Examining the Effects of Youth Sport Settings on the Development of Creativity

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In an era where fostering creativity and innovation is at the forefront of domestic and international policy agendas, sport managers have largely ignored the subject. Perhaps this is unsurprising given that “creativity as a problem of study is large, unwieldy, and hard to grasp” (Sternberg, 2006, p. 3). The dearth of creativity research within the sport management literature may speak to a broader incongruence between the values and practices in modern sport and the philosophical tenants underpinning creativity. In many ways the youth sport development and delivery systems in the United States have rendered a predominantly organized sport experience that does little to foster creativity in its child participants. Traditional sport settings are achievement oriented, adult-driven, and are perceived to provide children with a wide range of benefits such as health, socialization, character building, time management skills, and even a chance to earn a college scholarship. At the same time, many sport settings are organized to reflect the structure and culture of professional sport settings (cf. Rigauer, 1981). Coaches are often authoritarian; children are encouraged to specialize at an early age; hard work and intense focus are prized above fun, creativity, and spontaneity. In other words, the structure of the organized setting may be facilitating the delivery of certain benefits while simultaneously discouraging the transmission of other potentially valuable (but different) benefits like creativity. For sport managers concerned with developing both sport and non-sport benefits in participants, the impact of the setting may represent an under-examined factor in the sport delivery equation.

As researchers have shown, many current practical sport development models emphasize early specialization and deliberate practice over deliberate play (MacPhail & Kirk, 2006), policies that seem antithetical to the promotion of creativity in young athletes. At present, however, the sport development literature has focused on explicating the systemic outcomes of these practices, such as athlete burnout and dropout (Fraser-Thomas, Côté, & Deakin, 2008). Very little research has been conducted measuring individual-level outcomes like creativity. In the relatively few studies where creativity and sport have overlapped, the research has focused on understanding the impact of training programs on the development of sport-specific, in-game creativity within samples of primarily elite-elite athletes within a national sport development system (e.g., Memmert et al., 2010). The relationship between youth sport participation and the general development of creativity remains largely unexamined. Yet, influential child development/play theorists posit that the informal incarnations of sport represent an essential form of developmental play that has the potential to foster outcomes such as creativity in participants (Piaget, 1962; Vygotsky, 1978). In other words, it may not only be possible to develop creativity in sport, but perhaps to develop creativity through sport -- depending on the type of setting in which participation occurs. The purpose of this research, therefore, is to determine the extent to which time spent in structured, organized sport and unstructured, informal sport in childhood are associated with creativity in young adulthood.

Through a performance comparison on general creativity indices between samples of adults who have spent disparate amounts of their childhood in organized sport versus its playful, less structured informal sport counterpart, this research explores the relationship between sport settings and the development of creativity. In order to understand whether a relationship exists between the type of sport environment to which an individual is exposed during his or her childhood and creative ability in adulthood, the Abbreviated Torrance Test for Adults (ATTA) will be used to measure the creativity of 225 (75 per major) upper division undergraduates and graduate students in three types of majors: (a) sport-related degrees, (b) creative arts degrees, and (c) other degrees. The inclusion of three groups should ensure a full range of childhood exposure to sport settings, both formal and informal. Students are selected, in part, due to previous findings asserting that, for many individuals, the developmental peak in creative thinking occurs between the ages of 21 and 29, which is a typical age range for upper division undergraduates and most masters-level graduate students (Runco & Charles, 1997).

The Abbreviated Torrance Test for Adults (ATTA) is a shortened version of the Torrance Tests of Creative Thinking (TTCT) and consists of three open-ended activities (Goff & Torrance, 2002). The test battery includes measures to quantify both figural and verbal creativity. The ATTA consists of four norm-referenced abilities (i.e., fluency, originality, elaboration, and flexibility),

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and fifteen criterion-referenced creativity indicators which aggregate to form a creativity index. It has been shown to provide valid, reliable and objective measures of verbal and figural creativity in adults that correlate with creative performance (Althuizen, Wierenga, & Rossiter, 2010; Cramond et al., 2005). Participants will also complete a questionnaire consisting of demographic information (e.g., age, gender, major) and context-specific sport participation rates during childhood. Utilizing the framework employed in Memmert, Baker, and Bertsch (2010), participants will complete a questionnaire that includes Helsen, Starkes, and Hodges’s (1998) modified deliberate practice questionnaire for sport. The instrument is comprised of three sections with unique subscales measuring the sport experiences of participants over the lifespan of their athletic careers. Two key measures will be calculated for statistical analysis: time per year spent in unstructured, play-like activities in sport (Time Informal) and time spent per year in structured practices, training, and organized games (Time Formal). Each of the four domains of creativity will be regressed on Time Informal, Time Formal, time informal × time formal, gender, and major. The correlations among errors across equations will be captured as an information matrix via joint generalized least-squares, and will be used to improve the quality of prediction. Joint generalized least-squares will optimize power and the quality of regression weight estimation across the equations. By estimating the equations for all dimensions of creativity, it will be possible to identify potentially differential effects of the two settings.

Generally, time spent in unstructured, play-like activities is expected to have a significant and positive relationship with creativity, while time spent in organized sport activity is expected to have a significant negative effect on creativity. If the expected findings are indeed confirmed, there will be important management implications with regard to re-considering the design and implementation of youth sport-for-development programs to deliver a more extensive range of benefits. Sport organizations may be able to expand their portfolio of offerings to include more play-oriented sport options, perhaps reaching into a new market segment. Communities seeking to use sport as a venue for child and personal development, particularly for at-risk youth, may shape their programs to better deliver intended benefits such as creativity. As the nurturance of creativity continues to emerge as an important management and policy issue, sport may play an important role in helping to foster creative development in children. This will only occur, however, if a thorough understanding of the contextual parameters necessary to foster creativity through sport is identified.