

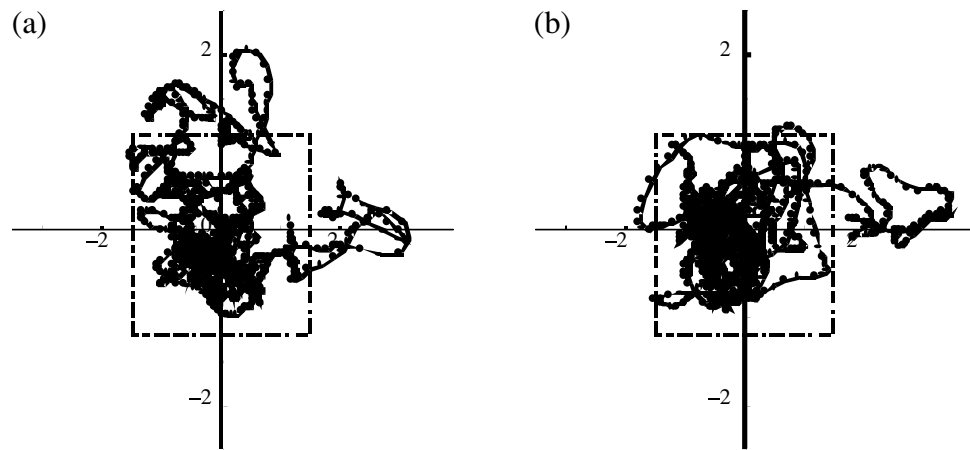


Fig. 2. Typical examples of SKGs extracted from a subject (a) viewing the display of a previous LCD model (previous model display) and (b) viewing the OCB display.

two polarizing plates arranged such that the liquid crystal cell is sandwiched between them; this generates black-and-white images. The transition of the bend-aligned liquid crystal molecules accelerates the changes in the alignment and consequently, the OCB display is capable of a higher-speed response.

Subjects

The test subjects were six persons from 20 to 27 years of age with no history of equilibrium function problems.

Moving map task

The map of a fictitious city was scrolled from left to right (or right to left). The subjects had to read the name of a place from the moving map as a moving map task. The scroll speed of the moving map was 20 dots/s. We made a subject sit on the chair for 10 minute at least after the moving task on one display.

Evaluation

We calculated several indices that are commonly used in the clinical field (SUZUKI *et al.*, 1996) for SKGs such as “area of sway,” “total locus length,” and “total locus length per unit area.” In addition, new quantification indices termed as “sparse density (SPD),” “total locus length of chain 1,” “total locus length of chain 2,” (TAKADA *et al.*, 2003a) and “translation error E_{trans} ” (WAYLAND *et al.*, 1993) were also estimated (Appendix). These except for the last one are called indices for the form of statokinesigrams (IFS) in this paper.

3. Results

Typical SKGs, which represent examples of the stabilometry results, are shown in Fig. 2. The left and right figures show the results when a subject viewed the display of a previous