

Dialectal, Gender-Based, and Cross-Generational Variation in Negev Arabic Spatial Representations

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Introduction

Spatial cognition plays a central role in human thinking and reasoning (Pederson et al. 1998). Space is universally experienced, yet culturally specific (Levinson 2003). The extent and nature of cross-linguistic variation in linguistic and cognitive categorization remains an open question in contemporary linguistics (Evans & Levinson 2009; Li & Gleitman 2002).

The spatial language of Negev Arabic (NA; southern Israel) has only recently begun to receive attention, starting with Cerqueglini (2015), followed by Cerqueglini & Henkin (2017 a; b). I describe here some cases of sociolinguistic variation in linguistic and cognitive spatial representations across dialects, genders, and age groups. First described as one language (Blanc 1970), NA was reconsidered a koine of tribal languages with various origins (Henkin 2010; Shawarbah 2012) that converged around the Negev beginning in the seventeenth century (Bailey 1985). Today, NA is defined as a cluster of Northwestern Ḥijāzi Bedouin dialects spoken across Sinai, the Negev, and Jordan (De Jong 2000; Palva 1991). NA variation is based on several morphological differences (Palva 1984) and reflects the self-perception of NA tribal confederations. Except for the works of Alatamin (2011), Henkin (2010), and Shawarbah (2007; 2012), NA dialects remain in general under-documented, some severely.

I focus here on the sociolinguistic variations in linguistic and cognitive representations of projective spatial relations on the horizontal plane. Projective spatial relations of the type “Mario is left/in front/north of Joseph” require the expression of angular values. Angular values are conveyed by means of coordinate systems known as frames of reference (FoRs; Levinson 2006). To simplify the very complex picture of NA internal differences, sociolinguistic variations are described in this paper with respect to the traditional aṣ-Ṣāniṣ FoRs model, based on the linguistic and cognitive data elicited in the pilot study carried out on the elders, both women and men over age 70, of the aṣ-Ṣāniṣ tribe (Cerqueglini 2015). Thus, I begin by introducing the traditional aṣ-Ṣāniṣ FoRs model, and then show

some of the tribal, gender-based, and age-based differences I found during my fieldwork (2012–present).¹

Based on the cross-generational pilot survey conducted on the aṣ-Ṣāniṣ tribe (Cerqueglini, 2015; Cerqueglini, 2019), I expect to find a mismatch between cognitive and linguistic structures in other traditional and modern Negev Arabic varieties. I expect to observe a range of framing strategies in languages wider than that of the cognitive options, with a primacy of absolute strategies in cognitive representations (Bohnmeyer et al., 2014). Moreover, since Negev Arabic linguistic and cognitive structures could be only partly isomorphic, absolute cognitive strategies may survive over the generations even among younger speakers, who no longer use cardinal directions in language, similarly to what was Dunn et al. (2003) found in Gurindji.

1 Negev Arabic Tribes and Age Groups: The Informants

In addition to smaller groups of semi-nomadic and sedentary clients and protégés, six main Bedouin tribal confederations inhabit the Negev today: ʿAzāzmih, Gdērāt, Ḍullām, Tarābīn, Tiyaḥa, and Maṣāniyyih. The aṣ-Ṣāniṣ group belongs to the Gdērāt confederation. Once free to wander across deserts and steppes around the Fertile Crescent and North Africa, the Negev Bedouin were forced to settle after the establishment of the State of Israel and the creation of boundaries between Jordan, Israel, and Egypt. Today they live in seven recognized villages provided with state infrastructure (Ḥūrah, Kseyfeh, Ligiyyih, Raḥaṭ, ʿArʿarah, Sgīb is-Salām, and Tal is-Sebaṣ) and in unrecognized encampments across the Negev. Phonological and morphological features distinguish the traditional NA dialects (TNA), spoken by the elders over age 70 from each other. The young people of all groups (under age 40) speak a leveled variety of their home dialect (Young NA; YNA), influenced by the surrounding sedentary Palestinian dialects and standard Arabic. YNA is more uniform than TNA, but still distinct, depending on the average level of education and lifestyle of each tribe. Speakers between age 69 and 41 are grouped under the label Middle NA (MNA). Their language comprises a somewhat transitional stage between TNA and YNA. For each of the six tribal groups, I tested 20 informants (10 women/men) in each of the three age groups (total 360 individuals).

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2 Frames of Reference in Language and Cognition

Levinson (2003) defines spatial FoRs as semantic and cognitive strategies used to project coordinate systems onto spatial arrays. By such means, we can locate any object F (Figure) in relation to another object G (Ground) (Talmy 2000). Coordinate systems can derive from G's axial asymmetries (Intrinsic FoR), from the Observer (Relative FoR) or from external bearings (Absolute FoR) (Levinson, 2003). Let us examine Figure 1:

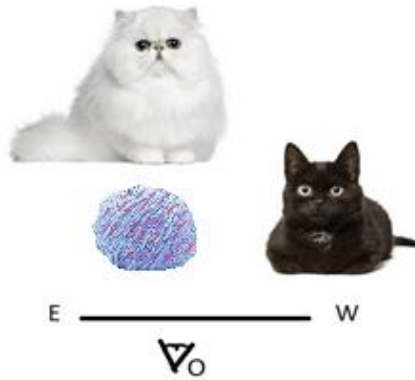


Figure 1. Example of Projective Spatial Arrays

According to the Absolute FoR, 'F-ball of wool is east of G-black cat.' For the Intrinsic FoR 'F-ball of wool is right of G-black cat,' according to G's inherent bodily partition. The Relative FoR can be used via Reflection ('F-black cat is right of G-ball of wool'; 'F-white cat is behind F-ball of wool'), 180° Rotation ('F-black cat is left of G-ball of wool'; 'F-white cat is behind F-ball of wool'), or Translation (F-black cat is right of G-ball of wool'; 'F-white cat is in front of G-ball of wool'). After Levinson (2003), FoRs underwent subsequent classifications (Bohnmeyer 2011; O'Meara & Pérez Báez 2011). The three original FoRs are very suitable for this study. I restrict my analysis here to the linguistic representations of front/back and lateral (right/left) axes of the horizontal plane.

3 Methodology

Linguistic tasks were based on the 'Man and Tree' pictures (Levinson et al. 1992). A native speaker 'director' describes a stimulus to a native speaker 'matcher,' who is behind a screen. Both know that they have the same set of stimuli and are facing in the same direction. The matcher can find the matching array from a set of contrasting arrays, randomly arranged. Pictures or toys can be used. The original core stimuli series includes six arrays with a man in different positions and directions in relation to a tree and to the observer (Levinson and Wilkins, 2006, Par. 1.4.2). I changed the protocol from director-

matcher to individual tasks, in which I asked each informant individually to describe the arrays I placed in front of her/him, posing the question ‘Where is x in relation to y?’ (e.g., *wīn al-faras min aš-šajarah?* ‘Where is the mare in relation to the tree?’). My stimuli included traditional/familiar (man/horse/coffee pot/cushion/knife/basket) and modern/unfamiliar (computer/chair/dinosaur/ball) toy objects. Multiplying the Gs for the number of different directions and positions of F with respect to G and the observer suggested by Levinson, I established sixty scenes. Informants were tested in a series of F-G arrays outdoors, in a house and in a tent. Each G was coded as +/- in relation to the semantic features [FAMILIAR]; [FACED]; [MOBILE]; [ANIMATE]; [HUMAN]. In F-G arrays, I coded the axial dimension [+/-ALIGNED] to O’s visual field, as this proved to be a major factor in certain Gs. Individual cognitive tasks followed tools and protocols described by Levinson (2003: 154–169), including recall, recognition, transitive inference, and maze tasks. As stated in Section 1, 360 individuals were tested.

This paper is based on the qualitative preparatory screening of the huge amount of data yielded by the fieldwork experiments. Nonetheless, some preliminary statistical data are concisely provided here for the sake of clarity.

4 The Traditional aš-Šāniš Pilot Survey: Linguistic and Cognitive Data

Traditional aš-Šāniš, both men and women consistently use all three Levinsonian FoRs (2003), selected according to G’s properties and some axial constraints:

- i. Intrinsic FoR is used to project the front/back axis onto familiar, culturally salient, culturally faceted, or asymmetrical and motor intelligent Gs (man/horse/camel/donkey/dog/carnivores/tent/coffee pot/knife), without axial constraints and regardless of O’s position;
- ii. Relative FoR is used only via Translation with G-stone/tree/sheep/goat when FG are aligned in the center of O’s visual field;
- iii. Absolute FoR is used to solve all other cases, including the representation of the lateral axis, according to astronomically-anchored and landmark-based strategies.

Absolute FoR is the only frame applied in all cognitive tasks by all elderly speakers, strikingly without exception.

4.1 Gender-based Variation in Traditional aş-Şāniş Language

In the language of elderly aş-Şāniş women, the Intrinsic orientation of the traditional tent (always facing east) reflects on traditional unshaped items that are inherent to it, e.g. tent-poles or hosting cushions:

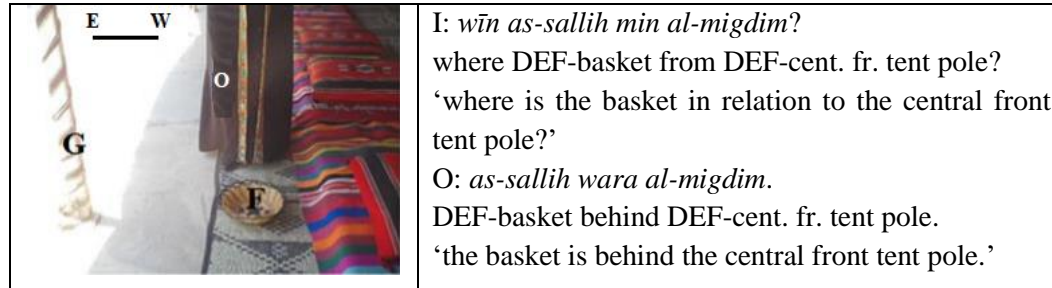


Figure 2. G-Pole/Cushion inside Tent, Priming Intrinsic FoR (O facing north)

In Figure 2, an elderly aş-Şāniş woman (O) facing a basket (F) declares it to be ‘behind’ the front tent-pole G to her right, towards the entrance. Since the Intrinsic front of the tent is invariably to the east, the basket west of the pole is indeed behind it. Notably, outside the tent, women conceptualized these same G-items (cushion/pole) as they do all other unshaped Gs, such as tree/stone.

5 Tribal Variations

In general, the system observed in traditional aş-Şāniş language is found, with minor differences, among the whole Gdērāt confederation and among the Tiyāha, related to the aş-Şāniş by customary intermarriage. Differences include a looser application of the axial constraints in linguistic representations (Cerqueglini, 2015), with 16% of male informants processing unshaped familiar Gs aligned with the observer absolutely instead of relatively. In cognitive experiments, elders from all tribes use the Absolute FoR exclusively. In řAzāzmih, řullām, and Tarābīn, considered the more conservative traditional varieties, the use of the Absolute FoR is much more generalized. This happens because the relative FoR is almost absent and the intrinsic FoR is restricted to faced, culturally salient, and familiar Gs, found in semantically salient arrays (e.g., a řAzāzmih elder never says: ‘the cushion is in front of the horse,’ despite the fact that G-horse can prime the intrinsic FoR, because no culturally salient action can happen between ‘horse’ and ‘cushion’). Some interesting differences among tribes and between genders are found in the use of cardinal directions. While the aş-Şāniş use four quadrants (*řimāl*, ‘north’; *řinūb*, ‘south’; *řarg*, ‘east’; and *řarb*, ‘west’), among other tribal elders, directions may be differently lexicalized and

conceptualized, as in the following paragraphs. The most intriguing cases are found among some branches of the ζ Azāzmih and the Tarābīn.

5.1 The ζ Azāzmih ‘West & North’

Figure 3 reports one of the cases in which the ζ Azāzmih informants, settled in unrecognized villages around Beer-Sheva, used the term *ġarb*, which usually means ‘west,’ to indicate what was actually ‘north.’ This behavior was registered only among ζ Azāzmih elders, in 35% of men’s responses and 57% of women’s.

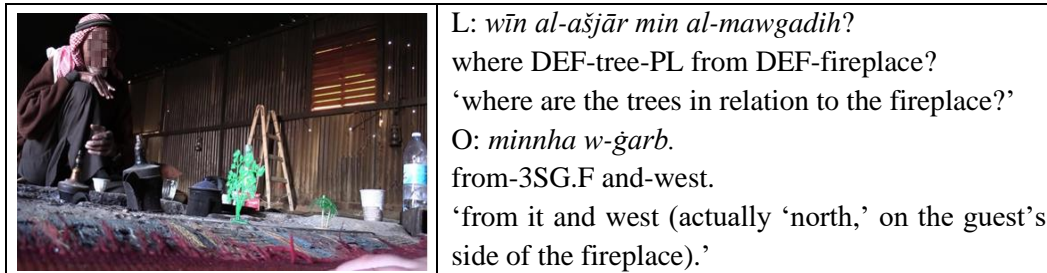


Figure 3. Use of *ġarb*, ‘west,’ for ‘north’

The use of *ġarb* for both ‘west’ and ‘north’ reflects an archaic pan-Bedouin orientation system, based exclusively on the east-west axis, with the four quadrants later derived from this basic opposition through the differentiation of south from east, and north from west (Cerqueglini & Henkin, 2017a). The conceptual conflation of ‘north’ and ‘west’ must be ancestral in Semitic, as in Aramaic we find *ġarbiya* for ‘north’ (from *ġ.r.b.*, the same root as NA *ġarb*, ‘west’). I have attempted, without success, to determine if *šarg* ‘east’ could ever also mean ‘south’ in ζ Azāzmih.

5.2 The Tarābīn Locally Anchored Absolute FoR

Another intriguing case regarding cardinal directions is the landmark-based Absolute system that appears among Tarābīn women, among whom the term *baḥriy*, ‘toward the sea’ is used to indicate west and, in some cases, north, a further example of the conflation of north and west. *Baḥriy* appears as ‘west’ in 67% of the indications of west and as ‘north’ in 36% of the indications of north. From the perspective of Negev inhabitants, nevertheless, the sea is toward the west and never toward the north. This landmark-based use of the Absolute FoR may therefore have been inherited from the period when the Tarābīn lived in North Africa, from which they claim to have originated. Figure 4 shows the gender-based difference in the strategies adopted to anchor the Absolute FoR, landmark-based for women and astronomical for men:


<p>L: <i>wīn al-ḥidwih min aš-šantih?</i> where DEF-shoe from DEF-bag? ‘where is the shoe in relation to the bag?’ O-Woman: <i>bahriy minnha</i> sea-side from-3SG.F ‘on the sea-side of the bag (north of the bag).’</p>	
<p>L: <i>wīn al-ḥidwih min aš-šantih?</i> where DEF-shoe from DEF-bag? ‘where is the shoe in relation to the bag?’ O-Man: <i>šimāl min aš-šantih.</i> north from DEF-bag. ‘north of the bag.’</p>	

Figure 4. Gender-based Differences in Absolute Anchoring Strategies among the Tarābīn

5.3 ‘Above’ and ‘Under’ among the Zullām Women

In the village of Mawlada, near Ḥūrah, I recorded repeated occurrences of *taḥt*, ‘under,’ and *fōg*, ‘above,’ corresponding to west and east respectively, with a much higher frequency of *fōg* instead of *šarg* for ‘east’ (45%), than of *taḥt* instead of *garb* for ‘west’ (28%).


	<p>L: <i>wīn al-xarūf min aš-šjār?</i> where DEF-lamb from DEF-tree-PL? ‘where is the lamb in relation to the trees?’ O: <i>taḥt minnha</i> under from-3SG.F ‘under them (west of them)’</p>
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Figure 5. Use of *taḥt* ‘Down’ for ‘South’ among Zullām Women

The use of vertical prepositions to describe relations on the horizontal plane is only found among women and it is applied in accordance with the natural slopes of the sandy hills that characterize the local environment of the northeastern Negev, toward the Dead Sea. Uphill corresponds with east, downhill with west. The conflation of the natural slope with its cardinal direction is also found among the az-Zafīr Bedouin of the Arabian Peninsula (Ingham 2002; Musil 1928).

6 Age-based Variations

The gender-based differences found in TNA varieties are absent from MNA and YNA. Lifestyle changes and a less rigid separation of women’s and men’s spaces and activities

led to the convergence of referential styles. While MNA informants can describe the same spatial array in different ways, according to the traditional system or to new patterns, YNA has fully developed the lateral axis (right/left distinction). The intrinsic FoR is extended to many asymmetric Gs, independently of their cultural relevance. YNA Relative FoR is no longer applied by translation, but rather by reflection or rotation. In MNA, Absolute FoR is gradually regressing. It has disappeared completely from YNA linguistic use. Yet, the Absolute FoR remains the only cognitive strategy across all generations (Figure 6):

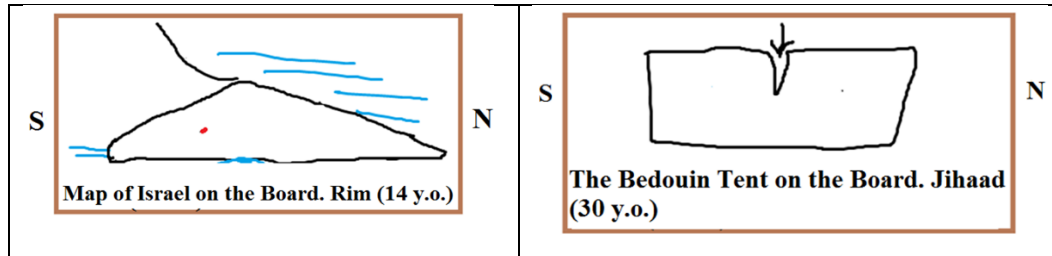


Figure 6. YNA Absolute Cognition

Figure 6 shows inherently oriented entities sketched by YNA speakers following the orientation of the objects with the cardinal orientation of the board where they drew, with N(orth) to the right of the reader.

Discussion and Conclusion

The presence of the Absolute FoR in all TNA dialects, while Intrinsic and Relative FoRs are found only in some of the groups, supports the hypothesis of the primeval, pan-Bedouin use of the Absolute FoR. These findings are in line with the theory expressed in Bohmeyer et al. (2014) that the Absolute orientation must have been the original, universal, human spatial experience. The ʕAzāzmih data support the hypothesis of an ancestral axial conception of the world among the Bedouin. Interestingly, all TNA gender-based referential differences reveal women's bias toward the use of locally-anchored Absolute strategies, while men use astronomical directions. In particular, Tarābīn women seem to preserve the anchoring system of local landmarks of the land of their origin in North Africa. The persistence of the Absolute FoR in YNA cognition, while it is not present in YNA language, supports the independence of cognitive strategies from linguistic ones. A similar case of language change and concomitant persistence of cognitive structures has recently been described in Gurindji by Dunn et al. (2003).

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