Viewpoint in Language

A Multimodal Perspective

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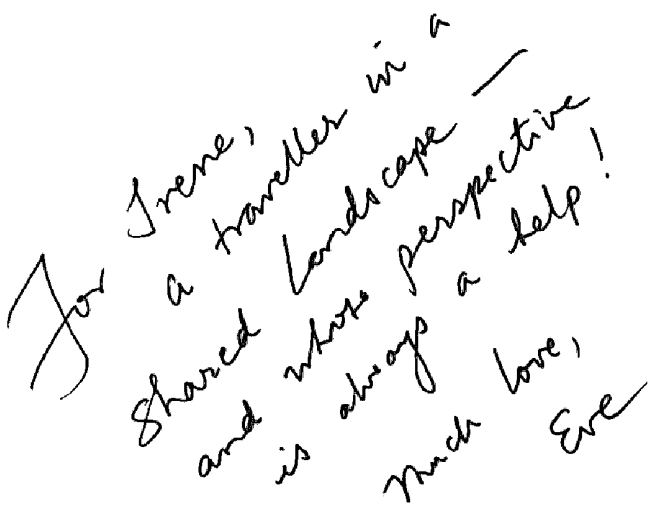

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Motivating the use of static and rotated vantage point space in ASL discourse

Terry Janzen

7.1 Introduction

Descriptions of how American Sign Language (ASL) signers use space in their narrative discourse have revealed that there are two distinct ways that spatial scenes are oriented. In more traditional descriptions (e.g. Friedman 1975; Lillo-Martin 1995), signers conceptualize a static scene space when engaged in narrative discourse, such that the interactants and objects in the conceptualized scene are positioned around the signer's articulation space and remain static. The signer can move from vantage point to vantage point around the spaces, which prototypically correspond to human interactants' perspectives on the scene, by "body shifting" towards each interactant's position in the scene space. More recently, however, research has revealed a second type of scene space conceptualized by the narrator in ASL, called "mentally rotated space" in Janzen (2004, 2005, 2008). In this case, the conceptualized space is mentally rotated so that interactants' vantage points in a narrative passage are aligned with that of the signer. The signer does not use body shifts in order to view the conceptualized space from different angles, but instead shifts the space mentally as if it were on a turntable. In the case of mentally rotated space, both signer and addressee must be cognizant of the spatial organization of the conceptualized space from each interactant's vantage point as the signer brings each of these views into alignment with her own view of the imagined space (see Figure 7.1).

Each of these two complex uses of space has consequences for grammatical organization in ASL. For example, when using static space, non-present referents occupy distinct and differential points in space. Reference to any one of these spaces unambiguously evokes that referent. When a scene space is rotated, on the other hand, a referent occupies different locus points in the signer's articulation space, depending on which vantage point is active at a given moment. The identity of the referent intended by a pointing pronominal or eye gaze direction may only be accessible once the vantage point being enacted has been identified. An extreme grammatical effect in this regard is

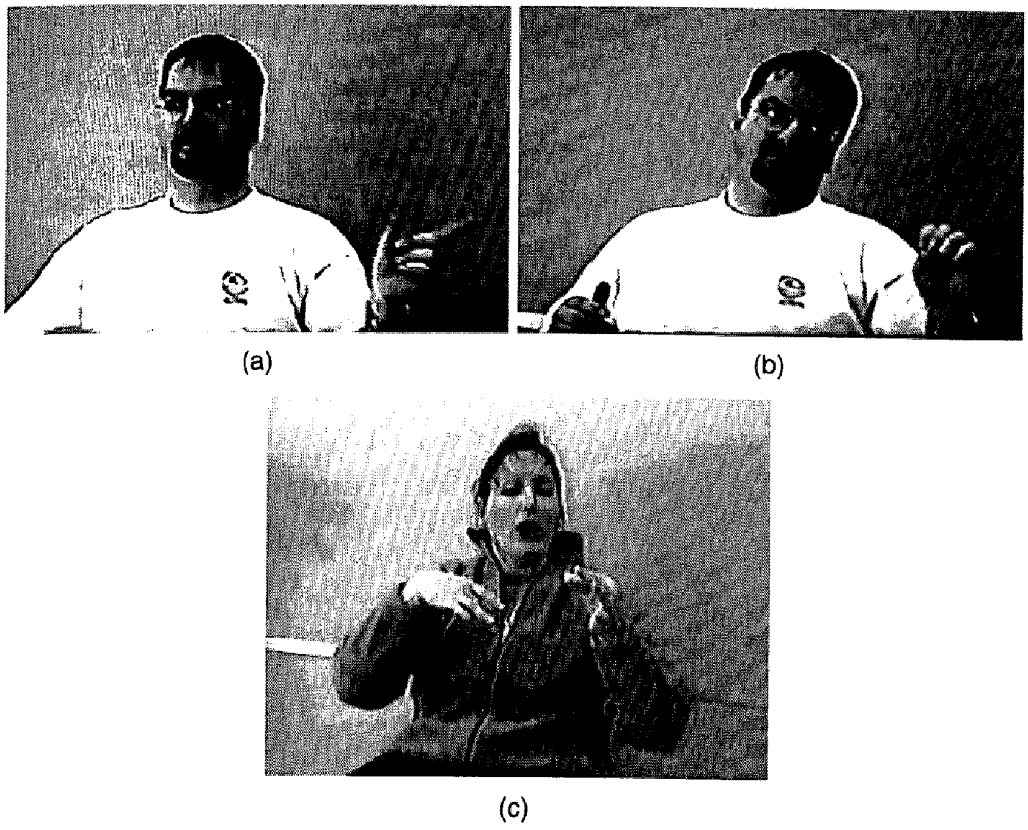


Figure 7.1 In (a) and (b) the signer indicates a "static" space orientation, where he points to a space (a) and uses a body shift (b) towards that space to represent the viewpoint of the referent occupying the space. To represent a different viewpoint, the signer would shift towards a different space. In (c) the signer does not shift physically to another space, but aligns the viewpoint of a referent other than herself (here a police officer) with her own Real Space view on the spatial scene. To represent a different viewpoint, the signer would next realign that viewpoint with her own, again with no physical shift to a different spatial position.

that two references to the same point in the signer's articulation space can variously refer to two distinct referents, depending on which vantage point is active.

The present study seeks to identify when each of the two conceptualized spatial orientations is realized in ASL discourse, and if possible, why. The literature on perspective marking through body shifts in ASL, here referred to as the use of static space, has assumed that this has been a mechanism in narrative discourse, with the exception of Winston (1995), who is not so much concerned with the discourse genre, but who describes body shifts in space when the signer is engaged in a comparative discourse frame. What

emerges in the present work is that body shifts in a static space were not used in narrative discourse. Instead, signers invoked mentally rotated spaces in narratives, and reserved static space use for non-narrative comparative frame discourse.

In what follows I discuss aspects of how space is used in signed language discourse when the signer portrays either her own viewpoint on a scene or the viewpoints of others, and in particular how shifts from one to another take place. We look in detail at how signers mentally rotate a conceptualized space in narratives and how a static space is employed in comparative frame sequences, along with some effects each has on grammatical structures. We then examine an example in which these two spatial orientations interact – that is, when a signer builds a comparative frame space, then inserts a short narrative for which he shifts to a mentally rotated space, and then returns to the static space of the comparative frame once again. This example is significant because it demonstrates the extent to which the two orientations towards space are distinct, both in their occurrence in different discourse genres and in their corresponding differential grammatical features.

7.2 The corpus of data: narratives embedded in conversational ASL

In this study we look at interactive ASL discourse found in a ten-hour corpus of videotaped ASL conversational data, to compare the use of static versus mentally rotated space and the discourse circumstances within which each type is found. The conversations in this corpus contain numerous narrative passages of varying lengths, as is typical of discourse among friends. The ASL signers are all members of the Deaf community in Winnipeg, Canada, but despite some potential for these data to include dialect features of the region, these signers' use of space is thought to be characteristic of ASL generally. The examples of both static and mentally rotated space described and discussed below are taken from several of the texts in the corpus, chosen because they are particularly illustrative, but it should be noted that across the corpus – that is, for all ASL users recorded – the use of space as outlined below was remarkably consistent.

As mentioned, if two such distinct functional uses of space exist, we might wonder what motivates the signer to use one over the other. Some additional questions might be asked as well: Do signers "prefer" one mechanism of using space over the other? And perhaps most importantly, do the two types have differing discourse effects? The present study examines these questions by analyzing spatial features in the ASL corpus mentioned above. Ultimately, this examination illustrates how gesture, conceptualized vantage point, and grammar are interlaced in conversational discourse in a signed language.

7.3 Using space to portray shifting vantage points

In building a static space the signer designates an entity *x* at some locus *a* and then shifts physically towards *a* in her signing, or articulatory, space to portray the view of the scene space that *x* takes. When more than one entity is designated as such, the signer may shift towards each locus in turn, while typically looking at the other locus (if the two entities are portrayed as interacting). This description of the use of space for perspective shifts in narrative discourse is exemplified by Lillo-Martin (1995: 162) as follows:

(1) ‹ $_a$shift›
$_a$MOM $_a$POV $_1$PRONOUN BUSY
Mom (from Mom's point of view), I'm busy.
Mom's like, I'm busy!

In this example the signer shifts to a locus associated with MOM, designated as subscript "a", and then presents a comment as reported speech. The body shift towards the mom locus in the signer's real articulation space is an overt marker, both for identifying the referent whose perspective is being taken and that the perspective on the scene space is shifting away from that of the signer herself. The potential for a signer to shift perspectives in this manner has been demonstrated not only in ASL, but in numerous signed languages – for example, British Sign Language (Morgan 1999), Danish Sign Language (Engberg-Pedersen 1993, 1995), French Sign Language (Sallandre and Cuxac 2002), and Irish Sign Language (Ó Baoill and Matthews 2000) – which suggests at the very least that in many signed languages, real space blends are reflected in signers' bodily interaction with the actual space that surrounds them.

Even though this use of space – with designating loci around the signer's space as spatial placeholders for referents in the signer's narrative discourse and body shifts towards these loci to align with and portray actions (including linguistic action) from their various vantage points – appears to be pervasive, we cannot conclude that its use, with this function in particular, is universal among signed languages for three reasons. First, perspective marking and perspective shift mechanisms have not been described for the majority of signed languages in use worldwide, so there is at present no way of knowing whether all signed languages use this mechanism to at least some degree. Second, some signed languages appear to use body shifts to located referents to a much lesser extent than has been reported for ASL – for example, in Swedish Sign Language (Ahlgren and Bergman 1994; Nilssen 2008) – and Engberg-Pedersen's (1993) account of perspective marking in Danish Sign Language includes a body shift as only one possibility. Even some descriptions of the use of space in ASL have alluded to perspective shifting without body shifts (Padden 1986; Meier 1990), but such descriptions have not fully explored the details of these observations

nor the conceptual motivations behind them. Third, the findings of Janzen (2004, 2005, 2008) show that in narrative discourse signers consistently use mentally rotated space conceptualizations, and the present study demonstrates that, in contrast, static space – locating referents and body shifting towards them – is reserved for comparative discourse frames.

7.3.1 Real Space and articulation space

Real Space is defined by Liddell (2003) as someone's conceptualization of an actual space in an immediate environment obtained by their perceptions of the space and the items within it. Blends are produced when non-present entities, either imagined or recalled from memory, are mapped onto real space, which then may be interacted with bodily either through gestures as Narayan (this volume) demonstrates, or through linguistic means in signed languages, where articulators – hands and body, for the most part – reach out into actual space. Dudis (2004) illustrates this in his descriptions of complex blends, such as with the motorcyclist in a signed construction. Here the signer conceptualizes a motorcyclist traveling up a hill as mapped onto a Real Space in front of him, with his hands depicted as grasping the handlebars as part of his articulated linguistic structure. This understanding of blended spaces and articulation fits well with the claim in Janzen (2007) that real-world events and objects are never directly mapped onto articulation space, but are always mediated by conceptual space, and thus are readily affected by construal – that is, subjective point of view. This fact is captured in Shaffer's (this volume) study of evidentiality in that the interlocutors in her study of ASL turn from the present discourse space to a past discourse space from which some evidence for a claim is drawn. This conceptualized space is positioned in Real Space to the side away from the addressee, but very little of this past interaction with an interlocutor is overtly specified; thus the signer construes a less-distinguishable "other," distant in both (past) time and space, that is the source of evidence for the present claim.

7.3.2 Conceptualizing space as mentally rotated space

In a mentally rotated space, the signer portrays others' vantage points on a scene by aligning a conceptualized scene space as someone else might view it with her own view of the space. Instead of moving physically towards a locus where referent *x* is designated as with the use of static space, the signer realigns the entire scene so that referent *x*'s view comes into alignment with her own view. Typically, this entails rotating the space 180 degrees, because interactions between people, especially those involving discourse, are more often than not face to face. In a signed language, this is perhaps even more the case because of the visual language medium: signers must look at each other in order to see each other's contributions to the discourse.[1]

In one narrative the signer tells of an encounter with police officers and an incident on the highway.[2] In the story, a police officer motions for everyone to pull off the road onto the shoulder because of an incident taking place further up the road. The driver of the vehicle that the narrator was riding in, her mother, complies, as do other vehicles. The people in the signer's car and the police officer standing on the road ahead face one another, and their exchange – actions and reactions – is recounted in the narrative. Here, as in the narrative passages throughout the corpus, the signer mentally rotates the scene space from the vantage point of someone in the car – usually the mother, but occasionally the signer herself[3] – to the vantage point of the police officer. Choosing a mentally rotated space orientation over static space has numerous consequences in terms of the grammatical features that appear in signers' discourse. If the signer were to choose to use a static space, then reference tracking, which has been extensively reported on (e.g. Friedman 1975; Padden 1986; Aarons *et al.* 1994; Lillo-Martin 1995), would involve the positioning of referents at various locations in the signer's articulation space and then using discrete pointing, body shifts, eye gaze, and so on (see Winston 1995), towards these designated spaces, with the idea that only one entity can occupy a given space at any time. For example, an entity positioned in a space to the signer's left remains cognitively salient at that location; the signer can further refer to it by pointing, eye gaze, and so on, from her own point of view, or, supposing that she also positions a referent in a rightward space, she may body shift towards that rightward space and refer to the same exact leftward space to enact the rightward-placed referent's viewpoint. And as already described, a leftward body shift evokes that leftward-placed referent; once evoked, if the signer turns to view the scene space, we understand that the leftward-placed referent's vantage point is also being enacted. But for each of these options, the conceptualized leftward-designated entity remains in that space.

Contrary to this, when the signer chooses mentally rotated space, each vantage point comes into line with the signer's stance, so that portraying a leftward-designated entity's perspective on the scene (from the vantage point of the signer) brings that entity's view to the signer's central view – that is, the signer does not body shift leftward to physically reposition herself at that entity's vantage point, but takes on that entity's vantage point as if it were her own. The effect of this is that all other entities associated with the scene also shift in the conceptualized space relative to whose view is being portrayed. To illustrate from the narrative described above, when the mother, depicted as holding onto the steering wheel, looks down the road ahead to see the police officer standing there, the signer fixes her gaze at a point in the space in front of her that corresponds to the relative location of the police officer in the conceptual scene. When she enacts the officer's gesture that tells them to pull off the road, she looks at *the exact same point in space*, which now corresponds

to the vehicle she is riding in, from the vantage point of the officer who is looking down the road at them.

7.3.2.1 Multiple articulatory spaces associated with a single referent

So far, we have described two quite different ways that an ASL signer might portray shifts in perspective-taking. Most described in the literature is what we refer to as the use of static space – that is, where a scene space is set and remains in place while the signer aligns with the vantage points of other referents in the static space by shifting her body towards the loci that these referents occupy. Analysis of the narrative passages in the present study, however, reveals an alternate approach to shifting perspective, in which the conceptualized scene space does not remain static, but is rotatable, such that rather than the signer moving in articulation space to align with the vantage points of referents positioned around a static space, the conceptualized scene space is rotated to bring third person referents' viewpoints in line with the signer's view of the scene. This has several important consequences for referent tracking, the grammatical elements associated with each spatial orientation and usage, and even, it turns out, for the phonological structure of complex predicate forms. Another significant finding in this study is that contrary to what has been reported previously for ASL, static space orientation, along with representing referents around articulation space and pointing to them and body shifting towards them to take their vantage point, does not occur in narrative passages. Instead, mentally rotated spaces are employed, and the use of static space and its associated mechanisms for third person referencing are reserved for the domain of comparative frames, which are not found within narratives.

Because the two spatial orientations described above are mental constructs and thus invisible to the observer, a question that might be asked is how we know when one or the other – static space or mentally rotated space – is being employed by the signer. The answer is twofold: we can look at the phonological and grammatical features of the discourse and, ultimately, as this study shows, we can look to the discourse genre of the signer. In this section we examine some of the phonological and grammatical elements of mentally rotated space usage.

In the passage described above, the driver of the vehicle and her passengers (including the signer) are face to face with a police officer standing on the road at some distance ahead of them. A striking sequence is signed in two contiguous constructions. In the first, the signer says that the police officer motions for them to pull onto the shoulder of the highway, and in the second, she says that their, and every other, vehicle complies and pulls over. This is shown in Figure 7.2.

The action shown in Figure 7.2(a) is of the police officer motioning with a sweeping leftward movement, which is clearly articulated from his vantage

(a) (b)

Figure 7.2 Depicting the police officer's action in (a): a leftward-moving gesture; and the signer's vehicle location in (b): a rightward-moving hand shape.

point, as he would be facing the signer's vehicle, indicating for the car to pull over to *his* left. The construction is actually made more complex, however, by the inclusion of body partitioning (Dudis 2004), in this case taking the form of the signer's face and right hand representing the police officer, and the left hand partitioned off to represent the signer's mother holding onto the steering wheel. Complex partitioned constructions such as this have not been adequately described or explicated for ASL as yet, and it is beyond the scope of this chapter to do so here, but for our purposes I might briefly suggest a solution. In the utterance just prior, the signer has said that her mother was driving along, but slowed down as they approached the officer on the road. Body partitioning in signed language articulation allows for what are termed "simultaneous constructions" (see the works in Vermeerbergen *et al.* 2007), where two distinct elements are articulated simultaneously, in part because the articulation system (two hands, face, body) can visually represent more than one element at the same time, within certain cognitive limits. It is unusual for the signer to be able to articulate simultaneously two entirely different actions undertaken by two distinct actors, although, again, within certain limitations it might be possible, but more often when such actions are conceptualized as occurring simultaneously, articulation in a signed language affords the potential, at least, for iconically representing the two in some simultaneous way. However, it appears to be the case that one or the other action is profiled in a given clause at the expense of the other, which is backgrounded, even though some morphemic representation of the action can still be given overtly in the simultaneous construction clause. In this case, the focus of the previous clause had been the driver, but in the next clause the focus shifts to the officer's action

and the driving is backgrounded. A remnant of this is retained by the left (non-dominant) hand, sometimes called a "buoy" (Liddell *et al.* 2007), as a kind of placeholder for the previous action, while the profiled action is articulated with the signer's right (dominant) hand. Here we are not concerned with the buoy, but focus our attention on the phonological features of the motion articulated by the signer's dominant hand.

As noted, the motion moved in a leftward direction, as shown in Figure 7.2(a). This can only be interpreted as portrayed from the vantage point of the police officer, since in facing the oncoming traffic he would want them to move onto the shoulder off their lane of traffic. They are on the left side of the highway coming towards him, so this would be off to his extreme left.

They comply, pulling off towards the right (Fig. 7.2b). In this clause, the signer is evidently viewing the same conceptualized space now from the mother's vantage point, so that what was a leftward-indicating movement from the officer's viewpoint is now a rightward action on her part: she pulls over correctly onto the right shoulder of the highway. Significant is that one entity, the vehicle the signer is riding in, occupies two spatial locations in the articulation space of the narrative, but both of these locations are phonological manifestations of a single conceptual Real Space location. The only explanation possible is that she has rotated her conceptualized space mentally from that of the officer to that of the driver. This utterance, composed entirely of a verb complex that indicates both direction of movement and a nominal feature that represents a string of entities (in this case interpretable as vehicles), has no lexical or pronominal words to identify the referent whose viewpoint is being taken. Instead, the signer relies on spatial means to identify the shifted view on the scene.

Thus we see a significant spatial effect of using either static space or mentally rotated space. In the use of static space, entities positioned at some locus in the articulation space remain in that space, unless of course they are depicted as traveling to a different location that is then represented by a different point in space, or the discourse segment regarding that entity has ended. But if, in a static space orientation, a signer wishes to refer to that located entity from any available vantage point around the space – that is, from her own vantage point or that of another third person referent located at some other spatial position – that entity occupies just one *locus* in the entire space relative to all others.

However, in the use of mentally rotated space, the conceptualized positions of entities are dependent on the overall conceptualized view of the scene. Thus if from one vantage point an entity is positioned in a leftward space, then from the vantage point of a referent just to the right of the signer, which is brought in line with the signer's actual view on the surrounding space, that entity location is now further leftward because there is a greater relative distance between

this new viewer and the entity being viewed. The extreme case is a 180-degree rotation, where originally an entity occupies a leftward space, but once the scene is rotated to the vantage point of someone directly across from the signer, the entire scene shifts relative to the new vantage point, and the entity being viewed is now in a rightward space. Thus the grammar of ASL, which has previously not allowed a referent to occupy two spatial locations simultaneously, must be expanded to accommodate this possibility when vantage point shifts are evoked through mentally rotated space.

The idea of simultaneity here is a complex one, which warrants some comment. It has long been understood that signers can position a non-present or abstract entity at some locus in their articulatory space such that the space (a Real Space) anchors subsequent reference to that entity. That referent is evoked through numerous means: pointing to the space, gazing towards the space, and so on; even positioning the hands in the space can imply a connection to that referent. To succeed, these referencing mechanisms must be in keeping with the referent's accessibility (see Vandelanotte, this volume) – in other words, it must be distinguishable from other entities that will also be positioned around the signer's articulation space. Based on this, it has been understood that the signer cannot arbitrarily reposition the referent while continuing to treat it as a highly accessible entity through pronominal points or eye gaze, although note van Hoek (1992), who suggests that if a referent who had been in one location in the narrative, say Los Angeles, relocates to New York, the signer may refer to this single referent subsequently in either of the two spaces, depending on whether she is talking about her when she was in each of the two cities. But in the present context, the referents are (more or less) stationary within a single event. Thus when the signer takes one viewpoint, a referent may be positioned to her right, but when she takes another viewpoint by rotating the scene mentally, that (rotated) referent is now in her leftward field. She can alternate between the two viewpoints in her discourse, meaning that she will alternate referring to the two Real Space locations depending on which viewpoint she is taking, but importantly, throughout the discourse stretch both the signer and the addressee must maintain a mental representation of the referent + Real Space in two spaces simultaneously.

In terms of overt markers of viewpoint shift, an overt shift marker in a static space orientation appears in the construction – for example, a body shift towards the referent location.[4] But when mentally rotated space is employed there is no corresponding overt shift marker because the rotation is mental; the signer must use other means to enable the addressee to track referents around the scene space.

Briefly, in the corpus analyzed here, there were three mechanisms used by signers to do this. One mechanism was apparently to rely on interlocutors' knowledge of ASL structure. That is, native or native-like ASL users would

likely be quite familiar with linguistic characteristics of the narrative genre in the language, so would interpret seeming discrepancies, such as two distinct spatial positions for a single entity, as corresponding to the same entity but from different vantage points. In other words, the spatial consequences of mentally rotated shifts would add up to correct interpretations about which vantage point was at play at any given moment in the story. Second, at times in the narrative passages, it seemed as if the signer was unduly naming referents with full Noun Phrases (NPs) when the referents were already clearly topical. Note that above it was suggested, following Slobin (2006), that topical nominals are not typically overt in ASL clauses, but in at least some of these narrative passages such NPs occurred frequently – for example, in a sequence such as *POLICE, action of police* (which has a kind of "topic, comment" feel). I would suggest that this is a pragmatic choice on the part of the signer, who may feel that information must be explicit at that point in order for the viewpoint to be understood. Interestingly, NPs were used and not pronouns, likely for reasons akin to the use of two spaces for a single referent, which may parallel Vandelanotte's (this volume) "distancing indirect speech/thought" (DIST) type of speech and thought representation, where the speaker is more apt to use full NPs to refer to referents when she aligns other discourse viewpoints with her own. If, from one vantage point, the signer pointed (as a pronominal) at the spatial location associated with the referent she was face to face with in the scene space, then rotated the space, and then, from the second referent's vantage point, used a pronominal point towards the space associated with the other referent, these two indices would point towards the same spatial location in articulation space, but would be intended to refer to two different referents. This may work once the vantage point is clear, but not to indicate whose vantage point is going to be taken next.

Third, occasionally, some stance feature of a referent may be invoked. For example, at one point after the police officer had pulled the oncoming vehicles off the road, the signer's mother, at the wheel, was depicted as slouched in her seat and leaning on her elbow, propped up against the driver's door, with the window rolled down. Several times the signer re-enacted this stance before telling something the mother either said or did, and each time the return to the mother's vantage point was abundantly clear.

7.4 The role of static space use in discourse

As mentioned, mentally rotated space, and not static space, is used to identify perspective shifting in the narratives embedded in the conversations in the corpus. While it may be premature to conclude that static space is not used in ASL for this function, the signers in these data consistently use static space and mentally rotated space for two different purposes. Static space is used when a

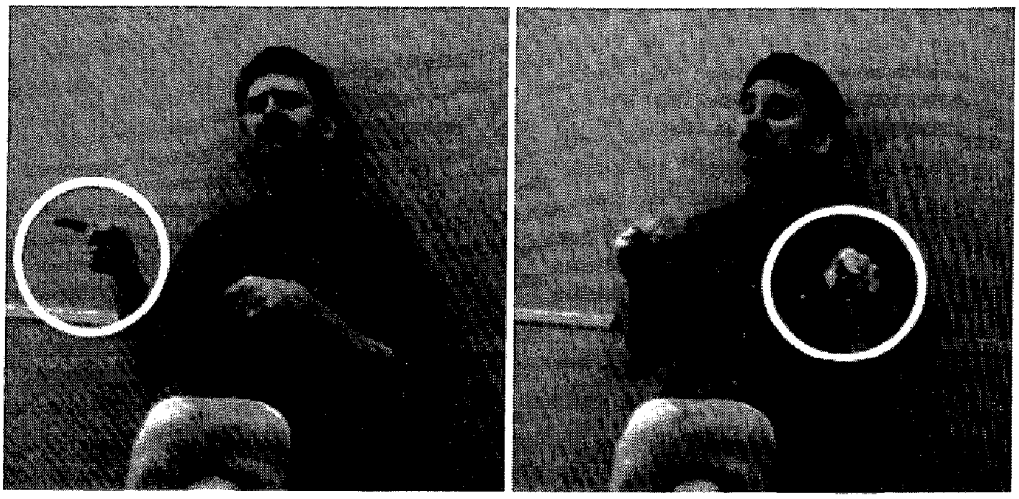
signer compares the attributes or actions of two referents, but only when these referents are not interacting with one another as story characters in a narrative passage. In other words, when the signer compares entity *x* with entity *y*, an arbitrary space for *x* could be chosen to the signer's right, and a second arbitrary space for *y* could be chosen to the left. This is significant in that when the signer does this, he or she is not then situating the referents in any conceptualization of an existing space, but abstractly, because a list of the referents' comparative attributes does not occur in any existing space. In this case, when the signer uses a body shift towards referent *x* in rightward space *a*, the perspective remains the signer's own, and *x*'s perspective on a scene space is not taken up. Therefore, it is clear that static space and body shifts are reserved for comparative purposes in the signer's present, whereas mentally rotated space is used for vantage point shifting, prototypically in the narrative past.

7.5 The interaction of static and mentally rotated spaces

The use of space in signers' discourse is decidedly complex. This complexity has been illustrated by the example above of the police officer and the signer's vehicle, in that two different loci in articulation space are used to designate a single referent within the same discourse frame. The signer's vehicle is represented by a nominal hand shape moved to a rightward position when the vantage point is that of the signer herself along with others as characters in the story being told; but the same signer's vehicle in the very same scene is the object of the police officer's leftward gesturing. Thus, he motions for them to move over to *his left* and they comply, moving over to *their right*. The only way that this can be made coherent is to consider that the portrayal of vantage point determines how space is used, and when this is understood the seemingly conflicting use of that space is not in fact incoherent after all.

But in another signer's discourse from the corpus, a further level of spatial complexity is apparent. During one conversation, the signer compares characteristics of his boss's approach to his work with his own brother's approach – both are in the same line of work but have different businesses. To do this, he positions his boss in a space to his right and his brother in a space to his left. The signer then refers to these two spaces by pointing and body shifts toward the spaces, consistent with Winston's (1995) description of referencing in comparative spaces. The clarity of these two positioned referents is shown in Figure 7.3.

In this instance, the signer does not use body shifts towards each space for the purpose of portraying the vantage point of either referent on a scene, but rather to list and describe attributes of each while maintaining the role of "informer" in the discourse. The signer's eye gaze during these body shifts is primarily directed towards the addressee.[5] As the signer compares attributes, he shifts



(a) (b)

Figure 7.3 Positioning the boss in a rightward space in (a); positioning the brother in a leftward space in (b).

rightward and leftward towards each space alternately. Once again, the two referents being compared are not conceptualized as located in two real-world spaces relative to one another; rather they occupy two abstract spaces in the signer's discourse world.

However, at one point in the conversation the signer shifts from the comparative frame to a narrative description of a particular interaction he had with his boss, to illustrate an attribute he has said that his boss possesses. At this moment, in enacting his boss's actions and speech during that event, the signer moves from a rightward body shift (when describing the attribute) back to a central position, portraying the boss's and his own interaction with mentally rotated space. In this narrative sequence, he and his boss are understood to be facing one another, with the effect, similar to the interchange described earlier between the driver and the officer, of directing the discourse of each interactant in the scene's discourse outwardly towards the other person. This interchange in the narrative passage takes place entirely in the central area of the signer's articulation space. At the end of this short narrative, the signer moves once again to shifting rightward and leftward to continue his attribute description.

This sequence significantly illustrates that real-world space and non-real-world space are conceptualized differently for the signer. When linguistic expression is itself visual and spatial, as is the case for signed languages, there is remarkable potential for features of conceptualized spaces to map iconically onto articulation space.[6] As this signer shows, the conceptual distinction between real-world and non-real-world spaces is expressed overtly and, I argue, this expression has become entrenched as grammar in ASL.

Further, this example illustrates the complex nature of referential spatial marking and, subsequently, reference tracking in ASL. When the signer begins the narrative he abandons the rightward and leftward spaces he has designated for the two referents in the comparative frame space. When he speaks to his boss, he directs this discourse towards a spatial area in a more central space, and when he enacts his boss's discourse he rotates the conceptual space so that this discourse is equally central. The rightward and leftward comparative space loci remain active, however, because the signer reverts back to them once the narrative sequence is completed, without needing to re-establish the referent identities.

In fact, at one point in the narrative the signer demonstrates the availability of the comparative frame space. As discussed above, referent identification during the use of mentally rotated space must still occur, whether implicitly or explicitly, as necessitated by discourse pragmatics. How does this signer identify the boss's action (including speech actions) in the narrative sequence? In one instance, at the beginning of an utterance, he points to the rightward location from the comparative frame space and then indicates what his boss said. This is significant because the boss already has a distinct spatial representation in the overall complex articulation space, such that the signer is able to reach into that space and into that frame with an identifying pronoun. But note that within the narrative frame, the boss does not occupy that rightward space, so the articulated pronoun is quite abstract.

7.6 Discussion

Overwhelmingly, the conversational discourse in the present study shows that while signers use both static space and mentally rotated space, the two uses of space serve quite different functions. What has been widely reported in the literature on perspective and perspective shifting in signed languages is that other referents' perspectives are expressed through body shifting towards the loci in the signer's articulation space where these referents have been positioned – in other words, through the use of static space. The data in this study do not support this belief. Here, shifts to other referents' vantage points are expressed through mentally rotated space consistently, while the use of static space is reserved for comparing the characteristics of referents who occupy spaces in an abstract sense. Winston's (1995) description of comparative discourse frames has already shown that the characteristics of static space use occur in that context, but the present study clarifies the extent to which these characteristics distinguish comparative discourse from narratives, which do not use space in the same way, even though previous accounts of perspective shifts in ASL narrative passages have assumed that they are present in that discourse genre as well.

One interesting effect that this differential use of space has is that in mentally rotated space referents can occupy more than one region of articulation space in a single discourse event. It may not be the case that two spaces can be occupied by a single referent simultaneously in the sense of "simultaneous constructions" (Vermeerbergen *et al.* 2007), where two items are articulated by each of the signer's two hands – for example, if the signer pointed to two spaces simultaneously to represent the two locations that a single entity occupied – but it must be true that the signer's mental representation of that referent allows for at least two spatial loci representations concurrently, even though it is likely that only one would be in focus at any given point in time. This means that we are either viewing the referent from one vantage point or the other, but not from both vantage points simultaneously. This is evident in both examples discussed above. In the narrative involving the police officer, the signer's vehicle was indicated both to her left and to her right, depending on whether the perspective was that of the officer or the passengers in the vehicle. She alternates between these two vantage points, with the result that both the signer and addressee must maintain a mental representation of a single referent associated with two different regions of space concurrently, as both appear and reappear during the discourse segment. The example of the signer's boss requires similar reference tracking, except that in this case one spatial region is more abstract and does not assume that referent's vantage point on any scene.

The fact that two spaces may be used to locate a single referent has been discussed in van Hoek (1992). Van Hoek suggests that this may occur if the referent is being referred to at two different periods of time, or has occupied two different real-world locations, or if there are two "versions" of the same referent – for example, the person herself and a picture of the person – but the present study demonstrates that in addition to van Hoek's categories, shifting vantage points on the same referent in a single setting and time also produce this effect in the grammar.

7.6.1 Conceptualized space and abstract space mapping

A final observation concerns the designation of spaces that coincide with two levels of abstraction in terms of referent location and articulation space. On the one hand, the positioning of referents in the comparative frame appears relatively concrete. These spaces are fixed, stable, and relational. They are fixed in the sense that the space is reserved for that referent and nothing else; stable because numerous spatial indicating mechanisms may be employed to evoke the referent over a long stretch of discourse; and relational because each spatial region is maximally distinct from the other, being on opposite sides of the signer's articulation space, and this spatial distinction is itself meaningful. It is

interesting then that these spaces in articulation space are employed to represent abstract referents. The referents in comparative frames are not conceptualized as occupying or operating in some actual past or present space, but rather their attributes or characteristics are being discussed, and this "view" of these referents is not a view of physical space.

On the other hand, referents within a mentally rotated space description are not quite so spatially bound. They may be described as oriented in space, but they may not. In the highway narrative, the passengers in the vehicle see a police officer up ahead on the road, but as a referent, he is never designated as occupying a particular locus in the signer's articulation space. The mother is depicted as looking ahead down a conceptualized highway (that is never articulated overtly, but is interpretable from the scene), and the police officer – the object of their gaze – is identified with the noun POLICE followed by his action, but the addressee must construct the relational space; this is not done explicitly by the signer. Thus in these two discourse contexts, the more abstract elements are given clear spatial designations in articulation space, whereas physical referents from an actual (although filtered through conceptualization) past event are not overtly localized in space.

7.7 Conclusion

While the discussion above concerns two ways that the ASL signer orients her discourse in space, whether as a static or mentally rotated spatial orientation, it is evident that these two means are illustrative of a more general principle that language users are guided by an embodied cognitive viewpoint. Narayan (this volume) agrees with this, but suggests that for spoken language users, this viewpoint surfaces in their gestures because their spoken discourse does not provide a medium for such overt viewpoint expression. She makes the point, then, that gesturers cannot gesture iconically without portraying an inherent viewpoint on the scene. My position, based on the type of data described above, is that when language expression is articulated by the hands, face and upper body as a whole, as is the case for signed languages, the differences between gesture and linguistic material fall away, resulting in an embodied viewpoint surfacing in language structure. In other words, when the medium of language is conducive to the expression of viewpoint, that viewpoint will surface. And further, because the signer's language expression is via a body in space and the signer *is* a body in space, expressed viewpoint is pervasive, entrenched, linguistic, and grammaticalized.

A remaining question is: why have past analyses of perspective in ASL consistently concluded that body shifts in static space function to mark perspective shifts? The answer to this may necessarily be left to further analysis,

but it is worthy of mention that ASL signers themselves often describe perspective shifts as requiring physical body shifts in static space. It is possible, however, that perspective shifts utilizing body shifts in space occur in contexts where a signer may not have been able to make herself clear via mentally rotated space to an addressee, and thus she employs this strategy to clarify. It is the case that the identity of the referent in a mentally rotated space is not made overt by simply referring to a designated locus in the signer's articulation space, so perhaps reference tracking is compromised by a miscalculation of what is identifiable or assumed to be shared information. The suggestion might also be made (Rick Zimmer, personal communication) that body shifts in a static space may be used in this regard when the addressee is a second language user of ASL; thus the signer is looking for a means that is more overt to identify the referent in a scene and subsequently to show their perspective.

Further research may explore some of these elements of interaction and language use, and a larger corpus of more varied text types may also elucidate the extent to which the conclusions found in the present study hold. Nonetheless, the ASL signers in this corpus give us some clear insights into the complexity of conceptualized scenes and reference tracking, and how a signed language like ASL encodes these complexities in observable constructions.

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