among the Warlpiri of Central Australia, bereaved women traditionally observe a speaking taboo (Kendon 1984a; 1986b; 1988b), and communicate via an alternate sign language.

The systems described above are developed by hearing people who have access to spoken language. Deaf people with no access to spoken language create full-fledged sign languages (for an overview see of the circumstances and the languages created, see Meir et al. 2010). Sign languages demand their own documentary tools, but gesture can also be found in sign language (Liddell and Metzger 1998; Emmorey 2002; Johnston et al. 2007; Kendon 2008).

6.3 Cultural Differences in Gesture

Many aspects of gesture are shaped by cultural conventions, but systematic comparative studies are sparse (for an overview see Kita 2009). Kita suggests four factors influencing gestural behaviour at different levels: conventions on form–meaning associations; pragmatics of communication; language; and cognition.

Cultural conventions on the semiotic structure of gestures determine the size and the content of the repertoire of quotable gestures like the thumbs-up gestures in a given culture (Efron 1941/1972; Kendon 2004b). Pointing, often assumed to be universal and quite simple, is shaped by conventions, and these conventions have to be acquired. Such form–meaning conventions apply to the type of pointing: whether to use lip pointing or the hands, which fingers to point with, and what hand shape and orientation to use (Kita 2003).

Pragmatic conventions on gesture use can be based on considerations of politeness. In the Ewe-speaking region of southeastern Ghana, speakers restrict the way they point because of a left hand use taboo (Kita and Essegbey 2001). When giving route directions, speakers take a conventional respect position with the left hand held behind the back, while the right hand is used for pointing even when pointing to the left. Speakers only use the left for pointing when it is accompanied by the use of the right hand, which is not considered rude.

Other dimensions of gesture like the size of gestural repertoires, the types of gestures, or the extension of gestures are influenced by cultural patterns of interaction, as Kendon suggests (2004a). The first systematic cross-cultural study on gesture was conducted by Efron (a student of Boas) in the late 1930s (Efron
p. 155 1941/1972). He refuted prevalent Nazi theories stating that gestural behaviour is determined by ↳ genetic characteristics of different races by investigating the how gestural practices changed across generations of Italian and Eastern European Jewish immigrants to New York. Efron showed that Eastern European and Sicilian Jewish immigrants to New York differed in their gestural practices from each other, while the second-generation immigrants had assimilated their gestural behaviour in terms of size, number, and types used.

Cross-cultural differences have also been shown for the number and type of hand shapes used in gesticulation and the amount of gestures accompanying speech phrases (e.g. Kendon 2004b on British vs. Neapolitan speakers).

Differences in gesture rate have rarely been demonstrated, although one of the most prevalent beliefs about gesture is that some cultures gesture more than others. Taiwanese mothers when playing with their children produced almost three times more gestures than American mothers. Goldin-Meadow and Saltzmann (2000) suggest this is because they have a stronger interest in instructing their children.

A comparative study of Spanish and German speakers found differences not in the amount of gesturing but in the use of gesture space (Müller 1998). While the Germans gestured mostly from the wrist, the Spanish speakers gestured mostly from the elbow and the shoulder (see also Efron 1941/1972 and Kendon 2004b). It