CULTURE AND COGNITIVE DEVELOPMENT

Literature Review

“Give me a child and I’ll shape him into anything.” This quote from the well-known psychologist B.F. Skinner emphasized his belief in the importance of the environment on a child’s development. He believed that manipulation of a child’s environment would influence the way that the child developed. Psychologists have long been interested in the effects of a child’s environment on their development and one particular area of interest has been the cognitive development of children. Researchers have discovered that there are many factors that can contribute to a child’s cognitive development. Culture is one of those factors that can have a huge impact on the cognitive development of children (Gauvain & Munroe, 2009). In fact, there’s an entire approach to studying cognitive development based off of culture. By using this cultural approach, researchers have been able to learn some interesting things about the effects a child’s environment and culture can have on their development.

In order to look at a few specific effects of culture on cognitive development, one must first understand how the two are linked and also understand a bit about the cultural approach to cognitive development. According to Gauvain, Beebe, and Zhao (2011), “Cognitive development is a cultural process. More experienced cultural members and the practices, institutions, and artifacts of the culture provide support and guidance for children as they develop knowledge and thinking skills.” In other words, culture provides many different kinds of opportunities for children to learn and practice what they have learned. According to Gauvain, et al. (2011), there are three main ways in which culture contributes to cognitive development.

The first way that culture contributes to a child’s cognitive development is through social processes that support and guide a child’s learning (Gauvain et al., 2011). Much of the
information that children will gather from social experiences is cultural and involves the knowledge, behaviors, and ways of solving problems that are of importance in their culture. When children interact with adults and others more experienced than them, they observe what the other person is doing and, often times, try to imitate what they are doing (Keller, 2011). In addition to observation and imitation, many other processes are involved in the social interaction between adults and children that can shape the cognitive development of a child, such as demonstration, instruction, collaboration, scaffolding, and guided participation (Gauvain et al., 2011). Each of these processes plays an important part in the development of a child’s cognition and behavior, as well.

The second way that culture contributes to a child’s cognitive development is through participation in everyday activities (Gauvain et al., 2011). According to Gauvain et al. (2011), research has shown a connection between everyday practices and the development of cognitive skills and, typically, these everyday activities are ordered and defined by the culture. When children participate alongside more experienced members of their culture in everyday practices (cultural routines, rituals, and institutions), these activities become an opportunity for guided learning in which children are learning skills that are completely defined and measured by their culture (Gauvain et al., 2011). As a result, it is easy to see the link between the influence of culture on everyday activities and a child’s cognitive development.

The third way in which culture contributes to a child’s cognitive development is through symbolic and material artifacts that support and extend cognitive development (Gauvain et al., 2011). These “symbolic and material artifacts” can be things such as language, numbers, technology, or any other tool that supports and extends thinking (Gauvain et al., 2011). According to Gauvain et al. (2011), “Children learn to use cultural tools to mediate thinking,
which, in turn, helps them solve problems and engage with the world in ways consistent with their culture.”

By looking at these three aspects in which culture contributes to a child’s cognitive development, one can easily see the relationship between the two. Clearly, the culture in which a child is raised will affect how they develop. By using the cultural approach to cognitive development, researchers have performed numerous studies to explore the different aspects of culture and cognitive development and the effects culture can have on a child’s cognitive development. Additionally, culture can be looked at and studied from many different perspectives.

One way of looking at culture and the effects it has on cognitive development is by comparing two independent cultures. One particular study did this by observing the development of infants in a rural, Cameroonian culture and infants in a middle-class, German culture. The Cameroonian and German cultures were almost completely opposite of each other. Infants from the German middle-class grew up in nuclear families with parents who were highly educated. Their interactions with adults consisted of face-to-face exchanges and elaborated conversations, and the children were constantly offered stimulation through a variety of objects (Lohaus et al., 2011). In contrast, the Cameroonian babies grew up in extended multigenerational families. Their interactions with adults were through body contact. Face-to-face contact and toys were extremely rare (Lohaus et al., 2011).

Researchers studied and observed these infants over a period of time and discovered a few interesting things about the effects of culture on a child’s development. Overall, the results showed that the Cameroonian babies were more advanced in gross motor development and the German babies were more advanced in language development (Lohaus et al., 2011). In cognitive
development, the German babies were more advanced at three months, but by six months both groups of babies were at the same level (Lohaus et al., 2011). According to Lohaus et al. (2011), the differences at three months but not six months may be because of the huge link between language and cognitive development, particularly in the first few months of life. Because the German babies were more advanced in language development, this might account for their advances in cognitive development at three months. The disappearances of the difference at six months might come from the advancement of the Cameroonian babies in their motor development, which can lead to cognitive stimulation (Lohaus et al., 2011).

Though this particular study didn’t determine a whole lot about the effects of culture on specifically cognitive development, it did show how culture effects development overall and provided a basis for further research in that area. It also showed that culture can affect the rates at which children develop in certain areas, as was seen in the fact that the German babies were ahead in cognitive development at three months, but both were the same by six months. Also, due to culture, children will develop in some areas more than others, as was seen by the fact that the German babies were more developed in language and the Cameroonian babies were more developed in gross motor. A study that followed the babies into their later lives may have shown the different ways in which culture continued to affect the ways that the babies developed in language, gross motor, and cognition.

Another study compared four cultures and their impact on the cognitive development of children over a longer period of time. It focused in specifically on the impact of the societal modernity of the culture. The four cultures that were looked at were the Garifuna in Belize, the Logoli in western Kenya, the Samoans in American Samoa, and the Newars in Nepal. The study created a scale for modernity and rated each community as follows: American Samoans (82%),
Garifuna (51%), Newars (39%), and Logoli (28%). Overall, the children from cultures with more modernity (such as the American Samoans) outperformed in almost all areas of cognitive development, with the exception of motor coordination, when compared to the children from cultures with less modernity (such as the Logoli).

According to Gauvain and Munroe (2009), “Children who lived in households that had more amenities, regardless of cultural community, performed better on all of the cognitive measures, engaged in more self-managed play, and were observed doing less work.” Overall, the more modernity in a household dictated higher scores in cognitive development (Gauvain & Munroe, 2009). From this study, researchers could conclude that modernity in a culture does play a direct role in affecting a child’s cognitive development. Children who grow up in cultures with more modernity and more amenities will have higher cognitive development than will children who grow up in cultures with lower modernity.

In addition to performing intercultural (cross-cultural) studies of cognitive development, researchers have also done intracultural (the cultures within a culture) studies that have looked at cognitive development within a specific culture and how impacts of the sub-cultures of that specific culture on cognitive development may differ. For example, research has been done in the United States on positive youth cultures and the impacts that they can have for the still-developing adolescent brains.

According to Laursen (2009), “Experience shapes the activity of the brain and the neural connections through life.” Therefore, the impacts of culture on cognitive development don’t stop at a young age. In fact, they continue all the way through adolescence, and some would say that they continue to affect people throughout their lives.
Positive youth cultures are communities that provide access to essentials for adolescents to survive and create a positive environment based off of respect. They build on adolescents’ strengths while also challenging them in areas of growth and, overall, are safe, supportive, and inclusive (Laursen, 2009). These environments have shown to help adolescents’ brains develop allowing them the ability to analyze challenges and problem-solve and create solutions (Laursen, 2009).

Maybe Skinner was exaggerating a bit when he said that he could shape a child into anything that he wanted, but he definitely was on to something when he emphasized that a child’s environment and culture play a huge role in their development. No matter what angle it is approached from or how it is studied, it is clear from the cultural approach to cognitive development that culture and cognitive development are very tightly woven together. By looking at the relationship between the two, researchers have been able to learn a lot about the development of children and their environments. According to Keller (2011), “Cognition has become more and more understood as situated in the environmental context.” As researchers continue to study this link, they will continue to learn more about how the brain develops and the role that culture plays in it. On the whole, it is clear to see that “culture fundamentally shapes cognition,” (Keller, 2011).
References


