hypotheses of smaller and wider scope are formed which are locally applied and tested. Subjects either change their hypothesis (accommodation) or reinterpret the stimulus (assimilation). This results in a detailed understanding of enumeration through a modularisation of differing scopes. Even after having learnt the system, the subjects' remarks show that their conception remains in development.

Modelling Adaptation Effects as Similarity to Dynamic Prototypes

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Every day we have to make decisions: what to do, what to wear, what to buy. Many of these decisions are based on aesthetics. The similarity of objects to the individual's prototype for the objects' category is a fundamental decision criterion (Rosch, E., 1978). However, prototypes are dynamic and change with experience. To investigate this prototype shift we conducted an experiment using the Repeated Evaluation Technique (Carbon, C. C. & Leder, H., 2005). As stimuli we used 2D images of forks. As forks are everyday objects it is ensured that every subject has an already established prototype. However, the amount of commercially available models leads us to expect a great variance in prototypes. To reduce complexity we restricted the stimuli variations on two dimensions: the overall roundness and the length of the handle.

As first experiment step subjects are required to model their prototypical fork within the given variability. Then subjects rate a presented set of fork variated on both dimensions. Rated are the typicality, the innovativeness, and the attractiveness of the presented fork. Then subjects will be presented an adaption set of forks with extreme values on both dimensions. Using diffent tasks subjects are forced to engange with the unusual fork models. Finally subjects again have to rate the initially presented forks and to model their prototypes.

We expect a shift of subjects' individual prototypes in the direction of the unusual objects. This should also be reflected by the final attractiveness ratings: In the last phase objects that are extreme are expected to receive higher attractiveness and typicality ratings than they did in the first rating step. On the other hand innovativeness is expected to decrease.

References

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Generalizing Schemas in a Complex Scenario – Can Analogy-Based Training Material Trigger the Acquisition of Solution Principles in Chess?

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It is empirically established that analogical problem solving can lead to an abstraction of the common solution structure. This phenomenon is known as schema induction or generalization of schemas. The acquired solution principle can facilitate the transfer for similar subsequent problems. Previous studies used simple tasks which were easily manageable for the participants. In contrast, I chose chess as a test environment in order to find evidence for generalization of schemas in a domain which is more representative for complex cognition. Moreover, a direct comparison of three kinds of teaching material - including two different analogy scenarios - is another novelty in my experiment and addresses the question which type of analogy is more useful to the learner.

A between subject design was used to investigate which type of teaching material can efficiently trigger schema induction. 33 participants received one of three trainings on two different solution principles for chess positions. The varying training conditions were 'abstract rule',