Chapter 4:

Demarcating Generations of Signers in the Dynamic Sociolinguistic Landscape of a Shared Sign-Language: the Case of the Al-Sayyid Bedouin

Signing communities emerging in the context of high incidences of deafness have attracted the attention of scholars of different disciplines, most notably in Deaf studies and sign language linguistics. Linguists believe that sign-languages emerging in these circumstances may provide a rare opportunity to study new language isolates, the study of which holds the promise of contributing to some of the key questions of modern linguistics, particularly with regard to the conditions that engender language (Senghas 2005; Arbib 2009; Meir et. al. 2010a).

However, the study of emerging sign languages has been criticized for exclusive emphasis on the innate language capabilities of the human brain and disregard for social, pragmatic, and environmental influences (Russo and Volterra 2005; Fusellier-Souza 2006; Arbib 2009; Nyst 2012). Two studies in particular have become renowned for their claims of witnessing the emergence of (signed) language in the absence of existing language models. The study by Kegl et al.(1999) documented the emergence of Nicaraguan Sign Language (NSL) by deaf children brought together in a school for deaf students in Managua. Senghas et. al.(2004:1779) argued that NSL has arisen within a community that lacked exposure to a developed language. Meir and Sandler (2008:292), studying the Al-Sayyid Bedouin Sign Language (ABSL),

have described it as a "Language out of nothing...developing without a language model". ABSL is one of the sign languages emerging in the context of high incidences of deafness.

Signing communities and sign languages emerging in the context of exceptionally high rates of deafness have been referred to using a variety of terms (for discussion of these alternative terms see Kisch 2008a). In my study of the Al-Sayyid Bedouin, I have introduced the term *shared signing community* (Kisch 2000, 2008a), later adopted by Nyst (2012) to correspondingly denote *shared sign languages*.

In shared signing communities deaf and hearing infants are exposed to signing from birth, within the family environment, with additional (deaf and hearing) adult models in the community. In these unique sociolinguistic conditions, signing as a practice does not single out deaf people. Thus, the term is meant to capture and emphasize one of the prominent features that these cases have in common: signing is not what deaf people "do", but rather a medium for deaf and hearing people to communicate.

Consequently, a large proportion of language users (namely all hearing signers), are bilingual in the local sign language and the local spoken language. In this respect, no shared sign languages can be considered to develop without exposure to a language model (for similar emphasis see Arbib 2009).

Demarcating generations of signers is an important element in the study of young sign languages. The number of times such an emerging linguistic system is passed down to a new generation is considered significant for the identification of new linguistic properties (Senghas 2005; Goldin-Meadow 2005) and practices. However, intergenerational transmission is just one of the sociolinguistic features involved in shaping a language. Although linguists hope to identify independent developments within a language, it seems

---

2 I here avoid the term "village sign language" (Zeshan 2006; Meir et. al. 2010a); from an anthropological perspective the term "village" is of little descriptive or analytical value.

3 Not all shared sign languages are considered young or emerging languages. Several are no longer traceable to their first users (see Marsaja 2008 for Kata Kolok, Bali; and Nyst 2007 for AdaSL, Ghana). Other cases have been observed to be endangered (Nonaka 2009).
imperative to consider communicative input broadly as well as the possibility of contact-induced change. Both have too often been overlooked.

The challenges involved in identifying generations of signers are different when considering a language emerging within a student community as compared with a shared signing community. NSL was passed to a new successive cohort of 15–20 learners each year (Senghas et. al. 2004; Senghas 2005). Though controversies arise with regard to the communicative input that students experienced before entering the school and the possible influences of gestures and written language (Polich 2005; Russo & Volterra 2005), their exposure and contribution to the emerging signing community of NSL was clearly marked by their year of enrolment. By contrast, signers of shared sign language and ABSL are exposed to the emerging language early in life, in a multigenerational family environment. Sandler and her colleagues (Sandler et. al. 2005, 2011; Aronoff et. al. 2005, 2008; Padden et. al. 2010; Meir et. al. 2010a; Meir 2010) base their analysis of ABSL on their identification of three generations of signers. They define these generations in very general and often inconsistent terms, and do not present their considerations in choosing these classifications.

This paper examines the challenges involved in identifying generations of signers in shared signing communities. Based on the analysis of the diverse available communicative input and the observed shifting sociolinguistic landscape of the Al-Sayyid shared signing community, four generations of signers are identified. The purpose of this exercise is twofold: to inform the further investigation of ABSL and to serve the study of comparable shared sign languages by identifying the social factors that transform the

---

4 The challenge in this case is how to batch the cohorts into generations of signing. Some critics have questioned Senghas et. al’s (2004) choice of 1984 and 1993 as demarcation line between these cohorts of signers.

5 They define the first generation in terms of structural generations “The first generation in which deafness appeared in the community (the fifth since the founding of the community)” (Sandler et. al. 2005:2662; Aronoff et. al. 2005:31), while second generation is defined in terms of a general age range (in their 30 and 40s one in her 20s), and third generation in the most general terms (teenagers and children). Meir et. al. 2010b:310 “second generation signers (in their 40s) and four third generation signers (in their teens and early twenties)”. In some cases generations are not defined at all (Sandler et. al. 2011).
sociolinguistic networks of signers, too often assumed to be embedded simply in primary kin-networks.

The case of Al-Sayyid illustrates the processes by which signers are embedded in multiple language communities. My intention here is not to determine the actual impact such sociolinguistic dynamics might have on the grammatical skills (of different generations) of ABSL signers, but rather to facilitate the identification of such variation and its possible correlates.

The first part of this paper briefly introduces the history of the Al-Sayyid descent-group, and examines the usefulness of kinship diagrams. It addresses the confusion often caused by mistaking structural generations of descent for social or cultural generations, and considers the relevance of these categories and kinship diagrams to the task of identifying sociolinguistic generations.

The second part presents the four generations of deaf Al-Sayyid signers, including four sub-cohorts (summarized in Table 1). Before presenting the detailed profile of these generations, the case of hearing signers is addressed, including my suggested guidelines for incorporating hearing signers into this structure.

The third and last part examines the major social factors that have transformed the sociolinguistic landscape of Al-Sayyid deaf signers. Schooling introduced deaf students to a new sign language and signing community and reduced the social space shared by deaf and hearing signers in the Al-Sayyid shared signing community. Schooling and the subsequent marriage and labour patterns transformed signers’ sociolinguistic networks.

This analysis is based on data collected over a decade and a half of anthropological fieldwork and participant observation among the Negev Bedouin and a total of over 30 months of in-residence fieldwork based in Al-Sayyid. Several demographic and genealogical surveys focusing on Al-Sayyid’s deaf population were conducted in 1995-1999, 2004-5, 2007 and most recently in 2011, and were supplemented by data obtain from the ministry of education and ministry of interior.

When I first visited the Al-Sayyid in 1995 I could communicate at a basic level and did not need to employ an interpreter. However, given the collaborative nature of the ethnographic method and the common practices of sign/speech mediation among the Al-Sayyid (Kisch 2000;2008), I could rely on ad hoc spontaneous interpreting when necessary. In the course of my first fieldwork months I could increasingly communicate directly in ABSL, my main mentors being the members of my extended host family, at the time including...
2 deaf children, 2 young deaf adults, an elderly deaf grandmother, and many competent hearing singers. In my immediate host family, only one member could speak Hebrew, serving as a compelling incentive for improving my competence in the locally spoken Arabic dialect. To improve my communication with other (mostly non-Al-Sayyid) deaf signers encountered throughout my fieldwork, I also took three ISL courses, two of which were provided by qualified deaf instructors at The Institute for the Advancement of Deaf Persons in Israel (DPII).

This paper is based on data collected by means of fieldwork interaction and observation conducted predominantly in the locally spoken Arabic dialect and in ABSL, occasionally in ISL, and rarely in Hebrew. The latter two are used by interlocutors in specific contexts such as encounters involving non-Arabic-speaking service providers or young deaf adults’ who use ISL with schoolmates, and Hebrew for Short Message Service. Unless otherwise stated, the conclusions below are based on participant observations of recurrent and shifting linguistic behaviour over an extended period of time. When analysis is based on self-reported behaviours, semi-structured interviews, or singular events, this is explicitly stated.

THE AL-SAYYID DESCENT-GROUP

The Bedouin are former nomads and the native Arab inhabitants of the Negev. Al-Sayyid is the name of a large descent group that inhabits one of the many Bedouin settlements in the Negev. Until recently it was formally unrecognized by the state and therefore still lacks basic infrastructure and facilities. The number of inhabitants is estimated to be over 4500, with nearly 130 deaf individuals distributed throughout the Al-Sayyid lineages. For the purpose of this article an updated survey listing all deaf individuals was conducted in the summer of 2011.

All Al-Sayyid are kin related and are named after their common ancestor Al-Sayyid, who migrated to the Negev nearly 200 years ago. Al-Sayyid had sons and daughters from two wives. Five of these sons (level 2, fig. 1) are today considered the apical ancestors of the Al-Sayyid’s major lineages. At the

6 My native language is Dutch, but I received my high school education in Israel, and my Hebrew education program included classical Arabic as second language.
time, finding spouses for the founder’s children was a crucial and difficult affair, as was the case for other migrants who were not considered of noble (Bedouin) descent. It was therefore a great relief when his grandchildren (the 3rd generation, level 3 in fig. 1), could intermarry, following the practice of cousin marriages. (To this day consanguineous marriages are the prevailing marriage pattern among the Negev Bedouin). Four of these initial cousin-marrying unions bore the first deaf descendants among the Al-Sayyid; these constitute Al-Sayyid’s 4th generation, represented in level 4 of fig. 1.

Hayra and her three deaf brothers were the first deaf descendants of the Al-Sayyid family. They were born between 1924-1940, under the British mandate of Palestine, preceding the establishment of the state of Israel, and grew up under significantly different circumstances than their, by now, over four and a half thousand relatives and descendants.

Hayra, 1924-2003 (fieldnote excerpts)
When I first met Hadra in the winter of 1995 she was in her early seventies, her husband had passed away and she was living with her youngest son, his wife and their ten children. Nearby were the homes of her elder son, one of her daughters and several married grandchildren, all surrounding a small dale with a plot of scarcely arable land.
"I no longer leave this dale, not even to go to the doctor. They can all come to me now, and so did you” she laughed.
"If you sit here with us you will learn” she responded to my wish to learn the local sign language, “but I don’t sign like that!” she warned me sharply, she then used a restricted signing space under her chin to mimic the small and quick fingerspelling she had seen her grandchildren use. The deaf and hearing children who were sitting with us around the fire, sheltered from the rain in the half open shed, all burst out laughing.
Only one of Hadra’s (hearing) sons attended school, and his sign name was appropriately “[the one who can] write”. Hadra’s grandchildren all went to school. Her hearing grandchildren attended the school on the top of a small hill in the centre of the village. The deaf children however were daily bussed out of the village to a school for the deaf in the nearby city of Beersheba. Two of Hadra’s deaf grandchildren -by then already graduated and married - were among the first Bedouin cohort of students.

\footnote{In contrast to the 5th generation reported by Aronoff et. al. (2004), (2008); Meir (2010); Meir et. al. (2010a); Sandler et. al. (2011).}
in the early 1980s. Her younger deaf grandchildren were still attending this school. Sitting around the fire was also one of Hadra’s deaf grandchildren, drawing big Hebrew letters in the dry earth; he was figuring out the names of his cousins with the help of one of his hearing cousins who was old enough to have learned some Hebrew (as a second language at school). The two cousins were absorbed in their exchange; the hearing girl (a fluent signer) was intrigued to learn the fingerspelling he learned at school and the deaf boy needed her help; at the school for the deaf they only learned Hebrew. It was their signing that Hadra was referring to and poking fun at just now. She has also observed her deaf grandchildren immersed in long conversations in ISL, and watched simultaneous ISL interpreting on TV, all of which she reported not to understand the smallest bit of. "NOTHING UNDERSTAND."

It might seem most straightforward - even redundant - to classify signers according to generations of descent; Hadra- being the first deaf person among the Al-Sayyid, her children as second generation (hearing signers, in this case), her (deaf and hearing signing) grandchildren, third generation, and so on.

However, when considering a way to account for the different generations of signers in the Al-Sayyid signing community as a whole, generations of descent will not suffice. Actually, such a classification would run into confusion even within Hadra’s own descendants, given the intra-generational age gap that is characteristic of societies with high fertility rates. Additionally, due to prevailing endogamous marriage patterns, individuals are often related in more than one direction and degree, and a single individual can simultaneously be traced to different generations of descent. In a polygynous society this is further complicated by the age/generational gaps between husband and wives and of half-siblings.

The relatively young age of the Al-Sayyid descent-group allows us to trace practically all individuals back to their common ancestor. But from the third generation onwards the dense kin relations form an increasingly convoluted genealogical network. Some of Hadra’s grandchildren overlap in age with her own children while others overlap in age with her great-grandchildren. The birth dates of Hadra’s grandchildren born from just one of her sons span 41 years. Thus, for the purpose of considering intergenerational transmission of language, generations of descent might be not only insufficient but misleading.

To avoid such confusion I will first distinguish two common denotations of the term generation, namely, structural generations of descent versus social
or cultural generations of actual contemporaries. In kinship studies the concept of a generation generally refers to structural generations. Note that it is erroneous to consider either of these categories to be biological. A structural generation includes those descendants with the same distance from their apical ancestor. In conventional kinship diagrams (see example fig. 1) such generations are represented horizontally and are staked vertically according to descent. Social or cultural generations, as a broader social category, are based on groups of contemporaries. These are assumed to have shared socio-cultural experiences or at least to have been subject to similar social settings and developments. Years of birth can serve as a starting point to group contemporaries but it is essential to identify their shared circumstances.

While both categories are relevant for the task of identifying generations of signers, generations of signers are in essence social generations that may or may not correspond to structural generations of descent. Confusion may arise with regards to shared signing communities where kinship is indeed a dominant factor in shaping social relations. However, even when kinship is observed to be a primary mode of social organization (and frame of meaning), this is often context-dependent and seldom the only source of networks of affiliation and collaboration. For instance, when kin-endogamy is preferred and serves as a cultural idiom, the actual rates, as well as the flexible nature of the practice, are often downplayed in local (emic) discourse. In practice, kin-endogamy is rarely sweeping; even high consanguinity rates such as those found among Negev-Bedouin (with over 60% of marriages between relatives\(^8\)) leave many marriages involving non-kin. An additional source of confusion is related to the common (etic) representation of kinship; kinship diagrams seemingly provide an overview of such relations but may also be a source of confusion.

Kinship diagrams- like most representations- can only illustrate a limited number of features simultaneously. In fact, many conventional kinship diagrams are designed to illuminate prototype social structures rather than actual social relations. Below two diagrams are presented, a conventional

---

\(^8\) Exact figures vary depending on definitions of consanguinity, ranging from first degree cousins to all but non-relatives (e.g. Weitzman 2000; Vardi-Saliternik et. al. 2002; Zlotogora et. al. 2009; The Galilee Society 2011).
(fig. 1) and a modified skewed kinship diagram (fig. 2), both depicting the same selected Al-Sayyid relatives: apical ancestors and first deaf descendants. While the diagrams convey important information regarding the Al-Sayyid genealogy, they were also designed to demonstrate how ambiguous conventional diagrams can be, that is if one hopes to extract information from them regarding generations of signers, or actual social relations. Generations of coevals cannot be inferred from the level of descent in such a conventional chart, for instance those on level 5 of fig.1 (for whom Al-Sayyid the founder is the grandfather of their paternal- grandfather) range in age from 1950-2011. This is made visible in the skewed chart (fig.2). While this diagram is designed to facilitate identification of generations of signers based on their contemporaries, such skewed diagrams are not suitable to conclude who people actually interacted with. For instance, patrilocal residence is partially represented by locating offspring under their father rather than their mother, but this is not sufficient to determine actual proximity.

\[9\text{ For other forms of skewed diagrams see Tjon Sie Fat (1983, 1990).}\]
Figure 1: Horizontal ("conventional") kinship diagram of Al-Sayyid apical ancestors and first deaf descendants, representing selected individuals of 6 out of 8 structural (patri)generations of descent.
Figure 2: Skewed kinship diagram of Al-Sayyid apical ancestors and first deaf descendants, indicating years of birth on the vertical time line, (socio-linguistic) generations of (deaf) signers (marked by broad horizontal stripes), and several selected clusters of deaf siblings (marked by dotted ovals).
Annotations for figures 1 and 2:

1. Both diagrams adhere to the local rule of patrilineal descent. Distribution to generational levels in fig. 1 will alter if computed through matrilineal or bilateral descent.
2. Only a selection of deaf relatives and their hearing ancestors are represented, consequently, the diagram does not represent the actual ratio between deaf and hearing relatives.
3. Figure 1: level 1 represents the apical ancestor of the Al-Sayyid descent group, in level 2 only sons that are considered to be the apical ancestors of the Al-Sayyid lineages are represented. All deaf individuals of the fourth (patri) generation are represented. Only few deaf individuals of subsequent generations are represented, descendants of the 7th and the 8th (patri) generation are not represented at all.
4. The skewing of figure 2 is based on birth years, which were registered for all individuals born after 1950 and for a few older individuals. Other years of birth are estimated, and for those born before 1880, unknown.
5. Figure 2: All deaf signers of the first and second generation are represented in this diagram, but only very few of the hearing ones. Only a random selection of third generation deaf signers is represented. For instance the deaf siblings in cluster V are only 4 out of a total of 32 offspring of their father, himself one of the 19 offspring of his father. Representing them all would result in an unmanageably large diagram.

GENERATIONS OF SIGNERS AMONG THE AL-SAYYID

Age determines one’s contemporaries, both peers and existing adult models, and in the case of Al-Sayyid also neatly corresponds to school attendance. Age and schooling therefore form the basis for distinguishing the four generations and sub-cohorts of deaf Al-Sayyid signers (summarized in table 1 below). Schooling is prominent due to its role in transforming the sociolinguistic landscape of entire age groups. Moreover, only a small minority of the deaf Al-Sayyid have not experienced some form of schooling (14 out of the 134 deaf descendants among all generations of Al-Sayyid). Although schooling for deaf students has been re-structured several times within a relatively short period,

---

10 I am grateful to Prof. Tjon Sie Fat for kindly offering to compose these digital kinship diagrams, meticulously transforming several versions of my drawings.
these changes involved entire cohorts of students, and very few deaf students (10 so far) have had a significantly different trajectory than their age group. The age range of approximately 20 years for each generation is also in accordance with the average generational length among the Negev Bedouin today. Before proceeding to the profiles of the distinct generations of signers summarized in the table below, the generational classification of hearing signers -not included in this table - should be considered.

**Hearing signers**

The introduction of deaf education in the early 1980’s was a major factor in transforming the Al-Sayyid sociolinguistic landscape. Not only did it introduce deaf students to a new sign language and a new sign community – it restricted the daily interaction between deaf and hearing peers and consequently reduced the social space shared by deaf and hearing signers in the Al-Sayyid shared signing community.

However, this should not be understood to reduce the importance of hearing signers; on the contrary, hearing signers should be considered important participants in the study of shared sign languages, and it is equally important to recognize which generation of signers they belong to. While fewer hearing Al-Sayyid may be regularly exposed to signing, those that do sign are increasingly vital for the maintenance of ABSL, as is typically the case for other shared sign languages. From its onset, hearing signers participated in the development and intergenerational transmission of the local signing system. It has mistakenly been assumed that deaf Al-Sayyid children are typically “raised in homes with at least one older deaf person who signs” (Senghas 2005:R464). In fact fewer than half (22/49) of the deaf signers of the second and third generations grew up in homes with older deaf signers: nine had deaf parents, and the rest had one or more older deaf siblings (some only 3 years older). More than half (27/49) of the second and third deaf generation signers grew up in homes with no older deaf person, but rather acquired much of their initial signing from hearing signers.

---

11 It is also reported to be the case for Algerian Jewish Sign Language (see Lanesman and Meir, this volume)
Roughly a third of the hearing population is observed to sign regularly. From early on hearing signers outnumbered deaf signers. Even the most conservative estimate, counting only the most immediate hearing signing relatives of deaf individuals, would amount to several hundred, compared with 130 deaf signers. A minimum estimate of 700 signing relatives is based on a survey I conducted that considered only those hearing signers who were regarded as competent signers by other household members (including at least one deaf relative). This survey considered only immediate relatives such as siblings, half-siblings, partners, and children of deaf individuals. Furthermore, ethnographic data indicates a significant number of proficient hearing signers without immediate deaf relatives.

All hearing signers are bilingual, having acquired their signing skills along with the development of their spoken language skills in Arabic, or as a second language. The latter is the case for those whose sign language skills were enhanced only later in life, such as some of the elder siblings or partners of deaf individuals. While many linguists may be primarily interested in samples of signed output from fluent signers, the more general practices of signing should not be overlooked. It is not uncommon for hearing signers to sign and speak simultaneously, in various combinations including signing their speech. Such practices can also be observed for fluent signers\textsuperscript{12}, depending on their interlocutors. Less fluent hearing signers will regularly sign and speak at the same time.

It is also important to keep in mind that the actual ease of communication between deaf and hearing, as well as the status of signed communication, does not merely depend on the number of fluent hearing signers (Kisch 2000, 2008a). Many signers not considered fluent can still communicate practical matters with relative ease. In addition, the hearing members of the community who are considered poor or non-signers recognize sign language as a proper language and often demonstrate awareness of the pragmatics of signed communication. Moreover, they can easily find hearing signers to act as mediators, translators, or for instruction in improving their own signing skills (for more on such intermediary practices see Kisch 2008a)

\textsuperscript{12}Emmorey et. al.(2008) have introduced the term code-blending to refer to such simultaneous speech-sign production, found to be common among bimodal bilinguals blending English and American Sign Language.
Generally hearing signers can be grouped with their corresponding age group of deaf signers. Yet, for both hearing and deaf signers, age cannot be considered alone; generations are grouped taking into account their shared social networks and sociolinguistic settings.

Until recently the schooling of hearing signers did not play a role in (differential) exposure or use of sign language. Schooling may become increasingly relevant for hearing signers of the youngest generation (4.2) now that many have deaf schoolmates. However, for most of the hearing Al-Sayyid particular social relations, rather than cohorts of students, are the primary factor in determining their exposure to signed communication and eventual signing skills. Thus, it is important to examine their social networks and establish which signing relatives and individuals they communicated with regularly as indicated by the recording of genealogies, residential patterns, observations and interviews.

Both deaf and hearing signers refer to ABSL with a variety of terms: "khurs" (literally ‘mute [language]’). LOCAL/OUR-SIGNS or ARAB-SIGNS, are used both in Arabic and ABSL, (recently some deaf signers have also started using an ISL sign for BEDOUIN-SIGNS). JEWISH-SIGNS or SCHOOL-SIGNS (in ABSL) and “Jewish (sign) language” and “School (sign) language” (in spoken Arabic) are used to refer to ISL. ISL is generally perceived by both deaf and hearing people to be the language of education and it is increasingly understood to be prestigious. Some deaf and hearing Al-Sayyid consider SCHOOL-SIGNS to be of a higher status, comparable to the perceived diglossic hierarchy between ‘high’ (classic) literary Arabic language and ‘low’ (colloquial) languages. Although this can be understood to imply the devaluation of ABSL there are no explicit negative attitudes expressed towards ABSL and bilingualism is generally valued. ISL is also increasingly associated with deaf sociality. While both deaf and hearing signers commonly refer to ABSL as “our signs,” hearing signers also increasingly refer to ISL not only as ‘Jewish’ or ‘school’ signs but as “their signs,” referring to deaf people, and thus, to something not shared by deaf and hearing.

Some hearing signers have acquired some ISL vocabulary (such as color and place names) but none has been observed, or claims to be capable of, conversing in ISL. They recognize ISL as distinct from ABSL and unintelligible, and unlike many deaf signers, refrain from judging others’ ISL proficiency:
Hadil is 10 years old, she is deaf and so are her father and several of her many maternal uncles and aunts. Her hearing mother and deaf father communicate in ABSL, as do most of her immediate relatives. With her 30 years old deaf aunts Hadil regularly communicates in ISL. Hadil also makes lucid assessments of the signed proficiency of her deaf and hearing relatives. She was praising the (ABSL) signing of the hearing wife of her deaf uncle: “she signs very well, she is the best. But school signs – nothing!” About her older deaf uncle she says “his school signs are so-so, he uses Arabic sings most of the time anyways. But my [hearing] mother? beware, she can understand a good deal of school signs!”.

Table 1. Generations and (sub)cohorts of deaf Al-Sayyid signers. (NIV refers to the Hebrew Deaf School)

<table>
<thead>
<tr>
<th>Generation/ cohort</th>
<th>Years of birth</th>
<th>Number of deaf signers</th>
<th>Major sociolinguistic factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1+2</td>
<td></td>
<td></td>
<td>First deaf descendants.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• No signed input other than the homesigns developed by them and their hearing relatives.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Clusters I and II (fig. 2)</td>
</tr>
<tr>
<td>1</td>
<td>1924-1950</td>
<td>6 (5 †)</td>
<td>Second generation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• The first likely to have had adult (hearing or deaf) models.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Cluster VI (fig. 2) deaf parents and paternal uncles and aunt.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• 4 of the siblings in Cluster IV (fig. 2) were the first to attend formal education (albeit for one year only) in a West Bank Palestinian school for the deaf.</td>
</tr>
<tr>
<td>2</td>
<td>1953-1969</td>
<td>11</td>
<td>Early Niv (Hebrew deaf school)</td>
</tr>
<tr>
<td></td>
<td>1950</td>
<td></td>
<td>• Signers exposed from young age to input in ABSL.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• All but 2 spent 5-10 years at Niv school for the deaf, exposed to ISL and written Hebrew.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• 1-2 deaf instructors.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Signers in this cohort differ greatly in their ISL fluency.</td>
</tr>
<tr>
<td>3</td>
<td>1970-1991</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>3.1</td>
<td>1970-1980</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Generation/ cohort</td>
<td>Years of birth</td>
<td>Number of deaf signers</td>
<td>Major sociolinguistic factors</td>
</tr>
<tr>
<td>-------------------</td>
<td>----------------</td>
<td>------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>3.2</td>
<td>1981-1991</td>
<td>26</td>
<td>Late Niv (Hebrew deaf school)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Signers exposed from a young age to input in ABSL, and to ISL and written Hebrew, in school.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Average of 13 years of schooling, including Deaf instructors.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Additional exposure to ISL on TV.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Many use Internet, SMSs and other written communication in Hebrew.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Most men continued education in residential school for the deaf; many of the women participated in vocational training or deaf empowerment programs in ISL. All programs included Deaf instructors.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Often prefer communication in ISL among themselves.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Deaf-deaf marriages: 7/14 marriages of deaf women are to a deaf partner.</td>
</tr>
<tr>
<td>4</td>
<td>1992-2011</td>
<td>79</td>
<td>Deaf individuals born with Cerebral Palsy. Neither attended school in the village or with their deaf peers; one has been institutionalized at a young age, the other deceased in his late teens.</td>
</tr>
<tr>
<td>4.1</td>
<td>1992-1999</td>
<td>32</td>
<td>Andalus (Arabic schools)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• New classes for deaf students in Arab schools.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• ISL vocabulary used by teachers to codify/sign spoken and written Arabic.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• One deaf staff member.</td>
</tr>
<tr>
<td>4.2</td>
<td>2000-2011</td>
<td>47</td>
<td>Al-Sayyid (local village school(s))</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Classes for deaf students in Al-Sayyid local school(s).</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Staffed by several deaf teaching assistants (of the late-Niv 3.2 generation)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Increased interaction with hearing signing peers in ABSL.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Practically no direct contact with first generation deaf signers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• 14 children with Cochlear Implants who are increasingly segregated from their deaf peers.</td>
</tr>
</tbody>
</table>

Total deaf signers: 134 (-6 † deceased)  
Total (living) congenitally deaf 130 (=134 - 6 † deceased +2¹³)  

¹³ These last 2 are non-signing individuals who independently developed intelligible speech previous to school intervention or oral training and are considered “hard of
Deaf Signers

1. First generation of Al-Sayyid signers

The first generation of signers includes the first deaf siblings (cluster I, fig. 2: Hadra and her 3 deaf brothers) and 2 deaf sisters. All but the youngest of them were born during the British mandate of Palestine. Interviews conducted in the late 1990s with five out of these six individuals as well as with some of their hearing relatives confirm that while growing up, they were not exposed to signed input other than the homesigns developed by them and their hearing relatives. Indeed the youngest of these siblings were exposed to a slightly more elaborate signing system used by their elder siblings (when her youngest deaf brother was born Hadra was already 16 years old)\(^\text{14}\).

Two deaf sisters (cluster II, fig. 2) can be considered first generation signers despite being younger than Hadra and her deaf brothers. They migrated with their families to Jordan at a young age, and returned following the arranged marriage of one of the sisters. While one might claim their homesigns developed separately, their parents (both siblings of Hadra’s parents) migrated after their deaf niece and nephews were born and had been exposed to their emerging linguistic system. During their years in Jordan their communication was largely restricted to homesigns with their parents and a few other relatives. The sisters report having had no formal education or contact with other deaf people before returning to Al-Sayyid.

The majority of the Al-Sayyid remained in the Negev, under the patronage of the Qderat alliance. Most Bedouin fled or were driven out of the Negev during the aftermath of the 1948 war (Marx 1967; Falah 1989). Those remaining were confined to a restricted area and kept under military rule until 1966. However, within the closure zone Bedouin interacted in various ways (Marx 1967). One of Hadra’s brothers told me that during this time he

hearing” or HALF DEAF by both deaf and hearing members of the community. They are however relevant for the calculation of the rate of congenital hearing loss.

\(^{14}\) As mentioned above, four of the initial Al-Sayyid cousin-marriage unions bore 9 deaf descendants among Al-Sayyid’s 4th structural generation of descent, however given the age gaps and overlaps, the youngest was born when Hadra was already 44 years old and a mother of 7. Furthermore, within this time span eight more deaf descendants were born. It is therefore best to frame this generation too by year of birth, rather than following structural generations of descent.
befriended a deaf man from the neighbouring Qderat settlement (see the sociolinguistic sketch by Kisch, this volume, for more details).

Thus it is not the case, as claimed elsewhere (Aronoff et. al. 2005:31), that the first two generations had no contact with other deaf people; this is even less true for the second generation discussed below. However, other than occasional contact with a few neighbouring deaf Bedouin and the partial Arabic literacy of one of the first deaf siblings\(^{15}\), there is no reason to believe these first-generation deaf signers were exposed to other (sign) languages, except of course the Arabic-speaking hearing signers with whom they created and shared their homesigns from the onset.

2. Second generation signers

The 11 deaf individuals classified as second generation signers were born between 1950 and 1969: they include several paternal cousins (clusters III and IV, fig. 2), their maternal cousins growing up in different Al-Sayyid lineages, and two of the sons of a first generation deaf signer (cluster VI, fig. 2).

This context clearly provides opportunities for intergenerational contact. However, other than the two sons of the deaf father, this generation did not grow up in households with older deaf or hearing signers. I conducted interviews and consulted my records of genealogies, residential patterns and interpersonal relations to establish how frequently these deaf children or their hearing parents and siblings actually communicated with the available adult models (deaf and hearing).

Let us consider the mother of the deaf siblings in cluster III (fig. 2): her much older half-sister bore the first deaf siblings (cluster I, fig. 2), in fact she herself is the same age as her niece Hadra. She does not recall spending much time visiting her much older half-sister or interacting with her deaf nephews, but she is likely to have picked up some signing that inspired her initial signs with her own deaf children. It is thus possible that with limited or no direct contact, new homesigns evolved in several families. These homesigns were inspired by hearing signers that had occasional exposure to the earlier signing of relatives.

\(^{15}\) Hadra’s father ran a British mandatory supply store and one of his deaf sons who assisted him in the store was at least partially literate. At the time most of his (deaf or hearing) peers could not read nor write.
The first and second generation signers all grew up before deaf education was offered to Bedouin in the Negev. In fact, their hearing siblings did not always attend school either. The first elementary school was opened in Al-Sayyid in the early 1960s and was attended by mainly boys. A few deaf boys had joined their hearing siblings but soon stopped attending, when they realize the hearing teacher lacked the competence to communicate with them (Kisch 2004). However, two developments are worth noting that exposed some of these deaf signers to other sign languages and some Arabic literacy.

Soon after the Israeli military rule was lifted in the Negev (1966), Israel occupied the West Bank (during the 1967 war). Negev Bedouin could renew contacts with relatives in the West Bank and Jordan and new contacts were established. Consequently, four deaf siblings (cluster IV fig. 2) spent a year in a school for deaf students in Halhul. Their father had married a third wife from this West Bank Palestinian town, and her family hosted his deaf children during one school year. While their schooling did not last long, they acquired some basic literacy in Arabic and were exposed to signing that was most likely related to Jordanian Sign Language (LIU). While it is difficult to determine what impact this exposure had on their language development, it does further demonstrate that is not the case that this generation had no contact with other deaf people or sign languages.

Additionally, at least three men of this generation had as young adults attended occasional activities organized by the Deaf club in the nearby district town of Beersheba, which was established by Jewish-Israeli deaf women and men, and is associated with the national Association of the Deaf in Israel. One of them also visited other deaf clubs in the north of the country. Another recounted several mutual visits with a deaf man he had befriended from a Jewish town. While these contacts were not long-lasting they did provide these men with some exposure to ISL, as did television, which started to appear in households only after most of this generation reached adulthood.

Several of the deaf signers in this generation have younger siblings who were not included here; practically all deaf Al-Sayyid born after 1970 attended school, which drastically changed their sociolinguistic environments.
3. Third generation signers [Niv, Hebrew school for the deaf]

This generation of signers can also be labelled the Niv (school) generation; they are distinguished from the earlier generations of deaf signers by systematic exposure to signed instruction in school, including few deaf staff members.

Of the 36 third generation signers, all but two attended the Niv school. And all but one of the men in this group spent an additional 2-4 years at a program for deaf students in the Onim vocational boarding school. Most special education schools for the deaf in Israel generally take the total communication approach using (written and signed) Hebrew as the language of instruction, and some ISL (Weisel & Zandberg 2002). Both Niv and Onim generally take such a total communication approach and employed at least one deaf instructor.

However, third generation signers are marked not only by their exposure to formal instruction but also by being schooled separately from their hearing peers. For years they rose early in the morning, before their hearing siblings, to gather with their deaf relatives at the intersections of the dirt roads crossing the village to be bussed to the nearby district capital of Beersheba.

Initially Niv was a mixed school with mostly Jewish students but gradually Bedouin students made up the majority of the school's population. It did however remain a school belonging to the Hebrew (Jewish) sector of the Israeli education system and thus for years it employed solely Jewish teachers and used content designed for Jewish students; until shortly before the closing of the school no Arabic was taught and the curriculum typically marked Jewish (rather than Muslim) holidays. The mostly hearing staff was generally trained to use total communication based on Hebrew and ISL.

This generation can be further grouped into two cohorts of signers; the later Niv cohort (3.2) are mostly bilingual (in ABSL and ISL) and often prefer communicating in ISL among themselves, while the early Niv cohort (3.1) vary in the degree of fluency achieved in ISL, and in the extent they continued to use ISL after graduation.

Cohort 3.1: “Early Niv cohort”

This cohort includes 10 deaf adults: all are married and all but 2 have children. Three of the 10 grew up in households with older deaf siblings or a deaf
parent. Another is a half sibling of a second generation deaf signer. Thus they mostly did not grow up in homes with elder deaf signers; two grew up with a competent hearing signing parent, and the remaining signers in this generation had only more distant signing relatives, and no immediate deaf neighbours.

This cohort includes only one woman who never attended school and another who attended for one year only. The remaining individuals had between 5-12 years of schooling (with an average of nine years). Three of these early Niv graduates are bilingual and fluent ISL signers; they all participated in some additional programs or activities in ISL. The remaining signers in this cohort vary in the degree of fluency developed in ISL and they mostly did not continue to use ISL on a daily basis after graduating. They also differ in their literacy skills, but mostly do not have functional literacy.

While one could consider including the two unschooled women with the previous generation despite their years of birth, such a classification would have to be supported by careful analysis of the signing used in their parental households, in order not to overlook the signed input. It would be however unreasonable to include those schooled signers with their previous generation. Sandler et. al. (2005) include at least one of the more fluent ISL signers of this cohort in their initial sample (labelled second generation signers) despite the signer’s clearly divergent linguistic output. In a later article the researchers report that in the 2005 study this young woman consistently produced clauses with SVO (the basic word order in Hebrew and spoken Arabic), rather than the SOV used by the other second generation informants, thus acknowledging possible influence from her contact with Arabic and Hebrew (Padden et. al. 2010: 394). This pattern confirms that, despite belonging to the same structural generation as her older (second generation) siblings, she is better classified with the next sociolinguistic generation, 3.1, as she is classified here), consistent with her age and schooling.
Cohort 3.2 “Late Niv cohort”

This cohort includes 26 young deaf adults born between 1981 and 1991. All but one are graduates of the Niv school. Unlike the early Niv cohort, the majority of this cohort are fully bilingual and competent ISL signers. While many prefer to communicate in ISL among themselves, they are also all capable ABSL signers. As is the general figure for Al-Sayyid, slightly over 20% of this cohort have a deaf parent. Additionally some have older deaf siblings, meaning that roughly a third of this group grew up in households with older deaf signers. They all communicate with their hearing relatives in ABSL.

The eldest four men and more than half of the women of this cohort are married (like their hearing relatives, women are on average younger at marriage than men). Most notable however is the fact that more than half of these young married deaf women are married to deaf men who are not from Al-Sayyid, while all married deaf men of this cohort are married to hearing Al-Sayyid relatives. Later I will further discuss the sociolinguistic impact of the changing marriage patterns of this generation.

The Niv school was not the only source of exposure to ISL for this cohort. All of the men of this cohort received vocational training in the Onim residential school for 2-4 years. Most of the women participated (using ISL interpreters) in a vocational training program lasting several months provided by the rehabilitation centre in Beersheva. Most of these young women also participated in an empowerment program organized by The Institute for the Advancement of Deaf Persons in Israel, led by a (Jewish) deaf instructor and a hearing Arab instructor trained as an ISL interpreter17.

Additionally this cohort was the first to have access to TVs from a younger age, providing additional exposure to ISL (and LIU) interpreted programs. Despite the fact that most of the village is still dependent on generator power and many in this cohort have only basic poor literacy skills

---

16 This young woman was from a young age enrolled in Arabic schools. Her father, a teacher himself, was the first to be captivated by oral training and mainstreaming, only to be disenchanted later. His daughter (whose name sign alludes to her hearing aid) later joined her slightly younger peers (of the 4.1 cohort) at the Andalus school.  
http://www.sela.org.il/%d7%a2%d7%a9%d7%91%d7%99%d7%9a (in Arabic) no English page available other than general site http://www.dpii.org/.
many regularly use internet and mobile phones for video-calls, chat, SMSs and other written communication in Hebrew.

Those born in 1991 were the last to be admitted to the Niv school; the school was finally closed in 2005.\footnote{The remaining students continued their studies in the Onim School and the last female students were relocated to the newly opened classes for deaf students in two high schools in Bedouin townships. Four of these female students from Al-Sayyid were aged 14-16 years old when the Niv school closed.}

It might be the case that some individuals can be better grouped with the previous or succeeding cohort than their actual age group. This might be of particular relevance to some of those born in years that distinguish between different cohorts. For instance, one might consider grouping the only woman in the (3.1) early Niv cohort (among the oldest of the women in this cohort did not attend school at all with the previous second generation signers (2), as indicated by analysis of her kin and non-kin networks.

Another example would be the youngest of the late Niv cohort (3.2), born in 1991; she is the only member of this cohort who did not go to the Niv school but rather was the first to be schooled in Arabic and mostly attended the Andalus School, (see also f.n. 16).

\section*{4. Fourth generation signers}

All those born from 1992 onwards are for now grouped in this fourth and youngest generation of deaf signers. Like the previously identified generations, the birth years of this group too range over approximately 20 years. However, the infants among them are in their early phases of first language acquisition, and it is too early to conclude which sociolinguistic circumstances will shape their mature signing.

Only very few members of this fourth generation have had regular or direct communication with first generation deaf signers. They are all schooled in Arabic rather than Hebrew, and no longer attend the special schools for deaf children that brought together deaf Bedouin children from all over the Negev. In this respect they can be labelled the post-Niv generation.

They can be further grouped into two cohorts of signers: the first cohort (4.1) were the first to attend Arabic Bedouin schools, and went to the Andalus
School in the nearby town of Tel–Sheva. The younger (4.2) cohort includes the first to be schooled in the local (Arabic) school in Al-Sayyid and benefits from instruction by deaf teaching assistants (all Al-Sayyid Niv graduates) from kindergarten onward. This is however not the case for a growing number of children in this cohort who are singled out as candidates for cochlear implants or oral education. This cohort is thus increasingly subject to segregation based on their audiological status.

*Cohort 4.1 Andalus, classes for deaf students in Arabic schools.*

Like the older Niv generation these students too were daily bused out of the village for schooling. But unlike Niv students, they were the first cohort to attend classes in Arabic schools.

In 1996 the Ministry of Education, displeased with the primarily Bedouin population of this (Hebrew) school, decided to gradually close the Niv School for the Deaf. The 2003 mainstreaming act and growing pressure from Bedouin parents concerned with their deaf children’s exclusively Hebrew education and poor outcomes, further reinforced this decision. By the time the Niv School was finally closed (2005) deaf Bedouin students were enrolled in classes for deaf students in seven different Arab schools throughout the Negev.

All the Al-Sayyid deaf students born from 1992 to 1999 were enrolled in classes for deaf students in the Andalus School in the Bedouin town of Tel–Sheva. Here they mostly received instruction from inexperienced and untrained hearing teachers who used irregular and inconsistent ISL vocabulary to codify written and spoken Arabic. While the staff were Arabic-speaking and thus more familiar with their students’ socio-cultural background, they received little to no specialized training and none had any experience instructing deaf students. Two deaf assistants (both non Al-Sayyid Bedouin graduates of the Niv School) were employed in the Andalus School (not simultaneously).

---

19 The Ministry of Education’s 1996 resolution closing the school asserted that students born after 1990 would be referred to (at the time nonexistent) special classes in Arab schools. In fact, all but one of the students born in 1991 were still assigned to Niv.
After completing primary school at the Andalus School most female students in this cohort began attending classes in other towns, where there were no deaf staff. Most male students proceeded to the Onim vocational boarding school, with its signed program for deaf students.

The population of deaf students in the Andalus School grew rapidly; deaf students from all major Bedouin groups with high incidences of deafness were assigned to this school, and together they constituted roughly a third of the deaf students. Catering to the needs of this rapidly growing group of deaf students soon became a burden for the inexperienced staff. In this context the proposal to open deaf classes at the Al-Sayyid school was finally approved. In 2010 most of the remaining Al-Sayyid students from this cohort were relocated to one of the schools in Al-Sayyid.

The ISL signing of Andalus students is considered “different” by many of the younger Niv (School) cohort signers. While some Niv cohort signers use less neutral terms to describe this variation, such as “broken” and “inaccurate,” they do recognize it as ISL. I have recorded several persistent sign variants commonly used by Andalus students, all based on ISL (mostly with variations in hand shape or movement).20.

Cohort 4.2 Al-Sayyid school

Practically none of the deaf children in this cohort have had any direct exposure to first generation signers, even though this group includes grandchildren and great-grandchildren of first generation signers. They do however enjoy increased interaction with hearing signing peers, as they share the same school grounds. Those born in 2000/1 were the first to attend the preschool class opened in Al-Sayyid in 2006. By now more than half of the children in this cohort attend such classes.

From the very start each of these classes had a deaf Al-Sayyid teaching assistant from the late Niv cohort (3.2). Notwithstanding their lower rank (as mostly untrained teaching assistants) the role these deaf instructors play in the education of their students cannot be overrated; not only do they translate the (hearing) teachers’ intentions, in several cases they essentially became the

20 At least one of these signs was introduced by one of the senior (hearing) teachers who taught sign language to her fellow teachers. Though a veteran teacher, she had only taken one basic ISL course herself.
primary instructor due to the main instructor’s inadequate training. During breaks the deaf assistants often gather and provide a signing environment. As noted above, this cohort (3.2) has a clear preference for using ISL to communicate with one another. They do use local signs on school grounds when communicating with hearing students and local staff. However, they insist on using ISL when communicating with their deaf students or with the mostly non Al-Sayyid\textsuperscript{21} teachers of deaf students.

These young deaf assistants make a clear distinction between “school signs (ISL)” and “local signs” and see it as their duty to teach their young students (4.2) ISL. In interviews many have emphasized that ISL will enhance their students’ communication beyond the local community and allow them to utilize various services. They point out that unlike themselves and the 4.1 cohort, the members of the Al-Sayyid (4.2) cohort will encounter non Al-Sayyid deaf students later in their educational trajectory. While in this respect the young instructors appear to favour the Niv School compared with the new educational setting, they are more often ambivalent, pointing out the various advantages and disadvantages of each setting.

Students of the Al-Sayyid classes enjoy better communication on school grounds than did the Andalus students, despite the fact that their teachers are non Al-Sayyid, untrained, and inexperienced, as was the case at the Andalus School. However, in the Al-Sayyid classes, in addition to their deaf instructors, they are surrounded by hearing siblings and relatives among staff and peers, many of whom use local signs.

Half of the 50 deaf children in this cohort are attending primary school (including kindergarten classes) in Al-Sayyid. One of the classes is reserved for implanted children, and several children are “mainstreamed” in hearing classes (9 of the 14 implanted children are enrolled in supposedly non-signing classes). Some younger children in this cohort are enrolled in daily oral preschool programs for deaf children outside of Al-Sayyid or attend weekly

\textsuperscript{21} These teachers are non-Bedouin Arab teachers or Bedouin from other Negev towns or villages. Roughly 40% of the teachers in Negev Bedouin schools are recruited from northern or central Israel where there is a surplus of Arab teachers (Abu Rabia 2000; Abu-Rabiyya et. al. 1996). Consequently those teaching in the Negev are often young and inexperienced and there is a high turnover rate.
sessions at such programs. Accordingly, the students in this cohort are increasingly subject to segregation and classification according to audiological criteria and oral expectations. While it is becoming increasingly common for deaf children to receive some oral training, systematic oral training in articulation or speech reading is mostly restricted to Cochlear Implant (CI) candidates or implanted children. However, few of these implanted children can actually rely on oral input for instruction. Consequently instructors as well as parents may produce a rather irregular, often denied form of signed communication.

Thus I conclude by repeating the earlier mentioned indefinite classification of this later cohort. The youngest children of this cohort are infants in the early stages of language acquisition. It is too early to conclude what shared sociolinguistic circumstance will shape their future linguistic development. Hence, this relatively large group of roughly 80 youngsters might prove to include signers who will have more in common with the succeeding fifth generation of Al-Sayyid signers.

THE MAJOR FACTORS TRANSFORMING THE AL-SAYYID SOCIOLINGUISTIC LANDSCAPE

Bi/multilingualism and Schooling

One of the most obvious manifestations of the transforming sociolinguistic landscape among the Al-Sayyid over the last 30 years is the widespread bi/multilingualism among both deaf and hearing (see fig. 3). The increase in literacy rates is another significant yet unequal sociolinguistic development, with deaf students having relatively poor literacy skills compared to their hearing counterparts. Primarily the result of separate schooling, increases in bilingualism and literacy are accompanied by the shrinking of the social space shared by deaf and hearing. Not only did they attend separate schools, the

---

22 The main program providing such training is the local branch of Micha, a rehabilitation center for preschool infants and toddlers. Although other Micha centers in Israel provide services in Arabic, Micha Beersheba was established in 1964 but did not have any Arabic speaking staff until 2007. Earlier only few Bedouin children were welcomed by this center, this has changed now that increasingly more Bedouin children have CIs and with the passing of the rehabilitative day care act. The center is known for its oral approach and strongly encourages CIs.
different social networks and social resources obtained through schooling result in different life trajectories and opportunities for deaf and hearing. For example, so far deaf people have no access to higher education nor a place among the related emerging class of Bedouin young professionals. At the same time, the employment of several deaf women as teaching assistants at local schools results in their slightly higher employment rate compared with their hearing sisters. Increased participation in social activities reserved for deaf people as well as the more recent deaf-deaf marriages of several deaf women all mark a new “sense of Deafhood” (Ladd 2003) and deaf sociality emerging among deaf Al-Sayyid and other Negev Bedouin (Kisch 2007a).

Largely mediated by the introduction of deaf schooling, changes in both labour and marriage patterns generally correspond to the grouping of the deaf signers presented in the previous section. Towards the end of this section I will review the major differences in these respects between generations of signers and their sociolinguistic implications.

Despite the differences between deaf and hearing, men and women, the members of the Al-Sayyid shared signing community regularly move between languages; primarily Arabic, Hebrew, the local Al-Sayyid Bedouin Sign Language and Israeli Sign Language. Accordingly, code switching and mixing are increasingly common. Hearing signers often switch between speech and sign, or sign their Arabic. Deaf signers who prefer to communicate in ISL with their peers (those in cohorts 3.2, 4.1, and some from 4.2) increasingly use ISL with (schooled) deaf relatives in home settings where they otherwise communicate in ABSL. Deaf children in the youngest cohort who do not have immediate deaf relatives have most often been observed to introduce ISL signs to hearing relatives at home. Both result in common code-switching and mixing.

---

23 Another form of mixing, namely the mouthing of Hebrew or Arabic words or names, is uncommon in daily communication (with exceptions among children with CIs, the few deaf signers with significant residual hearing, and some less-fluent hearing signers).
Hearing signers’ bilingualism in the local spoken and signed languages (bimodal bilingualism, Emmory et. al. 2008) is one of the notable attributes of shared signing communities. With the introduction of schooling, increased access to media, and increased participation of hearing men in the labour market, unimodal bilingualism also gradually became more common for both deaf (ABSL and ISL) and hearing (spoken Arabic and Hebrew) people. Deaf people were introduced to the national sign language through schooling, but also through electronic media (such as signed interpretation on TV and more recently also virtual social networks with video communication). When literacy is considered as an additional modality (c.f. Grosjean 2010), deaf people are also increasingly becoming bimodal bilinguals, as literacy introduced deaf people to a new language (Hebrew or Arabic). Yet, not all Niv students have functional literacy skills; others have relatively poor skills but regularly use Hebrew vocabulary for SMS (Short Message Service).

While the social space shared by deaf and hearing is generally accommodating for deaf people in shared signing communities, social

---

24 The education available to deaf Negev Bedouin is comparable to the education available to their hearing Bedouin peers and to deaf Jewish students, that is to say, all groups fare worse than do hearing Jewish students.
structures and practices should be examined for how they may both facilitate and restrict deaf people (Kisch 2007a, 2008a). Even though separate deaf schooling and new marriage and work patterns have reduced the social space shared by deaf and hearing, these processes also allow deaf people to gain valuable resources (such as an education, some literacy, a vocation, work and income, and new social networks) to better their lives and opportunities.

**Changing marriage and labour patterns**

Finally I will review the major differences in marriage and labour patterns between the previously demarcated Al-Sayyid generations of signers, and their sociolinguistic implications.

For the first generation of deaf and hearing signers, marriage across the Al-Sayyid lineages was crucial to exposing a greater number of hearing relatives to frequent signed communication in the then-emerging signing system. All Al-Sayyid lineages included second generation (deaf or hearing) signers. All the deaf signers of this generation married hearing partners, and half of them married across the lineages. This further contributed to the spread of signed communication and the increase of fluent hearing signers.

The more recent occurrence of deaf-deaf marriages of third generation (3.2) brides, have quite a different sociolinguistic effect, enhancing the use of and preference for ISL. Generally, deaf-deaf marriages involve the migration of deaf women from the Al-Sayyid settlement to neighbouring, even distant, locations - reducing their own as well as their children’s interaction with both deaf and hearing local signers. Most of these brides gradually adjust to their primarily hearing in-laws’ homesigns but communicate in ISL with their husbands.

With one exception, deaf-deaf marriages are restricted to women of the (3.2) cohort who are married to non-Al-Sayyid deaf husbands: one second generation deaf man married a much younger third generation deaf woman as a second wife. They constitute the first and - so far, only - local Al-Sayyid deaf-deaf couple. While they generally communicate in ABSL, the young deaf bride encourages her husband to learn ISL and to use it with their infant deaf daughter. At least three third generation deaf Al-Sayyid men considered

---

25 Two of these men married hearing women from outside of the community.
finding a deaf partner but ended up marrying hearing relatives. For most of the partners involved, deaf-deaf marriages constitute a new form of deaf sociality corresponding to an emerging and gendered sense of Deafhood among the Negev Bedouin (Kisch, 2007).

The marriage and residential patterns of hearing signers are equally important for tracing the avenues of linguistic transmission and variation. While most men and women remain in the village after marriage, women rarely remain in the same residential compounds or clusters, as many marry across the major Al-Sayyid lineages. Thus, concluding that there are strong bonds within but not across families (Goldin-Meadow 2005:2271), is inaccurate.

**Labour and social networks**

Lastly, generations of signers also differ in the labour patterns that inform their sociolinguistic networks. Mostly, Bedouin (men) inhabit the lower strata of the Israeli labor market. Negev Bedouin’s unemployment rates are among the highest in the country (Marx 2000, Jakubowska 2000, Abu-Rabia 2000). Thus, finding work does not only generate social networks but almost entirely depends on them.

Among the Negev Bedouin, the shift from household production to wage labor introduced new inequalities and social gaps. Thus while a class of Bedouin young professionals is emerging, the Bedouin labour pool is still mostly made up of unskilled men with primary school education.

In the era that corresponds to the adult lives of first generation deaf signers, Bedouin were largely kept out of the labour market (Marx 1967), and wage labour was rare. Also farming and animal husbandry—previously the dominant sources of livelihood—were then limited by the restrictions of military rule. Mostly unskilled wage labour started to occur in the next generation (corresponding to second generation signers), but labour was still largely organized through family networks. Most common were families pooling for seasonal agricultural labour; later family cooperations among the Al-Sayyid often involved father and sons, or several brothers sharing the contracting of heavy equipment. In the age group of third generation signers, increasingly more men work in occasional or more stable manual-labour jobs. Yet, kin-based networks often remain important in finding work. For many
work involves weekly commuting to the centre of the country, sharing lodgings with co-workers and relatives.

It was also during this generation that the already existing occupational differentiation among the Negev Bedouin grew significantly. Among the Al-Sayyid of this generation sources of income are as diverse as: seasonal agricultural workers, watchmen on construction sites, construction workers and several successful building contractors, tractor and truck drivers and several owners, and mechanics’ assistants and teachers. While many keep some livestock for domestic use, only very few among the Al-Sayyid maintain larger herds for profit.

Increasingly, deaf men from the third generation of signers found employment mediated by their vocational school and their non-kin deaf social network. Vocational training mostly provided them with skills such as welding, assistant mechanics or cooking. However they also entered the labour market at a time of a general slowdown in the national economy and a sharp decline in the number of gainfully employed Bedouin. Despite the fact than more young deaf men have at least some vocational training, the recent recession and further rise in already exceptionally high unemployment rates has left many hearing and most deaf men unemployed and dependent on welfare benefits and occasional informal day work.

Only a small portion of Bedouin women participate in the labour market; those who do are mostly employed as trained and untrained educational staff at the local schools, as is the case for most employed hearing young women among the Al-Sayyid. Employment rates among young deaf women are even slightly higher than those of hearing women of their age.

With some vocational training but poor literacy, deaf men and women occupy the middle range of occupations. Disparities between deaf and hearing are mainly manifested in the ease of access to a (limited) number of vocational training opportunities and the lack of access to higher education and consequently to the highest strata of the labour market\textsuperscript{26}. These shifts in the structure of labour have had several sociolinguistic consequences.

\textsuperscript{26} This would include not only certified teachers and higher ranking educational staff but also more than a dozen (hearing) young men who have studied dentistry, medicine, pharmacology and law abroad.
Work in the community or through kin-based networks and cooperation enhanced the use of local sign language and the social space shared by deaf and hearing signers. The individual integration of deaf people in the labour market was assisted by some degree of literacy in Hebrew for basic work-related communication, and often did not enhance any signed communication other than some ad hoc gesturing. Joint employment of deaf young men (commuting and sharing lodging) is mostly an extension of their school networks and enhanced their daily use of ISL.

Deaf women’s employment as assistants at the local schools enhanced both their communication with hearing relatives in ABSL as well as their use of ISL with fellow deaf assistants and their students. Their lack of training in Arabic (all assistants so far are of the 3.2 Niv cohort) had occasionally been used to question their qualification for the job. However, their employment has generally contributed to their own status as well as to the acknowledgement of the value of signed communication. Most significantly it has contributed to the shaping of their young students’ sociolinguistic environment.

CONCLUSION

Based on analysis of kin and non-kin social networks, the major shifts in the sociolinguistic settings, and the actual observed communication practices of deaf and hearing signers, this paper identifies four generations of Al-Sayyid deaf signers (including 4 sub cohorts). Hearing signers can generally be classified in accordance with the deaf relatives of their age group. However, it is equally important to examine their social networks and establish which signing relatives and individuals they communicated with regularly as indicated by the recording of genealogies, residential patterns, observations and interviews.

The availability and range of signed input is the major factor distinguishing generations of signers. The primary factor distinguishing first and second generation signers was the absence of adult models for the first generation versus the second generation signers’ exposure to an emerging sign system and adult (hearing or deaf) signers. As the community grew, births of deaf people were increasingly spread throughout the community. Homesigns have most likely evolved in the hearing families of several second generation signers, inspired by hearing signers who had some exposure to the
earlier signing of relatives. Hearing signers soon outnumbered deaf ones and play an important role in the development of the local signing system and in its maintenance and intergenerational transmission.

Besides tracing avenues of intergenerational transmission I underscore the exposure and input from other languages. Here, as is the case for all shared sign languages, the spoken language of all hearing signers is most obvious. Moreover, in the case of Al-Sayyid, deaf signers are exposed to other sign languages and are increasingly bilingual. For first and second generation signers, encounters with other sign languages occurred only in their teens or later and thus interference might be limited. Yet, it is not the case, as concluded, for example, by Aronoff and colleagues (2005), that the first two generations had no contact with other deaf people. Once formal deaf education was introduced, exposure to ISL and to written language (Hebrew or Arabic) could no longer be ignored when defining criteria to distinguish between second and third generation signers. Thus, I urge meticulous consideration of the potential influences of such factors in demarcating the generations that are compared for the purpose of detecting variation in linguistic properties.

Regardless of the linguistic skills developed in those languages, exposure to other languages cannot be dismissed or rendered negligible. Even in the absence of fluency or full bilingualism, it has been suggested that very partial linguistic knowledge held by only a few of those involved in the emergence of a novel language may have an influence (Arbib 2009). It would thus be remarkable if widespread (signed, spoken and bimodal) bilingualism did not leave recognizable marks on the development of ABSL. Before such influences can be persuasively ruled out, it is essential to first group signers in accordance with their different linguistic inputs and sociolinguistic settings. In other words, only careful prior consideration of potential linguistic models and interfaces would corroborate claims regarding their insignificance. Padden et. al. (2010) briefly mention finding support for the effect of schooling on signers’ word order in ABSL. Yet, most of the publications on ABSL overlook widespread bilingualism and schooling among Al-Sayyid signers.

---

27 As claimed by Aronoff et. al. 2005, 2008; Sandler et. al. 2005.
28 With the exception of Meir 2010 and Padden et. al 2010.
The most prominent sociolinguistic factor distinguishing second and third generation (deaf) signers among the Al-Sayyid is access to education. The four cohorts of the third and fourth generation deaf signers are primarily distinguished by their increased and partially formalized linguistic exposure and their social networks resulting from different educational settings. Schooling in general introduced students to a new signing system, and at least some literacy. Additionally, it introduced deaf students to an additional signing (student) community and reduced the social space shared by deaf and hearing. Consequently, deaf schooling transformed the Al-Sayyid sociolinguistic landscape for both deaf and hearing.

Only 14 out of the total of 134 deaf descendants among all generations of Al-Sayyid have not experienced some form of schooling. Two aspects of schooling need to be considered: the exposure to the language used for instruction, and the way schooling shaped students’ sociolinguistic networks. These social networks inspired new labour and marriage patterns among deaf people and enhanced the prestige attached to ISL. These factors contribute to students’ language development and their use of ISL as much as, if not more than, the official instruction.

In other shared signing communities social factors might interact differently in shaping the sociolinguistic landscape. Factors might not correlate as neatly as Al-Sayyid age groups correspond to school attendance. Additionally, social factors might not be as markedly interrelated; among the Al-Sayyid major shifts in both labour and marriage patterns of deaf men and women are mediated foremost by schooling. In Adamorobe (Ghana), employment is strongly related to migration but few deaf people engage in it (Nyst, 2007; Kusters 2012). In Desa Kolok (Bali), deaf men and some deaf women commonly participate in several deaf labor teams, performing distinctive tasks in the village and beyond (Marsaja 2008; deVos, this volume). Such employment patterns create social space and roles reserved for deaf people. In addition, in Desa Kolok, deaf-deaf marriages occurred early on in the history of the community (Marsaja 2008) unmediated by deaf schooling.

Many social factors have gendered effects, differently shaping men’s and women’s networks. This is most obviously the case for marriage in both Adamorobe and Al-Sayyid though in utterly different ways. In Adamorobe marriage options are more severely limited for deaf men (Kusters 2012), possibly restricting their social network and the intergenerational transition of AdaSL. In Al-Sayyid while married men mostly remain in the same
residential environment, married women move to a new environment within the village, and more recently away from the village to be wed to deaf partners with whom they communicate in ISL. Also work and schooling differently inform the social networks of Bedouin (deaf and hearing) men and women.

Many more differences exist between these communities (see Kisch 2008a; Nyst 2012) but these few examples indicate that the sociolinguistic impact or relevance of social factors may vary significantly. My point is that exploring social networks remains a key factor in recognizing the factors transforming sociolinguistic landscapes (c.f. Milroy 1980). Furthermore, when variation in sociolinguistic networks does not correspond to age-related factors there is no reason to assume variation in signing is solely - or even primarily - along generational lines. All possible avenues for language exposure, spread, and transmission should be considered.

For shared sign languages that linguists may consider to be emerging, tracing kinship and descent is essential for the identification of the first assumed signers, and for revealing possible avenues for the intergenerational transmission of their linguistic practices. In studies of shared sign languages that are no longer traceable to their first users, identifying sociolinguistic generations of signers might be less consequential. Nevertheless, given the often prominent role of kinship in shaping social relations and language acquisition, tracing kinship and descent can be instructive in understanding the social and sociolinguistic setting and history. In both cases it remains important to recognize that kinship charts do not represent actual social relations. Moreover, as descent-groups grow their genealogies become increasingly convoluted and ambiguous. It is thus essential to distinguish between structural generations of descent (typically represented in kinship diagrams) and generations of actual contemporaries assumed to have shared socio-cultural experiences. Next the shared circumstances they were actually subject to need to be identified, and their potential sociolinguistic effects analysed. When kinship is assumed to be a dominant factor in shaping social relations, it can be an even greater source of confusion on both the emic and etic levels. Despite cultural idioms, kinship is seldom the only source for networks of affiliation and collaboration. Based on my data, I illustrate the importance of complementing kinship diagrams with an analysis of actual (kin and non-kin) social relations. I show how critical it is to situate such information in its social and historical context, and to consider intra-
generational age gaps, residential patterns and actual social relations whenever genealogies are recorded in order to reconstruct the language environment, contemporaries and adult models of past generations.

Finally, to return to the Al-Sayyid shared sign language, bi/multilingualism is characteristic of its sociolinguistic landscape. Deaf and hearing Al-Sayyid signers are embedded in several diverse language communities. Bilingualism and preference for ISL should not only be acknowledged for the sake of recognizing (or refuting) possible influences on ABSL. From an anthropological perspective, it is equally important to recognize how these practices may transform social relations. Among the Al-Sayyid -as is often distinctive to shared signing communities - signing is not only used by deaf people to communicate among themselves. Rather signing is what deaf and hearing people do to communicate. This remains the case for the use of the local sign language (ABSL). Yet, the use of Israeli Sign Language (ISL) is increasingly becoming an instrument of deafness, and something not as readily shared between deaf and hearing people. Thus ISL is emerging as a marker of deaf sociality; it is what young deaf people use among themselves. For younger generations, ABSL might increasingly become the language largely reserved for communicating with hearing people. Such developments both underscore the shared nature of such sign languages and further indicate the shifting boundaries of the Al-Sayyid shared signing community. Ethnographically sound methods reveal that even when the distinctiveness of community boundaries seem apparent to its members and to outside observers, it is important to remember that networks of relationships and related sociolinguistic practices have far less distinct boundaries.