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HOUSEHOLD RELOCATION AND THE RESTRUCTURING OF SOCIAL RELATIONSHIPS: INSIGHTS FROM SHARJAH, UAE

Shaima al Harmoudi[1], Varkki Pallathucheril[2]

Abstract

Over the span of a few decades, cities in the Arabian Peninsula have not only grown in size but they have also changed qualitatively. In a recent study set in the city of Sharjah, Al Harmoudi (2010) found a significant deterioration of the public realm in residential neighborhoods. In this paper, we provide some preliminary assessments of how the social health of residential neighborhoods has also changed, and how these changes might be related to changes in the physical fabric. We report on a study of 11 households that relocated from an old Sharjah neighborhood in the 1970s and 80s to newer neighborhoods. We find a significant diminishing of social capital accompanied this relocation that appears related to changes in lifestyle and physical fabric and interactions between the two.

1. Introduction

Herbert Gans (1959) documented how changes in the physical fabric of the city, in the form of havoc rendered by urban renewal projects in American cities, had major negative consequences for social relationships and individual welfare in those cities. Across the world, the physical fabric of cities continues to change in ways that could likewise weaken the social fabric and diminish welfare. Unlike the case of urban renewal, however, dramatic changes may be experienced by people and households voluntarily relocating to neighborhoods that are very different from where they used to be located.

Over the span of a few decades, cities in the Arabian Peninsula have witnessed an astonishing transformation. They have not only grown in size but they have also changed qualitatively. Elsheshtawy (2008) and others have studied the role of globalization in this transformation. The city of Sharjah, the third largest in the United Arab Emirates, is no exception to this trend. While house form and urban fabric have changed dramatically over time, this evolution has also been accompanied by transformations in social relationships and lifestyles (Mahgoob, 1999; Coles and Jackson, 2007; Al Harmoudi, 2010).

[1] American University of Sharjah, Sharjah, UAE – s.harmoudi@gmail.com
[2] American University of Sharjah, Sharjah, UAE – varkki@aus.edu

In a recent study, Al Harmoudi (2010) found that residential neighborhoods in the city of Sharjah from three different eras spanning six decades have very different morphological characteristics from each other. The net result of these changes appears to be a significant deterioration of the public realm. Al Harmoudi (2010) speculates on some of the factors driving these changes: rising expectations as a result of increasing affluence, the push for modernization, and the approach to urban planning in Sharjah. She left for later a set of questions regarding the consequences of these changes.

In this paper, we provide some preliminary assessments of how the social health of residential neighborhoods has changed, and how these changes might be related to changes to the physical fabric. We report on a study of 11 households that relocated from an old Sharjah neighborhood in the 1970s and 80s. We establish through structured interviews the social relationships that existed when they were resident in the neighborhood and how these were tied to the physical fabric of the neighborhood. We identify their new locations in the city and explain the factors driving this relocation. We then assess a number of aspects of their current situation: What is the extent and nature of social relationships within the new neighborhoods? How is this tied to the morphology of the new location? What are their interactions with their former neighbors?

In the next section, we briefly review the evolution of Sharjah and its neighborhoods, the literature on measuring the social health of neighborhoods, and linkages among social health, physical fabric, and lifestyle changes. In Section 3 we lay out the question that motivated this study, explore our methodological choices, and describe the research design underlying our work, which is summarized above. Section 4 presents details of what we learned about the spatial patterns of relocation and the experiences of women who moved between these neighborhoods. We conclude with what we learned about possible drivers of changes in individual social capital through relocation, some policy and planning responses, and an agenda for future research.

2. Background

In this section, we provide background on the city of Sharjah as well as the morphological evolution of residential neighborhoods in the city. This raises the question of the social consequences of this evolution. We briefly look at the literature on how the social health of communities has been characterized. This leads us to consider the links between social capital, the physical fabric, and lifestyle.

2.1 Sharjah and Morphological Evolution

Sharjah is the principal city in the Emirate of Sharjah, the third largest of seven emirates that make up the United Arab Emirates. Sharjah's economy was traditionally based on pearl harvesting in the gulf waters, nautical trade, and a small amount of farming and animal breeding on the scarce arable land surrounding the city. This changed when oil

was discovered in the region in the early 1970s, and the region grew wealthy as a result. Federation of the seven emirates in 1971 reinforced this inflection point in Sharjah's development trajectory as the new nation gained economic and political stature. Three decades later, a massive growth in the UAE's sovereign wealth resulted from a surge in oil prices. As a relatively stable setting, the UAE attracted much outside investment in real estate and other businesses. Dubai was the principal beneficiary of this boom, the effect of which was also felt in next-door Sharjah, where many of those employed in Dubai make their home.

In this timeframe, Sharjah has grown physically in a linear fashion from the original settlement, located along the shores of the Arabian Gulf, inland towards the desert. Older neighborhoods are closer to the shore and newer neighborhoods are further away. Neighborhoods along the shore, however, have been largely demolished and redeveloped as high-density residential areas; only scant traces remain of neighborhoods from before the discovery of oil. Sharjah's residential neighborhoods are quite segregated even as its public places reflect the great diversity of people and families drawn from around the world. UAE citizens, or *Emiratis*, live in neighborhoods made up of single-family dwellings. Expatriate households are typically located in neighborhoods with multi-family dwellings.

Sharjah neighborhoods have changed over time. When Emirati households are granted land in new neighborhoods at the edge of the city, they rent their current houses to expatriate families and move into newly constructed houses. As houses in old neighborhoods age further, expatriate families move out and are replaced by increasingly large groups of single expatriate men who work as laborers. When these houses are extremely dilapidated, they are torn down and replaced by multi-story apartment buildings.

Rapid economic and physical development in Sharjah has been accompanied by dramatic social change. The traditional, simple Emirati lifestyle has acquired many trappings of the West. Modernization, growth and consumerism in cities crowded with modern buildings or skyscrapers, polluting industries and huge shopping malls. Stable, historic neighborhoods are threatened by the sprawl that resulted in order to accommodate the growing demand for all forms of land uses, new modes of travel, new house forms, and new expectations.

Al Harmoudi (2010) studied the morphological evolution of residential neighborhoods in Sharjah. She demarcates three eras in this evolution using two inflection points: 1.) discovery of oil accompanied by unification of the UAE, and 2.) the spurt of wealth and development at the turn of the 21st century. In her morphological comparison across these three eras she found that 1) the organic pattern that is observed in older neighborhoods becomes much more regular and of a much coarser grain in newer neighborhoods, 2) houses and lots are much larger in newer neighborhoods and meet the need for privacy in different ways, 3) the connectivity of the street decreases with each passing era and neighborhoods appear less internally

integrated, and 4) the shorter and more connected streets in older neighborhoods generate more interesting dynamic experiences than is the case when moving through newer neighborhoods. The net effect of these changes is a diminishing of the quality of the public realm even as it is occupying a larger portion of the neighborhood. Al Harmoudi (2010) speculates that this evolution was driven by rising expectations caused by increasing affluence. The rising expectations were shaped and directed by a push to be modern. Finally, this push for modernization was manifested through the particular approach to urban planning that has been prevalent in Sharjah.

Al Harmoudi (2010) leaves for further research the question of the social consequences of this morphological evolution. There is anecdotal evidence that the public realm is playing an increasingly smaller role in the social lives of neighborhood residents. For example, children are less likely to be found playing in public areas in newer neighborhoods. Conversations with residents of the newer neighborhoods suggest that they are less socially connected with their neighbors than in the past. Not all these consequences can be linked to changes in the physical fabric. Some of these are probably driven more by changes in lifestyle. Most activities that used to take place in the public realm in residential neighborhoods are now conducted either within people's homes, which are walled off, or in privately-controlled public areas such as shopping malls which are away from the neighborhoods. Another observation to be found in Al Harmoudi (2010): households in the older neighborhoods were likely to be from the same family or at least the same tribe. This is much less true in the more recent neighborhoods.

2.2 Social Health of Neighborhoods

How might we measure the social consequences of these changes? Along what dimensions might these changes be measured? There has been a large amount and a wide range of research on the social health of residential neighborhoods in the United States and other western contexts that could provide a degree of guidance in answering these questions. Some of the constructs used to measure social health include neighborhood satisfaction, sense of place or community identity, and social capital. As the following discussion shows, each of these constructs seems to progressively shift the focus further up Maslow's hierarchy of needs.

Neighborhood satisfaction appears to be the earliest of these constructs to be deployed in measuring the social health of neighborhoods. Speare, Jr. (1974) proposes the notion of residential satisfaction, which is undergirded by individual or household characteristics, location characteristics, and social bonds. Social health plays only a small part in this measure; the index that emerges from a regression analysis does not include any explicit measures of social bonds. More recently, neighborhood satisfaction has become one of the bases for comparing urban quality of life in several world cities. Oktay et al. (2009) describe application of this measure to Famagusta in North Cyprus. In addition to

individual, household, and location characteristics, that study measures community participation and involvement, neighboring, and safety.

The notion of sense of place includes a greater focus on social health of the neighborhood. Shamai (1991) expresses dissatisfaction with earlier formulations of sense of place but does not break down the construct any further. He proposes an ordinal seven-point scale to measure sense of place using linguistic categories: ranging from no sense of place to located, belonging, attached, identifying with, involved, committed (in ascending order). Deutsch and Goulias (2009) use a formulation that subsumes the notion of neighborhood satisfaction. They also use measures of neighborhood attachment (person-environment bond), dependence (person-place association), and identity. Tapsuwan, Leviston, and Tucker (2009) use a similar set of measures and explain that identity refers to feelings about the physical fabric and how it provides meaning and purpose. Cuba and Hummon (1993) find that participation in the social life of the community is essential for community identity. Axford and Hockings (2005) use an expanded set of measures that additionally includes sense of belonging and commitment to the neighborhood.

Despite intellectual roots that reach back to Adam Smith and Max Weber (Bjørnskov, 2006), social capital is the more recently formulated measure of social health. It is also one of the few that has been applied in the Arab world (El-Said and Harrigan, 2009). Bjørnskov (2006) traces the term social capital to James Coleman, though it gained wider circulation through the work of Robert Putnam. At its simplest, social capital is the net effect of trust, reciprocity, and association with others; like other forms of capital, social capital is generally thought to facilitate economic advancement including the production of public goods and services such as health; Ferlander (2007) notes that social capital may have negative consequences. Much of the research based on this construct attempts to put a number on this net effect. Extensive critical discussions about social capital and its possibilities and limitations can be found in Durlauf (2002), Ponthieux (2004), and Ferlander (2007). Ferlander (2007) distinguishes between two levels (individual and collective) and two forms (bridging and bonding) of social capital.

El-Said and Harrigan's (2009) contribution is particularly useful because they provide a fascinating qualitative discussion of the evolution of social capital in Jordan starting from the tribal society that existed before independence from Britain in 1946 up until the present. They do not quantify social capital but the rich descriptions they provide are hugely valuable to those who seek to study social capital in Arab societies. They introduce two terms in Arabic that to a large extent represent social capital: *wasta* (political influence; a form of bridging) and *takaful al Ijtima'I* (social solidarity; a form of bonding). They list a number of components of social capital: "satisfaction with life; formal and informal associations and membership in and quality of participation in local community; generalized norms of trust and reciprocity; political engagement and perception of government institutions; communications (including variables related to media and proximity variables); everyday sociability; family, friends, and neighborhood connections; and the level of safety and crime" (p. 1237).

In the context of this list, the literature on neighboring could be useful. Key (1965) provides an early list of signs of neighboring: speaking acquaintanceships, casual visits, visits in the home, borrowing or lending things, doing other favors, parties and activities outside the neighborhood. Skjæveland, et al (1996) find four factors that subsume individual measures of neighboring: supportive acts, annoyance, attachment, and social ties. Lee, et al (1991) use a survey instrument with four categories of items: acquaintanceships, content and frequency of contacts, dealing with neighborhood problems, and judgments about neighbors. Campbell and Lee (1990) find that women exhibit more signs of neighboring.

2.3 Links to Changes in Physical Fabric and Lifestyle

The literature on the social health of neighborhoods contains virtually no discussion of how this might be related to the physical fabric of neighborhoods. One exception we encountered was in Kuo, et al (1998) who argue that neighborhood social ties may substantially depend on the informal social contact that occurs in the public realm of neighborhoods. The data they gathered on residents of urban public housing projects suggested that the use and characteristics of common spaces may play a vital role in the natural growth of community.

In this context, the detailed observations that Al Harmoudi (2010) presents on the ebb and flow of the level of privacy afforded in the neighborhoods she studied could be relevant. In pre-oil Sharjah, the neighborhood did not afford a great deal of privacy and there did not appear to be a great need for privacy. The mixing of families and tribes in post-unification neighborhoods triggered a greater need for privacy that was reflected in the configuration of houses and walls. Contemporary neighborhoods allow greater surveillance of the public realm from within the house but the houses themselves are still very private because they are set back and have tinted windows. It would seem likely that these changes have affected neighboring and social capital.

Despite these possible links, the literature points mostly to lifestyle drivers in changes to social capital. For example, Putnam famously refers to the propensity for Americans to go bowling alone rather than in groups. He also points to longer commutes as diminishing social capital. Care must, therefore, be taken to ensure that any findings of links to the physical fabric of neighborhoods are not confounded by parallel changes in lifestyle. Figure 1 captures the relationships described here.

Hunter (1979) warns of another way in which links to the physical fabric might be confounded. He writes of studies that focus too narrowly on the neighborhood and do not grasp the effect of its context end up with descriptions not explanations for observed phenomena. When societies evolve from rudimentary occupational, transportation, and communication systems to more complex systems, Schwirian (1983) writes that such cities witness greater social and spatial differentiation with profound implications for the social make-up of neighborhoods. If any changes are found in the social health of neighborhoods, some of these changes may be driven by evolution of the broader system rather than observed changes to the physical fabric.

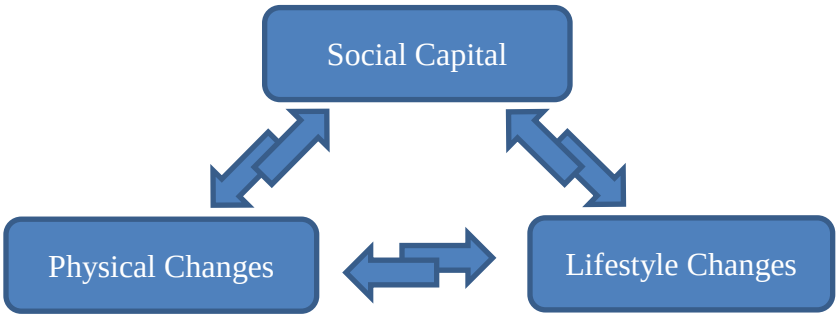

Figure 1: Inter-relationships among social capital, physical changes, and lifestyle changes

3. Research Questions and Method

The primary question we seek to address in this paper is as follows: What have been the impacts of morphological changes in Sharjah neighborhoods on the social health of neighborhoods? Al Harmoudi (2010) has already delineated some of the changes to the physical fabric. To understand how changes to the physical fabric in Sharjah neighborhoods have affected social health, we must identify and measure the changes that have taken place in social health of neighborhoods.

Two research designs for answering this question present themselves. The first would involve measuring social health in two or more neighborhoods with different physical fabrics. (This would be along the lines of Al Harmoudi's [2010] research design.) This design has the advantage that broader contextual factors remain comparable when measurements are taken. A second research design is made possible by the pattern of residential relocation common among Emirati families in Sharjah. As discussed earlier, families that lived in pre-oil neighborhoods relocated to newer parts of the city to take advantage of new housing or grants of land and money for new house construction. Recounts and assessments by individuals of their experience in different eras would provide data that can be used for comparisons between the different neighborhoods they lived in and inferences about the changes.

We opted for the latter research design primarily because there are no prior studies of social capital in our context, and there is not an available instrument we could apply. Our research requires generating hypotheses rather than testing them. We expected to gather richer data to generate hypotheses through this research design. In the 1970s and 80s, the area of Sharjah we chose to study was a tightly knit neighborhood that has today been completely replaced by high-rise apartment buildings. Families that used to live in the neighborhood have now moved to other parts of the city. We located 11 of the approximately 30 households that used to live in the neighborhood. We gathered two types of data. First, we traced the relocation pattern for each household. The locations of each household during each move were recorded on Google Earth. These data points

were then imported into ArcGIS and some very elementary spatial metrics computed: area of spread, average distance between locations, etc.

Next, we assessed any changes in social capital that paralleled this relocation. To do this, we recorded the experience of one woman from each of seven of the 11 households. We interviewed women because they exhibit the most signs of neighboring (Campbell and Lee, 1990) and are the ones to most likely feel the impact of changes in social health. Interviews were carried out in Arabic and then translated into English with every effort made to capture the spirit of the original. We engaged the women through semi-structured interviews, which sought to ascertain:

- What social relationships existed when they were resident in Al Nabba?
- How were these relationships tied to the physical fabric of the neighborhood?
- What factors drove their relocation?
- What is the extent and nature of social relationships within the new neighborhoods?
- How is this tied to the morphology of the new location?
- What are their interactions with their former neighbors?

Our conversations with these women attempted to cover the measures included in the idea of social capital. Among those constructs reviewed above, social capital is likely the best fit for our purposes because it covers more of Maslow's hierarchy of needs and focuses outside the realm of physiological needs. However, a major obstacle in using social capital as a measure is the lack of prior experience with applying it in our context. It is also typically applied using broad metrics generated from national data sets. Still, we believed that conducting this research would bring to the surface several hypotheses about social capital in this context that could be tested and refined in future research.

4. Results

In this section, we summarize the two sets of data that we gathered. We first report on the spatial patterns that we found, and then on our assessment of change in social capital.

4.1 Spatial Patterns of Relocation

Recording the different places where households have located since they moved from the original neighborhood reveals spatial patterns and allows us to see some similarities and differences in these patterns. Figure 2 summarizes these patterns. All distances mentioned below are approximate, measured as the crow flies and not along the road network.

The 11 households originally clustered in area roughly 125 x 200m. After the first move, 7 of these families clustered in a new area roughly 250 x 500m (more than four times as large as the previous area). Two families were within 500m of this cluster. In a second wave of moves, members of some families began to live in separate households. Four of these second-move families clustered in an area roughly 125 x 200m (just over a third of

number originally but in the same area) with a fifth family 700m away. A second group of four families clustered in an area roughly 60 x 80m (about the same density as originally) with a fifth about 600m away. The original 11 households are now 17 households.

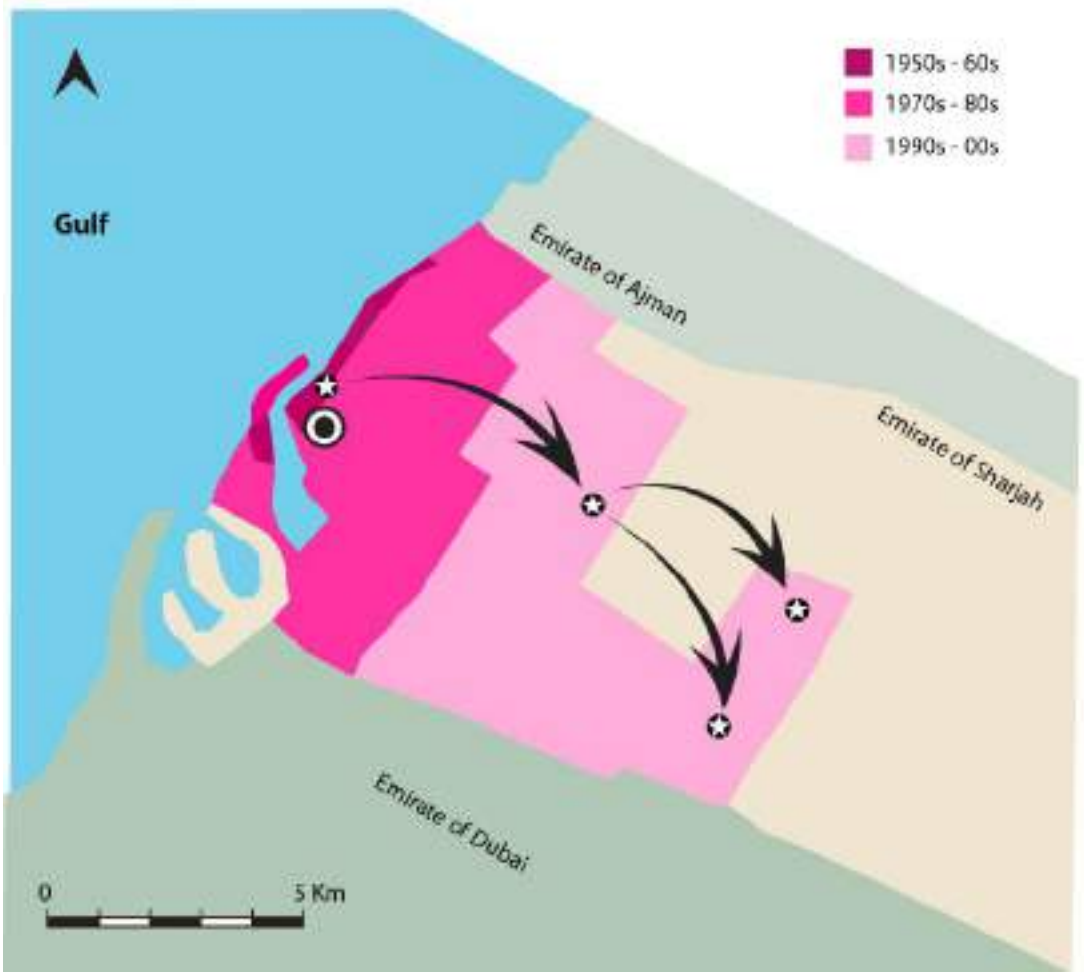

Figure 2: General Relocation Pattern

Five of the households we studied (2, 7, 9, 10, 11), just under half, moved only once and they moved to roughly the same location. Of these five, four remain clustered but not as tightly as they used to be. The average distance between these four families was just over 100m in the old neighborhood but now is more than 4 times that (about 440m). The remaining six households moved more than once, typically two times. As mentioned earlier, members of four of these households began to live separately. Three households in this group (3, 5, 8) are living increasingly apart from each other. Originally, they were on average just over 100m away from each other; after the first move, they were about

220m away from each other, and today are about 1,740m away from each other. The maximum number of moves was four and only one family moved this many times.

One household remains an outlier in that it has a much more complex relocation pattern than the others we studied and this is captured in Figure 3. This household was the first to move out of the old neighborhood and it was to a different area than that to which the other families moved. Two members of this household formed separate households and located away from each other. In their next move, they relocated close to each other and to other offshoots from one of their former neighbors in the original neighborhood. One of the two separate households then relocated one more time back to a location close to the old neighborhood.

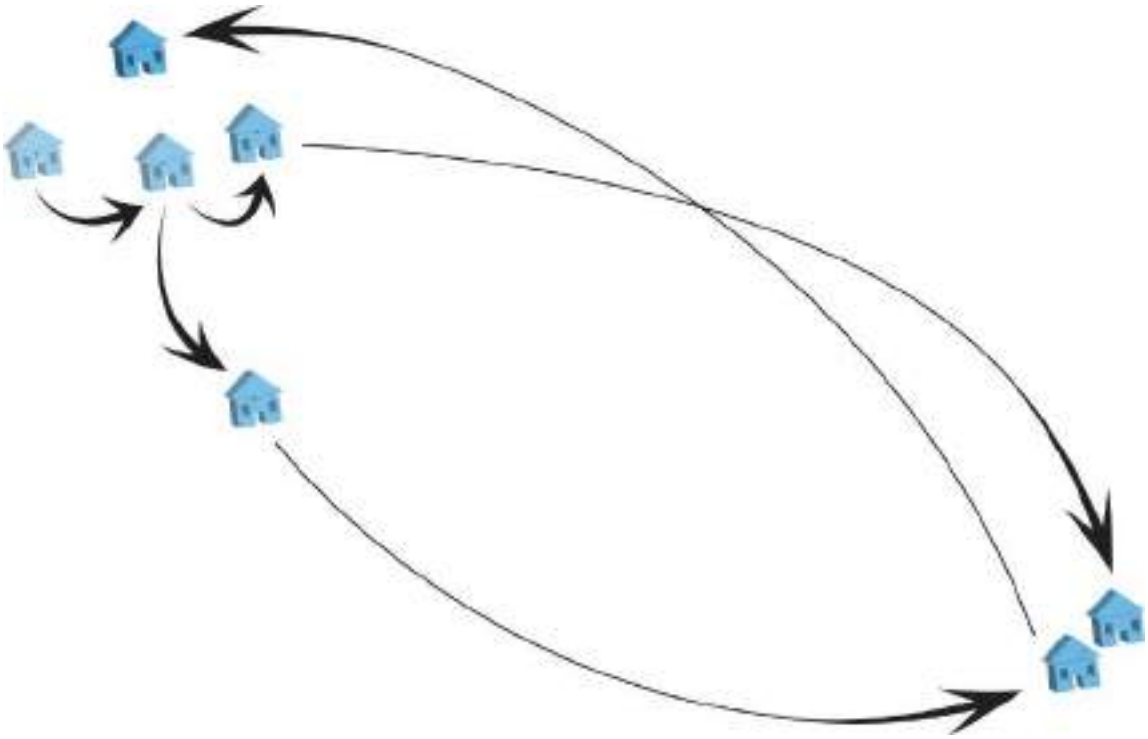

Figure 3: Relocation Pattern for Family 1 (Lighter is Older)

While the overall pattern from these results suggests a spatial fragmenting of the set of households we studied, the results also indicate a surprising amount of clustering. Many of the households ended up close to each other but not as close as they were originally.

4.2 Changes in Social Capital

The overwhelming sense from talking to women in these households, who experienced this relocation first-hand, is of a significant loss of social capital.

4.2.1 Original Social Relationships

All the women we spoke to recalled their days in the old neighborhood with fondness and great affection. Participant 5 noted, “Our neighborhood was home; it was our shelter. We felt we were a big family living in a big house.” Participant 1 recalled, “We spent most of the day socializing with others, sharing news and stories.” Some adjectives frequently used to describe the neighborhood: nice, interesting, friendly, simple, exciting.

The bonds between households were strong, and there was a high level of trust and reciprocity. Participant 2 remembered, “When my brother-in-law returned from a fishing trip, we would share fish with all of our neighbors. My husband used to be a trader, so whenever we got new goods we would share some with our neighbors.” Participant 3 noted, “If you didn’t show up at a neighborhood gathering, your friends would be knocking on your door asking about you, worried that there might be something wrong with you or your kids.”

The relationships among households ran very deep. Several respondents noted how in the absence of the man of the house, other men in the neighborhood would provide support. Participant 6 recalled, “My husband was in the armed forces and used to be away from home for long periods. I never felt lonely or in need. Everyone, from the grocer to the eldest man in the neighborhood, helped me and took care of me and my children.” This was particularly important in the case of households headed by women who were widowed or divorced.

Not everyone saw this as being completely positive. Participant 6 described social relationships differently, “But there was no privacy, as I said earlier. People knew every tiny detail about your life. They used to get involved in your problems and private matters.” Participant 4 was more positive about this, “We had a lot of quarrels but they were easy to solve.”

4.2.2 The Physical Fabric

We found that the women we interviewed were generally unable to make direct connections on their own between social relationships and qualities of the neighborhood’s physical fabric, even when pressed. However, many women talked about walking around the neighborhood, and how this affected the quality of social relationships. Participant 1 recalled, “We used to walk on our errands and talk to people that we passed by even if they were men.” Similar remarks were made by almost all the other women, some of whom noted it was different for young, unmarried women whose movements were restricted. The public realm appears to have played a role in enabling and fostering social relationships.

To help participants make the link between social relationships and the physical fabric, we asked them about some specific physical attributes that Al Harmoudi (2010) mentioned: proximity of houses; high boundary walls; quality of the public realm. With these prompts, participants were able to make some connections. All participants without exception described how having houses close to each other helped them feel

connected. Participant 7 said, “The houses were small and close, as if we were all living in one big house.”

Participant 3 provided more detail, “Houses were close to each other: a door next to a door and a window facing a window. It was easy to communicate; we did not need phones. We would chat with each other standing on the roof of our houses; that’s when we arranged to meet later in the day. The houses were that close!” She explained that the roofs of houses were used for drying laundry, drying dates and onions for use out of season, and for sleeping on hot nights. Participants 4 and 6 linked proximity and spatial configuration to sense of safety. For example, “Our doors faced each other and the street separating us was very narrow… [this made it] easier and safer to communicate and visit.” Another commented that because of proximity “it was very easy to visit our neighbors. It also made me feel safe when my husband was away. I never felt as though I was alone in the house.”

Almost all participants acknowledged the role of the height of the boundary wall; they mentioned that having low walls facilitated communication and made them feel close. Participants 1, 3 and 6 recalled that they were calling each other across the wall, chatting or asking for help. Participant 6 said, “If I needed anything, all I had to do was to shout to them; they could easily hear me and would come straight away.”

When women were asked about open space in the neighborhood they immediately made the connection with social relationships associated with children playing outside the house. Almost all of them noted how children played outside the house because it was safe and there was natural surveillance. Participant 4 recalled, “The *baraha* (open space) in front of our house was easily watched by all of our neighbors. Even if I was busy doing something, I knew that someone else would be watching, whether it was women from the rooftop of the houses or men sitting in chairs next to main door of the house.” She explained that all houses had one or more chairs outside next to the main door. Men used to gather and sit there after they had their afternoon nap. Participant 1also recalled children at play, “They used to play with rocks and sand as well as cans [for football]. It was very simple but they enjoyed it a lot.”

4.2.3 Reasons for Relocating

Without exception, participants cited the need for more space as their reason for relocating. Participant 6 told us, “Our house was very small and we were a big family. One room for four kids was very uncomfortable. We didn’t have much privacy in the home.” While we did not ask directly why they did not just construct larger houses in their original neighborhood, most provided us the reason: new housing was provided at no cost by the government. One participant gave us the sense of a slightly different motivation. Participant 6 said, “We wanted to experience the new lifestyle.” This suggests a desire to be modern.

4.2.4 New Social Relationships

All participants spoke of declining social relationships in each successive move. The first move saw a slight decline in the quantity and strength of social relationships. Participant 1 explained, "The second neighborhood was like [the first] but it was more private. We used to socialize, but only with close neighbors." After the first move, there was still quite a bit of socializing outside the house. Participant 7 recalled, "We used to socialize every day in the late afternoon while our children played outside together." But there was a decrease in the amount of time spent outside. As Participant 5 remembered, "We were less comfortable about kids playing outside; this decreased our daily meetings with neighbors."

As some participants tell it, bonds were almost as strong as in the old neighborhood but were spatially limited. Participant 7 observed, "The bond was very strong…but only with families that lived around our house." Participant 2 also felt there were limitations on social bonds. She referred to "a lot of new families that we did not know." She maintains that women were comfortable with other women of the new neighborhood but not the men.

After the second move, the decline in social relationships is more pronounced despite, as Participant 6 noted, all the new communication tools available. For one thing, most participants felt that maintaining social relationships is becoming hard work. Participant 4 told us, "We rarely see each other unless we receive an invitation. After issuing an invitation, people spend a lot of time and effort preparing for the visit. Visitors responding to an invitation also go to great lengths to get ready for the visit. All this makes visiting less pleasant. In the past, we only had to knock on the door and we were made comfortable." This view resonated in responses from other participants.

We also found many participants now spend less time in the neighborhood outside their houses because they 1.) do not feel safe, and 2.) use their cars to move around. Participant 2 said, "Now it's not very safe to [walk in the neighborhood]. There are a lot of laborers working in and walking around the neighborhood. I never let my daughters walk outside the house." This fear of strangers and outsiders pervaded our conversations with most participants. Participant 3 appeared less concerned about safety but told us "We drive cars. In a car, we are less likely to meet others and chat." With regard to mobility, Participant 6 noted that women nowadays have a greater spatial range of movement than they did in the past. This broadening of vistas was noted by Participant 4 when talking about young women, "[These days] they talk to men at work and in the market, but they never talk to their neighbors. It doesn't make sense!"

We followed up with participants about the quarrels that used to take place in the old neighborhood. Are there still quarrels in the new neighborhoods? All participants agreed that there are fewer if any quarrels between neighbors in the new neighborhoods. Only two participants, however, thought this is a good thing. The other participants thought that the quarrels were not very serious. Participant 3 recalled, "[The quarrels] were actually part of our lives. One day we get angry, the next day we are drinking tea and eating dates together." For them, the value lost in neighboring outweighed the value gained through fewer quarrels.

4.2.5 The New Physical Fabric

As indicated earlier in Section 4.2.2, when reminded of some of the morphological changes in neighborhoods, participants were able to describe ways in which they see these changes relate to changes in social capital. A number of participants linked the changes described above to the growing degree of separation between houses. Participant 1 noted, "Houses nowadays feel more separated; perhaps because of the high walls and the big front and backyards?" Participant 2 added, "It used to be very easy to visit your neighbor seven houses away. Nowadays, because of the size of the land and houses, going three houses way is quite a journey!"

Participant 7 highlighted the role played by wide streets. She said, "Nowadays the houses are … separated by roads. It has made the houses very separate and private. It's not nice this way." She also appeared to the very linear configuration of the public realm: "Nowadays the houses are … all lined up next to each other." How this is tied to the sense of separation is among houses is not very clear.

Women were asked to talk about the reason behind children playing indoors more often than in new neighborhoods. Without exception, all of the participants related it to the danger in playing outside due to the presence of paved roads and cars. Participant 1 noted, "They still love to play outside but the problem is with roads and cars. It's not safe at all; we don't allow them to play outside the house." Participant 2 complained, "The neighborhood is filled with cars and crazy drivers." Participant 4 noted, "Only two men in the old neighborhood had cars. When they drove, the kids used to run after the car. It was like a game to them." Participant 7 was particularly angry about the current situation, "How can they play outside? The roads are full of speeding cars. In the past, the *baraha* was sandy; it was not paved. The worst injury was being hit by a rock. Nowadays we hear about all kinds of accidents. That's why they play inside and get fatter and fatter. Poor children!" Could it be because of indoor forms of entertainment? Participant 6 did not think so. She said, "They always want to play football [outside] no matter how many video games they have."

Some participants seemed to think that increase spatial extent of the neighborhood played a role in this change. They mentioned that the new neighborhoods appeared bigger, accommodating a larger number of families that they did not know. Participant 2 said, "The [new] neighborhood was bigger with a lot of new families that we did not know well."

4.2.6 Interactions with Former Neighbors

Most participants said that they rarely interact in person with their former neighbors. They only meet face-to-face at family events such as weddings, births, and funerals. They call each other once every two weeks if they belong to the same family, whereas they talk only once or twice a year to former neighbors who are not family. By way of

explanation, as alluded to earlier, these interactions feel more and more burdensome because they have become more formal.

5. Discussion and Conclusion

Our conversations with the women who lived in neighborhoods from different eras reveal an extensive degrading of social relationships and social capital over time. These changes parallel the morphological changes that Al Harmoudi (2010) revealed. To simply attribute the former to the latter, the earlier reviewed literature suggests, would be naïve. Any such inferences would be confounded by the influence of 1.) lifestyle changes and 2.) social changes driven by evolution of the broader context, the city, from rudimentary to complex.

The city of Sharjah has grown tremendously over the past four decades. As Schwirian (1983) predicts, this growth was accompanied by a transformation from a more rudimentary to a more complex urban system with greater social and spatial differentiation. This is reflected in the mixing of households in new neighborhoods referred to by many of the participants. As importantly, we believe it is also reflected in the lifestyle changes they describe. As a result, we propose that the model in Figure 1 is sufficient to explain the changes in social capital. This suggests three possible explanations for observed changes: they are because of 1.) physical changes alone, 2.) lifestyle changes alone, and 3.) the combined effect of physical and lifestyle changes.

Let us first consider the lifestyle changes that have driven down social capital. First, an increasingly auto-oriented lifestyle has meant less face-to-face contact but greater spatial reach. Social relationships reach further distances but are less intense. Second, more formal standards of etiquette have meant that social relationships have become more burdensome and there is less motivation for engaging others. Third, there is a pervasive fear of strangers and others, and becoming a victim of crime, which makes people less inclined to venture out into public. In the past, construction and maintenance work used to be done by men of the neighborhood. Now, most of this is done by low-wage expatriate laborers who as a result have access to residential areas. Overall, there appears to have been a shift from outdoor living (use of roofs and public open spaces) to indoor living.

Let us next consider how two changes in lifestyle interact with changes in the physical fabric. First, a significant change has been wrought by an auto-oriented lifestyle but in a manner different from that discussed above. The public realm in neighborhoods increasingly privileges the automobile, discourages pedestrian use, and displaces activities, primarily involving children, which help build social capital. The automobile also diminishes social capital through its impact on the public realm. Second, the sense of fear discussed above may be related to the spatial structure of neighborhoods. Al Harmoudi (2010) found that old Sharjah neighborhoods were more spatially integrated with the surrounding urban fabric while new neighborhoods are more segregated. One possible explanation for heightened fear in new neighborhoods: Hillier and Shu (2000) find that integrated areas of a city had fewer crimes. But Nubani and Wineman (2005)

find these areas have more crimes, and suggest the difference could be because the areas they studied are automobile- rather than pedestrian-oriented. We did not find studies that looked specifically at fear of crime.

We can next consider physical changes that appear for the most part to have directly diminished social capital. The changes that have had the most impact appear to be those that have increased the physical separation among households: larger plots, wider streets, high boundary walls. Diminishing of social contact is only to be expected as a result of these changes and participants confirmed this expectation. Some participants also perceived newer neighborhoods as larger, which diminished the sense of belonging. In this case, perception is indeed reality. The city block containing the original neighborhood is just 0.10 sq km in area, while the first neighborhood to which households moved is in a block just under 0.50 sq km, and the most recent neighborhoods are in 1 sq. km superblocks.

The spatial patterns of relocation that we recorded lead us to a final conclusion. While the overall pattern we observed suggests a spatial fragmenting of the households studied, the results also indicate a surprising amount of clustering. As noted above, several families (2, 7, 9, 11) located close to each (though more spread out than before) after they moved for the first time. Despite this proximity, the women in these households still feel that social capital was diminished after the move. Al Harmoudi (2010) pointed out that a major difference between the old and new neighborhoods lies in the proximity of households from the same family or tribe. Our finding here suggests that the forces of change described above were probably of greater consequence than proximity.

Lifestyle changes discussed above are not easily addressed through public policy and design initiatives. Changes to the physical fabric, on the other hand, are probably more likely to be amenable to policy and design intervention. The design of streets, the public realm, and land parcels can be altered to reduce the sense of separation among households. Design controls can encourage better visual connections among houses. Policies of households growing in place rather than relocating may also help build social capital. Ultimately, however, the impact of lifestyle changes may be too great to overcome by managing physical changes. Recently, the Ruler of Sharjah announced that housing plots from now will be allotted so as to locate members of a family close to each other. Our research suggests that proximity cannot overcome physical barriers or lifestyle pressures.

The loss of some valuable aspects of social relationships noted above must not diminish the value of progress made in other respects. As participants pointed out, they now live in houses that better accommodate their families. Increasing affluence today means the new generation does not have to experience some of the hardships faced by the previous generation.

Our research has uncovered several hypotheses about relationships between social capital, lifestyle changes, and physical changes that must be rigorously tested. A series of related unanswered questions also deserves attention. As noted earlier, the fear of

being victimized in the public realm appears to preoccupy the women we surveyed. Is this fear of crime based on perception or reality? What factors underlie this fear? To what extent is fear of crime related to the spatial structure of neighborhoods?

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