

## **Abstract**

This thesis deals with problems of biological and cultural determinants influencing perception of beauty. It attempts to find out if there is a common biological basis of perception of beauty or if beauty represents merely a sociocultural construct – product of a specific culture. With respect to biological determinants it concerns biological processes significantly influencing perception of beauty. In this context, these processes include probably innate evolutionary adaptations, effects of brain cognitive systems and neural correlates processing perceptions of beautiful objects. In connection with cultural determinants it presents studies emphasizing cross-cultural differences in perception of beauty.

Further subject of the thesis is an aesthetic conception of subjective and objective beauty and related concept of beauty based on mathematical relations. In this connection, the creation of universally beautiful objects based on fixed mathematical rules as well as the possibility of exact measurement of beauty are discussed.