5   6
        English

        b. I want others to think I am a native speaker of   0   1   2   3   4   5   6
        Armenian.

Appendix C

INFORMED CONSENT FORM

You are invited to participate in a research study that is being conducted by Shahé Navasart Sanentz, Principal Investigator, who is a doctoral student in the Department of Library and Information Science of the School of Communication and Information (SC&I) at Rutgers University. This research study is entitled "Information Seeking and Utilization Behaviors of Adult Bilinguals" and the purpose of this research is to study the information behaviors of adult bilinguals.

Approximately 8 to 10 subjects will participate in this study and each individual's participation will last approximately from one to two hours for the first session and from thirty minutes to one hour, for the second/follow-up session. Eligible participants must be adults and must use either Armenian and English or Armenian, English and other languages/dialects, on a daily basis.

Should you decide to participate in this research study, you will be asked to fill out a general background questionnaire and then to answer a set of questions related to your experiences with information, as an adult bilingual. After this interview, you will be contacted one additional time, asked to read a rough draft of the results of the study, and to provide any feedback you might have to the Principal Investigator. These two sessions will be held at a place and time that are convenient for you.

This research is confidential. Confidential means that the research records will include some information about you and this information will be stored in such a manner that some linkage between your identity and the response in the research exists. Some of the information collected about you includes your name, gender, and the languages and dialects you use. Please note that we will keep this information confidential by limiting individuals' access to the research data and keeping it in a secure location. The Principal Investigator will assign an identifying code to each interviewee and hold these codes in a locked

drawer, in the case of physical documents, and a password-protected folder, in the case of electronic documents. After three years, data containing identifying information will be destroyed. Only the Principal Investigator will conduct interviews and have access to identifying information. Additional researchers or coders contributing to this research study will have access to interviewee codes only. All audio recordings of interviews and any other related electronic data will be deleted and all paper forms filled out by interviewees will be shredded.

The research team and the Institutional Review Board at Rutgers University (a committee which reviews research studies in order to protect research participants) are the only parties that will be allowed to see the data, except as may be required by law. If a report of this study is published, or the results are presented at a professional conference, only group results will be stated.

Foreseeable risks or discomforts of participation include the exposure of your identity and the subsequent embarrassment or harm it might produce, given the personal information, which you might share.

There are no costs to you for participating in this study and the direct benefit to you is only a $25 gift card, to which you would be entitled upon completing the two sessions described above. However, your participation will help researchers to better understand the information behaviors of adult bilinguals, thereby creating a potential for better meeting their information needs.

Participation in this study is voluntary. You may choose not to participate, and you may withdraw at any time during the study procedures without any penalty to you. In addition, you may choose not to answer any questions with which you are not comfortable.

If you have any questions about the study or study procedures, you may contact myself at: Shahé Navasart Sanentz, 4 Huntington Street, New Brunswick, NJ 08901; 908-510-1250; or s.sanentz@rutgers.edu.

You may also contact my faculty advisor at: Dr. Ross J. Todd, 4 Huntington Street, New Brunswick, NJ

08901; 848-932-7602; or rtodd@rutgers.edu.

If you have any questions about your rights as a research subject, please contact an IRB Administrator at

the Rutgers University, Arts and Sciences IRB:

Institutional Review Board
Rutgers University, the State University of New Jersey
Liberty Plaza / Suite 3200
335 George Street, 3rd Floor
New Brunswick, NJ 08901
Phone: 732-235-2866
Email: humansubjects@orsp.rutgers.edu

You will be given a copy of this consent form for your records.

Sign below if you agree to participate in this research study:

Subject (Print) _____

Subject Signature _____ Date _____

Principal Investigator Signature _____ Date _____

Appendix D

<u>Audio/Visual Addendum to Consent Form</u>

You have already agreed to participate in a research study entitled: Information Seeking and Utilization Behaviors of Adult Bilinguals, conducted by Shahé Navasart Sanentz. We are asking for your permission to allow us to capture your voice using a digital recorder, as part of that research study. You do not have to agree to be recorded in order to participate in the main part of the study.

The recording(s) will be transcribed and will be used to code and analyze the data. They will basically comprise our conversations during the interview process.

If you say anything that you believe at a later point may be hurtful and/or damage your reputation, then you can ask the interviewer to rewind the recording and record over such information OR you can ask that certain text be removed from the dataset/transcripts.

The recording(s) will be stored in digital format and converted into codes for analysis. With each recording (original or coded) a random identifier – not your real name, e-mail, etc. – will be associated with the data, to protect your privacy. Various attributes, such as the length of the recording or the day and time of the recording, will also be stored. After three years, all digital audio recordings and any other related electronic data will be deleted.

Your signature on this form grants the investigator named above permission to record you as described above during participation in the above-referenced study. The investigator will not use the recording(s) for any other reason than that/those stated in the consent form without your written permission.

Subject (Print) _____

Subject Signature _____ Date _____

Principal Investigator Signature _____ Date _____

Appendix E

INTERVIEW PROTOCOL

1) Please tell me the story of the languages in your life.

2) Please describe what might be a typical day for you, vis-à-vis the languages/dialects you now use.

3) Please choose two recent events/situations, where you used your languages/dialects, and tell me in as much detail as you can the who, what, where, when, why, and how.

4) Please tell me about how you linguistically interact with the most significant others in your life.

5) Please tell me about some sources of information you typically use in your everyday life, when seeking information, specifying the languages/dialects involved and describing your processes.

   – How do you decide or what decides which languages/dialects you will use, when seeking information?

6) Please also describe how/if you then put the information you found (in Questions 5) to use.

7) Do you do anything to maintain/advance your knowledge of your languages/dialects or to acquire new ones? If yes, what motivates you/why do you do it/how do you do it?

8) How do you see your bilingual life evolving into the future? Please describe some possible scenarios.

9) What are your feelings about each of the languages/dialects in your life and about being bilingual, in general? How does your emotional world play into your choice of language?

10) Is there anything else you would like to tell me? Is there anything you would like to ask me?

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