**SUMMARY**

The present paper refers to implicit learning and to ongoing research with artificial grammar learning (AGL) task which is commonly use to analyse this phenomenon (Pothos, 2007; Danner, Hagemann, & Funke, 2017). Implicit learning, which can be briefly define as a process of acquiring knowledge without awareness, lay at the basis of many complex activities (Cleeremans, 1998; Rebuschat, 2015). Since 1967 when Arthur Reber used AGL to describe implicit learning and have proposed his theory which describes mechanism behind this process, many other researchers have suggested other explanations. The following paper brings together the most popular theories that were proposed to explain implicit learning, tries to briefly sum up debate about research related to AGL, show oppositional viewpoints and describe methodological problems related to measurement of implicit knowledge. The main goal of this work was to analyse one of the newest theory, proposed by Dienes and Scott (2005) and developed by Mealor and Dienes (2013), using results obtained by other researchers and in the context of their ideas, described in the introduction. First part of introduction describes basic terms related to implicit learning and AGL task, then the earliest theories, some of the newest approaches and important methodological issues. After this part model proposed by Dienes and Scott (2005) has been described. Next part of this work shows study which bases on experiment conducted by Mealor and Dienes (2013) which develops model proposed by Dienes and Scott (2005). At the end obtained results are discussed.