

Abstract for TeaP 2003 in Kiel

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Processing of faces: Serial or Parallel?

There is still an ongoing debate, whether visual patterns are processed in serial or in parallel (Sternberg, 1966). To test these different process assumptions, mostly very simple visual search patterns are used. In our studies we used faces—a natural and highly social important stimulus class. Faces differ from each other in respect of component or local features, configuration, textures, etc. For example, “local” (locally distinct) and “configural” (configurally distinct) faces (Leder & Bruce, 1998) were used to investigate, whether there is one single processing character for the recognition of faces or whether local and configural changed faces are processed differently. In our studies a stimulus-limitation technique via visual masking (Turvey, 1973) as well as different presentation times was used. We found an obvious microgenesis of face recognition (cf. Siegler & Crowley, 1991). The eyes area was recognized prior to every other inner feature, with the mouth coming next and the nose as the last identified region. Moreover, a clear-cut distinction between “local” and “configural” processing could be made. Local changed faces followed a serial process sequence with a self-terminating character (cf. Sergent, 1984), whereas configural faces were processed in parallel or alternatively named ‘holistically’ (Tanaka & Farah, 1993).

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