Chapter 12
Cognitive Science Helps Formulate Games for Moral Education

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ABSTRACT

This chapter emphasizes that cognitive science can play a significant role in formulating games for moral education. The chapter advocates an encompassing approach where games should be developed by concentrating on the interaction of users with their contexts. Ethics entail moral principles and ethical decision-making is dependent upon developing cognitive structures. Therefore, while designing games one needs to consider developmental trends and information processing models. The framework developed here further emphasizes the need to develop moral games based upon principles of good games in general. There should also be stringent criteria to gauge the success of the game in real world contexts, especially if these games function as part of a school curriculum for moral education. Finally, the chapter concludes with issues surrounding the implementation of such technologies.

INTRODUCTION

Games are usually defined as rule-governed playful activities. Beginning very early in life, children learn to engage in imitative acts that are not random in nature, but are governed by cultural conventions including cultural use of tools and linguistic behavior. Thus, these playful activities are often rule-governed and structured in a normative fashion (Kalish, 2005). There have been interesting debates in psychology regarding the ethical nature of play and games. Earlier theorizing concentrated on the ethically unimportant nature of games and due to this, these could not be viewed as educational activities (Dearden, 1968; Peters, 1966). But some leverage was provided by these scholars and according to them even though games were not understood as ethical in nature but could nevertheless be employed instrumentally to support the larger enterprise of moral education. On the other hand, there are contrasting views that focus on how games can be viewed as inherently moral

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in nature and not merely as supporting the ends of moral education. According to Aspin (1975), games themselves could be regarded as moral enterprises and consistently engagement with games has moral values that could be harnessed for helping the young minds function in accord with moral principles. Thus these games should be aptly included in education programs focusing on moral development. In a similar manner, Giddens (1964) argued that play and games function as an avenue for helping the young to self choose activities that are rule governed in nature.

These debates become more important in today's world considering the amount of time children spend in playing the electric versions of games, that is, video games rather than engaging in physical sports. Can these types of games be viewed as ethical in nature? Can these be employed in educational programs? For answering these questions, we also need to distinguish between concepts of pleasure and rule governed behavior. It goes without doubt that players engage in games for the pleasure that these provide. But at the same time, players submit themselves to rule governed behavior that games call for and other ethical considerations upon which game(s) are fundamentally built. One sign of the latter is how immensely players are outraged when their gaming partner violates a game stated rule. Therefore, what at the beginning comes across as a pure source of fun and pleasure is actually in an implicit manner a source of rule governed activity where players eventually know that they themselves are responsible for their actions and therefore are much more willing to accept their faults (Aspin, 1975). On this note, games could be viewed as an apt medium that could be exploited for facilitating learning of rules, advancing the understanding about fairness, tolerance and the like before these could be generalized to the much more open ended outside world.

A major aim of the current chapter would be to integrate this debate on building age appropriate games for the purpose of enhancing moral cognition. Since these games need to be age appropriate, moral cognition is also essentially dependent upon developing cognitive structures. Thus to begin with, I will first describe ethics and than give a brief description of the relation between moral reasoning and cognition. I will than go on to elucidate how modern technological advancement could play a significant role in developing age matched games due to the advent of various multimedia devices that are successful in stimulating interest and motivation in children.

Before going on to the next section, I would briefly provide a working definition of cognition since the motivation behind this chapter is based on it. Cognition from this perspective is well described as an integrated activity of the individual and his/her surroundings and not as something that occurs in a vacuum shielded from other contextual influences. Therefore, games developed from a cognitive perspective should take into account the contexts in which these will be eventually used (an apt example in this case would be the school environment), the background (in this case, the developmental level) of the potential user and also the state of support available for the purpose of designing games both from theoretical (advances in principles underlying good games and cognitive theorizing) as well as technological sides. The resulting endeavor should be an amalgam of these interacting aspects that together could be defined as cognition in context (embodied or situated activity) (Rambusch, 2006). Therefore, the current chapter will aim to advocate an all encompassing approach for developing moral games.

Conducting any sort of cognitive work in different domains (e.g. moral cognition, problem solving, scientific reasoning and the like) evokes working memory into the picture. Thus, here I define the concept of working memory in detail because without an intact working memory system, it is difficult to connect information stored in long term memory with current information gleaned from the environment for the purpose of completing or conducting any work.