WHEN DO WE LEARN TO TRUST IN OTHERS?

by

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Abstract

When do we learn to trust in others? One group of scholars believe that we inherit trust from our parents and within the cultural environment in which we grew up. Another group suggest that we update our trust in response to contemporary social experiences and contexts. Taking time seriously, in this dissertation I adopt a life course approach and consider whether trust travels across place and over time. Across place, I consider how the experience of growing up in a high trust place and then migrating to a low trust place affects migrants’ trust and vice versa. Trust is lower in the South compared to other U.S. regions and in Canada trust is lower in Quebec compared to other provinces. I focus on internal migration in the U.S. between the South and non-South and in Canada between Quebec and the rest of Canada. My analyses of the U.S. General Social Survey (1972-2016) and the Canadian General Social Survey (2013 & 2014) show that migration to a different trust environment as an adult has little impact on people’s trust. Over time, I consider intergenerational transmission of trust among Chinese adolescents aged 10-15. I adopt a dyadic approach that differentiates two same sex (mother-daughter and father-son) and two cross-sex (mother-son and father-daughter) dyads and use this approach to investigate whether the transmission pattern varies across the four parent-child dyads. Analysing the Chinese Family Panel Studies (2010-2014), I find that whereas sons adopt trust from both mothers and fathers, daughters only adopt trust from mothers. The transmission is greater between same-sex generational dyads than between cross-sex pairs. In line with previous studies that show mothers and fathers play differential roles in socializing their sons and daughters, the finding of varying transmission patterns suggests that parental socialization is one underlying process in trust learning. Taken together, the overall results illustrate that we learn to trust
primarily when we are young from our early life socialization and within the social environment where we grew up. This learned trust persists into adulthood.
Lay Summary

In this dissertation research, I investigate whether people are trusting because that is how they are raised or whether they constantly adjust their trust in response to life experiences. I look at whether the experience of moving from a high to a low trust place changes migrants’ trust and vice versa. I consider Quebecers and U.S. Southerners (both have low trust) and whether they become more trusting when they move to high trust places. I also consider whether people with trusting parents are more likely to trust and specifically how mothers and fathers play different roles in shaping trust of their daughters and sons. I find that people learn to trust early in life through socialization and that learned trust persists into adulthood.
Preface

Zhiming Wu identified and designed the research program and analyzed all research data for this dissertation. Data in Chapter 2 come from the U.S. General Social Survey, National Opinion Research Center (NORC) at the University of Chicago. Data in Chapter 3 come from Statistics Canada’s General Social Survey. Data in Chapter 4 come from the China Family Panel Studies (CFPS), the Institute of Social Science Survey (ISSS) of Peking University. All data are publicly available. This dissertation is the sole intellectual work of the author and all research was conducted independently.
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Chapter 1: Introduction

One of the liveliest scenes in Anton Chekhov's play *Uncle Vanya* occurs when, after not speaking to each other for weeks, Sonia and her stepmother Helena finally make peace. They hug, cry, and use wine and a kiss to seal their friendship. Sharing her wisdom, Helena tells Sonia “you must trust people, or life becomes impossible” (Chekhov 1998:25). While of course Helen does not expect that Sonia should trust people in all situations, many prominent social thinkers including de Tocqueville (1835), Durkheim (1933), Simmel (1950), Arrow (1972), Luhmann (1979), Coleman (1988), Putnam (2001), and Uslaner (2002) have all argued that the society is only made possible through trust. For example, Simmel (1990:178) pointed out that “Without the general trust that people have in each other, society itself would disintegrate.” Arrow (1972:23) argued that “Trust is an important lubricant of a social system. It is extremely efficient; it saves a lot of trouble to have a fair degree of reliance on other people's word.” Uslaner (2002:1) wrote that “Trust is the chicken soup of social life.” Indeed, trust is at the heart of the everyday social exchanges. Without at least some level of basic trust in others, we would have to leave the house with a weapon (Luhmann 1979; see also Paxton 2007).

Trust is a multidimensional concept. We can categorize trust into different forms depending on the target and/or context such as trust in people, trust in political institutions, and trust in organizational settings (for detailed discussions on varieties of trust see e.g. Blomqvist 1997; Nannestad 2008; Uslaner 2002; Yamagishi 2011; Robbins 2016). My focus in this research is generalized social trust, a form of trust with people in general as the target. In Rotter’s (1967: 651) definition, when people express generalized trust, they tend to believe that “the word, promise, verbal or written statement” of most people can be relied upon. It is
important to make it clear that this form of trust is different from trust in someone we know personally (elsewhere deemed as particularized trust, personalized trust, or in-group trust). As Putnam points out (2000:136), that “trusting Max at the corner store because you’ve known him for years” is different from “trusting someone to whom you nodded for the first time at the coffee shop last week”. Trust in generalized others or strangers reflects our belief in the benevolence of human nature in general that is not limited to people or organization that we have personal knowledge or contacts with, and therefore it is a social glue that is foundational to all social relationships (Stolle 2002; Yamagishi 2011; Uslaner 2018).

Trust matters. When people trust in each other, they have an expectation of goodwill and benign intent of others (Yamagishi 2011). Empirically, trust explains a wide range of social phenomenon. For example, at the individual level, trust can explain why some groups are better off financially, stand at a higher socioeconomic status, are more satisfied with their life, are generally happier, have better health, and tend to live longer (Coleman 1988; Lin 2002; Kawachi and Berkman 2000; Helliwell et al. 2018). At the societal level, trust can explain why some societies function better, are richer, are safer, are more cohesive, and are more democratic (Arrow 1972; Fukuyama 1995; Putnam 2001; Warren 1999; Algan and Cahuc 2010; Sampson 2011). Trust is also an essential element of social capital and this too has been widely demonstrated to produce an array of personal and social benefits (Coleman 1988; Lin 2000; Putnam 2001; Fukuyama 2001; Sampson et al.1997). Hence, in its own right or as an essential component of social capital, trust has become a key concept in understanding durable social inequalities including in socioeconomic status, health, happiness, and life expectancy (Coleman 1988; Lin 2000; Kawachi and Berkman 2000; Veenstra 2000; Giordano et al. 2018).
1.1 Measuring trust

To measure generalized trust, scholars have designed a variety of different instruments. One popular instrument, used especially widely in economics, is the “trust game” (Berg et al. 1995). In the trust game, subjects in a laboratory setting are asked to invest a financial endowment. Specifically, two subjects are randomly and anonymously paired, and one subject plays the sender and another subject is the receiver. In the first move, the sender may send some or all of his endowment to the receiver. Second, the experimenter will triple the amount sent and also hand to the receiver. In the final move, the receiver may return some or all of the received money back to the sender. The logic is that, if the sender has no trust, he will send nothing due to a concern about receiving nothing. If the sender is very trusting, he might send all his endowment to the receiver to maximize his return and benefit others. However, there has been a heated debate over whether the trust game is a trustworthy measure of trust (Glaeser et al. 2000; Sapienza et al. 2013). For example, in a meta-analysis of 162 studies that used the trust game, Johnson and Mislin (2011) show that relatively minor variations in laboratory setting can produce substantial shifts in measured trust behavior.

In sociology and political science, more often this generalized trust is conceptualized as a value rather than a behavior. It is a worldview that people have in others (Uslaner 2002). To measure trust in surveys, scholars have used people’s perception of the trustworthiness of others including for example people’s perception of the probability of recovering a lost wallet, perception of how helpful most people are, and perception of whether people try to take advantage of others (see also Glaeser et al. 2000). Among many survey items, the most commonly used are the following three questions (see also Glaeser et al. 2000; Fairbrother and Martin 2012; Wilkes 2011; Dinesen and Sønderskov 2015):
1. Generally speaking, would you say that most people can be trusted, or that you can’t be too careful in dealing with people? (1=most people can be trusted, 2=you cannot be too careful, 3=it depends)

2. Do you think that most people would try to take advantage of you if they got the chance, or would they try to be fair? (1=people try to be fair, 2=people take advantage, 3=it depends)

3. Would you say that most of the time people try to be helpful or that they are mostly looking out for themselves? (1=people are helpful, 2=people are looking out for themselves, 3=it depends)

These three items have been routinely asked in major surveys such as the General Social Survey, the World Values Survey, the Global Barometer Survey, and the European Social Survey. Trust scholars often combine all the three items and create a scale of trust. The three-item scale has been validated as a reliable measure of trust across cultures and over time (Reeskens and Hooghe 2008; Zmerli and Newton 2008; Dinesen 2011) and is positively correlated with the trust measured using the trust game (Johnson and Mislin 2012).

Among these three items, the first item introduced by Rosenberg (1956) - Generally speaking, would you say that most people can be trusted, or that you can’t be too careful in dealing with other people? - is widely considered to be the standard measure of trust. There have been a number of methodological concerns with this single-item measure of trust (e.g., Reeskens and hooghe 2008; Sturgis and Smith 2010). People could potentially interpret “most people” in different ways across cultures: while people are more likely to refer “most people” to in-group families, relatives, and friends in some cultures, in others people read “most people” as strangers (Delhey et al. 2011). This is known as the radius of trust. In fact, even within a country, people
might have different references when interpreting “most people”. In China, for example, Zhou and Hu (2013) show that the urban population has a wider radius of trust than that of the rural population, and that married people tend to have a narrower circle of generalized trust. Nevertheless, trust scholars largely agree that the simple but efficient single-item is an appropriate and valid measure of trust (Uslaner 2012; Delhey, Newton and Welzel 2011; Mewes 2014). The majority of people do “think about trust largely in general, or moral, terms” when answering “whether most people can be trusted” (Uslaner 2002:74). In this dissertation research, I will use these attitudinal questions from surveys to measure trust.

1.2 The crisis of trust

Today, trust is most needed as societies have become more complex (Luhmann 1988; Lewis and Weigert 2012). Nevertheless, people in many countries have become less willing to trust in each other. For example, in the U.S., while about 59 percent of Americans said that they have trust in others in the 1960s, by 2016 the proportion fell by almost half to 32 percent (Paxton 1999; Putnam 2001; see also Robinson and Jackson 2001; Wilkes 2012). The most recent wave of the U.S. General Social Survey (GSS 2018) shows that only 32 percent of Americans would say most people can be trusted today, the lowest recorded level since 1972 when the first wave of the GSS was conducted. In China, using the World Values Survey, Hu (2015) shows that there has been a decline in the level of trust between 1990 to 2007. The decline in trust has also been documented in other countries including Australia, Britain, and France (Stolle and Nishikawa 2011).

Not only has trust been declining, it is also unevenly distributed among individuals and across societies. In the U.S., the 2018 U.S. General Social Survey continues to show significant
trust gaps between, for example, whites and non-whites (37% vs. 18%), the native-born and immigrants (33% vs. 22%), and the university educated and the uneducated (54% vs. 22%). This widespread trust inequality is not unique to American society. In Canada, the 2013 Canadian General Social Survey shows that while overall 54 percent of Canadians said that most people can be trusted, only 45 percent of First Nation people, and 49 percent of visible minorities expressed the same. Similarly, in Taiwan, the 2014 Asian Barometer Survey shows that the percentage of who believed that most people can be trusted varies significantly and substantially across racial and ethnic groups, from 53 among Mainlanders, 57 among Hakka people, to 44 among Min-nan people, and 27 among Aboriginal people. In fact, in virtually every society, lower trust is associated with being poor, uneducated, and racialized/colonized (Putnam 2000; Smith 2010; Wilkes and Wu 2018).

Globally, international surveys have consistently documented that the cross-national variation in trust is also large. The 2014 Asian Barometer Survey finds that trust is relatively high in three Chinese societies including Hong Kong (55%), Taiwan (45%), and Mainland China (44%), where nearly or above half indicated a positive answer when asked about whether most people can be trusted. Trust is lower among the well-established democracies such as Japan (32%) and Korea (35%). In Philippines and Malaysia, only about 8% said most people can be trusted. Similarly, data from the most recent wave of the World Values Survey (2010-2014) also shows that the level of trust varies significantly from one country to another. Whereas in countries such as Norway, Sweden, Denmark, and Netherlands, over 60 percent of people would say “most people can be trusted”, the number is down to only 10 percent or less in countries such as Brazil, Peru, Lebanon, Libya, and Mexico.
Currently, the world needs people's trust in each other more than ever. Indeed, low and declining trust in others is connected to a global rise of social divides, racially motivated crimes, the refugee crisis, as well as the rise of populism (Wilkes and Wu 2018). In fact, trust has become a key concept to our understanding in social interactions and global inequality. Not only is trust, in its own right or as one essential component of social capital, widely considered to be a major correlate of everyday inequality (Coleman 1988; Sampson et al. 1997; Lin 2000; Putnam 2002), it also reflects the widespread and rising inequality. Indeed, scholars have argued that the fact that some people are more trusting than others is because of the widespread social inequality, and over time people have become less trusting is a result of the rising inequality (e.g., Bjørnskov 2008; Costa and Kahn 2003; Leigh 2006; Freitag and Bühlmann 2009; Kawachi et al. 1997; Uslaner 2000, 2002, 2008, 2018; Uslaner and Brown 2005).

Figure 1.2-1 Percent who say most people can be trusted in the U.S. over time (GSS 1972-2016)
1.3 Trust: the debate

The widespread trust inequality at both the national and the global levels, as well as the decline of trust in many countries has sparked a growing interest across social sciences in the question “What predicts trust?” (e.g., Alesina and La Ferrara 2002; Delhey and Newton 2003; Dinesen and Sønderskov 2015; Glanville and Paxton 2007; Uslaner 2018). Decades of research have identified a variety of individual and societal factors that predict how much people trust in each other (e.g., Alesina and La Ferrara 2002; Delhey and Newton 2003; Stolle, Soroka, and Johnston 2008). At the individual level, major factors that influence trust include education, income, social participation, experience of victimization, perception of life control, and being optimistic. At the societal level, scholars have connected trust in society to diversity, inequality, ethnic segregation, quality of government, democracy, and type of regime (Abascal and
Baldassarri 2015; Dinesen and Sønderskov 2015; Leigh 2006; Stolle et al. 2008; Sturgis et al.
2011; Uslaner 2002; Uslaner and Brown 2005; Wilkes and Wu 2018). Overall, trust is often
found lower among individuals who are powerless and disadvantaged such as those with a lower
education, lower income, and lower status, and in societies with higher levels of inequality,
segregation, conflicts, and diversity, and lower levels of government quality and democracy
(Putnam 2000; Delhey and Newton 2005; Rothstein 2011; Uslaner 2012; Wu and Wilkes 2016).

Figure 1.3-1 Growing research on trust, 1995-2018

(Nota: Number of journal articles when searching key word ‘trust’ through ScienceDirect and the
SAGE Journal website.)
Theorizing how these factors affect trust are two competing perspectives, a cultural theory and an experiential theory (see also Dawson 2017; Paxton and Glanville 2016; Uslaner 2008). From the cultural view, scholars widely consider trust as a product of cultural heritage and early life socialization (Dawson 2017; Dinesen and Sønderskov 2018; Paxton and Glanville 2016; Uslaner 2008). In this perspective, trust is a moral value that people learn at a young age from parents, schools, and the social environments in which they were immersed (Uslaner 2002; Stolle and Hooghe 2004). As a result of this primary socialization, their learned trust tends to be stable throughout the adult life or changes very slowly, if at all (Uslaner 2002; Dawson 2017). Ordinary life experiences as an adult such as getting a divorce, losing a job, or even being victimized are unlikely to change people’s trust. Instead, trust is a cultural trait passed down from generation to generation. Uslaner (2008) has shown that how trust of Americans is largely due to cultural inheritance. His study of trust among groups of Americans with different ethnic backgrounds shows that Americans whose grandparents came from the Nordic countries, from Britain, and from Germany tend to have higher levels of trust. In contrast, Italians, Latinos, and African Americans tend to have lower levels of trust. Because Americans’ trust is highly correlated to the trust of the countries where their ancestors are, he concludes that trust is cultural.

Alternatively, from the experiential perspective scholars regard trust as a product of contemporary social experiences (Hardin 2002; Glanville and Paxton 2007; Rothstein 2005). In this view, to trust or not to trust is a rational decision we make based on our day-to-day life experiences and/or under a particular context. We modify our trust in response to changing life experiences and therefore trust is not rigid but malleable. Different levels of trust are necessary as we alter them to fit changing circumstances (Dinesen and Hooghe 2010; Paxton and Glanville
Using a confirmatory tetrad analysis, Glanville and Paxton (200) show that ongoing experiences in adulthood such as associational life will shape how people trust. Similarly, using a laboratory experiment, Paxton and Glanville (2016) find that trust is fluid as people make their trust decisions in response to experimental conditions. Specifically, they create high and low trust situations in the laboratory and find that people adjust their trust based on their exposure to high or low trust environment. Hence, they conclude that trust is likely to change from time to time according to personal experiences of social interactions in specific contexts.

In order to make a distinction between these two perspectives, scholars use a number of measures of cultural norms and life experiences. On the cultural side, scholars have considered how racial and ethnic backgrounds, traditional values and orientations, and social norms relate to trust at both individual as well as societal level (Simpson 2006; Fukuyama 1995; Smith 2010; Wilkes 2012; Wilkes and Wu 2018). On the experiential side, scholars have studied how life experience such as participation in associations, social contacts, migration, and experience of victimization affect trust (Abascal and Baldassarri 2015; Bauer 2015; Dinesen and Sønderskov 2015; Glanville and Paxton 2007; Paxton 2007).

Conclusions however are often mixed. In looking at how experience of victimization might affect trust in the U.S., whereas Smith (1997) reported that trust was lower among people who experienced victimization such as robbery, burglary, and being hit, Uslaner (2002) found no effect from being a victim of a crime on trust. Similarly, in Europe, while Salmi et al. (2007) found that personal experiences of bullying, robbery, theft, violence, or threat of violence are all strongly and negatively associated with trust, Bauer (2015) found no significant effect of negative experiences on trust. Because individuals’ day-to-day experiences are often associated with their cultural backgrounds, these two factors often confound each other in shaping people’s
trust. Until today, whether trust stems from cultural socialization early in life or from adult experiences is still a subject of considerable debate (Dinesen and Hooghe 2010; Paxton and Glanville 2016; Dawson 2017; Dinesen and Sønderskov 2018).

1.4 When do we learn to trust in others?

Growing up, we become socialized to think, act, and speak in culturally appropriate ways (Ochs and Schieffelin 2017). We finish this primary socialization before adulthood. What we learned through socialization in pre-adulthood often remains persistent later in adulthood (Jennings and Niemi 1978; Jenings et al. 2009). Many of our political orientations and behaviors such as party identification, political interest, and political engagement are acquired very early in life (Jennings 2007; Jenings et al. 2009; Neundorf and Smets 2017). When do we learn to trust in others? In fact, at its core, the cultural and experiential debate is about time. It is about when people learn to trust and whether learned trust changes over time.

On the cultural side, scholars hold that people learn to trust early in life from their parents, within the families and communities through human psychosocial development or early age socialization (Erikson 1950; Stolle and Hooghe 2004; Uslaner 2002; Wrightsman 1992). Our learned trust does not change much or changes very slowly later in their adult life (Stolle and Hooghe 2004; Uslaner 2008; Dawson 2017). Day-to-day life experiences as an adult such as losing job, getting divorced, and even being victimized are not relevant to trust (Uslaner 2002; Bauer 2014). In contrast, scholars on the experiential side argue that trust is dynamic and the result of a social learning process. Our trust changes from time to time according to personal experiences of social interactions in the context of, for example, going to church, bowling together, or spending too much time watching television (Hardin 2002; Glanville and Paxton
Over time, trust might not be stable, is fragile, and could be easily broken (Hardin 2002). Table 1.4-1 illustrates the debate on time in the formation of trust between the cultural and experiential theories of trust.

**Table 1.4-1 The debate about time between the cultural and the experiential theories of trust**

<table>
<thead>
<tr>
<th></th>
<th>Cultural theory</th>
<th>Experiential theory</th>
</tr>
</thead>
<tbody>
<tr>
<td>When is trust learned?</td>
<td>Early life course through primary socialization (e.g., before age 16)</td>
<td>Day-to-day experiences throughout the life course</td>
</tr>
<tr>
<td>Does trust change over time?</td>
<td>No, or slowly and very little</td>
<td>Yes, constantly</td>
</tr>
</tbody>
</table>

Accordingly, in order to distinguish the merits of the cultural and experiential arguments it is essential to consider time. For example, to test the experiential theory of trust, scholars need to not only consider whether certain life experiences matter for trust, but also consider when such life experiences occurred in the life course. This is because, similar life experiences may affect individuals in a “cultural” way if it occurred early on during the primary socialization period in the life course (George 1993; Elder et al. 2003).

In particular, there is a need to distinguish between childhood life experience and adult life experience. Certain childhood experience is part of growing up and early life socialization, and therefore its effect on trust could be considered as evidence for the cultural theory. For example, previous studies have shown that immigrants from low-trust non-Western countries are likely to gain trust in high-trust Western societies and with this finding, scholars conclude that trust reflect their experiential adaption to high-trust culture (Dinesen and Hooghe 2010; Nannestad et al. 2014). However, it is important to make a distinction between immigrants who landed as adults and those who landed as children or adolescents and therefore are still
undergoing primary socialization. If trust is cultural, while we would expect those who came at an older age and had already finished their primary socialization at their ancestral country would have lower trust, reflecting the cultural footprints from their country of origin, we would also expect that immigrants who came at a younger age and who were socialized within high trust culture in Western societies would also be more trusting. In other words, young immigrants could learn to trust from the cultural socialization in the hosting country as well. For example, focusing immigrants in high-trust Canada, Wu (2018) has shown that immigrants who came at a young age are more able to gain trust from high trust environment in Canadian society. However, those who came as adults learned trust from their culture of origin and their trust responds very little to the new Canadian environment. Accordingly, without asking when it happened, the effect of migration experience per se does not provide sufficient evidence to support the experiential theory. The same migration experience could have have a different meaning depending on whether migration occurred in pre-adulthood or in adulthood.

Taking time seriously, in this dissertation I adopt a life course approach to the culture-experience debate. The life course approach elaborates the importance of time and provides a framework for studying how the way that people live their lives from childhood to old age affects the development of trust. Specifically, I consider whether trust is developed in early childhood and relatively unaffected by contemporary life experiences or whether trust is a product of social learning from on-going events. In fact, this debate can be located in a broader debate over whether individuals’ core values and identities are acquired at an early age and remain relatively stable during the life cycle or alternatively, people modify value orientations and social behaviors according to life experiences and surrounding contexts throughout life (see also Sears and Levy 2003; Stolle and Hooghe 2004; Dinesen 2012).
1.5 Research overview

In this dissertation, my primary goal is to address the long-standing debate over whether we inherit trust from cultural traditions through socialization early in life or alternatively, we adjust our trust according to our life experiences and the changing environment. I adopt a life course perspective to study the formation of trust. I reflect on the following questions. When do we learn to trust in others? Do we learn to trust early in life? Or do we update our trust over time? To determine the specific time period during which we form our trust, I develop two new research designs. Figure 1.5-1 provides an overview of the current research. Taking a life course approach, I first separate an individual’s life course into two major time periods between the early life course (time 1, e.g., age 16) and the adult life experience (time 2). Then, to separate the cultural and experiential theories of trust, I ask: does trust travel across place and over time?

**Figure 1.5-1 Overview of current research**

<table>
<thead>
<tr>
<th>Does trust travel?</th>
<th>Time 1: Early life course</th>
<th>Time 2: Adult life experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Across place (the migration effect):</td>
<td>Grow up in a low (or high) trust place</td>
<td>Migrate to a high (or low) trust place</td>
</tr>
<tr>
<td>Over time (the parental effect):</td>
<td>Grow up in a trusting family</td>
<td>Trust at the adolescent age, the end of primary socialization</td>
</tr>
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Across place, I consider people’s migration history and how that might affect their trust. I ask, if there is a trust gap between two places, where one place is more trusting than another, does migration between these two places affect migrants’ trust? In fact, scholars have
innovatively examined whether trust travels from one country to another to separate between the cultural and experiential theories of trust (e.g., Dinesen and Hooghe 2010; Dinesen 2013; Nannestad et al. 2014; Uslaner 2008). Specifically, scholars have tested whether immigrants have a similar level of trust to locals or whether they have a similar level of trust to people from their country of origin. The assumption is that, if trust of immigrants is aligned with trust of natives in their present country, this indicates that trust is experiential. Conversely, given immigrants often came from low-trust countries (Uslaner 2012), if immigrants have lower trust, trusting similarly to people from their ancestral country but differently from the local natives, this suggests that their trust continues to reflect their cultural heritage (for a comprehensive review, please see Dinesen and Sønderskov 2018). International migration provides a strong test of whether trust is attached to the cultural heritage from the place of origin and remains stable even with them over to a new environment, or whether trust reflects individuals’ new institutional experiences in the destination country (Helliwell et al., 2015; Dinesen and Sønderskov 2018). Current findings from these previous studies are mixed: whereas some conclude that trust of immigrants or descendants of immigrants is from their ancestral roots (Rice and Feldman 1997; Uslaner 2008), others show trust of immigrants reflects their experiential adaption in the destination country (Dinesen and Hooghe 2010; Nannestad et al. 2014). Conflicting conclusions therefore suggested that they have yet to address the debate (see also Dinesen and Sønderskov 2018; Wilkes and Wu 2018):

The solution offered here is to look at internal migration within the United States and Canada and consider the time of migration—the age when migrants migrated. The new design aims to improve on prior work on international migration of trust. Specifically, I distinguish between the place where people were brought up and the destination place where people currently live but
moved from the place of origin only after they finished their primary socialization (e.g., after age 16). When there is a trust gap between these two places, I consider: how the experience of growing up in a high trust place (time 1) but moving to a low trust place (time 2) within the same country affects migrants’ trust and vice versa. For example, if people were socialized in a relatively low trust environment, do they become more trusting after they moved to a high trust place? This research design focusing on internal migration provides a way to answer when do people learn to trust in others and therefore has a potential to address the cultural and experiential debate on the origin of trust. If we form our trust during our primary socialization period and it remains persistent in the adulthood, we expect that migrating to a different trust environment in adulthood would not have an impact on trust. Otherwise, if adult migration to a different trust environment from the place of origin has a significant impact on migrants’ trust, this is to suggest that trust reflects their migration experience and the changing context.

Over time, I consider whether adolescents who grew up with more trusting parents (time 1) are more likely to trust at the end of their primary socialization (time 2) and the specific underlying process. While the significant intergenerational transmission of trust has been well established (Algan and Cahuc 2010; Dinesen 2012; Giulietti, Rettore, and Tonini 2016), it is unclear whether the process of the intergenerational transmission is due to shared life experiences, to parental socialization, or even to genes. To disentangle these potential mechanisms, I develop a dyadic approach that differentiates same sex (mother-daughter and father-son) and cross-sex (mother-son and father-daughter) dyads and investigates whether the transmission pattern varies across these four parent-child dyads. Previous literature has largely suggested that mothers and fathers play different roles in socializing values to their sons and to their daughters (Fingerman 1996; Russell and Saebel 1997). Accordingly, if the underlying
mechanism is parental socialization—people learn to trust from parents early in life, we should expect that pattern of trust transmission would vary across the four parent-child dyads. Empirically, the transmission can be greater among certain dyads. Perhaps daughters learn trust more from their mothers, while sons learn trust more from their fathers.

Making up the core part of this dissertation thesis are the following three individual studies. In Chapter 2, I focus on internal migration in the United States. Taking advantage of the fact that the American South has lower trust than other regions of the United States (Bjørnskov 2012; Simpson 2007; Uslaner 1999), I test whether Southerners would become more trusting when they move to non-South regions after age 16 and whether non-Southerners would trust less when they move to the South after age 16. If Americans do not update their trust wherever they migrate, it suggests trust is rooted in their cultural socialization in early life course (Uslaner 2008). If they renew their trust because of migration, it suggests trust changes according to the changing environment and therefore is experiential (Dinesen and Hooghe 2010). My analysis of the cross-sectional data from the General Social Survey (GSS 1972-2016) suggests that, irrespective of where Americans move, their trust changes very little. The finding lends significant support for the cultural theory of trust. That is, people learn to trust from cultural heritage and early life socialization, and this does not respond to new experiences and changing circumstances.

In Chapter 3, I focus on internal migration in Canada. Similar to the U.S. case between the South and non-South, in Canada trust is lower in Quebec than the rest of Canada (Uslaner 2012; Wu and Wilkes 2017). Taking advantage of the trust difference between Quebec and the rest of Canada, I explore whether people who were brought up in low trust Quebec will become more trusting when they move away to live in the rest of Canada where people have more trust
and vice versa. In particular, I distinguish between child migration and adult migration. If people who grew up in Quebec in pre-adulthood but moved away to live in other provinces do not gain trust, this means that trust is rooted in their early life course and cultural heritage of the place of origin. However, if they do become more trusting after living with people who have more trust, it will suggest that trust is experiential, fluctuating in response to the changing context. My analysis of the 2014 Canadian General Social Survey suggests that although migration as a child has mixed impacts, migration as an adult changes people’s trust very little. This research further indicates the importance of taking into consideration of when migrants migrated, an issue largely overlooked in previous immigrant-based studies of the roots of trust. Again, the overall results suggest that we learn to trust early in life from where we grew up and that learned trust tends to persist through the life.

In Chapter 4, I focus on the intergenerational transmission of trust among Chinese adolescents aged 10-15. I seek to investigate whether underlying the parent effect on trust is parental socialization, shared contexts, or genetic influences. Specifically, I develop a dyadic approach that differentiates four parent-child dyads and outline three distinct transmission patterns to disentangle these potential mechanisms. I hypothesize that if trust is from parental socialization, we expect that the intergenerational transmission pattern will vary across the four parent-child dyads given the fact that mothers and fathers play different roles in socializing their sons and daughters. To do this, I create a unique parent-child paired data out of the China Family Panel Studies (2010-2014). Analyzing the data, I find that whereas sons adopt trust from both mothers and fathers, daughters only adopt trust from mothers. Mothers are more influential than fathers in shaping trust of daughters while fathers are more influential in shaping trust of sons.
The greater transmission between same-sex generational dyads than between cross-sex pairs lends significant support toward the socialization theory of trust.

In Chapter 5, I discuss major conclusions generalized across these three individual studies. The overall findings suggest that people learn to trust primarily when they were young during their early life socialization from their parents and social and cultural environment where they were immersed growing up. Further, I discuss several limitations of this research. To understand the crisis of trust we are currently facing including the decline of trust over time, the widespread inequality in trust within our societies as well as cross-national differences in trust, future research should aim to understand how people are socialized differently across social groups, cross-nationally, and over time.
Chapter 2: Internal Migration and the Stability of Trust among Americans

There has been a longstanding debate about the origins of trust. On one hand, scholars suggest that we inherit trust from our parents and within the cultural environment in which we were immersed when growing up (Erikson 1950; Stolle and Hooghe 2004; Uslaner 2002; 2008; Dawson 2017). Dawson (2017: 590) has recently asked “How persistent is generalized trust?” Analyzing the British Household Panel Survey (BHPS), he shows that trust is a relatively stable, persistent human trait. Post-childhood environmental forces are irrelevant because the level of trust people have over their lives doesn’t change. Accordingly, he concludes that trust is a stable trait established early in pre-adult life through intergenerational transmission. Other scholars argue that trust is expressed based on our contemporary life experiences that we update regularly (Rotter 1971; Offe 1999; Hardin 2002; Macy and Sato 2002; Glanville et al. 2013). Paxton and Glanville (2016:194) have asked: “Is trust rigid or malleable?” However, their conclusion is quite the opposite. Using laboratory experiments, they find that trust is open to fluctuations. They conclude that people make trust decisions in response to different social circumstances, and thus trust changes from time to time according to personal experiences of social interactions in different contexts.

To address this on-going debate, a group of scholars have asked: does trust travel? (Dinesen 2012:495,2013; Dinesen and Hooghe 2010; Rice and Feldman 1997; Uslaner 2008; Helliwell et al. 2015) Here, population migrating from one country to another is used as a quasi-experiment to test whether trust of immigrants is attached to their cultural origins and remains stable or whether their trust is acculturated in response to their new experiences in the destination country (e.g., Dinesen and Hooghe 2010; Uslaner 2008; Helliwell et al. 2015). This innovative use of
international migration provides a robust way of testing whether people inherit trust from the cultural legacy of their ancestral country or alternatively they modify it based on their immediate experiences in a changing environment (Helliwell et al. 2015; Dinesen and Sønderskov 2018). Nevertheless, these previous suffer from several major limitations including the self-selection bias of immigrants, the use of multiple datasets, and the measurement equivalence problem (Dinesen 2012; Dinesen and Sønderskov 2018). Furthermore, immigrants’ cultural backgrounds could potentially confound their new experiences in their host country (Wilkes and Wu 2018). For these reasons, current conclusions have been mixed: some scholars, especially those who focus on the U.S. society, find stronger evidence for the cultural theory—trust of immigrants reflects their cultural heritage of the country of origin (e.g., Rice and Feldman 1997; Uslaner 2008), some find stronger evidence for the experiential theory—trust reflects their new social experiences in the host country (Dinesen and Hooghe 2010; Dinesen and Sønderskov 2018), while others find a little bit evidence for both theories (Dinesen 2013; Helliwell et al. 2015). The mixed conclusions suggest that the use of international migration has yet to disentangle the debate.

Following closely this line of literature, in this chapter I modify the original question and ask: does trust travel from one region to another internally within a country? In the U.S., previous studies have found that those residing in the Southern United States, such as Alabama, Louisiana, Texas, South Carolina, and Tennessee are consistently less trusting than those in the Northern States such as Connecticut, Illinois, New York, Vermont, and Wisconsin (Simpson 2006; Irwin and Berigan 2013; see also General Social Survey 1972-2018). Taking advantage of this regional gap, I investigate whether Southerners would become more trusting when they move to the Northern regions and whether non-Southerners would trust less when they move to
the South. From a life course perspective, I also consider the age when migrants migrated and look into only adult migration (after age 16). The logic is that, if people who migrate after age 16 to regions with higher trust gain trust or lose trust if they move to a place with lower trust, then this indicates that trust is experiential as it changes according to their new living experiences in the host environment. If people change their trust very little when they move, then this would indicate that trust is learned from early life socialization in the place of origin and the learned trust tends to be stable through the life course.

Moving from international migration to internal migration provides a more rigorous testing for the cultural and experiential theories. This is because it helps solve or minimize several major limitations found in previous studies including, for example, the self-selection bias of international migrants, the issue of using of multiple datasets, and the potential confounding effect from immigrants’ institutional experiences in a new country (see also Dinesen and Sønderskov 2018; Wilkes and Wu 2018). I will elaborate further in the following section on each of the issue. To consider the fact that young immigrants could be socialized within the cultural environment of the destination. I particularly consider the age when migrants migrated, a largely overlooked issue in previous immigrant-based studies. My analysis of the cross-sectional data from the General Social Survey (GSS 1972-2018) suggests that, irrespective of where they move, Americans change their trust very little. The overall results lend significant support for the cultural theory of trust. That is, people learn to trust from cultural heritage and early life socialization and their learned trust responds little to their migration experiences and the changing circumstances.
2.1 International migration of trust

Scholars who care about where trust comes from have examined whether the fact that trust travels from one country to another with a view to separating between the cultural and the experiential theories of trust (Rice and Feldman 1997; Dinesen and Hooghe 2010; Dinesen 2013; Nannestad et al. 2014; Ljunge 2014; Moschion and Tabasso 2014; Uslaner 2008; see also Dinesen and Sønderskov 2018). The assumption is that if immigrants’ trust correlates with the aggregate mean level of trust of their country of origin then this indicates that their trust is deeply rooted in the cultural heritage of their ancestral country. Since many immigrants are from non-Western countries where trust is lower, in high trust Western destination countries they should express a lower level of trust than the local natives, reflecting their cultural footprints. In this sense, trust is a cultural trait passed down from generation to generation. However, if their trust changes, adapting to the trust of the hosting countries, then their trust reflects their immediate experiences in a new institutional environment and therefore is experiential (see also Dinesen and Sønderskov 2018; Wu and Wilkes 2018). Indeed, international migration provides a strong test of how people’s early life course and/or changing environment affect trust as it takes individuals brought up in one culture and transfers them to another (Helliwell et al. 2015; Dinesen and Sønderskov 2018).

On one hand, many scholars show that trust among recent immigrants or descendants of immigrants come from the cultural footprints of their ancestral roots and they conclude that trust is learned through early life socialization which does not shift with each new experience (e.g., Rice and Feldman 1997; Ljung 2014; Moschion and Tabasso 2014). Rice and Feldman (1997) have explored whether civic attitudes, including generalized trust, are Americanized or whether these attitudes are deeply rooted into their original footprints from Europe. Based on the strong
correlation between the civic attitudes of local Americans (indicated using data from the U.S. General Social Survey) and the contemporary civic attitudes of the citizens of the European nations where they have ethnic ties (indicated using the World Values Survey), they conclude that trust and other civic values are quite tenacious across oceans and over generations. Specifically, focusing on trust and comparing trust among groups of Americans with different ethnic backgrounds, Uslaner (2008) finds that Americans whose grandparents came from Nordic countries, Britain, and Germany tend to have higher levels of trust. In contrast, Italians, Latinos, and African Americans tend to have lower levels of trust. Based on the fact that Western European countries have higher trust while countries in Latin America, Africa, and other parts of Europe tend to have lower levels of trust, he concludes that ethnic heritage has a stronger impact on Americans’ trust than their new experiences in the country (ibid: 739). Focusing on second-generation immigrants in Australia and the United States, Moschion and Tabasso (2014) find that second-generation immigrants’ trust is positively related to trust in their home country. In Canada, trust of immigrants is also found to be highly correlated with the average level of trust among people in their respective countries of origin (Soroka, Helliwell, and Johnston 2007; Bilodeau and White 2016). The overall conclusion from these studies is that recent immigrants or the descendants of immigrants retain the cultural footprints of their ancestral roots. Therefore, trust is more likely to be a product of cultural socialization early in life.

On the other hand, many European scholars show that living experiences in the new country do matter for immigrants’ trust, suggesting that trust reflects their experiential adaptation (Dinesen 2012a; Dinesen 2012b; Dinesen and Hooghe 2010; Nannestad et al. 2014). For example, in examining whether acculturation of trust happens among non-Western immigrants in Western European countries, Dinesen and Hooghe (2010) investigate the effect from the trust of
native population on immigrants’ trust. As with earlier studies, they measure trust of local population and trust of immigrants’ original nations using two different datasets (European Social Survey and World Values Survey, respectively). They find that immigrants, second-generation immigrants in particular, do adapt to the level of trust of natives in their destination country. Challenging the cultural explanations of trust, they believe that trust fluctuates from time to time according to individuals’ personal experiences later in life. Similarly, with a focus on Danish society, Nannestad et al. (2014) combine a local Danish survey (Denmark Social Capital Survey 2004) with World Values Survey and compare the levels of trust between groups of non-Western immigrants in Denmark and people of their country of origin. They arrive at a similar conclusion that, rather than immigrants’ cultural relatedness, it is their trust in Danish institutions and their resources (indicated by education and income) that have significant impact on their trust in others. Realizing the limitation of using multiple different datasets to compare immigrants’ trust to crude country averages from their country of origin, Dinesen (2012a) refines the research design by using the European Social Survey (ESS) only. The ESS has surveyed individuals across European countries every two years since 2002 and it not only provides him an opportunity to compare a relatively large group of non-Western immigrants including Turks, Poles, and Italians in Northern Europe, but also to compare these individuals and their trust to the trust of their fellow citizens from the country of origin using respondents from the same ESS dataset. His analyses suggest that, while there are inconsistent effects of length of stay, Turks, Poles, and Italians in Northern Europe display significantly higher levels of trust than comparable respondents from their country of origin. This confirms his belief that trust is malleable and subject to change with new experiences in different social situations. Most recently, Dinesen and Sønderskov (2018) have compared trust among Swedish emigrants
residing in many different regions globally such as Asia, Africa, Latin America, North America, and Europe. They show that, despite little difference in trust among those Swedish emigrants who migrated to different regions within a year, as time goes by their trust will gradually correspond quite tightly to the levels of trust of the native-born population in their respective destination regions. Hence, the trust of those migrants who originally emigrated from Sweden does seem to adapt to the level of trust of natives across different countries.

Complicating the cultural vs experiential debate, scholars show that international migrants’ trust reflects both their new experiences in the country where they now live as well as the long-standing cultures from the place where they or their parents and grandparents came from originally. Comparing the trust of immigrants in 18 Western European countries from 90 countries of origin, Dinesen (2013) finds that immigrants’ trust is significantly related to the level of trust in their country of origin. However, he further shows that their trust also responds to the institutional environment of the destination country such as the extent of freedom from corruption. Accordingly, he concludes that both cultural heritage and institutional context might have a substantial and highly significant impact on trust.

Similarly, using seven waves of the Gallup World Poll (2005-2012) and combining both individual and national level data in more than 130 countries, Helliwell et al. (2015) find that both local conditions and influences of their countries of origin shape migrants’ trust suggesting that while trust is deeply rooted in cultural norms it is nonetheless subject to adaptation according to the changing environment.

Furthermore, scholars have shown that learning to trust among immigrant populations in a new country could also be cultural. The adaptation of immigrants in destination country might depend on the location of their ancestral roots. For example, whereas immigrant with European
descent in the U.S. and Australia converge to a higher trust faster in the host society, those from Africa and Puerto Rico retain their low trust for generations (Wilkes and Wu 2018). This suggests that cultural roots might interact with institutional context in shaping immigrants’ trust.

Taken together, whereas some studies lend more support for the cultural model and others for the experiential model, many also reveal evidence of both cultural and experiential effects (see also Dinesen and Sønderskov 2018). While major inroads have been made, the mixed conclusions suggest that the use of international migration has yet to address the debate. In fact, current studies of international migration of trust suffer from several limitations (see also Dinesen 2012b: 276-7; Dinesen and Sønderskov 2018; Wilkes and Wu 2018). In what follows, I discuss three major limitations in this literature. These include the self-selection of immigrants, the potential confounding problem between cultural background and experiences, and the use of multiple datasets.

2.1.1 **Self-selection of immigrants**

First, previous research suffers from a potential self-selection bias of immigrants (Dinesen 2013; Dinesen and Hooghe 2010; Nannestad et al. 2014). In attempting to distinguish between the cultural and the experiential theories of trust, scholars have compared trust of immigrants to the trust of those non-migrants of their ancestral country, and to the trust of local natives in migrants’ destination country. When in the destination country immigrants’ trust is at a similar level to trust of people residing in their ancestral country, scholars conclude that trust is a cultural trait. In contrast, when trust of immigrants is at a similar level to local natives, then scholars conclude that their trust reflects the experiential adaptation. However, this assumption could be problematic due to the self-section bias of immigrants. On one hand, migrants from one country are likely to differ from non-migrants in their country of origin and from local natives in
many ways. What could perhaps immediately come to our mind is the “healthy immigrant effect” which is that immigrants are in relatively better health than not only the native-born population in the host country but also non-migrants from their country of origin (e.g., McDonald and Kennedy 2004; Newbold 2005). Healthy people are also generally more trusting (Giordano and Lindström 2016). Similarly, better educated and those who are into risk-taking individuals are more likely to migrate (Waters 2006; Jaeger et al. 2010; Bauernschuster et al. 2014). Those individuals also tend to have higher levels of trust. Moreover, motivations for why migrants migrate are also not random but a result of push-pull factors including labour market opportunities, family and social networks, geographical distance, migration policies of who gets in and so on (Massey et al. 1993; Haug 2008). Consequently, immigrants’ trust might not correlate to the trust of people in their ancestral country or to the native-born population simply due to selection issues.

In their critical review of this argument, Dinesen and Sønderskov (2018) outline four major ways that previous studies of trust of immigrants could suffer from the self-selection bias problem. First, immigrants may differ from non-migrants in unpredictable ways as we discussed early on including healthy immigration effect, the selection of better educated individuals, and the selection of individuals who afford to take on more risk. Second, the self-selection bias could also come from the place of origin: whereas in some countries emigrants are economic migrants (e.g., domestic helpers or maids from the Philippines), in others emigrants are political refugees (e.g., refugees from Syria). Many migrants left their countries because of war, while others move for family unification. Similarly, while some countries have an immigration policy that welcomes only skilled workers, other countries are more open to political refugees (Dinesen and Sønderskov 2018). Third, varying immigration policies of the destination country are likely to
generate different kinds of immigrants and from different world regions. In Canada, for example, over the last several decades, immigrants in Canada have been admitted through three major programs: the point system, the family re-unification program, and the refugee program. Currently, new immigrants to Canada predominately arrive through the point system program. The point system designates points to prospective immigrants on the basis of language skills, education, work experience, age, employment prospects, and adaptability. Finally, the nature of immigrants also depends on where they migrate to and from which country at what time. For example, historically, immigrants to Canada came only from the U.K. and a selected few other European countries. Major amendments were made to Canada's immigration legislation and regulations in 1962, whereby the Canadian government removed national-origin restrictions and adjusted the emphasis towards skills requirements. As a result, in the 1970s the fraction of immigrants from Europe was cut in half. More recently, a greater number of immigrants are arriving in Canada from countries in Asia, Africa, and many other non-western countries. In particular, critics charge that the recent shift towards recruiting skilled immigrants leads to a bias in favour of individuals from privileged socioeconomic backgrounds (Kaushal et al. 2016).

Taken together, because of these self-selection problems, scholars need to think carefully regarding the conclusions drawn from comparing trust among immigrants, people of their country of origin, and local natives in the hosting country. This is because these potential selection issues are likely to bias how immigrants trust differently (or similarly) from people of their ancestral country as well as from local natives.

2.1.2 The measurement problem

Second, to measure trust of immigrants’ country of origin most scholars have used a secondary dataset and/or multiple datasets (e.g. Dinesen and Hooghe 2010; Ljunge 2014; Yousaf
2016; Uslaner 2008). For example, to capture the trust of immigrants’ countries of origin, Ljunge (2014) has used multiple datasets in different years including the European Social Survey, European Values Survey, and World Values Survey in his study of immigrants for 29 European countries participating the European Social Survey including Austria, Belgium, Finland, Cyprus, Germany, and Hungary with ancestry from 87 nations globally. However, subjects from different datasets are not always comparable because they are often surveyed at different time points and/or in different manners. As Dinesen (2012a: 497) points out “migrants are likely to differ from people in their former home countries at the outset”. For example, because trust of their ancestral country could change over time, the level of trust at present day could be different from the level of trust when immigrants left from their country of origin (Dinesen and Sønderskov 2018).

Furthermore, while Dinesen (2010) states that the meaning of generalized trust is the same for immigrants and natives, others are more concerned that people of different cultures interpret the standard measure of trust—whether most people can be trusted—in significantly different ways (Delhey, Newton, and Welzel 2011; Simpson, McGrimmon, and Irwin 2007; see also Nannestad 2008). In some cultures, people are more likely to relate ‘most people’ to their in-group relatives and friends while, in others, people relate it to people they do not personally know (Delhey et al. 2011). As Fukuyama (1995) points out the radius of trust varies across societies. This leads to a measure equivalence problem in comparing trust between people of different cultures, in this case, between immigrants from different countries and natives in the destination country.

In fact, not only does the radium of trust vary across immigrant groups and natives (Fukuyama 1995; Delhey, Newton, and Welzel 2011), immigrants might also have different
frames of reference for “most people” before and after their migration. In the study of
immigrants in Canada, Bilodeau and White (2015) find that recent immigrants to Canada make a
clear distinction between trust in other people in general, and trust in Canadians in particular: the
former is grounded in pre-migration cultural influences, while the latter is grounded in
immigrants’ experiences in the new host country. Without considering the validity of trust
construct across cultures and over time, both the comparison between trust of immigrant groups
and trust of natives and between trust of immigrants and trust of their countries of origin are
potentially flawed. For example, because immigrants could have a different trust reference than
the native-born population, their levels of trust might not be comparable.

2.1.3 The confounding problem

Third, immigrants’ cultural and ethnic background could be confounded with their new
experiences in the host country. Confounding occurs when the association between two variables
is due to a common third variable that relates to both. In this case, the association between
immigrants’ new experiences in the host country and their trust could come from their early life
course and cultural socialization (as the third variable). Indeed, immigrants’ cultural and ethnic
background and early socialization often closely associated with their life experiences. For
example, rather than their cultural footprints, lower trust among immigrants could come from
their widespread experience of discrimination as immigrants or visible minorities in the host
country (Wu and Wilkes 2016). For example, Wilkes and Wu (2018) have asked “If people with
Arab origins living in the United States are less trusting than people with Swedish origins, is this
because of a lingering cultural effect or because of ongoing discrimination in the new context?”. As a result, correlations between immigrants’ trust and trust of their parents, grandparents, or of
their ancestral countrymen not necessarily indicate the effect of cultural footprints. Furthermore,
Dinesen and Sønderskov (2018) have argued that even if scholars found a strong correlation between trust of immigrants and trust in their ancestral country, this does not necessarily indicate trust is a cultural trait. It is also possible that trust is genetically transmitted from immigrants’ parents and grandparents. This is to say that, immigrants have similar levels of trust with their parents and grandparents could come from their shared genes. In fact, several studies have shown that trust has its genetic bases (Sturgis et al. 2010; Oskarsson et al. 2012). Hence, the confounding variable in such case is genes.

Alternatively, some studies have used young immigrants, or second, third, and higher generation immigrants to study the cultural transmission of trust from parents or grandparents (Dinesen 2012b; Moschion and Tabasso 2014). This design could also be problematic in the sense that there is no way to know why these immigrants trust differently or have adapt to the native trust. They could be socialized with the host country culture because young immigrants are still undergoing their primary socialization. Because of their ethnic backgrounds, their trust could also reflect their experience of discrimination as minorities (Wilkes and Wu 2019). In the case of Dinesen’s (2012b) study, for example, young immigrants (under 13 and 16 years of age) are still in the process of socialization. They are forming their values and identities not only from their families, but also from their schools, peer groups, and from participation in youth associations in Danish society. Hence, their trust, especially for the second-generation immigrants, might come from the Danish culture rather than from the Danish experiences. The fact that many studies have found that the second, third, or higher generation immigrants tend to adapt more to the level of trust of the native-born in the destination country than first generation immigrants might simply indicates that they have been socialized within the destination culture.
In conclusion, all these issues are likely to endanger the conclusions drawn from previous immigrant-based studies of the roots of trust. Immigrants’ trust could reflect the selection effect, the confounding problem, or the measurement errors. Therefore, comparing immigrants’ trust level to the level of trust of their country of origin, and to the level of trust of the host country might be problematic. Where do we go from here? In a comprehensive review of this line of literature, Dinesen and Sønderskov (2018) have offered the following guideline:

“Studying trust of immigrants has generally enriched our understanding of the roots of trust, but there is considerable room for improvement in future research. We suggest that paying closer attention to the scope of empirical results related to cultural persistence, deriving and more rigorously testing implications of the two theoretical perspectives, and paying greater attention to the potential problems of self-selection of immigrants are issues that can fruitfully be tended to in future research. We hope that researchers will take up these challenges to push the literature forward.”

To address these problems, I introduce a new research design focusing on internal migration in the U.S.

2.2 Moving from international migration to internal migration

Trust inequality prevails among Americans. For example, data from the 2018 U.S. General Social Survey show that Whites are more trusting than Blacks, local natives are more trusting than the foreign-born, the educated are more trusting than the uneducated (Wilkes 2011; Putnam 2000). Regionally, Americans residing in the Southern states, such as Alabama, Louisiana, Texas, South Carolina, and Tennessee are consistently less trusting than those in Northern states such as Connecticut, Illinois, New York, Vermont, and Wisconsin (e.g.,

According to the United States Census Bureau, the American South includes sixteen states: Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia, Alabama, Kentucky, Mississippi, Tennessee, Arkansas, Louisiana, Oklahoma, and Texas. Using the US General Social Survey, Figure 2.2-1 shows that Southerners are consistently less likely to say most people can be trusted compared to Americans from other regions. Only about 30% Americans say most people can be trusted in the Southern United States, which is significantly lower than other parts of America where about 42% say they can trust in most people. While trust has been declining in both regions over the years, the gap has changed very little from 1972 to 2016.

Figure 2.2-1 The South and non-South gap in trust, 1972-2018
In fact, this regional gap in trust between the South and non-South is as significant as cross-national variations (Simpson 2006). Because White Southerners also trust much less than White non-Southerners (Wilkes 2012; Simpson 2006), this gap is not a result of the higher percentage of Black Americans (who tend to have lower trust) who live in the South. While more specific factors that could explain the regional gap are still under investigation, it is widely held that the lower trust among Southerners is deeply rooted in the unique social and political culture shaped by the defeat in the Civil War, history of slavery, poverty, and prominence of religion in the southern United States (Key 1984; Vandello and Cohen 1999; Simpson 2006). Compared to the non-South, the South presents “a relatively ‘traditionalistic’ culture where family ties are paramount, and high levels of poverty, strong regional identification, and fundamentalist
religious beliefs further strengthen ties to family and close friends” (Irwin and Berigan 2013: 428; Vandello and Cohen 1999). The South is more collectivist than non-Southern regions of the United States, and collectivist social relations tend to generate lower trust in relative to more individualist social relations in the non-South(Simpson 2006; Irwin and Berigan 2013; see also Yamagishi 1988; Yamagishi et al. 1998). In a media communication from Baylor University, Irwin (2013) has offered a detailed explanation on how collectivist social relations may explain why trust is lower in the South:

_Southerners are relatively close-knit and interact within small and dense networks. Social spheres often overlap: People that work together may go to church together, attend sports events for their kids. This type of network often produces a lot of solidarity and trust within the ‘in group’, but distrust toward outsiders. Compared to Southerners, non-Southerners have a large number of weak and transient friendships. Social networks in the non-South are considered individualistic, and that promotes trust of people who might be considered outsiders._

In his *Heritage of the South*, historian Timothy Jacobson reminds us of the distinctiveness of being a Southerner (1992:93): “More than any other part of America, the South stands apart…Thousands of Northerners and foreigners have migrated to it…but Southerners they will not become”. Indeed, the American South has long been culturally different from other parts of the United States. Southerners maintain and share their own traditions, customs, and identities (Key 1984; Vandello and Cohen 1999).

In particular, the significant gap in trust between the South and non-South in the U.S. creates an opportunity to test whether trust travels internally within a country. Relatively, population moving between the South and non-South regions functions more like a quasi-
experiment. Indeed, moving from international migration to internal migration helps minimize, if not solve, the major limitations I have discussed previously.

First, since everyone is free to move internally within in their country, domestic migrants within a country are relatively less selective. This because they are not affected by migration policies, visas, and other constraints that could lead to serious self-selection bias as in the case of international migrants across borders. There are fewer sources of migration selectivity for internal migrants. Although, admittedly, internal migrants could also differ from non-migrants in terms of socioeconomic status, risk-taking attitudes, and other factors that could affect trust, these factors are also easier to control for in the analysis. Therefore, a focus on internal migration helps to reduce the self-selection bias of migration relative to the more complicated case of international migration.

Second, the use of internal migration allows me to analyze a single dataset that includes both migrants and non-migrants from the very same country where I can obtain all measures, in this case, the U.S. General Social Survey. I am also able to reduce the potential measurement problem. People in one country are more likely to interpret survey questions of trust in a similar way. For example, when responding to the question of “whether most people can be trusted”, they will be more likely to have a same reference of “most people” in mind given the fact they are from the same American society.

In this new design, I also consider the age when migrants migrated, a largely overlooked issue in previous studies. Specifically, I distinguish between the place where people were brought up (before age 16) and the destination place where people currently live. In particular, it is important to distinguish between child migration and adult migration. If people migrated to their destination before age 16, they were still in the process of their primary socialization
(Erikson 1950; Stolle and Nishikawa 2011). It is possible that these migrants could be affected more by the culture of the destination rather than the culture of their ancestral origin. Consequently, the adaptation to local trust reflects cultural rather than experiential effects.

Figure 2.2-2 visualizes how we can use internal migration between the Southern United States and non-Southern states to test the cultural and experiential theories of trust. For example, if Americans were socialized in the Southern states, do they become more trusting after they moved to non-Southern states where trust is higher? Specifically, I test whether Southerners gain trust when they move to more trusting non-Southern regions and whether non-Southerners become less trusting when they move to the South where people are relatively less trusting.

Figure 2.2-2 Visualizing the potential effects of internal migration on trust

Demographic factors such as race, income, education, age all have major impacts on trust. The gap in trust between the South and non-South could partially come from the differences across these predictors. Holding them constant, however, if migration does not
change migrants’ trust wherever they migrate, it suggests that trust is rooted in their early life
course and socialization (Uslaner 2008). That is, Southerners will still exhibit lower trust in the
non-South and non-Southerners will still trust more in the South compared to the local
southerners. Hence, for the cultural perspective, I test the following two hypotheses:

H1a: *Non-Southern migrants in the South will trust more than local non-migrants*

H1b: *Southern migrants in the non-South will trust less than local non-migrants*

If people renew their trust because of migration, it suggests that trust changes according
to the changing environment and therefore is experiential (Dinesen and Hooghe 2010). Hence,
for the experiential perspective I test another two hypotheses:

H2a: *Non-Southern migrants in the South will not trust more than local non-migrants*

H2b: *Southern migrants in the non-South will trust no different from local non-migrants*

### 2.3 Analytics strategy

#### 2.3.1 Data

The data for this study comes from the U.S. General Social Survey (GSS). Starting from
1972, the GSS runs every year to 1991 (except 1979 and 1981), and every two years from 1991
to 2016. This study considers native-born Americans and therefore respondents who resided in a
foreign country before age 16 are excluded. I also remove surveys from 1974, 1977, 1982 and
1985 since questions about trust were not asked in these years. In terms of missing values, the
family *income in constant dollars* variable has the highest rate of missing values at about 9%,
followed by the *perception of class status* variable (5.9%). The rate of missing values on all
other study variables is below 4%. Since all variables in analysis have a lower missing rate (less
than 10%), I use listwise deletion. As a result, it yields a total analytic sample of 31,321 individuals across 27 years from 1972 to 2016 who have complete data on all study variables.

2.3.2 Measures

I measure the dependent variable generalized trust using the three-item index of trust (see also Dinesen 2011; Wilkes 2012):

1. *Generally speaking, would you say that most people can be trusted, or that you can’t be too careful in dealing with people?* (1=most people can be trusted, 2=you cannot be too careful, 3=it depends)

2. *Do you think that most people would try to take advantage of you if they got the chance, or would they try to be fair?* (1=people try to be fair, 2=people take advantage, 3=it depends)

3. *Would you say that most of the time people try to be helpful or that they are mostly looking out for themselves?* (1=people are helpful, 2=people are looking out for themselves, 3=it depends)

I recode the response categories into 0=you cannot be too careful/people take advantage of you/people are looking out for themselves, 1=it depends, and 2=most people can be trusted/people trust to be fair/people are helpful. Then, I create an index of generalized trust by combining these three items together into an index (Cronbach’s α=0.67) that ranges from 0 to 6. A higher score means a higher level of trust. Recent tests of measurement invariance and the construct validity of these questions on trust shows that they can be safely used to compare trust of people from different cultural backgrounds (Reeskens and Hooghe 2008; Dinesen 2011). In previous literature, scholars have widely used the single question *Generally speaking, would you*
say that most people can be trusted or that you can't be too careful in dealing with people as the standard measure of generalized trust (e.g., Algan and Cahuc 2010; Fairbrother and Martin 2013: 350). The response answers are coded in as a binary variable with 1 corresponding with trust and 0 with don't trust (you cannot be too careful or it depends). For comparison purposes, I repeat all analyses using this binary measure of trust. Results are consistent.

To capture internal migration among Southern and non-Southern Americans, I compare individuals’ responses to two survey questions asked in the GSS, namely, region of interview and region of residence at age 16 (as a proxy for native region). Southern United States includes, for example, Alabama, Louisiana, Texas, South Carolina, and Tennessee in the three regions of West South Central, East South Central, and South Atlantic. Non-Southern states include, for example, Connecticut, Illinois, New York, Vermont, and Wisconsin in regions of New England, East North Central, Middle Atlantic, West North Central, Mountain, and Pacific. In this way, I am able to identify four groups of Americans, namely, Southern natives (grew up in the South before age 16 and lived in the South at the time of interview), Southern migrants in the non-South (grew up in the South before age 16 but lived in the non-South at the time of interview), Non-Southern natives (grew up in the non-South before age 16 and lived in the non-South at the time of interview), and Non-Southern migrants in the South (grew up in the non-South before age 16 but lived in the South at the time of interview). Taking time seriously, I argue that age 16 is a justifiable cutoff for thinking about early life socialization as much of what is called primary socialization is completed by age 16 (Parsons and Bales 1956; Stolle and Nishikawa 2011). If trust comes from people’s early life socialization, the place of origin would have a significant impact on how people trust. If trust originates in day-to-day experiences, adult experiences after age 16 would matter more for trust than early life socialization before age 16.
In the survey sample from 1972 to 2016, 1,944 Americans moved to the South (White=1,728, Black=176, and other= 40), while 1,439 moved to the non-South (White=883, Black=513, and other= 43). It is important to control for race when we compare trust among natives and migrants in these two regions. This is because Blacks tend to have lower trust (Smith 2010) and because there is a consistently higher percentage of Blacks (relative to the White population) who live in the South than in the non-South (Simpson 2006). There were more Blacks who had moved from the South to the non-South than from the other way around. The relative White-Black population makeup in both the South and non-South regions (21% vs 10%) has changed very little. Figure 2.3-1 shows the relative racial population makeup in the South and non-South regions. The gap between these two regions has been relatively stable from 1972 to 2016.
Nevertheless, the racial population makeup of the internal migrants who moved between the South and non-South regions varies across years. Figure 2.3-2 shows that, among the White population, the migration pattern is relatively consistent. However, among the Black population, there has been a huge decline in the number of Black Americans in moving from the South to non-south regions. Before 1990 between 10 to 35% of the total black population of the South moved to the non-South regions, but this number has declined to to about 5% as of 1991. Recent years have seen a growing number of Black Americans moving from the non-South to the South. Figure 2.3 captures the New Great Migration, a reversal of the Great Northward Migration or the Black Migration, started around 1960s, and in the 1980s and early 1990s, more Black Americans were heading South than leaving the South (Frey 2005).
Figure 2.3-2 The Black-White migration population makeup between the South and non-South (%), 1972-2016.
Table 2.3-1 Descriptive statistics for key variables in analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coding</th>
<th>South</th>
<th>Non-South</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Native</td>
<td>Migrant</td>
<td>Native</td>
</tr>
<tr>
<td>Generalized trust</td>
<td>Trust index (3 items)</td>
<td>0-6</td>
<td>2.5</td>
<td>2.78</td>
</tr>
<tr>
<td>South and migration</td>
<td>American who lives in the South</td>
<td>1=yes; 0=no</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>Southern migrant in the non-South</td>
<td>1=yes; 0=no</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td></td>
<td>Nonsouthern migrant in the South</td>
<td>1=yes; 0=no</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>Demographics</td>
<td>Female</td>
<td>1=yes; 0=no</td>
<td>56</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>Age</td>
<td>in years, 18 to 89 and beyond</td>
<td>45</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>Race: White</td>
<td>1=yes; 0=no</td>
<td>74</td>
<td>89</td>
</tr>
<tr>
<td></td>
<td>Race: Black</td>
<td>1=yes; 0=no</td>
<td>23</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Race: Other</td>
<td>1=yes; 0=no</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Education</td>
<td>in years, 0 to 20</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Marital status: Married</td>
<td>1=yes; 0=no</td>
<td>54</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>Marital status: Never married</td>
<td>1=yes; 0=no</td>
<td>19</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Religion: No religion</td>
<td>1=yes; 0=no</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Religion: Protestant</td>
<td>1=yes; 0=no</td>
<td>81</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Religion: Catholic</td>
<td>1=yes; 0=no</td>
<td>11</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Religion: Jewish</td>
<td>1=yes; 0=no</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Religion: Other</td>
<td>1=yes; 0=no</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Community: Country, nonfarm</td>
<td>1=yes; 0=no</td>
<td>14</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Community: Farm</td>
<td>1=yes; 0=no</td>
<td>24</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Community: Town, &lt;50,000</td>
<td>1=yes; 0=no</td>
<td>31</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>Community: 50,000 to 250,000</td>
<td>1=yes; 0=no</td>
<td>14</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Community: Big-city suburb</td>
<td>1=yes; 0=no</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Community: City, &gt;250000</td>
<td>1=yes; 0=no</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Family income</td>
<td>In constant dollars (base=1986)</td>
<td>27123</td>
<td>35807</td>
</tr>
<tr>
<td>Trust predictors</td>
<td>Perception of class status: lower class</td>
<td>1=yes; 0=no</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Perception of class status: working class</td>
<td>1=yes; 0=no</td>
<td>50</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Perception of class status: middle class</td>
<td>1=yes; 0=no</td>
<td>40</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>Perception of class status: upper class</td>
<td>1=yes; 0=no</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>General happiness: not too happy</td>
<td>1=yes; 0=no</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>General happiness: pretty happy</td>
<td>1=yes; 0=no</td>
<td>54</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>General happiness: very happy</td>
<td>1=yes; 0=no</td>
<td>33</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>Satisfaction with financial situation: not at all</td>
<td>1=yes; 0=no</td>
<td>27</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>Satisfaction with financial situation: more or less</td>
<td>1=yes; 0=no</td>
<td>44</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>Satisfaction with financial situation: satisfied</td>
<td>1=yes; 0=no</td>
<td>29</td>
<td>35</td>
</tr>
</tbody>
</table>

Table 2.3-1 shows the descriptive statistics of all the key variables in the analysis. Other than racial composition, we do not tend to see serious self-selection bias among internal migrants between the South and non-South regions. For example, in terms of education, whereas migrants who moved from the non-South to South are slightly more educated than their hometown natives (14 years vs. 13 years), there is no significant difference between Southern migrants and
Southern non-migrants (both average 12 years). As expected, Southerners, both native and migrant, live in lower household income families ($27,123 and $28,616) and smaller communities compared to non-Southern natives and migrants ($35,807 and $33,293). We also see little difference between natives and migrants in measures of general happiness, perception of class, as well as financial satisfaction. Nevertheless, all models include controls for these potential confounding factors including gender, age, religion, marital status, education as well as major trust predictors such as class status, general happiness, and satisfaction with financial situation (Alesina and La Ferrara 2002; Delhey and Newton 2003; Wilkes and Wu 2018). Since people tend to have more trust if they are from smaller communities (Putnam 2001) and in the South communities tend to be smaller (Simpson 2006), I therefore also control for the size of community where people grew up.

For several reasons I determine the migrants' context of origin and their context of current residence solely based on the South/non-South distinction. First, it is consistent with previous studies that highlight the significant gap in trust between these two regions (Simpson 2006). Second, across all the U.S. Census Bureau subdivisions including New England, Middle Atlantic, East North Central, West North Central, South Atlantic, East South Central, West South Central, Mountain, and Pacific, Figure 4 clearly shows that, regardless how trust is measured, the most salient feature is the gap in trust between the South regions (West South Central, East South Central, and South Atlantic) and the non-South regions (New England, East North Central, Middle Atlantic, West North Central, Mountain, and Pacific). Figure 2.4 also shows that the level of trust is not significantly different within the respective South and non-South regions.

Methodologically, therefore, it is appropriate to distinguish between Southerners and non-Southerners specifically in terms of trust. Finally, dividing the U.S. into only two contexts
between the South and the non-South allows me to better present the research. The GSS data has a relatively small sample size for each year with an average size less than 2,000. Focusing only on the South/non-South distinction ensures that we have at least 30 individual observations each year for meaningful statistical estimations. Indeed, for example, if we break down to the U.S. Census Bureau subdivision level, we will only obtain a very small number (often <10) of Americans who actually moved from one subdivision to another each year (see Table 2.3-2). The small sample size of internal migrants does not allow me to analyze the effects of percentage Black/ethnic diversity at lower geographical levels as in other studies focusing on the community effect (e.g. see Taylor and Mateyka 2011; Fairbrother and Martin 2013).

Table 2.3-2 Cross-regional migration pattern in the U.S. (GSS, 2016)

<table>
<thead>
<tr>
<th>Region of Interview</th>
<th>Region of Residence at age 16</th>
<th>New England</th>
<th>Middle Atlantic</th>
<th>East North Central</th>
<th>West North Central</th>
<th>South Atlantic</th>
<th>East South Central</th>
<th>West South Central</th>
<th>Mountain</th>
<th>Pacific</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>New England</td>
<td>131</td>
<td>16</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td></td>
<td>162</td>
</tr>
<tr>
<td>Middle Atlantic</td>
<td>1</td>
<td>246</td>
<td>6</td>
<td>2</td>
<td>16</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td></td>
<td>279</td>
</tr>
<tr>
<td>East North Central</td>
<td>0</td>
<td>11</td>
<td>438</td>
<td>8</td>
<td>14</td>
<td>8</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td></td>
<td>485</td>
</tr>
<tr>
<td>West North Central</td>
<td>1</td>
<td>5</td>
<td>14</td>
<td>9</td>
<td>130</td>
<td>9</td>
<td>4</td>
<td>6</td>
<td>10</td>
<td></td>
<td>184</td>
</tr>
<tr>
<td>South Atlantic</td>
<td>13</td>
<td>55</td>
<td>34</td>
<td>8</td>
<td>356</td>
<td>11</td>
<td>4</td>
<td>2</td>
<td>11</td>
<td></td>
<td>494</td>
</tr>
<tr>
<td>East South Central</td>
<td>3</td>
<td>5</td>
<td>8</td>
<td>15</td>
<td>153</td>
<td>11</td>
<td>4</td>
<td>2</td>
<td>11</td>
<td></td>
<td>199</td>
</tr>
<tr>
<td>West South Central</td>
<td>0</td>
<td>5</td>
<td>13</td>
<td>6</td>
<td>10</td>
<td>4</td>
<td>210</td>
<td>9</td>
<td>9</td>
<td></td>
<td>266</td>
</tr>
<tr>
<td>Mountain</td>
<td>6</td>
<td>15</td>
<td>20</td>
<td>14</td>
<td>10</td>
<td>7</td>
<td>6</td>
<td>113</td>
<td>22</td>
<td></td>
<td>213</td>
</tr>
<tr>
<td>Pacific</td>
<td>4</td>
<td>13</td>
<td>19</td>
<td>6</td>
<td>5</td>
<td>2</td>
<td>5</td>
<td>13</td>
<td>269</td>
<td></td>
<td>336</td>
</tr>
<tr>
<td>Total</td>
<td>159</td>
<td>371</td>
<td>552</td>
<td>185</td>
<td>435</td>
<td>187</td>
<td>243</td>
<td>147</td>
<td>339</td>
<td></td>
<td>2,618</td>
</tr>
</tbody>
</table>
2.3.3 Statistical models

To test whether internal migration has any impact on Americans’ trust, the statistical estimations will focus on predicting trust differences among four groups of Americans, namely, non-Southern natives, non-Southern migrants in the South, Southern natives, and Southern migrants in the non-South. Because the dependent variable trust is an index created using the 3-item measure ranging from 0 to 6, I use mixed-effects regressions with individuals nested within 27 years of the GSS cross-sectional data. Including year as a random effects allows me to rule out the possibility that a longitudinal correlation is due to common trending (Wilkes 2011; Fairbrother 2016).

To test the cultural hypothesis, Models 1-4 estimate the trust difference between non-Southern migrants and Southern natives in the South and between Southern migrants and non-Southern natives in the non-South using both the overall sample as well as the non-Black sample.
only. If trust is from early life socialization in migrants’ place of origin, we should expect that migrants will show the same level of trust as the population that remains where they came from (their cultural footprints).

To test the experiential hypothesis, Models 5-6 estimate the trust difference between migrants and non-migrants from their place of origin. If trust is reflective of day-to-day experiences, we expect that Southern migrants in the non-South will trust differently from the Southern natives in the South, and non-Southern migrants in the South will trust differently from the non-Southern natives in the non-South. In other words, migrants will renew their trust based on the destination context.

The full model can be expressed as follows:

\[
\gamma_{it} = \alpha_0 + \alpha_{(j=1-4)}M_{(j=1-4)it} + \alpha_T C_{it} + u_t + e_{it}
\]

\[
\begin{align*}
    u_t & \sim N(0, \sigma_u^2) \\
    e_{it} & \sim N(0, \sigma_e^2)
\end{align*}
\]

where \(\gamma_{it}\) represents the level of trust for the \(i^{th}\) individual from the \(t^{th}\) year. \(M_{(j=1-4)it}\) denotes four different sets of dummy variables that are included in the model by turn, namely, non-Southern migrants in the South (ref. Southern natives), Southern migrants in the non-South (ref. Non-Southern natives), Southern migrants in the non-South (ref. Southern natives), and Non-Southern migrants in the South (ref. Non-Southern natives). \(\alpha_{(j=1-4)}\) indicates the corresponding coefficient for each dummy variable. Covariates \(C_{it}\) is at the individual level indexed as \(it\), and \(\alpha_T\) is a vector of corresponding coefficients. The year level intercept \(u_t\), like the individual level error term \(e_{it}\), is distributed normally, with mean of 0.

To further reduce or eliminate the potential self-selection bias as well as the confounding and measurement issues, I apply Propensity Score Matching (PSM) method in my analyses. In a nonrandomized study, the PSM method allows us to obtain similar distribution of the observed
baseline covariates for treated and untreated subjects so that it approaches closer to a randomized controlled trial (Austin 2011). In this case, the PSM allows me to compare trust of migrants and non-migrants among two matched individuals in terms of others individual characteristics including income, age, education, gender, race. In so doing, this reduces or eliminates the self-selection bias and the potential confounding problem from other factors. Specifically, using internal migration as a quasi-experiment, I separate between those who migrated ($D_1$), and those who didn’t ($D_0$), and from where (South or non-South). In this case, migrants were the treated group. Depending on my hypothesis, I have two sets of control groups. For the cultural hypothesis, the control group is local natives in respective regions, while for the experiential hypothesis, the control group is the non-migrants from the migrants’ place of origin. I compare trust among the four groups of Americans by calculating the average treatment effect on the treated (ATET), which is defined as follows:

$$ATET = \mathbb{E}(Trust_{1i} - Trust_{0i}) \mid D_i = 1$$

### 2.4 Results

The primary focus in this chapter is to look at whether internal migration between the South and non-South has any impact on Americans’ trust. Specifically, I compare trust among four groups: non-Southern natives, non-Southern migrants in the South, Southern natives, and Southern migrants in the non-South. Figures 2.4-1A & B report the descriptive results. Overall, internal migration between the South and non-South has little impact on migrants’ trust. Specifically, migration to the South after age 16 did not make non-Southerners less trusting. Figure 2.4-1A shows that non-Southerners in the South have a trust level of 2.77 based on the 3-items trust measure (range 0-6), which is very similar to the level of trust among non-
Southerners from their place of origin in the non-South (2.75). Similarly, migration after age 16 to the non-South where trust is higher did not make Southerners more trusting. Figure 2.4-1A shows that Southerners in the South have a trust level of 2.50, and if they moved to the non-South, their level of trust is 2.55. Relatively, the trust gap between migrants and local natives is much bigger than the gap between migrants and non-migrants from their place of origin. Figure 2.4-1B repeat the analysis using the Non-Black sample only. Results are very similar. This robustness check suggests that the gaps do not reflect the higher presence of blacks in the South or the racial composition of the migration population.

**Figure 2.4-1 Comparing trust levels among natives and migrants in the South and non-South regions**

(Note: Figure 2.4-1B A uses the whole sample from the survey, while Figure 2.4-1B uses the non-Black sample only including both White and Other racial categories)
To facilitate interpretation, Figure 2.4-2 compares trust gaps among the four groups of Americans. It shows that gaps in trust between migrants and the local natives of their host region (e.g., Non-Southern natives vs Southern migrants in the non-South) are much bigger than the gaps between migrants and the natives from their place of origin (e.g., Non-Southern migrants in the South vs Non-Southern natives). This is to say that the place of origin matters more than the local context in shaping migrants’ trust. While Southern migrants in the non-South do show a little higher trust than the Southern natives, we also see that non-Southern migrants in the lower trust South have a little more trust than non-Southern natives. In other words, irrespective of migrating to lower or higher trust regions, migrants show a little more trust than non-migrants.
back home. This could suggest a self-section bias that more trusting Americans are more likely to move. One potential explanation is that many Americans migrated for higher education and that the more educated people tend to have more trust. These descriptive comparisons suggest that internal migration after age 16 has very limited impact on people’s trust. To ensure that these descriptive findings are statistically meaningful, I turn to multivariate regression analysis.

Table 2.4-1 reports the mixed effects models predicting the effect of internal migration on trust. To facilitate interpretation, Figure 2.4-3 visualizes the results from mixed effects regression models. All models include individual level covariates such as gender, race, education level, family income, marital status, religion, size of community, perception of class status, level of happiness, level of satisfaction with financial situation, and year in decades as well as random effects at the year level.
Table 2.4-1 Mixed effects regression models predicting the effect of internal migration on trust

<table>
<thead>
<tr>
<th>Migration effect</th>
<th>Model (1) Overall</th>
<th>Model (2) Non-Black</th>
<th>Model (3) Overall</th>
<th>Model (4) Non-Black</th>
<th>Model (5) Overall</th>
<th>Model (6) Non-Black</th>
<th>Model (7) Overall</th>
<th>Model (8) Non-Black</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Southern migrants in the South (ref. Southern natives)</td>
<td>0.116*** (0.035)</td>
<td>0.133*** (0.035)</td>
<td>-0.107** (0.039)</td>
<td>-0.181*** (0.038)</td>
<td>0.034</td>
<td>0.009</td>
<td>0.034</td>
<td>0.039</td>
</tr>
<tr>
<td>Southern migrants in the non-South (ref. Non-Southern natives)</td>
<td>0.045</td>
<td>0.044</td>
<td>0.045</td>
<td>0.044</td>
<td>0.045</td>
<td>0.044</td>
<td>0.045</td>
<td>0.044</td>
</tr>
<tr>
<td>Controls</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>-0.013</td>
<td>-0.019</td>
<td>0.004</td>
<td>0.004</td>
<td>-0.025</td>
<td>-0.025</td>
<td>0.010</td>
<td>0.005</td>
</tr>
<tr>
<td>Age</td>
<td>0.004***</td>
<td>0.004***</td>
<td>0.007***</td>
<td>0.007***</td>
<td>0.004***</td>
<td>0.004***</td>
<td>0.007***</td>
<td>0.008***</td>
</tr>
<tr>
<td>Black (ref. white)</td>
<td>-0.137</td>
<td>-0.186***</td>
<td>-0.112</td>
<td>-0.200***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (ref. white)</td>
<td>0.080</td>
<td>0.081</td>
<td>0.080</td>
<td>0.081</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>0.058***</td>
<td>0.061***</td>
<td>0.066***</td>
<td>0.070***</td>
<td>0.060***</td>
<td>0.064***</td>
<td>0.064***</td>
<td>0.066***</td>
</tr>
<tr>
<td>Family income</td>
<td>-0.000***</td>
<td>-0.000***</td>
<td>0.000***</td>
<td>0.000***</td>
<td>0.000***</td>
<td>0.000***</td>
<td>0.000***</td>
<td>0.000***</td>
</tr>
<tr>
<td>Never married (ref. married)</td>
<td>-0.020</td>
<td>-0.020</td>
<td>-0.017</td>
<td>-0.017</td>
<td>-0.032</td>
<td>-0.032</td>
<td>0.018</td>
<td>0.006</td>
</tr>
<tr>
<td>Divorced/widowed/seperated (ref.married)</td>
<td>0.030</td>
<td>0.032</td>
<td>0.035</td>
<td>0.035</td>
<td>0.006</td>
<td>0.006</td>
<td>0.050</td>
<td>0.044</td>
</tr>
<tr>
<td>Protestant (ref. no religion)</td>
<td>0.020</td>
<td>0.013</td>
<td>-0.034</td>
<td>-0.034</td>
<td>-0.026</td>
<td>-0.026</td>
<td>-0.022</td>
<td>-0.032</td>
</tr>
<tr>
<td>Catholic</td>
<td>-0.043</td>
<td>-0.044</td>
<td>-0.086**</td>
<td>-0.078*</td>
<td>-0.043</td>
<td>-0.043</td>
<td>-0.050</td>
<td>-0.084**</td>
</tr>
<tr>
<td>Jewish</td>
<td>-0.176</td>
<td>-0.188</td>
<td>-0.242***</td>
<td>-0.218***</td>
<td>-0.021</td>
<td>-0.023</td>
<td>-0.263***</td>
<td>-0.238***</td>
</tr>
<tr>
<td>Other</td>
<td>-0.060</td>
<td>-0.080</td>
<td>-0.053</td>
<td>-0.059</td>
<td>-0.032</td>
<td>-0.032</td>
<td>-0.078</td>
<td>-0.061</td>
</tr>
<tr>
<td>Community size</td>
<td>0.031***</td>
<td>0.027**</td>
<td>-0.003</td>
<td>-0.013*</td>
<td>0.028**</td>
<td>0.028**</td>
<td>-0.004</td>
<td>-0.012</td>
</tr>
<tr>
<td>Middle class (ref. upper class)</td>
<td>-0.095</td>
<td>-0.057</td>
<td>0.045</td>
<td>0.071</td>
<td>-0.090</td>
<td>-0.090</td>
<td>0.052</td>
<td>0.078</td>
</tr>
<tr>
<td>Working class</td>
<td>-0.017</td>
<td>-0.012</td>
<td>0.113*</td>
<td>0.145**</td>
<td>-0.033</td>
<td>-0.032</td>
<td>0.126</td>
<td>0.155**</td>
</tr>
<tr>
<td>Lower class</td>
<td>-0.134</td>
<td>-0.138</td>
<td>0.098</td>
<td>0.112</td>
<td>-0.139</td>
<td>-0.139</td>
<td>0.109</td>
<td>0.129</td>
</tr>
<tr>
<td>Pretty happy (ref. not very happy)</td>
<td>0.177***</td>
<td>0.190***</td>
<td>0.288***</td>
<td>0.294***</td>
<td>0.182***</td>
<td>0.195***</td>
<td>0.285***</td>
<td>0.291***</td>
</tr>
<tr>
<td>Very happy</td>
<td>0.122**</td>
<td>0.129**</td>
<td>0.206***</td>
<td>0.216***</td>
<td>0.152***</td>
<td>0.162***</td>
<td>0.190***</td>
<td>0.199***</td>
</tr>
<tr>
<td>Financial situation satisfied (ref. not satisfied)</td>
<td>0.101**</td>
<td>0.125**</td>
<td>0.056</td>
<td>0.065*</td>
<td>0.076*</td>
<td>0.098*</td>
<td>0.067*</td>
<td>0.075*</td>
</tr>
<tr>
<td>Financial situation more or less satisfied</td>
<td>0.042</td>
<td>0.065</td>
<td>0.021</td>
<td>0.028</td>
<td>0.054</td>
<td>0.077*</td>
<td>0.013</td>
<td>0.019</td>
</tr>
<tr>
<td>Year 1972-2016</td>
<td>(0.032)</td>
<td>(0.033)</td>
<td>(0.025)</td>
<td>(0.025)</td>
<td>(0.033)</td>
<td>(0.033)</td>
<td>(0.024)</td>
<td>(0.025)</td>
</tr>
<tr>
<td>1980s (ref. 1970)</td>
<td>-0.082*</td>
<td>-0.088*</td>
<td>-0.054</td>
<td>-0.065</td>
<td>-0.067</td>
<td>-0.074</td>
<td>-0.064</td>
<td>-0.076</td>
</tr>
<tr>
<td>1990s</td>
<td>-0.154***</td>
<td>-0.161***</td>
<td>-0.165***</td>
<td>-0.177***</td>
<td>-0.110**</td>
<td>-0.116**</td>
<td>-0.187***</td>
<td>-0.201***</td>
</tr>
<tr>
<td>2000s</td>
<td>-0.136**</td>
<td>-0.148***</td>
<td>-0.198***</td>
<td>-0.217***</td>
<td>-0.129**</td>
<td>-0.143**</td>
<td>-0.199***</td>
<td>-0.220***</td>
</tr>
<tr>
<td>2010s</td>
<td>-0.197***</td>
<td>-0.207***</td>
<td>-0.238***</td>
<td>-0.268***</td>
<td>-0.181***</td>
<td>-0.186***</td>
<td>-0.242***</td>
<td>-0.276***</td>
</tr>
<tr>
<td>Constant</td>
<td>1.461***</td>
<td>1.389***</td>
<td>1.400***</td>
<td>1.324***</td>
<td>1.476***</td>
<td>1.400***</td>
<td>1.411***</td>
<td>1.350***</td>
</tr>
</tbody>
</table>

Random effects

| Residual | -0.400 (0.040) | 0.014 (0.041) | -0.089 (0.043) | 0.014 (0.041) | 0.014 (0.041) | 0.014 (0.041) | 0.005 (0.005) | 0.005 (0.005) |
| N_Year | 10990 | 10726 | 20331 | 19849 | 10485 | 10239 | 20836 | 20336 |
| N_Individual | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 |

Standard errors in parentheses
* p < 0.05, ** p < 0.01, *** p < 0.001
Do migrants adjust their trust according to the trust environment of their destination?

Model 1 shows that in the South, a non-Southern migrant has 0.116 more trust than the local Southern natives. Model 3 shows that a Southern migrant in the non-South has 0.107 less trust than the local non-migrant. The highly significant trust gaps between migrants and local natives in both the South and non-South regions indicate that migrants do not tend to adapt to the trust level in the host region. It is true that Black Americans have a much higher presence in the South and that they generally have lower trust as a result of discrimination and other factors (Smith 2010). The racial composition of the migration population is also likely to vary across years and between different migratory directions. For example, in some years, a higher percentage of Black Americans might have moved internally between the South and the Non-South regions, but in
others, there might be a higher percentage of White migrants. To make sure that race does not play a role here in creating the gaps, Model 2 and Model 4 repeat Model 1 and Model 3 respectively with non-Black respondents only. They show that the gap in trust between migrants and local natives does not change. Taken together, these models show that migrants have not adapted to local trust levels. The significant gaps are not because of the racial composition of the migrant populations because it also exits within the white respondents. In other words, non-Southerners who migrated from the non-South do not seem to lose trust in the South where trust is lower (H1a). Similarly, Southerners who migrated to the non-South where people are more trusting do not seem to gain trust (H1b).

Next, do migrants still trust the same compared to the people from their place of origin? Model 5 estimates the gap between Southern migrants in the non-South and Southern natives in the South. The result shows that the gap is small and not significant. Similarly, Model 7 estimates that the gap between non-Southern migrants in the South and non-Southern natives in the non-South. It shows that the gap is also small and not significant. Model 6 and 8 repeat Model 5 and Model 7 with the non-Black sample. The results are consistent. Taken together, these models illustrate that migrating away from the place of origin after age 16 to a higher or lower trust region changes migrant’s trust very little and therefore migrants do not seem to renew their trust in a new destination environment (H2a & H2b). Nevertheless, we do see that Southern migrants in the non-South have 0.034 (0.009 for non-blacks) more trust than their Southern natives back home (Model 5 & 6). Does this suggest that they learn trust in the more trusting non-South region? However, we also see that non-Southern migrants in lower trust South also have 0.045 (0.044) more trust than non-Southern natives back home in the non-South (Model 7 & 8). Since migrants migrating to both higher and lower trust regions show a little higher trust than non-
migrants from their place of origin, this suggests rather than acculturation the non-significant but positive effect of migration could come from a self-selection bias.

Table 2.4-2 PSM models predicting the effect of internal migration on trust

<table>
<thead>
<tr>
<th>ATET</th>
<th>Model (9)</th>
<th>Model (10)</th>
<th>Model (11)</th>
<th>Model (12)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control: Local natives in the host place</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Southern migrants in the South</td>
<td>0.110*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.048)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southern migrants in the non-South</td>
<td>-0.119*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.057)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Control: Non-migrants from the place of origin</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Southern migrant in the South</td>
<td>-0.067</td>
<td></td>
<td></td>
<td>0.022</td>
</tr>
<tr>
<td></td>
<td>(0.045)</td>
<td></td>
<td></td>
<td>(0.056)</td>
</tr>
<tr>
<td>Southern migrants in the non-South</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N 10990 20331 20836 10485

Standard errors in parentheses
* p < 0.05, ** p < 0.01, *** p < 0.001
Figure 2.4-4 PSM estimations comparing trust gaps between migrants vs. local natives as well as migrants vs. non-migrants in the South and non-South regions using matched samples.

Table 2.4-2 provides the PSM estimation results. Similarly, to better interpret the results, Figure 2.4-4 visualizes the average treatment effect on the treated (ATET) from the propensity score matching and doubly robust estimations, in which propensity scores serve as analytic weights in the logistic regression models. All models include covariates of gender, race, education level, family income, marital status, religion, size of community, perception of class status, level of happiness, level of satisfaction with financial situation and year. When a matched sample is employed, Model 9 shows that non-Southerners (treated group) have 0.11 more trust than the local natives in the South (control group), and Model 10 indicates that Southerners (treated group) have 0.119 less trust compared to local natives in the non-South (control group). Both are significant at the p< 0.1 level. However, if we use non-migrants from migrants’ place of origin as the control group, non-Southerners migrating into the South (treated) do not seem to
lose trust (Model 11), and Southerners migrating to the non-South region do not seem to gain trust. In fact, these models provide empirical robustness check for the results reported in Model 1 to Model 8.

Overall, the regression results suggest that migration between places of different levels of trust after age 16 has little impact on people’s trust. Specifically, Southerners will not gain trust after moving to the non-South where people are relatively more trusting. Similarly, non-Southerners will not lose their trust in the South where trust is lower. The empirical findings lend strong support to the cultural theory that trust is a core value acquired at an early age and that it remains relatively stable during the life cycle.

2.5 Robustness check

I present two additional analyses for robustness check. First, I replicate my previous estimations using only the single-item trust measure—whether most people can be trusted. I recode trust into a binary variable and use logistic regressions. Second, I investigate the recent panel data of the U.S. General Social Survey and examine the change in trust among individuals across three waves of the survey.

2.5.1 Single-item measure of trust

Table 2.5-1 reports the results from the regression models and Figure 2.5-1 visualizes the odds ratios from the models. Model 1 predicts whether Americans who live in the South express lower trust than those who reside in the non-South regions. Even with the controls, Americans who reside in the South have about 29% (odds ratio=0.71) less odds to trust than those in the non-South. Model 2 adds both Southerner migrant in the non-South and non-Southerner migrant in the South to Model 1. With controls for all study variables, the regression results show that
Southerner migrants in the non-South are significantly less trusting than local natives (odds ratio=0.72), and that non-Southerners in the South are significantly more trusting than local Southerners (odds ratio=1.3). Both gaps are about 30%, which is the same as the regional gap in Model 1. Therefore, southerners who migrated to the non-South where people are more trusting do not seem to gain trust and similarly, Americans who migrated from the non-South to the South trust more than local Southerners. The decrease in odds ratio from 0.71 in Model 1 to 0.65 in Model 2 of the American who lives in the South variable reveals the fact that regional gap in trust between the South and non-South is even bigger if we single out local natives and Southern/non-Southern migrants within regions. This is to say that, rather than change people’s trust, migration between the South and non-South has diffused the regional gap.

Model (3) repeats Model (2) with for White respondents only. The result change very little. This suggests that the findings are not due to a higher percentage of Black Americans who live in the South or because of the racial make-up of the migration population. I was not able to perform a regression analysis based on Black respondents only due to the small sample size. Model 4 to Model 8 show the results for each decade from 1970s to 2010s. The regional gap in trust between the South and non-South has remained unchanged over the last five decades (odds ratio=0.63-0.66). Whether in the South or non-South, Southerners have been always less trusting and non-Southerners have always been more trusting. This persistent pattern demonstrates that early life course has durable effect on people’s trust and on-going living experiences do not seem to change people’s trust.

Overall, the regression results demonstrate that internal migration after age 16 between the South and non-South where the levels of trust are significant and substantial different has little impact on Americans’ trust. Specifically, Southern migrants who grew in the South will not
gain trust after moving to the Non-South where people are generally more trusting. Similarly, non-Southern migrants in the South will not lose their trust in the less trusting America South.
<table>
<thead>
<tr>
<th>Table 2.5-1 Mixed effects logistic regressions predicting effect of internal migration on trust</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Random effects</strong></td>
</tr>
<tr>
<td>Year</td>
</tr>
<tr>
<td>Fixed effects</td>
</tr>
<tr>
<td>Intercept</td>
</tr>
<tr>
<td>* p &lt; 0.05, ** p &lt; 0.01, *** p &lt; 0.001</td>
</tr>
<tr>
<td><strong>South and internal migration</strong></td>
</tr>
<tr>
<td>American who lives in the South</td>
</tr>
<tr>
<td>Southern migrant in the non-South</td>
</tr>
<tr>
<td>Nonsouthern migrant in the South</td>
</tr>
<tr>
<td><strong>Demographics</strong></td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Race (ref: White)</td>
</tr>
<tr>
<td>Black</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Education</td>
</tr>
<tr>
<td>Family income</td>
</tr>
<tr>
<td>Marital status (ref: married)</td>
</tr>
<tr>
<td>Never married</td>
</tr>
<tr>
<td>Divorced/widowed/separated</td>
</tr>
<tr>
<td>Religion (ref: no religion)</td>
</tr>
<tr>
<td>Protestant</td>
</tr>
<tr>
<td>Catholic</td>
</tr>
<tr>
<td>Jewish</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Community (ref: Country, nonfarm)</td>
</tr>
<tr>
<td>Farm</td>
</tr>
<tr>
<td>Town, &lt;50,000</td>
</tr>
<tr>
<td>50,000 to 250,000</td>
</tr>
<tr>
<td>City, &gt;250000</td>
</tr>
<tr>
<td><strong>Fundamentalist (ref: moderate)</strong></td>
</tr>
<tr>
<td>Fundamentalist</td>
</tr>
<tr>
<td>Liberal</td>
</tr>
<tr>
<td><strong>Life control and powerfulness</strong></td>
</tr>
<tr>
<td>Perception of class status (ref: lower class)</td>
</tr>
<tr>
<td>Working class</td>
</tr>
<tr>
<td>Middle class</td>
</tr>
<tr>
<td>Upper class</td>
</tr>
<tr>
<td>General happiness (ref: not too happy)</td>
</tr>
<tr>
<td>Pretty happy</td>
</tr>
<tr>
<td>Very happy</td>
</tr>
<tr>
<td>Satisfaction with financial situation (ref: not at all)</td>
</tr>
<tr>
<td>More or less</td>
</tr>
<tr>
<td>Satisfied</td>
</tr>
<tr>
<td><strong>Year, 1972-2014 (ref: 1970s)</strong></td>
</tr>
<tr>
<td>1980s</td>
</tr>
<tr>
<td>1990s</td>
</tr>
<tr>
<td>2000s</td>
</tr>
<tr>
<td>2010s</td>
</tr>
<tr>
<td><strong>N (individual)</strong></td>
</tr>
<tr>
<td><strong>N (year)</strong></td>
</tr>
<tr>
<td>* p &lt; 0.05, ** p &lt; 0.01, *** p &lt; 0.001</td>
</tr>
</tbody>
</table>
Figure 2.5-1 Internal migration and the stability of trust among Americans (odds ratio)

(Note: Labels on the x-axis are major predictor variables. When odds ratio (y-axis) below one (red line), it suggests that the predictor variable has a negative effect on trust. Model 1 confirms that American who lives in the South are significantly less trusting; Model 2 shows that Southerners in the non-South are significantly less trusting while Nonsoutherners in the South are significantly more trusting (Model 3 repeats Model 2 with white respondents only and shows that it is not about racial population make-up; Model 4-8 repeat Model 2 with respondents from each decade of the 1970s, 1980s, 1990s, 2000s, and 2010s).

2.5.2 The GSS panel data analysis

While the General Social Survey has started to collect panel data (since 2006), the number of respondents who have moved between the South and non-South from the panel survey is very small. After merging all three available GSS panel surveys (2006, 2008, and 2010), out of a total of 5,709 respondents I am only able to obtain 37 subjects who moved from the non-South...
to the South, and other 29 from the South and the non-South. Among the 37 Non-Southern migrants in the South 4 become more trusting while 6 become less. The majority (27, or 73%) have expressed exactly the same trust before and after migration. Similarly, among the 27 Southern migrants in the non-South 21 (73%) have not change their trust. While 5 people do become more trusting there are also 3 people who become less. With such a small sample size of internal migrants in the panel survey, further analysis is discouraged.

**Figure 2.5-2 Change in trust among Americans over time**

Nevertheless, the panel data provides a powerful way to explore whether respondents change their trust at different time points when they are surveyed. Using the GSS three waves of panel survey of 2006 (2008, 2010), 2008 (2010, 2012), and 2010 (2012, 2014), Figure 2.5-2A & B show the percentages of respondents who trust less, trust more, and trust the same between wave 1 and wave 2 and between wave 2 and wave 3. While about 10% become more trusting other 10% become less. However, all life experiences considered within two years, the majority
of Americans (about 80%) do not change their trust. This further demonstrates that trust tends to be stable over the lifecourse.

2.6 Conclusion

In the U.S., there is a well-documented gap in trust between the Southern United States and other regions of the country: Americans from the South tend to have lower trust (Simpson 2006; see also General Social Survey 1972-2016). Taking advantage of this significant gap, I test whether Southerners become more trusting when they move to the Northern regions after age 16 and whether Americans trust less when they move to the South after age 16. Specifically, I have compared trust among four groups of Americans, namely, non-Southern natives, non-Southern migrants in the South, Southern natives, and Southern migrants in the non-South. My analysis of the GSS cross-sectional data (1972-2014) suggests that Southerners do not become more trusting when they migrate to the non-South where trust is higher, and that Americans from the non-South region do not become less trusting when they are surrounded by Southerners who tend to have lower trust. The overall results lend significant support for the cultural theory of trust.

Previous immigrant-based studies have largely overlooked the age when migrants migrated. This is essential because migrants who came at a young age would have been socialized with the cultural norms of the destination place, rather than the place of origin. Hence, if immigrants grew up in the destination place, the fact that their trust is similar to trust of local natives does not necessarily indicate trust is experiential. Trust could reflect the cultural traits of the hosting country.

The overall results from this study have important implications. In particular, they provide further understanding of regional differences in social institutions and interpersonal behavior in the U.S., especially between the South and non-South regions. Not only does trust
have positive individual-level effects on socioeconomic attainment, health, happiness, and life satisfaction (Coleman 2000; Lin 2002; Kawachi and Berkman 2000), trust is also an important predictor of economic success, social integration, and political performance, and democratization at the macro level (Fukuyama 1995; Putnam 2001; Warren 1999; Uslaner 2018). Indeed, to understand regional inequalities in the US, it is imperative that we investigate variations in social relations and trust and the consequences of these variations. The higher rates of poverty and lower levels of political participation in the South than other regions of the country could come from the lower trust among Southerners (see also Simpson 2006). In fact, this research also indicates that the South/non-South gap in trust is actually more substantial than suggested by previous research. If we take into account the internal migration between the South and non-South in the U.S., the gap in trust would be larger. Because migrants do not tend to adjust their trust, South-to-non-South migration is likely to decrease the mean level of trust in the non-South, while the non-South-to-South migration is likely to increase the mean level of trust in the South.
Chapter 3: Does Trust Travel? Moving from International Migration to Internal Migration

In Chapter 2, I have shown that in the U.S., less trusting Southerners did not gain trust after they moved to live in more trusting non-South regions after age 16. Similarly, more trusting non-Southerners did not lose trust after they moved to the South after age 16. The overall findings show that adult migration after age 16 changes people’s trust very little regardless of the destination. Accordingly, I concluded that Americans learned to trust in pre-adulthood from the place where they grew up and their learned trust remains persistent. Their migration experiences to a different trust environment are irrelevant.

Although the results from my empirical analyses supported the arguments presented, there are several limitations of this research. First, the sample size of the U.S. General Social Survey is relatively small for each year (only about 2,000) which limits the number of internal migrants. While I was able to address this issue by combining multiple years of the GSS data, ideally there would be a large sample of internal migrants from the same year. A larger sample size from a single year eliminates over-time random effects when using multiple years. Second, in the U.S. General Social Survey, I was able to estimate how adult migration (after age 16) affects trust of internal migrants. It would be better to compare how child migration might affect trust of migrants differently from adult migration. This will further illustrate the importance of taking a life course perspective and considering the age at migration. For example, the same migration experience could have different meanings depending on whether it occurred in childhood or in adulthood.
Furthermore, there also emerges a geographic difference in conclusions in previous studies that use international migration to study the roots of trust (see also Dinesen and Sønderskov 2018): Whereas scholars focusing on the U.S. largely conclude that trust reflects the cultural legacy of immigrants’ ancestral country, those focusing on Europe, Canada, and Australia show a strong influence from their contemporary experiences in the hosting environment (Dinesen and Sønderskov 2018). Thus, there is a possibility that the findings concerning the pattern in the United States are ‘exceptional’ (Dinesen and Sønderskov 2018).

Therefore, in this chapter, I turn to internal migration in Canada. Given the gap in trust between Quebec and the rest of Canada (Kazemipur 2006; Hwang 2013; Turcotte 2015; Wu and Wilkes 2017), I explore whether Canadians from Quebec will become more trusting when they migrate to live in other provinces such as British Columbia, Ontario, Nova Scotia and vice versa. Using the 2014 Canadian General Social Survey, not only am I able to obtain a larger sample of internal migrants, I can also distinguish between child migration and adult migration- a factor largely overlooked in previous immigrant-based studies. My analyses of the 2014 Canadian General Social Survey show that, although child migration has mixed impacts, adult migration does not change people’s trust. The overall results not only indicate the importance of considering time in using migration as a way to separate between the cultural and the experiential theories, but it also provides stronger support for the view that we learn to trust early in life from where we grew up and that learned trust tends to persist throughout the lifecourse.

In this chapter, I also pay particular attention to the problem of self-selection of immigrants that plagues all previous immigrant-based studies of the roots of trust (Dinesen and Sønderskov 2018). I do so by taking the following steps. First, I review current literature and make the case that all previous immigrant-based studies have compared two trust gaps to test
whether trust is a persistent cultural trait or, alternatively, a trait formed and updated according to contemporary life experiences. The first gap is between trust of immigrants and trust of local natives in the destination country. The second is between trust of immigrants and trust of their ancestral country. Whereas a small gap in trust between immigrants and people of their ancestral country indicates the cultural persistence, a small gap in trust between immigrants and local natives indicates the experiential adaptation of trust (e.g., Uslaner 2008; Dinesen and Hooghe 2010; Dinesen and Sønderskov 2018). Second, focusing on diverse immigrant populations in Canada, I discuss in detail whether immigrants trust differently or similarly from local natives as well as people from their country of origin is extremely variable depending on many factors. Those factors include not only where they came from originally, but also the host context as well as the time of migration. Because they could bias both gaps, any conclusion drawn based on these gaps from previous studies could be severely affected. Finally, I introduce a new research design that focuses on internal migration. I discuss how this new research design helps reduce the magnitude of self-selection bias.

### 3.1 Are gaps in trust trustworthy?

Currently, two theories provide distinct explanations for why some people are more trusting than others. The cultural theory suggests that trust is a world view rooted deeply in cultural heritage and early life socialization (Erikson 1950; Rotenberg 1995; Uslaner 1999; 2000; Stolle and Hooghe 2004; Dawson 2017). The experiential theory, on the other hand, suggest that we learn and update our trust constantly according to our social experiences throughout the life (Rotter 1971; Offe 1999; Hardin 2002; Macy and Sato 2002; Glanville et al. 2013; Paxton and Glanville 2015).
To separate between these two competing theories, scholars have considered trust of immigrants to investigate the roots of trust (e.g., Dinesen 2012a; 2012b; 2013; Dinesen and Hooghe 2010; Rice and Feldman 1997; Nannestad et al. 2014; Uslaner 2008). Specifically, scholars have tested whether immigrants have a similar level of trust to local natives or whether they have a similar level of trust to people from their country of origin. The assumption is that, if trust of immigrants is aligned with the trust of natives in their present country, this indicates that trust is experiential. Conversely, if immigrants have lower trust, trusting similarly to people from their ancestral country but differently from the local natives, this suggests that their trust continues to reflect their cultural heritage as immigrants often came from low-trust countries (for a comprehensive review, please see Dinesen and Sønderskov 2018).

However, current studies show conflicting findings. For example, on one hand, in *When in Rome, do as the Romans do: the acculturation of generalized trust among immigrants in Western Europe*, Dinesen and Hooghe (2010) show that the gap between immigrants and local natives is relatively small and becomes even smaller among second generation immigrants. Therefore, they conclude that immigrants do gain trust in a new environment and therefore trust is experiential. On the other hand, in *Where you stand depends upon where your grandparents sat: the inheritability of generalized trust*, Uslaner (2008) compares the gaps in trust between Americans and people of the countries where they have ethnic ties and shows that Americans with Nordic, German, and British background have higher levels of trust, while African Americans and Spanish/Latinos have lower. Accordingly, he concludes that trust is deeply rooted in people’s ethnic heritage. These conflicting findings with regards to how immigrants trust may exist because the problem of self-selection of immigrants is likely to bias
both gaps and therefore any conclusion drawn based on these gaps could be problematic (see also Dinesen and Sønderskov 2018; Wilkes and Wu 2018).

To further illustrate the problem of self-selection of immigrants, I consider how immigrants trust in Canada. Canada is a nation of immigrants. According to Statistics Canada’s 2016 Census, more than one in five Canadians are foreign-born. The large foreign-born population provides an opportunity to reflect what it means to be an immigrant in Canada. In particular I aim to detail how immigrants trust is extremely variable depending on not only on their origins, but also on many other factors including the host context, the time of migration, as well as the age at migration.

3.1.1 Where did immigrants migrate?

The hosting context could bias the gaps. First, different immigration policies across the destination countries are likely to generate different types of immigrants, including their motivations for migration, pre-migration circumstances and differences in terms of socioeconomic advantage. All of these aspects may play a role in shaping how immigrants trust. For example, while the majority studies have shown trust is lower among immigrants than the native-born population (Dinesen and Hooghe 2010; Nannestad et al. 2014; Uslaner 2008), several studies show that in Canada immigrants trust more (e.g., Bilodeau and White 2015; Soroka et al. 2007). This in fact is a result of Canada’s distinctive immigration policy. In recent years, new immigrants to Canada predominately arrive through the point system program that works to select immigrants with higher levels of education, socioeconomic status, and skills and they are also generally more trusting (Bilodeau and White 2015; Kaushal et al. 2016). Second, the specific community, city, or region of the same destination country where immigrants landed could also affect how they trust. This is especially true for a large country like Canada. For
instance, the economic perspective suggests that the native-born population is more likely to feel threatened by immigrants when the context is one of poor job prospects or stagnating wages (Semyonov et al. 2004; Semyonov et al. 2006). As the patterns of inequality vary across the provinces, feelings of resentment towards immigrants may differ and these may be reflected in reduced trust among immigrants. Canada is also a multinational state with distinctive cultures and institutions across regions, which may affect immigrants’ sense of integration (Bilodeau et al. 2012). Different provinces also attract immigrants from different cultures. For example, British Columbia has a higher concentration of immigrants from East and South Asia; whereas Ontario is home to immigrants from a variety of sending countries. In Quebec, however, Francophone immigrants from North Africa, Europe, and the Caribbean dominate (Ray and Preston 2009). Immigrants may also be viewed in a negative light by the host population if they are perceived as a threat to the local identity of the region (Escandell and Ceobanu 2010). Hence, there is a need to specify and control the regional context of the destination country when we study how immigrants trust.

3.1.2 When did immigrants migrate?

The time of migration could bias the gaps. There are three main reasons for why this is the case. First, immigration patterns could change over time. This could lead to changes in the level of diversity and specific racial and ethnic make-up of the population, and this in turn affects trust. For example, in Canada, early immigrants (before 1970) were mostly from the U.S. and European countries who shared similar ethnic and cultural backgrounds with the local population (Uslaner 2012). In the 1970s the fraction of immigrants from Europe was cut in half. More recently, a greater number of immigrants are arriving in Canada from countries in Asia, Africa, and many other non-western countries. Because of the recent migration of people from Asia,
Africa, and the Middle East, the visible minority population (e.g., non-White) in Canada has grown dramatically (Stolle and Harell 2013). Second, general attitudes toward immigrants from the native-born population change over time and this might in turn affect how immigrants interact with the local native-born population (Wilkes and Corrigall-Brown 2011), and consequently how they trust. Finally, because the level of trust of the country of origin could also change over time, therefore, the trust gap between immigrants and the people of their ancestral origin could change according to when immigrants left their country. Currently, previous immigrant-based studies all have problematically assumed that present-day trust levels in the ancestral countries are the same as the trust level when they or their ancestors migrated (Dinesen and Sønderskov 2018).

3.1.3 How old were immigrants when they migrated?

The age of immigrants could bias the gaps. Younger immigrants are more easily able to adapt to the host country than those who came at an older age because younger immigrants are better at learning the local language and are able to more easily adapt to local cultures and customs (Berry 1997; Schwartz et al. 2010; Hou and Bonikowska 2017; Pendakur and Pendakur 2016; Wu and Wilkes 2017; Wu et al.). In other words, young immigrants could be socialized in the hosting environment. Accordingly, it is essential to make a distinction between immigrants who landed as an adult and those who landed as a child or an adolescent who were still undergoing their primary socialization.

Taken together, this illustrates that what it means to be an immigrant is extremely variable across place and over time. Immigrants, even from the same geographical origin, are not a monolithic group. When comparing how immigrants trust differently than the native-born in Canada or how they trust similarly to people of their ancestral country, it is vital to consider a
variety of factors such as the migration policy, the hosting context, and the time of migration. These factors severely bias the two trust gaps based on which of the majority of current immigrant-based studies draw their conclusions. Hence, there is a need to pay greater attention to the self-selection of immigrants (Dinesen and Sønderskov 2018; Wilkes and Wu 2018).

3.2 Moving from international migration to internal migration

Canadians are highly trusting. Recent surveys consistently show that across Canada more than half of its people hold a positive response to the statement that “most people can be trusted” (Uslaner 2012; Turcotte 2015; see also Figure 3.2-1). Several scholars have explored why Canadians trust more than people from many other countries. For example, Uslaner (2012) suggests that not only are Canadians comparatively less segregated than people in other countries, Canadian society is also a relatively equal society. In particular, the immigration policy in Canada has played a role in building a high trust society. It is noted that many of the early immigrants to Canada came from high-trusting European countries such the United Kingdom and Nordic countries. In addition, the selective immigration policies including the point-based system adopted since 1967 and the Provincial Nominee Programs have attracted a highly educated, skilled, wealthy, and also very trusting group of immigrants (Bilodeau and White 2016; Soroka, Helliwell, and Johnston 2007; Uslaner 2012). With increasing immigration quotas, Canada is becoming more internationally diverse. It is suggested that growing diversity and multiculturalism have also contributed to the trusting environment in Canada (Stolle and Harell 2013).
3.2.1 The trust gap in Canada

However, the high levels of trust in Canada does not mean that all parts of Canada have high trust. In fact, as shown in Figure 3.2-1, trust is significantly lower in Quebec than elsewhere in Canada (see also Kazemipur 2006; Hwang 2013; Turcotte 2015). Analyzing data from Statistics Canada’s 2013 General Social Survey, Wu and Wilkes (2017) show that in Quebec only 36% of people would agree that “most people can be trusted”, compared to 58% for the rest of Canada. Their analysis demonstrates that the 22% gap is not a function of urban-rural differences, gender or even differences between English and French-speaking respondents. They also show that people from Quebec are less likely to trust people in the neighborhood, people from work or school, people who speak a different language, strangers, and even less likely to trust members of their own family, though admittedly this latter gap is very small.
Why trust is lower in Quebec? In the U.S., the trust gap between the South and non-South regions is attributed to collectivist culture. In the South, people have closer relationships with their in-group families, friends, and relatives, and this lowers generalized trust in out-group people (Simpson 2006; Irwin and Berigan 2013; see also Yamagishi 1988; Yamagishi et al. 1998). Is there this kind of difference between Quebec and the rest of Canada? Figure 2.4 shows the opposite. Compared to people in Quebec, people in the rest of Canada (ROC) have more relatives they feel close to (8 vs 7 relatives) and also have more local personal contacts who are relatives and friends (14 vs 10 personal contacts).

**Figure 3.2-2 Gap in collectivist relations between Quebec and the rest of Canada (CGSS 2013)**

<table>
<thead>
<tr>
<th>Quebec</th>
<th>ROC</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>10</td>
<td>14</td>
</tr>
</tbody>
</table>

Number of relatives respondent feels close to
Number of local personal contacts who are relatives and friends

Future research needs to look the specific factors that can explain the durable gap.

Nevertheless, underlying the trust differences between Quebec and the rest of Canada is the cultural distinctiveness between French Canada and English Canada (Stolle and Uslaner 2003;
Uslaner 2012). Indeed, it is well recognized that in Canadian state there are two distinctive nations between French Canada and English Canada (Resnick 2005; see also Hwang, Andersen, and Grabb 2007; Uslaner 2012). Francophones also mostly live in Quebec, therefore, lower trust in Quebec needs to be understood as potentially referencing a culture and a people rather than a region (Wu and Wilkes 2017).

3.2.2 Does trust travel internally in Canada?

The persistent gap in trust between Quebec and the rest of Canada offers another opportunity to test whether internal migration might affect how people trust. Specifically, I explore whether people who were brought up in low trust Quebec will become more trusting when they move out to the rest of Canada where people tend to trust more and vice versa. If people who grew up in Quebec and moved to other provinces do not gain trust, this means that trust is rooted in their early life course and cultural heritage. However, if they do become more trusting after living with people who have more trust, it will suggest that trust is experiential, fluctuating in response to changing contexts.
It is important to specify the specific age when migrants migrated. Taking time into consideration, I distinguish between adult migration and child migration. If trust is cultural, we would expect that migrants who came at a younger age and who were socialized within a high trust culture/environment could be more trusting, while those who came at an older age and had already finished their primary socialization in their country of origin where trust is lower would have lower trust. If trust is experiential, then immigrants should respond to the new experience in high trust environment regardless of the age when they came to live permanently. In other words, the trust gap between immigrants who came as children or adolescents and those who came as adults is less likely to exist (Wu 2018).
Table 3.2-1 details the specific research hypotheses. From the cultural perspective, we expect that adult migration has little impact on migrants’ trust, while from the experiential perspective we expect people migrating from Quebec to the more trusting ROC (the rest of Canada) will gain trust and that people migrating from the ROC to Quebec are likely to lose trust. Child migration however could have mixed impacts because migrants at a young age could be socialized in both places. Therefore, it will be difficult to tease out the cultural or the experiential effects.

Table 3.2-1 Research hypotheses of the internal migration effect on trust

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Adult migration</th>
<th>Child migration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Quebec-ROC</td>
<td>ROC-Quebec</td>
</tr>
<tr>
<td>Cultural theory</td>
<td>no effect</td>
<td>no effect</td>
</tr>
<tr>
<td>Experiential theory</td>
<td>gain trust</td>
<td>lose trust</td>
</tr>
</tbody>
</table>

Moving from international migration to internal migration helps eliminate or reduce the magnitude of the self-selection bias. Theoretically, internal migrants are less selective for many reasons. Internal migrants and non-migrants from the same country share more similar backgrounds compared to local natives and immigrants from different parts of the world. For example, they are more likely to share racial, if not ethnic, backgrounds, they are more likely to be genetically closer to each other based on their similar racial and ethnic backgrounds, and they grow up in the same political and economic environment of the country. People are also free to move. There are less likely to have migration policies, visas, and other constraints that could severely bias who get to migrate, from and to where.

Methodologically, it is also much easier to control for self-selection bias when focusing on internal migrants. First, the use of internal migration allows us to analyze single dataset that
includes both migrants and non-migrants from the very same country. This mitigates the problems stemming from the use of multiple incomparable datasets and minimizes the measurement problem. This is because, both immigrants and non-immigrants were asked the same trust questions at the same time within the same society. Furthermore, the survey was also more likely conducted in the same manner. Second, internal migrants in one country from the same survey are also more likely to interpret trust questions from the survey in a similar way. Third, with one single dataset and people from the same country, I can also use the Propensity Score Matching (PSM) method to address bias around self-selection.

3.3 Analytical strategy

3.3.1 Data

The data for this study comes from Statistics Canada’s General Social Survey (CGSS). The CGSS program is a series of independent and cross-sectional surveys that cover a host of topics including caregiving, families, time use, volunteering, victimization, and social identity. The first wave was conducted in 1985 and there are 34 cycles in total. For the purpose of this research, I use the 28th cycle from 2014. The 2014 GSS includes 33,089 representative respondents across Canada and is one of the largest surveys in the world, especially considering the relatively small population size in Canada (about 37.06 million in 2018). Because my focus is on internal migration, I further select out the native-born Canadians. This yields a total analytic sample of 23,389 who have completed data on all study variables.

3.3.2 Measures

Trust: To measure generalized trust, I use the question “Using a scale of 1 to 5 where 1 means ‘cannot be trusted at all’ and 5 means ‘can be trusted a lot’, how much do you trust in
strangers”. I recode the variable in a binary measure with “0” corresponding to the first two categories, and “1” to the last three. The more widely-used question “Generally speaking, would you say that most people can be trusted” were not asked in this cycle. However, when I use data from the 2013 CGSS, where both question were asked, and run a tetrachoric correlation, I find that correlation between these two dichotomous variables “trust in strangers” and “trust in most people” is strong (r=0.64). In fact, generalized trust is a form of trust in strangers (Stolle 2002). The 2013 CGSS does not include variables that would allow me to specifically code migration and the time of migration as flows.

**Internal migration:** To code internal migrant in Canada, I compare two variables indicating region of current residence and region of birth (a proxy for native region). Based on these regional categories, I further separate between Quebec and the rest of Canada (ROC) such as Atlantic region, Ontario, Prairie region, and British Columbia. In so doing, I am able to group Canadians into four groups: Quebec non-migrants, ROC non-migrants, Quebec to ROC migrants, and ROC to Quebec migrants.

**Time of migration:** Time matters. In order to determine when people migrated, I make use of two variables in the CGSS. One is the length of time respondent has lived in current city or local community with four response categories such as less than 3 years, 3 years to less than 5 years, 5 years to less than 10 years, and 10 or more years. This indicates whether a respondent is a local native or a migrant moved only recently to the current city of residence. Another is respondents’ age group with seven categories: 15 to 24, 25 to 34, 35 to 44, 45 to 54, 55 to 64, 65 to 74, and 75 years or older. Combing these two variables, Table 3.3-1 shows length of living in current city or community among Quebec to ROC migrants and ROC to Quebec migrants across age groups. In total, 209 respondents migrated from the ROC to Quebec, and the majority have
lived in Quebec for 10 years or longer. A total of 668 respondents moved from Quebec to other regions of the country and most have lived outside Quebec for 10 or more years.

Table 3.3-1 Length of living in current city among internal migrants across age groups

<table>
<thead>
<tr>
<th>Age group</th>
<th>Less than 3 years</th>
<th>3 years to less than 5 years</th>
<th>5 years to less than 10 years</th>
<th>10 years or over</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>From ROC to Quebec</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 to 24</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>25 to 34</td>
<td>9</td>
<td>5</td>
<td>3</td>
<td>13</td>
<td>30</td>
</tr>
<tr>
<td>35 to 44</td>
<td>5</td>
<td>1</td>
<td>7</td>
<td>20</td>
<td>33</td>
</tr>
<tr>
<td>45 to 54</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>25</td>
<td>35</td>
</tr>
<tr>
<td>55 to 64</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>34</td>
<td>39</td>
</tr>
<tr>
<td>65 to 74</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>34</td>
<td>38</td>
</tr>
<tr>
<td>75 years or older</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>24</td>
<td>28</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>14</td>
<td>18</td>
<td>154</td>
<td>209</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>From Quebec to ROC</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>15 to 24</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>10</td>
<td>19</td>
</tr>
<tr>
<td>25 to 34</td>
<td>9</td>
<td>7</td>
<td>11</td>
<td>14</td>
<td>41</td>
</tr>
<tr>
<td>35 to 44</td>
<td>6</td>
<td>8</td>
<td>17</td>
<td>55</td>
<td>86</td>
</tr>
<tr>
<td>45 to 54</td>
<td>12</td>
<td>8</td>
<td>13</td>
<td>105</td>
<td>138</td>
</tr>
<tr>
<td>55 to 64</td>
<td>9</td>
<td>6</td>
<td>17</td>
<td>144</td>
<td>176</td>
</tr>
<tr>
<td>65 to 74</td>
<td>8</td>
<td>5</td>
<td>12</td>
<td>116</td>
<td>141</td>
</tr>
<tr>
<td>75 years or older</td>
<td>4</td>
<td>0</td>
<td>2</td>
<td>61</td>
<td>67</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>36</td>
<td>74</td>
<td>505</td>
<td>668</td>
</tr>
</tbody>
</table>

Among the majority of migrants who have lived in their current city or community for more than 10 years, it is difficult to determine the age when they migrated. However, if they have lived in current residence less than 10 years, we can approximately determine their age of migration. Specifically, for example, if an individual has only lived in current city less than 5 years, but he or she is in age group of 25 to 34, this would suggest that this individual migrated to the current city after 20 years old. Using this method as illustrated in Table 2, I am able to
select out a sample of respondents who migrated as an adult. Indeed, those individuals in grey area of Table 2 are very likely to be more recent migrants who migrated as an adult.

Table 3.3-2 Coding adult migration

<table>
<thead>
<tr>
<th>Age groups</th>
<th>less than 3 years</th>
<th>3 years to less than 5 years</th>
<th>5 years to less than 10 years</th>
<th>10 years and over</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 to 24</td>
<td>x</td>
<td>X</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>25 to 34</td>
<td>v</td>
<td>v</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>35 to 44</td>
<td>v</td>
<td>v</td>
<td>v</td>
<td>x</td>
</tr>
<tr>
<td>45 to 54</td>
<td>v</td>
<td>v</td>
<td>v</td>
<td>x</td>
</tr>
<tr>
<td>55 to 64</td>
<td>v</td>
<td>v</td>
<td>v</td>
<td>x</td>
</tr>
<tr>
<td>65 to 74</td>
<td>v</td>
<td>v</td>
<td>v</td>
<td>x</td>
</tr>
<tr>
<td>75 years or older</td>
<td>v</td>
<td>v</td>
<td>v</td>
<td>x</td>
</tr>
</tbody>
</table>

Other demographic variables that I control for in the analyses include household income, level of education, gender, age, marital status, urban-rural, religion, visible minority, first nation people and region of Canada. I also control for subjective well-being which is indicated through respondents’ life satisfaction with a scale from 1 to 11. Table 3.3-3 reports the descriptive statistics for all study variables overall as well as across groups including ROC non-migrants, ROC to Quebec migrants, Quebec non-migrants, and Quebec to ROC migrants.

Demographically, compared to non-migrants, migrants are relatively older, better educated, and more likely to be male. For example, among migrants more than 30% have a university degree while only about 21% non-migrants have a university degree. In fact, migration for attending university accounts for a large part of internal migration in Canada. Those differences indicate a self-selection of migrants. Therefore, it is essential to take this self-selection bias into account when we compare the trust of migrants and non-migrants.
Table 3.3-3 Descriptive statistics of key variables in analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total (N=25,640)</th>
<th>ROC non-migrants (N=19,900)</th>
<th>ROC to Quebec migrants (N=209)</th>
<th>Quebec non-migrants (N=4,863)</th>
<th>Quebec to ROC migrants (N=668)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust in strangers (1=yes, 0=no)</td>
<td>0.43</td>
<td>0.46</td>
<td>0.46</td>
<td>0.36</td>
<td>0.43</td>
</tr>
<tr>
<td>Female (1=yes, 0=no)</td>
<td>0.54</td>
<td>0.55</td>
<td>0.52</td>
<td>0.55</td>
<td>0.51</td>
</tr>
<tr>
<td>Age (group of 10, 1-7)</td>
<td>4.04</td>
<td>4.11</td>
<td>4.42</td>
<td>4.22</td>
<td>4.65</td>
</tr>
<tr>
<td>University (1=yes, 0=no)</td>
<td>0.25</td>
<td>0.21</td>
<td>0.30</td>
<td>0.21</td>
<td>0.34</td>
</tr>
<tr>
<td>Household income (scale, 1-8,12=not stated)</td>
<td>6.36</td>
<td>6.30</td>
<td>5.52</td>
<td>5.13</td>
<td>6.20</td>
</tr>
<tr>
<td>Visible minority (1=yes, 0=no)</td>
<td>0.14</td>
<td>0.03</td>
<td>0.01</td>
<td>0.01</td>
<td>0.03</td>
</tr>
<tr>
<td>First Nation People (1=yes, 0=no)</td>
<td>0.04</td>
<td>0.05</td>
<td>0.02</td>
<td>0.02</td>
<td>0.03</td>
</tr>
<tr>
<td>Subjective wellbeing (scale, 1-11)</td>
<td>9.34</td>
<td>9.35</td>
<td>9.40</td>
<td>9.38</td>
<td>9.41</td>
</tr>
<tr>
<td>Married/common-law (1=yes, 0=no)</td>
<td>0.54</td>
<td>0.54</td>
<td>0.58</td>
<td>0.54</td>
<td>0.55</td>
</tr>
<tr>
<td>Single (1=yes, 0=no)</td>
<td>0.26</td>
<td>0.25</td>
<td>0.20</td>
<td>0.25</td>
<td>0.18</td>
</tr>
<tr>
<td>Other (1=yes, 0=no)</td>
<td>0.20</td>
<td>0.21</td>
<td>0.22</td>
<td>0.21</td>
<td>0.27</td>
</tr>
<tr>
<td>Religion (1=yes, 0=no)</td>
<td>0.83</td>
<td>0.80</td>
<td>0.88</td>
<td>0.92</td>
<td>0.85</td>
</tr>
<tr>
<td>Urban (1=yes, 0=no)</td>
<td>0.81</td>
<td>0.76</td>
<td>0.86</td>
<td>0.79</td>
<td>0.85</td>
</tr>
<tr>
<td>Atlantic (1=yes, 0=no)</td>
<td>0.24</td>
<td>0.36</td>
<td>0.00</td>
<td>0.00</td>
<td>0.29</td>
</tr>
<tr>
<td>Quebec (1=yes, 0=no)</td>
<td>0.19</td>
<td>0.00</td>
<td>1.00</td>
<td>1.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Ontario (1=yes, 0=no)</td>
<td>0.25</td>
<td>0.27</td>
<td>0.00</td>
<td>0.00</td>
<td>0.50</td>
</tr>
<tr>
<td>Prairie region (1=yes, 0=no)</td>
<td>0.21</td>
<td>0.26</td>
<td>0.00</td>
<td>0.00</td>
<td>0.10</td>
</tr>
<tr>
<td>British Columbia (1=yes, 0=no)</td>
<td>0.11</td>
<td>0.11</td>
<td>0.00</td>
<td>0.00</td>
<td>0.11</td>
</tr>
</tbody>
</table>

3.3.3 Statistical models

Because the trust measure is a binary 0-1 outcome, we use logistic regression for multivariate estimations. The full general model is expressed as follows:

\[
\log \left( \frac{p_i(\text{Trust}=1)}{1-p_i(\text{Trust}=1)} \right) = \text{Constant} + \alpha_1 QR_i + \alpha_2 QM_i + \alpha_3 ROC M_i + \alpha_4 \text{Controls}_i \tag{1}
\]

In the Equation (1), \( p_i(\text{Trust} = 1) \) represents the probability of being trusting for the \( i \)th individual. \( \text{Controls}_i \) denotes a series of control variables (age, gender, education level, marital status, minority status, first nation, and subjective-wellbeing) and \( \alpha_2 \) is a vector of corresponding coefficients. Our focus is on the odds ratios of three key variables in analysis Quebec non-migrant (QR\(_i\)), Quebec to ROC migrant(QM\(_i\)), and ROC to Quebec migrant (ROC M\(_i\)). Quebec non-migrant (QR\(_i\)) indicates the gap in the probability of trust between Quebec residents and
Canadians from the rest of the country. *Quebec to ROC migrant (QM)* denotes Canadians who grew up in Quebec but moved to live in the rest of the country within 10 years. *ROC to Quebec migrant (ROC M)* captures those who grew up in other provinces outside Quebec but moved to live in Quebec within 10 years.

Given the potential for selection bias in terms of who migrated internally, I use propensity score matching (PSM) - a nonparametric estimation method - and doubly robust estimation as my empirical robustness check. In this case, internal migrants are seen as the treated group. Depending on my hypothesis, I have two sets of control groups. For the cultural hypothesis, the control group is local natives in respective regions, while for the experiential hypothesis, the control group is the non-migrants from the migrants’ place of origin. I compare trust among four groups of Canadians by calculating the average treatment effect on the treated (ATET), which is defined as follows:

\[
\text{ATET} = E(\text{Trust}_{1DiTj} - \text{Trust}_{0DiTj}) \mid M_i = 1
\]

where I separate between those who migrated \((M_1)\), and those who didn’t \((M_0)\), from where \((Di = \text{Quebec or ROC})\), and when \((Tj = \text{adult or child})\).

Following Statistics Canadian’s suggestion, all models are analyzed using weighted data. I applied bootstrap technique in the analysis using STATA 15 (the STATA *svyset* command was used: “*svyset [pweight=WGHT_PER], bsrweight (WTBS_001- WTBS_500) vce(bootstrap) dof (500) mse*”).

### 3.4 Findings

To begin, Figure 3.4-1A & B descriptively visualize how migration in general and adult migration between the ROC and Quebec might impact Canadians’ trust. Figure 3.4-1A shows the
effect of migration from the ROC to Quebec on people’s trust. Overall, 46% local non-migrants in the ROC would say that they can trust in strangers. Compared to those non-migrants, migrants from the ROC to Quebec do not seem to lose trust living in low trust Quebec. At the exact same level to trust of the ROC non-migrants, 46% ROC migrants in Quebec would say that they can trust in strangers. Similarly, if we look at adult migration only, the change is minimal: 45% adult migrants from the ROC would say that they can trust in strangers.

Figure 3.4-1B shows how migration from Quebec to the ROC might affect how people trust. Among non-migrants in Quebec, 36% would say they can trust in strangers. It seems that moving away from Quebec to live in the ROC has a positive impact on trust. Among all migrants from Quebec who currently live in the ROC, 43% would say that they can trust, a seven percent point increase from their counterpart non-migrants in Quebec (43%-36). However, this does not happen to adult migrants. Among adult migrants from Quebec to the ROC, only 33% would say they can trust, a relatively similar level to those non-migrants back home in Quebec. Taken together, overall migration tends to have mixed effects, adult migration from low trust Quebec to high trust ROC, or the other way around, would not change migrants’ trust.
To ensure that these descriptive results are statistically meaningful, let us turn to multivariate estimations. The aim is to compare whether migrants from the ROC to Quebec will trust differently than ROC non-migrants after living in Quebec, and similarly whether Quebec to ROC migrants will have a different level of trust than Quebec non-migrants when they migrate to the rest of the country. Table 3.4-2 reports the full regression results.

In Model (1), the major predictor is the internal migration variable with four categories including ROC non-migrants, Quebec non-migrants, ROC to Quebec migrants, Quebec to ROC migrants. After controlling for potential confounders, it shows that compared to the reference group ROC non-migrants, Quebec non-migrants tend to trust significantly less reflecting the
well-established fact that trust is lower in Quebec than other regions of the country. However, two migrant groups, those who migrated away from the ROC to Quebec and those who came from Quebec do not seem to trust differently than the local non-migrants in the ROC. Model (2) repeats the analysis in Model (1) using the selected sample of adult migrants only. After controlling for all other variables, this model shows that both Quebec non-migrants and Quebec to ROC migrants have a significant lower trust than the reference group of ROC non-migrants, while little difference is found between the reference group and ROC to Quebec migrants.

Figure 3.4-1A & B visualize the odds ratios of trusting among the four groups in focus from Table 4. Figure 3.4-1A shows that Quebec non-migrants have about 43% less odds of trusting compared to ROC non-migrants. ROC to Quebec migrants have 18% less odds to trust and the gap is not significant. Quebec to ROC migrants have about 20% less odds to trust but the gap is not significant. Figure 3.4-1B is based on the sample of adult migrants only. It shows that ROC to Quebec migrants have only 7% less odds of trusting and that the gap is not significant. However, Quebec to ROC migrants have about 48% less odds of trusting and the gap becomes very significant. The gap is also at a similar level to that between ROC non-migrants and Quebec non-migrant (44%).

The regression results clearly indicate the importance of taking into consideration the time of migration. Without considering the time, we find that internal migration has mixed impacts on people’s trust. While migration from the ROC to Quebec does not seem to change people’s trust, migration from Quebec to the ROC has increased people’s trust as Quebec to ROC migrants show no significant lower trust than the local non-migrants in the ROC. However, if we consider only the adult migration, we consistently find that migration to a lower or higher trust place does not change migrants’ trust. ROC to Quebec migrants do not trust differently than
ROC non-migrants after living in Quebec, and Quebec to ROC migrants still have significantly lower trust than the local non-migrants regardless of how long they have lived in the more trusting ROC.
Table 3.4-2 Logistic regression estimating the effect of internal migration on trust

<table>
<thead>
<tr>
<th></th>
<th>Model (1) Overall</th>
<th>Model (2) Adult migration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Internal migration (ref. ROC non-migrants)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quebec non-migrants</td>
<td>-0.568***</td>
<td>-0.587***</td>
</tr>
<tr>
<td></td>
<td>(0.054)</td>
<td>(0.145)</td>
</tr>
<tr>
<td>ROC to Quebec migrants</td>
<td>-0.205</td>
<td>-0.071</td>
</tr>
<tr>
<td></td>
<td>(0.186)</td>
<td>(0.429)</td>
</tr>
<tr>
<td>Quebec to ROC migrants</td>
<td>-0.218</td>
<td>-0.649*</td>
</tr>
<tr>
<td></td>
<td>(0.139)</td>
<td>(0.322)</td>
</tr>
<tr>
<td><strong>Controls</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female (1=yes, 0=no)</td>
<td>-0.180***</td>
<td>-0.178</td>
</tr>
<tr>
<td></td>
<td>(0.039)</td>
<td>(0.109)</td>
</tr>
<tr>
<td>Age (group of 10, 1-7)</td>
<td>0.162***</td>
<td>0.223***</td>
</tr>
<tr>
<td></td>
<td>(0.015)</td>
<td>(0.039)</td>
</tr>
<tr>
<td>University (1=yes, 0=no)</td>
<td>0.456***</td>
<td>0.568***</td>
</tr>
<tr>
<td></td>
<td>(0.044)</td>
<td>(0.119)</td>
</tr>
<tr>
<td>Household income (scale, 1-8,12=not stated)</td>
<td>-0.007</td>
<td>-0.012</td>
</tr>
<tr>
<td></td>
<td>(0.006)</td>
<td>(0.017)</td>
</tr>
<tr>
<td>Visible minority (1=yes, 0=no)</td>
<td>-0.420**</td>
<td>-0.789</td>
</tr>
<tr>
<td></td>
<td>(0.140)</td>
<td>(0.560)</td>
</tr>
<tr>
<td>First Nation People (1=yes, 0=no)</td>
<td>-0.324***</td>
<td>-0.323</td>
</tr>
<tr>
<td></td>
<td>(0.096)</td>
<td>(0.280)</td>
</tr>
<tr>
<td>Subjective wellbeing (scale, 1-11)</td>
<td>0.096***</td>
<td>0.078*</td>
</tr>
<tr>
<td></td>
<td>(0.013)</td>
<td>(0.031)</td>
</tr>
<tr>
<td><strong>Marital status (ref. married/common-law)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>0.086</td>
<td>0.284</td>
</tr>
<tr>
<td></td>
<td>(0.055)</td>
<td>(0.170)</td>
</tr>
<tr>
<td>Other</td>
<td>-0.097</td>
<td>-0.181</td>
</tr>
<tr>
<td></td>
<td>(0.052)</td>
<td>(0.141)</td>
</tr>
<tr>
<td>Religion (1=yes, 0=no)</td>
<td>-0.193**</td>
<td>-0.280</td>
</tr>
<tr>
<td></td>
<td>(0.062)</td>
<td>(0.163)</td>
</tr>
<tr>
<td>Urban (1=yes, 0=no)</td>
<td>-0.224***</td>
<td>-0.257*</td>
</tr>
<tr>
<td></td>
<td>(0.046)</td>
<td>(0.113)</td>
</tr>
<tr>
<td><strong>Region (ref. Atlantic)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ontario</td>
<td>-0.107</td>
<td>-0.070</td>
</tr>
<tr>
<td></td>
<td>(0.061)</td>
<td>(0.146)</td>
</tr>
<tr>
<td>Prairie region</td>
<td>-0.166**</td>
<td>-0.130</td>
</tr>
<tr>
<td></td>
<td>(0.060)</td>
<td>(0.153)</td>
</tr>
<tr>
<td>British Columbia</td>
<td>-0.043</td>
<td>0.032</td>
</tr>
<tr>
<td></td>
<td>(0.076)</td>
<td>(0.189)</td>
</tr>
<tr>
<td>Constant</td>
<td>-1.186***</td>
<td>-1.215**</td>
</tr>
<tr>
<td></td>
<td>(0.154)</td>
<td>(0.368)</td>
</tr>
</tbody>
</table>

**N**: 23389, 2898

Standard errors in parentheses

*p < 0.05, ** p < 0.01, *** p < 0.001
Figure 3.4-1 Comparing odds of trusting among migrants and non-migrants in Canada (ref: ROC non-migrants)

Table 3.4-2 reports the average treatment effect on the treated (ATET) with controls for household income, level of education, gender, age, marital status, urban-rural, religion, visible minority, first nation people and region of Canada. When a matched sample is employed, Model (3) shows that in the ROC, migrants from Quebec still have a significant lower trust than the local non-migrants (odds ratio=0.899). In contrast, Model (4) shows that in Quebec, migrants from the ROC have a significant higher trust than local non-migrants (odds ratio=1.095). Taken together, the overall results suggest that people form their trust early in life in the place where they grew up, and their learned trust persists even if they moved to a different trust environment.

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3.5  Speak “trust”?  

While the regional difference between Quebec and the rest of Canada seems very real, as both French and English are official languages in the country language may be even more salient a dividing line (Hwang, Andersen, and Grabb 2007; Uslaner 2012). Between French Canadians and English Canadians, the two largest ethnic groups, scholars find that Francophones are significantly less trusting than Anglophones (Soroka, Helliwell, and Johnston 2007; Hwang 2013; Stolle and Uslaner 2003). For instance, Uslaner’s (2012) analysis of the 2008 General Social Survey shows that Francophones (30%) are only half as trusting as Anglophones (about 60%). The fact that Francophones are less trusting and that Francophones are also concentrated in Quebec presents the need to detail whether it is the language/ethnicity (French cultural heritage) that leads to these significant trust gaps in Canadian society.

Taking advantage of the regional difference in trust between Quebec and the rest of Canada, as well as trust gap between French Canadians and English Canadians-two major ethnic groups in Canada, I further investigate how French Canadians might trust differently than English Canadians in and outside Quebec using Statistic Canada’s 2013 General Social Survey.

<table>
<thead>
<tr>
<th></th>
<th>Model (3)</th>
<th>Model (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Quebec</td>
<td>Quebec</td>
</tr>
<tr>
<td>ROC</td>
<td>ROC</td>
<td></td>
</tr>
<tr>
<td>ATE</td>
<td>0.899**</td>
<td>1.095*</td>
</tr>
<tr>
<td>Quebec to ROC migrants</td>
<td>(-3.10)</td>
<td>(2.05)</td>
</tr>
<tr>
<td>ROC to Quebec migrants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>18561</td>
<td>4828</td>
</tr>
</tbody>
</table>

t statistics in parentheses  
* p<0.05, ** p<0.01, *** p<0.001
Exploring the interaction effects between region and language provides another way to separate the theories of trust. Based on language as a cultural indicator, if trust comes from culture, we expect that Francophones who live outside Quebec will have similar trust than those from Quebec, and they will trust less than Anglophones. If trust comes from personalized experience of interacting more trusting people, we expect Francophones who live outside Quebec will have more trust than those in Quebec given the higher trust environment in other regions of Canada they currently live in.

**Figure 3.5-1** Percent who say that most people can be trusted across ROC Anglophones, QC Anglophones, QC Francophones, and ROC Francophones

<table>
<thead>
<tr>
<th>Population Group</th>
<th>Percent Trusting People</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROC Anglophone</td>
<td>61%</td>
</tr>
<tr>
<td>QC Anglophone</td>
<td>49%</td>
</tr>
<tr>
<td>QC Francophone</td>
<td>34%</td>
</tr>
<tr>
<td>ROC Francophone</td>
<td>43%</td>
</tr>
<tr>
<td>Total</td>
<td>54%</td>
</tr>
</tbody>
</table>

Figure 3.5-1 compares the descriptive trust levels across four population groups in focus, namely, ROC Anglophone, QC Anglophone, QC Francophone, and ROC Francophone. Across Canada, more than half (54%) Canadians indicated that they can trust people in general. As expected, we see significant gaps between people in and outside Quebec, and between Anglophones and Francophones. Francophones in Quebec trust the least. Only 34% have faith in
others. In contrast, Anglophones outside Quebec in the rest of Canada trust the most, trusting twice as much than Francophones in Quebec (61%). Anglophones in Quebec and Francophones outside Quebec have trust levels in between. Whereas Anglophones in Quebec (49%) have about 12% less trust than their counterparts outside Quebec, Francophones outside Quebec (43%) have 9% more than those in Quebec.

Figure 3.5-2 Predicted probabilities of trusting across ROC Anglophones, QC Anglophones, QC Francophones, and ROC Francophones

Figure 3.5-2 further details the predicted probabilities of trust from the multivariate regression across ROC Anglophones, QC Anglophones, QC Francophones, and ROC Francophones. It shows that the 95% confidence intervals of the predicted probability of trust
among Francophones overlaps with the confidence interval of the predicted trust probability among Francophones outside Quebec. Taken together, my analyses show that 1) Francophones trust less in and outside Quebec, and 2) Francophones outside Quebec trust little differently than those in Quebec. This is to say that Francophones outside Quebec still retain their cultural heritage of being low trusters, despite living in provinces where people are relatively more trusting. Therefore, the use of language as an indicator of cultural influence also yields significant support for the cultural theory of trust.

3.6 Conclusion

Previously, Soroka et al. (2007) find that moving to Quebec is likely to reduce a non-Francophone’s trust and they conclude that trust does respond to context. However, it is important to ask when did the “moving to Quebec” happen? If people moved to Quebec when they were very young or they have moved to Quebec for a very long time, their low trust might be shaped by culture rather by experiences. The culture theory expects an acculturalization of trust among those who have been socialized within Quebec French culture, and constantly interacting with Francophones. The fact that many studies have found that the second, third, or higher generation immigrants tend to adapt more to the level of trust of natives in the destination country than do first generation immigrants (e.g., Dinesen and Hooghe 2010; Moschion and Tabasso 2014) demonstrates that they might be socialized with destination culture rather than the culture where their ancestral roots are. Hence, these narrowing trust gaps between higher generation immigrants and the native-born might reflect the cultural influence on trust rather than the effect from their institutional experiences. Indeed, according to the cultural theory of trust, people’s trust does change, albeit very slowly (Uslaner 2002).
In this chapter, I am able to separate between child migration and adult migration. The mixed effects from child migration suggest that it is possible that those migrants were born in Quebec but moved to the rest of Canada during their primary socialization period. For those migrants, they were born in Quebec but grew up and were socialized in non-Quebec culture. Therefore, Quebec culture might have limited impact influence on them. Because they were socialized outside Quebec, their trust is close to the people in ROC rather than to the people from their province of origin Quebec. In contrast, we have consistently shown that adult migration does not change people’s trust. Specifically, Canadians who were brought up in low trust Quebec did not become more trusting after they moved out to live in the rest of Canada, and Canadians migrated from other provinces to live with low trust Quebecers did not lose trust. The overall results suggest that people learn to trust early in life from where we grew up and that the learned trust tends to persist through the life. The new research design that considers the moves from international migration to internal migration, takes the time of migration into consideration, and pays greater attention to the self-selection bias of immigrants lends significant support for the cultural theory of trust.
Chapter 4: How is Trust Transmitted Intergenerationally? A Dyadic Approach

In Chapter 2 and Chapter 3, I examined whether the experience of moving from a high to a low trust place changes migrants’ trust and vice versa. I considered Quebecers and U.S. Southerners (both have low trust) and whether they become more trusting when they move to high trust places. The overall findings show that migrants’ trust come from the place where they grew up, and that it does not respond to their new experiences in the hosting destination. Several studies have also suggested that people form their trust in pre-adulthood and that their trust appears to stabilize after becoming an adult (Abdelzadeh and Lundberg 2017; Dawson 2017). In Chapter 2, I found that child migration does seem to show mixed effects. While adult migration does not make people more (or less trusting) when moving to a higher (or lower) trust environment, child migration from Quebec to other regions of Canada where people are more trusting does seem to lead to higher trust among migrants. This is to say, when migrants were young when they migrated, they could still learn to trust. If people learn to trust as a child, what is the specific process?

In this chapter, I examine the intergenerational transmission of trust and focus on the potential underlying mechanisms. In fact, to investigate the formation of trust, a growing literature has considered the intergenerational transmission of trust (Katz and Rotter 1969; Rotenberg 1995; Dinesen 2012; Dohmen et al. 2012; Ljunge 2014; Moschion and Tabasso 2014; Giulietti et al. 2016). In this line of literature, scholars assume that a significant transmission of trust from parent to child means that trust is learned during early childhood socialization,
whereas limited transmission means that trust is a response to adult experiences. However, conclusions from these studies are also mixed. Some find that trust is largely predetermined by trust of their parents (Rotenberg 1995; Dohmen et al. 2012), others show that intergenerational transmission of trust is rather weak implying that trust is malleable and it reflects individuals’ changing experiences (Dinesen 2012; Guilietti et al. 2016).

Furthermore, while previous studies focus on the extent of the intergenerational transmission of trust, the mechanism underlying the transmission has been largely overlooked (Dinesen 2009; 2012). Some argue that trusting parents bear trusting children primarily due to parental socialization (Erikson 1950; Rotenberg 1995; Uslaner 2000; Dohmen et al. 2012), some suggest it could also be due to confounding factors that affect both parent and children’s trust (Dinesen 2009; Guilietti et al. 2016; see also Wilkes and Wu 2018), while others point to the genetic makeup shared by parents and children (Harris 1995; Sturgis et al 2010; Krueger et al. 2012). Thus far, it is unclear whether the process of this intergenerational transmission is due to shared life experiences, a result of parental socialization, or is purely genetic.

In his widely cited book *Childhood and Society*, Erikson (1950) put forward the view that the first stage of psychosocial development for human beings is learning to trust. Infants will learn to trust in adults if their parents are responsive and sensitive to their needs. Otherwise, they will grow up with a sense of mistrust in people and in the world. Attachment theorists suggest that parents serve as role models in many domains, including interpersonal relationships and trust (Bowlby 1982, 2012; King 2002; Weisner 2014). Where there is a positive role model in a healthy parental relationship, children can learn this trust; where there is interpersonal breakdown, it can create difficulty trusting others as children grow older. There are long-term effects of divorce and living in conflict-ridden households (Franklin et al. 1990; King 2002;
Stolle and Hooghe 2004; Dinesen 2009; Eibach and Mock 2011). To explain the decline in trust, several studies have also pointed to modern parenting. For example, Stolle and Nishikawa (2011) argue that because parents have become increasingly aware of news reporting about crime and stranger abduction of children, they attempt to instill distrust of strangers in their children. Similarly, Eibach and Mock (2011) show that when parents are more vigilant and protective, their children tend to develop a lower trust in strangers growing up.

Focusing not only on the extent but also the underlying mechanisms, in this chapter I adopt a dyadic approach to intergenerational transmission of trust. The dyadic approach differentiates same sex (mother-daughter and father-son) and cross-sex (mother-son and father-daughter) dyads and investigates whether the transmission pattern varies across these four parent-child dyads. In line with Dinesen (2009), I argue that comparing patterns of trust transmission across four parent-child dyads provides a way to test whether trust results from cultural socialization, changing experiences, or genetic inheritance. My focus in this chapter is adolescents aged 10-15. My analyses of a unique parent-child paired data created from the Chinese Family Panel Studies (2012-2014) show that mothers are more influential than fathers in shaping the trust of both sons and daughters. Sons adopt trust from both their mother and father. Daughters only adopt trust from their mother but not from their father. Specifically, with a trusting father, adolescent boys have 97% greater odds of trusting than those who do not have a trusting father, while adolescent girls have only 18% greater odds of trusting and the effect is not statistically significant. With a trusting mother, adolescent boys have 44% greater odds of trusting, while adolescent girls have 164% greater odds of trusting. These varying transmission patterns suggest that mothers and fathers play differential roles in socializing trust to their sons and daughters. This finding is consistent with decades of research that show mother-son, mother-
daughter, father-son, and father-daughter are distinct relationships and mothers and fathers play differential roles in socializing their children (Harris and Morgan 1991; Russell and Saebel 1997; Raley and Bianchi 2006). Therefore, this research suggests that parental socialization is more likely to be the key process in transmitting trust intergenerationally from parents to children (Erikson 1950; Katz and Rotter 1969; Rotenberg 1995; Uslaner 2000).

4.1 Intergenerational transmission of trust

To study the formation of trust, a growing literature has considered whether trust could be a value transmitted intergenerationally from parents to children (Katz and Rotter 1969; Rotenberg 1995; Dinesen 2012; Dohmen et al. 2012; Ljunge 2014; Moschion and Tabasso 2014; Giulietti et al. 2016). The majority of these studies show that children’s trust is highly correlated to their parents’ trust. For example, focusing on teenagers in the U.S., Katz and Rotter’s (1969) study shows that 75% of teenagers’ basic trust is explained by their parents’ trust. Using the German Socio-Economic Panel data, Dohmen et al. (2012) have shown that trust attitudes are strongly and positively correlated between parents and children and that such correlations are unchanged with controls for personal and environmental characteristics. Using the same data but focusing on the invariance component of trust across three waves-how much people change their across three time points- Giulietti et al (2016) show that parents' permanent trust accounts for approximately 20% of the variance of children's trust.

There has also been a growing literature that considers the intergenerational transmission of trust among immigrants (Uslaner 2008; Dinesen and Hooghe 2010; Moschion and Tabasso 2014). Ljunge (2014), for instance, has examined the intergenerational transmission of trust by studying children of immigrants in 29 European countries with ancestry in 87 nations. He finds
that trust of parents’ country of birth has a significant impact on immigrants’ trust over generations. Focusing on Denmark, Dinesen (2012) has used a survey that includes data on both children and parents within the same immigrant family and examines whether trust of immigrant children (first generation or second generation) is transmitted by their immigrant parents. Based on the significant intergenerational trust gap between immigrants and their parents, he concludes that trust reflects immigrants’ own experiences in the host country. This is in direct contradiction to the majority of studies that show a significant transmission of trust from parents to children. However, the transmission process could vary across cultures (Schönpflug 2001). Therefore, the study of intergenerational transmission among immigrants could be problematic if we fail to consider immigrants’ diverse cultural backgrounds that could impact the specific transmission process.

While previous studies show that higher trust of parents leads to higher trust of their children- the specific process through which trust is transmitted from parents to children is not well-understood (Dinesen 2009; 2012). Some argue that trusting parents bear trusting children primarily due to parental socialization (Erikson 1950; Rotenberg 1995; Uslaner 2000; Dohmen et al. 2012), some suggest it could also due to confounding factors that affect the trust of parents and of their children (Dinesen 2009; Giulietti et al. 2016; see also Wilkes and Wu 2018), while others point to the genetic makeup shared by parents and children (Harris 1995 Sturgis et al. 2010; Krueger et al. 2012). Thus far, it is unclear whether the process of this intergenerational transmission is due to shared life experiences, a result of parental socialization, or is purely genetic. In what follows, I discuss three potential mechanisms in current literature, namely, parental socialization, genetic transmission, and upbringing experiences (see also Dinesen 2009; Dohmen et al. 2012).
4.1.1 Parental socialization

The majority of current studies assume that children adopt their trust from parents through a process of parental socialization. Following Erikson (1950), many developmental psychologists argue that trust is a core personality trait that individuals learn in early childhood and tends to persist in later life (Allport 1961; Bowlby 1979; Rotenberg 1956; 1995; see also Delhey and Newton 2003). Parental traits such as parental warmth provide the comfort and reliability that children integrate into their mental representation of the world. Children, then, who do not have such role models become distrustful adults (Bowlby 1977; Erikson 1993), whereas children who receive the trust of their parents and other socialization agents become more trusting adults. Therefore, parents teach children to trust because they are reliable and trusting. A child with inconsistent parents or parents who give affection unevenly learns not to trust. Given the influence of parents as the primary socializing agents, the relationship between the parent and child play an essential role in learning trust (Maccoby 1992). Uslaner (1999; 2000; 2008) further develops this perspective into a cultural/socialization theory of trust. This theory posits that we learn to trust in others early in life from our parents, and the learned trust tends to stable through the life after we finished our primary socialization.

4.1.2 Confounding experience

A strong correlation between trust of parents and trust of children could also mean that there are confounding experiences that impact both trust of parents and trust of children. From an experiential perspective, scholars have shown that an individual’s trust varies according to the time period and circumstance it is tested in (Rothstein 2005; Dinesen and Hooghe 2010; Paxton and Glanville 2016). This malleability of trust implies that trusting parents and their children are not a product of socialization or cultural context but are born of the experiences that they have
both shared. For example, the parental effect could come from the fact that children and parents share similar cultural backgrounds or live in the same neighborhood. They share similar social and institutional experiences. A family, for example, who has lived in neighborhoods with high crime rates and poverty may learn to be distrustful of strangers, while one who has lived in secure neighborhoods may trust their neighbors willingly (Kennedy et al. 1998; Sampson et al.1997; Rosenfeld et al. 2007). Scholars have used the sibling effect on trust as a piece of evidence to support for the potential environmental factors shared both parents and children that are relevant to the formation of trust (Giulietti et al. 2016). Previously, many studies show that the trust of second-generation immigrants is highly correlated to their parents’ trust (Uslaner 2008; Dinesen and Hooghe 2010; Moschion and Tabasso 2014). However, this parental effect could mean that children and parents share ongoing experiences. For example, Chinese Canadians whose parents came from China are likely to share similar discrimination experiences with their parents. In this sense, a trusting child is not trusting because of what their parents have taught them, but because of shared experiences of discrimination and hardship (Wilkes and Wu 2018; Wilkes and Wu 2019).

4.1.3 Genetic inheritance

There has been on-going research that suggest human traits and personalities including value orientations and social behaviors such as trust may be genetically transmitted from parents to children (Alford et al. 2005; Sturgis et al. 2010; Wootton et al. 2016). For example, using a unique sample of more than 2,000 complete Swedish twin pairs, Oskarsson et al. (2012) show significant genetic influences on trust and across sexes. Similarly, based on a sample of over 7,000 adolescent twins from the United Kingdom’s Twins Early Development Study, Wootton et al. (2016) estimate the genetic and environmental influences on trust. They show broad
heritability estimates of 57% for generalized trust and 51% for trust in friends. This genetic theory suggests that even parents and children who have been in distrustful situations all their lives may exhibit trusting behaviors and that families who only experience positive interactions may remain distrustful. Accordingly, trusting parents could bear trusting children due to shared genetic makeup (Harris 1995; Sturgis et al 2010).

In conclusion, the parental effect on children’s trust could be cultural, experiential, or genetic. It is cultural if children learn trust in childhood from their parents through parental socialization. It is experiential if parents-children live in the same environment or have been undergoing similar life experiences. It could be simply genetic. These theories have yet to be definitely compared against each other and so there is no complete explanation for the correlation between parent-child trust (Dinesen 2010). In the following section, I introduce a dyadic approach with a goal to further disentangling these potential mechanisms underlying the transmission of trust.

### 4.2 A dyadic approach

Classic literature on intergenerational transmission suggests that it is important to differentiate the four parent-child dyads: father-daughter, father-son, mother-daughter, and mother-son. These four dyadic relationships are distinctive and have been found to influence children in different ways especially on measures of closeness/cohesion and affective reactions (Acock and Bengtson 1978; Collins and Russell 1991; Russell and Saebel 1997; Chaplin et al. 2005; Horstman et al. 2016). For example, Chaplin et al. (2005) show that mothers and fathers play differential roles in socializing the emotion expression of their boys and girls. Given the unique relational cultures that typically exist in mother–child versus father–child relationships,
Horstman et al. (2016) suggest that mothers and fathers may also respond differently to the changing needs of their children. In particular, mothers and fathers play different roles in socializing their children. This can be illustrated by the following three general points.

First, mothers are often more influential in socializing their children’s worldviews (Acock and Bengtson 1978; Tenenbaum and Leaper 2003; Klimes-Dougan et al. 2007). Mothers typically have a higher frequency of interaction with their offspring than fathers, which may result in a larger influence on the children’s learned behaviors and values (Pleck 2007). For example, although both fathers and mothers have shown to be significant figures in their offspring’s life, only mothers impact the child’s self-image and esteem (Amato 1994). Second, mothers and fathers also play different roles in socializing different types of worldview to their children. For example, mothers have a greater influence on political and religious socialization, while fathers often spend more time with their children in physical play (Acock and Bengtson 1978; Rotenberg 1995; Roggman et al. 2007). Finally, there is greater transmission between same-sex generational dyads than between cross-sex pairs. Fathers play a greater role in raising sons than daughters and have a greater interest and involvement with their sons regardless of the children’s ages (Brown et al. 2009; Brown and Davies 2009). Mothers and daughters, similarly, have shown stronger relationships growing up than fathers and daughters, not only due to role modeling but also the tendency to communicate more openly and directly (Fingerman 1996; Hagan and Kuebli 2007; Hallers-Haalboom et al. 2014). Fathers have also shown different parenting styles towards sons compared to daughters, whereas mothers appear to be more consistent in their treatment of children (Siegal 1987; Hallers-Haalboom et al. 2014). These studies suggest that mothers may influence both sons and daughters, but fathers are likely to focus efforts on sons alone.
Accordingly, if people learn to trust from their parents through parental socialization, we should expect that parents will be differently influential. In fact, several studies have shown that mothers are more important than fathers in transmitting trust (Dohmen et al. 2012; Ljunge 2014). As Dohmen et al. (2012) point out this is already a strong piece of evidence that indicates parental socialization is likely the key transmission process since, if trust is genetic, we would expect mothers and fathers have similar impacts on children (Wootton et al. (2016). Intergenerational transmission of trust is unlikely from genetic inheritance can be further supported through the widely-observed neighborhood effect on trust of genetically unrelated individuals (Sampson et al. 1997; Stolle et al. 2008). Finally, Dohmen et al. (2012) have shown that parents’ socioeconomic status and family structures condition the strength of transmission of trust from parents to children and this would lend support for the idea that parental socialization is more likely to be the underlying mechanism, rather than confounding experience or genetic inheritance. Indeed, we expect that effects of genes and environmental factors would be independent of parental characteristics and family conditions.

While the majority of previous studies of trust have separated between the effect of mother and the effect of father on their children (Dohmen et al. 2012; Dinesen 2012; Ljunge 2014; Giulietti et al. 2016), it is also important to take into consideration of the gender of the child. Mothers and fathers could impact their sons and daughters differently in terms of trust transmission. Two existing studies have distinguished between mother and father and also considered the gender of the child, but they have reported mixed findings. On one hand, Katz and Rotter (1969) show that whereas fathers have a strong and significant impact on trust of their sons, but have little effect on their daughters, mothers have a weaker but equal effect on trust of their sons and their daughters. On the other hand, Dohmen et al. (2012) provide separate models
for sons and for daughters but report no significant difference between impacts of mothers and fathers. Mixed conclusions suggest a strong need to further investigate the pattern of trust transmission across the father-daughter, father-son, mother-daughter, and mother-son dyads. A better understanding of the intergenerational transmission of trust and the underlying mechanism underlying will help disentangle the three different theories of trust. Indeed, as Dinesen (2009:107) also points out that “Apart from twin studies, which offer some unique opportunities for analyzing the relative impact of genes and environment, child-parent dyads in survey research offer the best potential for separating the multiple mechanisms underlying the transmission of trust from parents to their children”.

Figure 4.3-1 visualizes this dyadic approach. We expect to see one of the following three patterns in support of each of the three potential mechanisms underlying the transmission. The finding of one distinctive pattern will lend support towards one theory over the others.

**Figure 4.2-1** A dyadic approach to intergenerational transmission of trust

\[
s_{trust} = \phi(M_t, F_t) \\
D_{trust} = \phi(M_t, F_t)
\]
Where $s_{\text{trust}}$ indicates trust of sons and $D_{\text{trust}}$ indicates trust of daughters, and they might be *equally or unequally* correlated to trust of their mother and their father $\phi(M_t, F_t)$.

### 4.2.1 Socialization pattern

First, if the underlying mechanism is parental socialization, we are more likely to see that pattern of trust transmission would vary across the four parent-child dyads given the fact that father-daughter, father-son, mother-daughter, and mother-son are distinctive dyadic relationships and that mothers and fathers are likely to play differential roles in socializing their sons and their daughters. Previous literature suggests that, overall, mothers are more influential than fathers in socializing both sons and daughters (Rotenberg 1995). In terms of trust, studies have already shown that mothers are more important than fathers in transmitting trust (Dohmen et al. 2012; Ljunge 2014). Nevertheless, if we can further test that the size of effect from mothers on sons ($M_s$) will also be different from mothers on daughters ($M_d$), and the size of effect from fathers on sons ($F_s$) will also be different from fathers on daughters ($F_d$), then we be more confident in concluding that it is parental socialization rather than genetic inheritance or confounding experiences that mainly account for the transmission of trust. Based on previous literature, we are more likely to see a socialization pattern: $M_d \neq M_s \neq F_d \neq F_s$

### 4.2.2 Confounding pattern

If the intergenerational transmission of trust is due to similar social and institutional contexts in which both parents and children live and similar experiences they share, then whatever factors that affect trust of mothers and fathers would have similar impact of their children, or even if gender interacts with the environment, we would expect that mothers have similar impact on both sons and daughters and fathers have similar impact on both sons and daughters since genes from the same mother or father should have similar impact on sons and on
daughters. Therefore, we are likely to see a consistent effect across mothers-sons ($M_s$), mothers-daughters ($M_d$), fathers-sons ($F_s$), and fathers-daughters ($F_d$). Hence, we are less likely to see a confounding pattern: $M_d = M_s \& F_d = F_s$

4.2.3 Genetic pattern

If the intergenerational transmission of trust is purely genetic, we are more likely to expect that mothers and fathers will play an equal role in shaping trust of their children (Dohmen et al. 2012). For example, in their investigation of the genetic basis of trust, Oskarsson et al. (2012) show significant genetic influences are consistent across sexes of children. Therefore, we are likely to find that the size of effect from mothers on sons ($M_s$) will be similar to the size from mothers on daughters ($M_d$) and the size of effect from fathers on sons ($F_s$) will be similar to the size from fathers on daughters ($F_d$). Recently, Van Lange et al. (2014) use an extended twin design and conclude that genetic influence on trust in an adult sample was ‘virtually absent’. Accordingly, they conclude that we learn to be trusting from cultural transmission and environmental factors. Hence, we are less likely to see a genetic pattern: $M_d = M_s = F_d = F_s$

4.3 Analytics strategy

4.3.1 Data

The data come from the Chinese Family Panel Studies (CFPS, 2010-2014; see more http://www.isss.pku.edu.cn/cfps/EN/). The CFPS is a longitudinal household survey conducted every two years since 2010 on Chinese individuals, their families and their communities (Xie and Hu 2014). Thus far, three waves (2010, 2012, and 2014) have been conducted. Part of this survey is a child’s self-report section which collects information on topics such as social interaction, health, values and self-esteem among Chinese adolescents aged 10-15 in each
household. The trust question was not asked in the 2010 wave and was asked only among respondents who were 11, 13, and 15 in the 2012 wave for the child’s self-report section. Those who replied to the 2012 question were not asked again in 2014. Hence, while this study will use data from both the 2012 and the 2014 wave, it is not panel in structure and I am not able to consider changes in trust over time among the same individuals.

To predict how trust of mothers and trust of fathers shapes the trust of their adolescent sons and daughters, I create a parent-child paired dataset. Specifically, I use father’s personal ID (pid_father) and mother’s personal ID (pid_mother) in the child’s self-report section and match it to the parental information and pids in the adult section of the survey. Using this ID information, I merged the 2012 wave child survey with the 2012 adult survey and then the 2014 wave child survey with the 2014 adult survey. In the final step, I appended the merged 2012 wave parent-child data to the merged 2014 wave to create a global matched dataset. Listwise deletion of missing values on key variables in analyses yields a total sample of 2,015 adolescents with 1,031 sons and 940 daughters across 1,918 households.

4.3.2 Measures

The dependent variable –child’s generalized trust- is measured using the CFPS’s question

*In general, do you think that most people are trustworthy, or it is better to take greater caution when getting along with other people.* It is a binary variable with 0 corresponding to *The greater caution, the better,* and 1 to *Most people are trustworthy.* I use gender to distinguish between sons and daughters. Trust of fathers and mothers: Two major independent variables are trust of father and trust of mother. Both are measured using the same trust question *In general, do you think that most people are trustworthy, or it is better to take greater caution when getting along with other people* asked in adult section. Both are yes/no binary variables. This measure of trust
has been widely used and validated as an effective measure of people’s generalized trust (Algan and Cahuc 2010; Fairbrother and Martin 2013).

To control for potential confounding effects, the estimations include controls for major individual characteristics that might shape trust of adolescent children. These include demographic variables such as age (in years, 10-15), urban (1=urban, 0=rural), and level of education (grade level) as well as self-rated health (1=poor; 5=excellent), social participation (1=yes, 0=no), and self-perception of happiness, popularity, confidence, and how well they get along with others (all are coded using a 0-10 scale). To measure the child-parent relationship, I include each adolescent respondent’s level of trust in their parents (also using the 0-10 scale).

Parental background: I control for the characteristics of both mothers and fathers including age (in years), level of education (the highest degree obtained, 1-7), and their relative income in their local area (level 1-5). I use relative income instead of their total personal income because the total personal income contains a large number of missing values. Additional estimations indicate that the overall results are similar if we use the total income measure.
Table 4.3-1 Coding scheme and descriptive statistics of key variables in analysis

<table>
<thead>
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<th>Variable</th>
<th>Coding scheme</th>
<th>Overall (n=2,015)</th>
<th>Son (n=1,031)</th>
<th>Daughter (n=940)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean Std. Dev.</td>
<td>Mean Std. Dev.</td>
<td>Mean Std. Dev.</td>
</tr>
<tr>
<td><strong>Generalized trust</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust</td>
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<td>0.55 0.5</td>
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<tr>
<td>Father trusts</td>
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<td>Mother trusts</td>
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<td>0.49 0.5</td>
<td>0.49 0.5</td>
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<tr>
<td><strong>Adolescent characteristics</strong></td>
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<td></td>
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<td>Age in years, 10-15</td>
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<td>12.38 1.69</td>
<td>12.49 1.72</td>
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<td>Urban</td>
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<td>0.42 0.49</td>
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<td>8.04 1.99</td>
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<td>Confidence level, 0-10</td>
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Table 4.4-1 shows the coding and descriptive statistics, including the means (or percentages) and standard deviations for all variables both and then by sons, and daughters individually. Overall, Chinese adolescents are generally trusting with 56% reporting that most people can be trusted. There is also little gender difference in trust between boys (55%) and girls (56%). Among their adult parents, fathers (55%) are relatively more trusting than mothers (49%). Overall, the gap is small across the board between adolescent boys and girls (1%) and between mothers and fathers (6%). The focus of this study however are potential hidden patterns of how adolescents with and without a trusting mother or father might trust differently.

### 4.3.3 Methods

The adolescent children in this study are 10-15 years old and their trust is coded as a yes/no binary outcome. Statistical analyses are based only on paired data with both parent-
reported and child-reported information on trust and all other covariates. Mixed effects logistic regression models are used to estimate how parental trust might affect trust of adolescent children. The multilevel logistic regression models adopted here can be expressed using the following equation:

\[
\log \left( \frac{\text{trust}_{ij}}{1 - \text{trust}_{ij}} \right) = \beta_0 + \beta_1 \text{father}_{ij} + \beta_2 \text{mother}_{ij} + \beta_{\varphi} \text{child characteristics}_{ij} \\
+ \beta_{\varphi} \text{parental characteristics}_{ij} + \beta_4 \text{year}_2014 \\
+ \beta_\omega \text{province dummies} + u_{0j}
\]

Where \(\text{trust}_{ij}\) denotes the probability of giving a positive response to the binary trust question for the \(i\)th subject within the \(j\)th household. \(\text{father}_{ij}\) denotes a trusting father for the \(i\)th subject within the \(j\)th household and \(\text{mother}_{ij}\) denotes a trusting mother and \(\beta_1\) and \(\beta_2\) capture the estimated coefficients, respectively. \(\text{Child characteristics}_{ij}\) denotes a series of confounding factors including age, education, urban, level of happiness, self-rated health, self-perception of popularity, confidence, getting along well with others, and trust in parents. \(\beta_{\varphi}\) is a vector of corresponding coefficients. Parental characteristics are denoted using \((\text{parental characteristics})_{ij}\) that include education, age, and relative income of both mother and father of the \(i\)th subject within the \(j\)th household. \(\beta_{\varphi}\) is a vector of corresponding coefficients. Finally, I also control for \(\text{year}_2014\) with 2012 as the reference and include \(\text{province dummies}\) to control for fixed effects at the provincial level. \(u_{0j}\) is the random intercept at the household level. Estimations are carried out separately using the total sample that
includes both adolescent sons and daughters, the sub-sample of only adolescent sons, and the sub-sample of only adolescent daughters and repeatedly. All analyses are conducted using STATA 15.

4.4 Findings

Figure 4.5-1A & B compare the level of trust among adolescent sons (daughters) with or without a trusting mother (father). Figure 4.2A shows that 64% of adolescent sons say that most people can be trusted when they have a trusting father. If the father is not trusting, then only 46% of sons say that most people can be trusted. Among adolescent daughters, these numbers are 62% and 52%, respectively. Similarly, Figure 4.5-1B shows that when they have a trusting mother, 62% of adolescent sons are trusting but if they don’t, the number goes down to 48%. Among adolescent daughters, 66% say most people can be trusted when they have a trusting mother and 48% when they don’t. These descriptive patterns show that mothers and fathers play unequal and different roles in shaping the trust of their adolescent sons and daughters.
Figure 4.4.1 Comparing % saying most people can be trusted among adolescent sons and daughters with and without a trusting mother or father.

**A: Father trusts?**
- Son: 46% (No) and 64% (Yes)
- Daughter: 52% (No) and 62% (Yes)

**B: Mother trusts?**
- Son: 48% (No) and 62% (Yes)
- Daughter: 48% (No) and 66% (Yes)
To further determine how mothers and fathers affect trust of their sons and daughters differently, Figure 4.5-2 visualizes the influence gaps in trust among adolescent sons and daughters with and without a trusting father or with and without a trusting mother. As we can see, the gap in trust between adolescent daughters with and without a trusting mother is the largest (18.19% point difference), followed by the gap between adolescent sons with and without a trusting father (17.8% point difference), and then the gap between adolescent sons with and without a trusting mother (13.95% point difference). The gap is the smallest between adolescent daughters with and without a trusting father (10.33% point difference). These gaps illustrate that distinct relationships in the four dyads of mother-son, mother-daughter, father-son, and father-daughter lead to distinct intergenerational transmission patterns of trust.

Figure 4.4-2 Comparing influence gaps (the percentage point difference) in trust among adolescent sons and daughters with and without a trusting father or mother
Table 4.5-1 reports the results from a series of mixed effects logistic regression models estimating how trust of parents predicts the trust of their adolescent children. All models include demographic backgrounds of the adolescents and their social participation, heath status, as well as their perception of happiness, popularity, confidence, how well they get along with others, and their trust in parents. Both mother’s and father’s age, education, and relative income are included across models. Time effects and provincial differences are also considered in the models as well as the random effects at the household level. Figure 4.5-3 reports the related odds ratios from the models.

Model 1 considers how trust of both mother and father affect trust of their adolescent children in general without making the distinction between sons and daughters. In line with previous studies, the results show that, overall, both trust of father and trust of mother have a significant and positive impact on trust of their children. Specifically, having a trusting father will lead to an increase of 0.45 units in the log likelihood of being a trusting child, while having a trusting mother will lead to 0.584 units of increase in the log likelihood of being a trusting child. In terms of odds ratios, adolescents with a trusting father are 1.65 times more trusting than those without a trusting father (odds ratio=e^{0.499}=1.65), and adolescents with a trusting mother are 1.79 times more trusting than those without (odds ratio=e^{0.584}=1.79).

Model 2a-2c estimate how parents trust predicts the trust of their adolescent sons. Trust of father and trust of mother are highly correlated (tetrachoric rho = 0.34, p-value=0.000). To deal with the potential collinearity problem, I include trust of father and trust of mother in separate models given the high correlation between trust of father and trust of mother. Model 2a includes trust of father only, Model 2b include trust of mother only, while Model 2c includes both trust of father and trust of mother. The results show that having a trusting father will lead to
an increase of 0.70 units in the log likelihood of being a trusting son, while having a trusting mother leads to an increase of 0.51. Including both trust of father and trust of mother, we see relatively little change in the effect of father’s trust while the effect of mother’s trust changes from 0.51 down to 0.37. Taken together, we find that while both mothers and fathers are influential in shaping trust of their sons, fathers play a relatively greater role.

In a similar manner, Model 3a-3c estimate how trust of mother and trust of father predict trust of their adolescent daughters. Model 3a includes trust of father only, Model 3b include trust of mother only, while Model 3c includes both. However, results are very different from models on adolescent sons. Having a trusting father is found to have no significant impact on trust of their adolescent daughters, while having a trusting mother has the strongest impact overall on trust of their adolescent daughters. Specifically, Model 3b shows that, among adolescent daughters, those with a trusting mother are 2.5 times more trusting than those without (odds ratio=$e^{0.931}=0.254$). When we control for trust of father, the effect in Model 3c becomes even stronger. This shows that mothers are more influential than fathers in shaping their daughter’s trust. Figure 3 provides odds ratios comparing effects of trust of mother and trust of father on both trust of sons or daughters across three different models from Table 4.5-1.
Table 4.4-1 Mixed effects logistic regressions estimating parental effects on trust of sons and daughters

<table>
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<tr>
<th></th>
<th>Model (1)</th>
<th>Model (2a)</th>
<th>Model (2b)</th>
<th>Model (2c)</th>
<th>Model (3a)</th>
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Standard errors in parentheses
* p < 0.05, ** p < 0.01, *** p < 0.001
Finally, Figure 4.6 shows the predicted probabilities of trusting among adolescent sons and daughters in four situations. When both parents do not trust, trust of sons (42%) and trust of daughters (43%) are similarly low. When both parents trust, both trust of sons (68%) and trust of daughters (69%) are very high. In these two situations, we do not see significant differences between sons and daughters. However, more interesting patterns arise when we compare the trust of sons and daughters when only one of their parents is trusting. When only the father trusts, but the mother distrusts, the trust of sons (59%) is much higher than trust of daughters (53%). In contrast, when only the mother trusts, but the father distrusts, the trust of daughters (63%) is much higher than trust of sons (53%). Taken together, these numbers illustrate that mothers are
more influential than fathers in shaping their daughters’ trust while fathers are more influential in shaping their son’s trust. Moreover, mothers affect the trust of both sons and daughters, whereas fathers only affect the trust of sons but not daughters.

**Figure 4.4-4 Predicted % saying most people can be trusted among adolescent sons and daughters when both parents distrust, when only father trusts, when only mother trust, and both trust**

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<th>Daughter</th>
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<td>43</td>
</tr>
<tr>
<td>Only father trusts</td>
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<td>53</td>
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<tr>
<td>Only mother trusts</td>
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<td>63</td>
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<tr>
<td>Both trust</td>
<td>68</td>
<td>69</td>
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</table>

### 4.5 Conclusion

Society in general functions better with people trusting each other (Luhmann 1979; Putnam 2000; Yamagishi 2011; Uslaner 2018). However, significant variations in trust have been well documented among individuals and across social groups (Alesina and La Ferrara 2002; Delhey and Newton 2005; Wilkes 2012; Mewes 2014). The cultural theory posits that trust is learned in childhood from parents (Erikson 1950; Uslaner 2000). The experiential theory posits that trust is a result of day-to-day social interactions and institutional experiences (Barrera and van de Bunt 2009; Hardin 2002; Glanville and Paxton 2007). Finally, some argue that trust is
genetically transmitted from parents to children (Fehr et al. 2005; Kosfeld et al. 2005; Sturgis et al. 2010). Many also conclude that both cultural socialization as well as institutional experiences might matter for trust (Dinesen 2011; Helliwell et al. 2016).

Connecting this current literature on the origins of trust to the growing literature on the intergenerational transmission of trust (Katz and Rotter 1969; Rotenberg 1995; Dinesen 2012; Dohmen et al. 2012; Ljunge 2014; Moschion and Tabasso 2014; Giulietti et al. 2016), in this chapter I have introduced a dyadic approach to compare patterns of intergenerational transmission of trust across mother-son, mother-daughter, father-son, and father-daughter dyads. My analyses of the parent-child paired data I created from the CFPS (2012-2014) show that intergenerational transmission of trust from mothers to daughters is the strongest, followed by father-son, and then mother-son. There is little evidence of father-daughter transmission. The varying transmission patterns across dyads is consistent with decades of research that suggest mothers and fathers play different socializing roles in the moral development of their sons and daughters. Therefore, the overall finding provides substantial support for the cultural theory of trust: trust is a product of parental socialization, rather than from genetics or shared environment (Erikson 1950; Uslaner 2002; 2008; Dawson 2017).

This research produces three important contributions. First, this research is the first rigorous quantitative study addressing the intergenerational transmission of trust in Chinese society. It uses a unique parent-child paired data created from the widely-used China Family Panels Studies survey program. Second, this research also provides an alternative explanation for why high trust in China is possible. From an institutional perspective, Steinhardt (2012) has argued that high levels of generalized trust in China is a result of high levels of political confidence among Chinese citizens (see also Wu and Wilkes 2017; Wu and Wilkes 2018). Here,
I show that it is likely that high trust among Chinese is transmitted from their parents who grew up in close-knit rural communities where trust was high. In others, Chinese are still very trusting because their parents have high levels of trust. Third, it suggests future research looking into the intergenerational transmission process needs to consider the transmission patterns across parent-child dyads. As it is shown in this research, mothers and fathers play different roles in bringing up their sons and daughters. This dyadic approach comparing different patterns across the four dyads also provides a way to test the specific mechanism underlying.
Chapter 5: Conclusion

Trust reflects a person’s perception of goodwill and benign intent from others in society (Yamagishi 2011). When people trust others, they are happier, healthier, more satisfied with their life, and are more likely to achieve a higher socio-economic status (Coleman 2000; Lin 2002; Kawachi and Berkman 2000; Veenstra 2002). Trusting societies tend to have higher levels of social integration, economic growth, as well as better political performance and lower levels of crime, violence, and corruption (Fukuyama 1995; Knack and Keefer 1997; Putnam 2000; Uslaner 2002; Rothstein 2005; Warren 1999). Nevertheless, trust inequality is widespread. Across societies, trust is lower among the poor, the less educated, and among racialized groups. Trust is also lower in societies where inequality, segregation, conflicts are high, and the quality of political institutions is low (Putnam 2000; Rothstein 2011; Uslaner 2012). In fact, many agree that trust is a major cause of everyday inequalities among individuals as well as cross-nationally (Coleman 1998; Lin 2002; Kawachi and Berkman 2000; Putnam 2000; Uslaner 2002; 2018; Wilkes and Wu 2018).

The main goal of this research has been to address a long-standing debate between cultural and the experiential theories about the roots of trust. The cultural theory suggests that trust is a worldview rooted deeply in cultural heritage and early life socialization (Erikson 1950; Rotenberg 1995; Uslaner 1999; 2000; Stolle and Hooghe 2004; Dawson 2017). The experiential theory, on the other hand, suggests that we learn and update our trust in response to life experiences and throughout life (Rotter 1971; Offe 1999; Hardin 2002; Macy and Sato 2002; Glanville et al. 2013; Paxton and Glanville 2015). To separate between these two perspectives, instead of asking “who trusts?” or “where trust comes from?”, I have asked when do people learn
to trust in others? Specifically, I develop a life course approach and consider whether people are trusting because that is how they are raised early in life or whether they adjust their trust according to life course experiences. In particular, I have focused on the following two specific studies.

First, I have considered how migration from a low to a high trust place impacts people’s trust and vice versa. Previous studies use international migration as a natural experiment that can be used to compare cultural and experiential theories of trust (e.g., Dinesen 2012a; 2012b; 2013; Dinesen and Hooghe 2010; Rice and Feldman 1997; Nannestad et al. 2014; Uslaner 2008). Here I used internal migration and considered whether internal migration in Canada between French-speaking Quebec (where people are less trusting) and English-speaking provinces (more trusting) and in the U.S. between the South (less trusting) and the rest (more trusting) changes migrants’ trust. The logic is that, if people who migrate to regions with higher trust gain trust (or lose trust if they move to a place with lower trust) then this indicates that trust is responsive to experience. If people do not change their trust when they move, then this indicates that trust is stable and learned from early life socialization. The overall findings show that people learn to trust primarily during their early life socialization from their parents and social environment. Migrating to a different trust environment changes people’s trust very little. Taken together, this research further suggests that trust is one of the individuals’ core values that is acquired at an early age and remains relatively stable during the life cycle (Dawson 2017; Uslaner 2008).

Second, engaging with the literature on intergenerational transmission of trust (e.g., Algan and Cahuc 2010; Giulietti, Rettore, and Tonini 2016), I have explored whether the mechanism underlying this transmission is one of genetic influence, parental socialization, or shared experience. I adopted a dyadic approach to test whether people with trusting parents are more
likely to trust. Specifically, I considered how mothers and fathers play different roles in shaping the trust of their daughters and sons. I find that whereas adolescent boys adopt trust from both parents, adolescent girls adopt trust from their mother but not from their father. The transmission is greater between same-sex generational dyads than between cross-sex pairs. The overall finding is consistent with the conclusion from previous literature that mothers and fathers play different roles in socializing values to their sons and to their daughters (cites), thereby implying that parental socialization is the underlying mechanism for trust transmission.

5.1 Research limitations

One major limitation is the measure of internal migration used in both Chapter 2 and Chapter 3. In both chapters, I have used survey respondents’ region of birth (Chapter 3) or region of residence before age 16 (Chapter 3) as a proxy of migrants’ place of origin. Then I compared between this place of origin and their region of current residence to capture whether a respondent migrated internally within the country or not. However, admittedly, people could have migrated to many other places in between. We must acknowledge that tracking the migration history is very difficult to do using cross-sectional data. Ideally, if there were available panel data this could be used to track internal migrants before and after migration and their trust. This would produce better estimations regarding how internal migration might affect migrants’ trust.

Relatedly, I have compared the trust of internal migrants and non-migrants as a test whether migrants update their trust or not. In Chapter 2, I show that Southern migrants in non-South region have a similar level trust with non-migrants in the South. I then conclude that internal migration does not affect trust. The assumption is that non-migrants have the same level of trust with the time when migrants left their hometown. However, this assumption that the level of
trust in the place where they left has not changed is problematic (for a similar comment on this issue as it applies international migration please see Dinesen and Sønderskov 2018). In the U.S., for example, there has been a general decline in trust over time. Hence, future research needs to reflect on this assumption and address the potential change in trust over time.

Another limitation has to do with the measurement of trust. In this research, I used the three-item scale—whether most people can be trusted, whether most people are fair, and whether most people are helpful, and the single-item whether most people can be trusted as well as trust in strangers measures of trust. While these trust measures are widely used (Alesina and La Ferrara 2002; Putnam 2000; Paxton 2007; Wilkes 2011; Wilkes and Wu 2018), they also have limitations (Miller and Mitamura 2003; Reeskens and hooghe 2008; Sturgis and Smith 2010; Yamagishi 2011; Lundmark et al. 2016). For example, one longstanding issue is whether these measures are able to capture the same construct across respondents, time periods, cohorts as well as across cultures (Miller and Mitamura 2003; Robbins 2019). Do Southerners interpret the trust questions in the same way as those non-Southerners do? Their closer in-group relations might lead to a smaller radius of trust when responding questions about “most people” (Fukuyama 1995; Delhey et al. 2011). Do French Canadians have the same interpretation of strangers in mind as English Canadians when they respond to the question about their trust in strangers? Do Chinese children and parents have the same interpretation of these questions? The focus on single societies does help to minimize the measurement invariance problem relative to previous studies that compare trust of immigrants from diverse cultures around the world.

Finally, in this research I was not able to consider the potential contextual effects of the community where migrates migrated to. According to the group threat hypothesis, the larger the size of the minority group, the greater the threat to the majority group (Pottie-Sherman and
Wilkes 2017). Migrants are often the minority group in the destination place. In fact, specifically focusing on trust, studies have also shown the effects of contextual factors on trust including residential exposure to ethnic diversity, crime rate, poverty, inequality (Abascal and Baldassarri 2015; Dinesen and Sønderskov 2015; Sampson, Stephen and Earls, 1997; Ross et al. 2001; Marschall and Stolle 2004). Therefore, the specific contexts where migrants migrated to might have an effect. The work in this dissertation could be expanded to include smaller contextual units and include specific measures of the contextual factors in the models.

Despite these limitations, the results from my empirical analyses supported the arguments presented in each of my individual studies for several reasons. First, in this research I have studied three different societies (the U.S., Canada, and China), and find evidence to show that we learn to trust early on and that our learned trust tends to persist later in life. Second, the data I draw my conclusions on, including the U.S. GSS in Chapter 2, the Canadian GSS in Chapter 3, and the Chinese Family Panel studies, are of a high quality and are widely used by other scholars. The use of Propensity Score Matching (PSM) in both Chapter 2 and Chapter 3 further ensures the robustness of the results. In Chapter 4, I created a parent-child dataset from the Chinese Family Panel Studies that offers a unique opportunity to study the intergenerational transmission of trust across same sex (mother-daughter and father-son) and cross-sex (mother-son and father-daughter) dyads. Taken together, this research suggests that trust is indeed one of the individuals’ core values that is acquired at an early age and remains relatively stable during the life cycle. Trust is a cultural trait and people learn to trust from parents and early life socialization.
5.2 Significance of the research

This study makes several important contributions. First, the main purpose of this study is to address the cultural and the experiential debate in theories of trust. Substantively, the study provides strong evidence that cultural socialization early on matters for how people trust later in life. It suggests that trust is one of the individuals’ core values that is acquired at an early age and remains stable during the life cycle (Dawson 2017; Uslaner 2008). In fact, the debate between the cultural and experiential origins of generalized trust can be situated as part of a broader debate over whether individuals’ core values and identities are acquired at an early age and remain relatively stable during the life cycle or whether, alternatively, they are learned through contemporary social experiences and change in response to surrounding contexts (see also Sears 1990; Sears and Levy 2003; Stolle and Hooghe 2004; Dinesen 2012a). Hence, this investigation on whether trust comes from cultural inheritance through early life socialization or from changing social experiences contributes not only to the trust literature but more generally to the study of political and social attitudes (see also Stolle and Hooghe 2004; Dinesen 2012a:496; Giulietti et al. 2016:4).

Methodologically, in this research I have introduced to sociology two new and readily transferable methods, namely, internal migration as a quasi-experiment and a dyadic approach to the intergenerational transmission of trust. Internal migration can be used as a means of testing whether people develop their orientations and identities early in life and subsequently remains stable in later years or alternatively, whether they update their attitudes and behaviors in according to their changing life experiences. Future research might, for example, use this quasi-experiment method to study how urbanization (grew up in the rural before age 16, and then
migrated to the city) might lead to changes in people’s values orientations and social behaviors, thereby leading to cosmopolitan values.

The dyadic approach can be easily adopted in future research on intergenerational transmission of value orientations and social behaviors (Dinesen 2010). For example, if we want to determine whether individuals’ views toward social inequality is learned from socialization or shaped by the macro level environment, we can specifically compare intergenerational correlation across the four parent-child dyads. If the correlation is consistent across dyads, it would suggest that people’s views toward social inequality is more likely to be shaped by a shared environment by parents and children. The dyadic approach is also a promising strategy to test the specific process underlying the intergenerational transmission of value orientations (Dinesen 2010). If we want to determine whether individuals’ views toward social inequality are learned from socialization or are shaped by the macro level environment, we can specifically compare intergenerational correlation across the four parent-child dyads. If the correlation is consistent across dyads, then this would suggest that people’s views toward social inequality is more likely to be shaped by a shared environment between parents and children.

This research also yields contemporary implications for social inequalities given trust is one major cause for social inequalities. For example, in Chapter 2 on the South/non-South distinction, this study suggests that the higher rate of poverty in the South could be rooted in the distinct social relations among Southerners (Simpson 2006). This is because trust leads to economic growth (Algan and Cahuc 2010; Zak and Knack 2001), but trust is much lower in the South compared to other regions of the country (Simpson 2006; Irwin and Berigan 2013). This is similar to the case of Canada; the durable trust gap provides a way to understand further the regional inequality between Quebec and the rest of Canada. Finally, Chapter 4 suggests that
intergenerational transmission of trust could be one essential process leading to intergenerational inequalities in various social outcomes and inequalities given the far-reaching consequences of trust.

Essentially, trust is a micro level phenomenon and therefore we need to turn to the variation in trust at the individual level to explain trust differences at higher levels (Hardin 2002). In particular, this research points to a new direction to our understanding of the trust crisis. For example, to explain the widespread inequality in trust in societies we need to examine how individuals were brought up differently across cultures. To explain the decline of trust in many countries, we need to consider differences in early life socialization at the family level compared to prior times. To explain the cross-national variation in trust, we need to examine what country level factors that shape how people are socialized differently growing up.

Ultimately, the research in this dissertation provides a strong impetus for considering the relationship between early life socialization and trust (Abdelzadeh and Lundberg 2017; Stolle and Hooghe 2004). This research shows that people learn to trust from their family. Future research on trust should give greater emphasis to socialization theory and to parental influence—particularly that of the mother.
Bibliography


