

## *Abstract*

Several biological theories were established to describe the origin of human sexual orientation. Previous study assumes that nonheterosexual men could be divided into at least four subgroups based on putative biological markers which refer to different developmental pathways of origin of human sexual orientation. These markers are proportion of older brothers, proportion of familiarity of nonheterosexual relatives and handedness (right-handedness or left-handedness). The aim of this thesis was to replicate previous study and to find out if this division into subgroups is possible. This potential division could mean different developmental pathways of human sexual orientation. On sample consisted of 8595 men and women we did not prove the existence of subgroups of different developmental pathways in men nor in women. It could indicate that several theories could exist to describe the origin of human sexual orientation, but their effects could run together and they do not cancel each other out. However we partially confirmed the relation of biomarkers and sexual orientation which was detected in previous research. We found out the older brothers effect in homosexual, bisexual and pansexual men, but not in women. Our study also supported the previous differences in non-right-handedness in men and women of different sexual orientations. We also found out that nonheterosexual men and women have more nonheterosexual relatives than heterosexual men and women. Moreover our results showed that nonheterosexual men and women are more gender nonconforming than heterosexual ones.