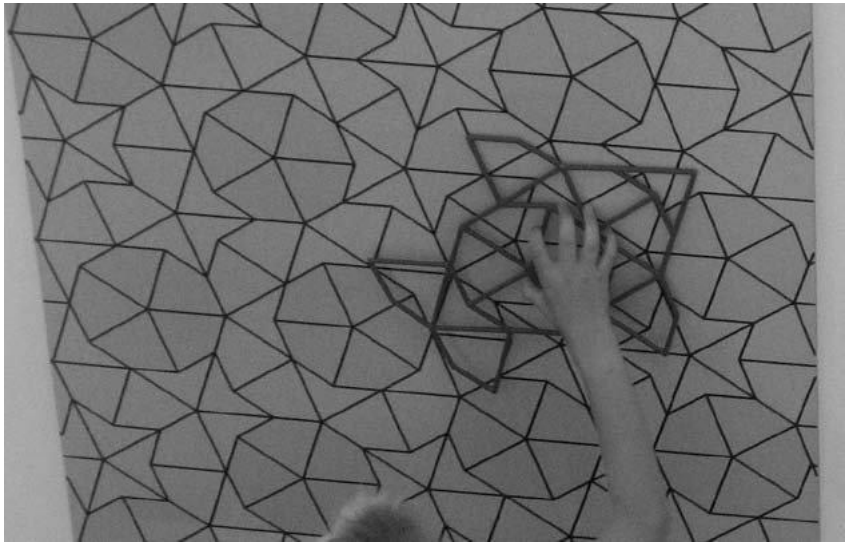

Goker Aydin, H. Sebastian Heese

Bargaining for an Assortment.

Anorexia nervosa (AN) and bulimia nervosa (BN) are complex disorders characterized by disordered eating behavior where the patient's attitude towards weight and shape, as well as their perception of body shape, are disturbed. Formal genetic studies on twins and families suggested a substantial genetic influence for AN and BN. Candidate gene studies have initially focused on the serotonergic and other central neurotransmitter systems and on genes involved in body weight regulation. Hardly any of the positive findings achieved in these studies were unequivocally confirmed or substantiated in meta-analyses. This might be due to too small sample sizes and thus low power and/or the genes underlying eating disorders have not yet been analyzed. However, some studies that also used subphenotypes (e.g., restricting type of AN) led to more specific results; however, confirmation is as yet mostly lacking. Systematic genome-wide linkage scans based on families with at least two individuals with an eating disorder (AN or BN) revealed initial linkage regions on chromosomes 1, 3 and 4 (AN) and 10p (BN). Analyses on candidate genes in the chromosome 1 linkage region led to the (as yet unconfirmed) identification of certain variants associated with AN. Genome-wide association studies are under way and will presumably help to identify genes and pathways involved in these eating disorders. The elucidation of the molecular mechanisms underlying eating disorders might improve therapeutic approaches.