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Time Use as Cause and Consequence of Youth Development

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Abstract

From an ecological perspective, daily activities are both causes and consequences of youth development. As causes, daily activities represent distinct sets of socialization experiences that afford opportunities to acquire new competencies and behavioral patterns. As consequences, daily activities reflect youth's force and resource characteristics, including developmental status, temperament and motivation, and pre-existing levels of adjustment. An ecological perspective also highlights the role of the larger sociocultural context in shaping and conditioning the links between daily activities and youth development. In this article, we draw on research with children and adolescents to consider how an ecological perspective can provide a flexible framework for studying time use as a developmental phenomenon. We also discuss methodological issues and suggest research that should be conducted in this broad area.

Keywords

adjustment; adolescence; childhood; daily activities; ecological perspective; sociocultural context

From an ecological perspective, daily activities are both causes and consequences of youth development (1). As causes, daily activities represent distinct sets of socialization experiences that afford opportunities to acquire new competencies and behavioral patterns (2); as consequences, daily activities reflect youth characteristics, including developmental status, temperament and motivation, and pre-existing levels of adjustment (3)—what Bronfenbrenner and Morris have termed “force” and “resource” characteristics (4, p. 810). However, the developmental significance of daily activities is best understood from within the larger social ecology (5): The attributes of families and communities, such as material conditions, subsistence demands, and divisions of labor by age and gender, set the parameters for cultural scripts that define normative pathways of development in a given setting. These scripts, in turn, provide structure and meaning for youth's everyday experiences. Building on an ecological perspective and recent research, we describe how daily activities may affect and reflect youth development. Specifically, we summarize a conceptual model (Figure 1) that highlights (a) *the nature of activities*, or the content and degree of structure of activities in which youth spend their time; (b) *the social contexts of*

activities, or youth's companions in their activities; (c) *youth competency and adjustment outcomes* that may result from being involved in an activity; (d) *youth resource and force characteristics* (3) that may affect youth's engagement in activities; and (e) *the social ecology* or larger sociocultural context in which youth and their activities are embedded.

Nature of Activities → Youth Outcomes

Daily activities include work (e.g., paid work, housework, schoolwork) and leisure (2). Leisure activities can be further divided into unstructured activities, such as hanging out and watching television, which do not involve standards for performance, and structured activities, such as taking part in sports teams and academic clubs, which tend to be goal oriented, scheduled regularly, and supervised by adults (6). Activities that vary in content and structure likely are distinguished by distinct patterns of behaviors and expectations (1). Therefore, the amount of time spent in a specific activity can serve as an estimate of a youth's exposure to learning opportunities and socialization influences (2).

Indeed, different types of activities are associated with different youth outcomes. For example, Eccles and Barber (7) examined the benefits and risks of tenth graders' involvement in school-based, extracurricular activities. Controlling for such self-selection factors as verbal and numerical abilities, participating in academic clubs predicted higher grades, attending religious services and volunteering predicted higher grades and lower substance use, and participating in sports teams predicted higher grades but also greater substance use. Such findings are consistent with the idea that different activities accommodate unique socialization experiences (6): Academic clubs target specific school subjects and thus may provide little exposure beyond the academic domain. Faith-based and service activities foster a generic, prosocial ethic and thus may protect across many domains of adjustment. And sports teams emphasize discipline, cooperation, and achievement, which may be advantageous in the academic domain, but peer dynamics in some sports teams, especially in unstructured settings, also may encourage risky behaviors.

The extent to which activities are structured is equally important for their implications. Specifically, unstructured leisure is linked to delinquency, symptoms of depression, and disengagement from school, whereas structured leisure is associated with prosocial behaviors, emotional well-being, and academic achievement, both concurrently (8–10) and longitudinally (11–13). Unstructured and structured activities provide youth with different socialization experiences. First, these activities often involve different companions (10). In particular, unstructured activities with peers may promote risky behaviors by making those behaviors more exciting and easier to carry out. Activities that are not supervised by adults may further increase the chance of deviance by reducing youth's motivation to conform to rules and minimizing expectations of punishment. Second, structured activities are more likely to target specific skills, require active participation, and be organized progressively to achieve a predetermined goal (14), making them more likely than unstructured activities to promote initiative and competencies (6). In short, time use is multifaceted, underlining the importance of using many indicators to capture such dimensions as the content and degree of structure in daily activities.

Social Context of Activities → Youth Outcomes

The social context of activities is a central feature of the ecology of youth development: As the “building block of the microsystem” (1, p. 56), involvement in joint activity is a principal vehicle through which youth are affected by their immediate social environments. In two recent studies, we explored the relations between time spent with different companions and youth outcomes from middle childhood through adolescence. In addition to examining the usually studied differences between individuals, we tested within-person associations, which effectively control for stable selection factors (15). Time with fathers spent in the company of others was linked concurrently to youth’s peer competence, adult-supervised time spent with opposite-sex peers was linked longitudinally to higher school grades, and unsupervised time with opposite-sex peers was linked longitudinally to behavioral and emotional problems (16, 17). We interpreted these findings to mean that different companions—through their interaction styles and emotional salience and in combination with the affordances and constraints of the embedding social context—may contribute to youth development in unique ways. Specifically, time spent with fathers tends to involve leisure activities and other playful interactions (18). Such peer-like interaction styles may be conducive to youth’s social development, especially when they take place in the presence of others and support forming larger social networks. With respect to activities with peers of the opposite sex, given gender segregation in middle childhood (19), adolescents may be less familiar with the interaction style of opposite-sex peers and experience greater emotional arousal in such contexts (20). Depending on whether an adult is present to guide and supervise activities, youth’s heightened energies may be channeled into developing competencies—or engaging in risky behaviors.

As noted, the nature of activities affords contact with different social partners (6, 10) and time spent in different social contexts is linked to different youth outcomes (16, 17). Such patterns raise the question of whether the social contexts of activities mediate the links between the nature of activities and youth outcomes. Few studies have tested this question, with mixed results. In one (21), affiliations with deviant peers mediated the positive longitudinal association between structured sports and delinquency. In another (22), affiliations with prosocial peers mediated the concurrent negative association between structured sports and symptoms of depression, and the positive association between academic clubs and school engagement. In other words, the adjustment implications of the nature of youth’s activities were explained partly by the social context of those activities. In contrast, two other studies (23, 24) produced limited evidence for the mediational role of activity context.

These discrepant findings may be due to investigators’ focus on different activities and outcomes, and their use of different samples and measures. However, activity context is only one potential mediator of the associations between the nature of youth’s activities and their adjustment. In addition to an opportunity to develop competencies (2), daily activities may be a forum for self-expression, a chance to build affiliations with social institutions, and a constraint on youth’s involvement in alternative activities (25). Although these processes have often been offered as explanations of the effects of daily activities, they are rarely measured and tested directly. Studies of time use should test these other potential mediators

of the links between the nature of activities and youth outcomes to understand how activities affect youth.

Youth Resource and Force Characteristics → Nature and Social Contexts of Activities

Within an ecological framework, youth are viewed as active agents in their own socialization (1). Youth's pre-existing levels of competencies and adjustment, or resource characteristics (3), may lead them to seek out some activities over others. In our work (24), we examined whether time use at age 10 was linked to changes in youth adjustment over a 2-year period or vice versa. Youth's adjustment predicted more accurately the nature of children's activities than the reverse. For example, all our adjustment indices—risky behaviors, symptoms of depression, and school grades—predicted time spent hanging out, but time spent hanging out predicted none of these indices. In other words, perhaps due to low self-efficacy and social support (26), less well-adjusted youth may fail to pick niches involving activities that promote development, and they may spend more time idling (4); however, we found no indication that idling, because of its lack of focus and direction (14), leads to less positive youth development (2). However, other researchers, using methods similar to ours (13, 27) and cross-lagged models (11, 28), have documented bidirectional links between the nature of youth's activities and youth's competencies and adjustment, and in one study, we uncovered transactional relations between activity context and youth outcomes (24). Taken together, to advance understanding of daily activities as both causes and consequences of youth development, researchers should assess time use and youth outcomes at many time points and, using experimental designs, test the effects of interventions to promote youth involvement in constructive activities.

Beyond competencies and adjustment, force characteristics of youth (3) may affect how youth spend their time. Research on temperament, for example, highlights that individuals' responses to environments vary in tempo and intensity (29). Their activity levels and extraversion, in particular, may explain why some youth are drawn to active and social leisure activities, whereas others prefer sedentary and solitary activities. Research on achievement motivation further emphasizes the roles of interests, values, and goals in youth's daily activities (26). For example, using a longitudinal design and controlling for teacher-rated abilities, youth's self-reported interests and beliefs about their competencies in specific activities predicted their time spent in structured sports, playing music, and reading for leisure (30, 31). Studying daily activities from a gender perspective (19), our work also showed that gendered interests and attitudes were linked, over time, to involvement in stereotypically feminine and masculine activities (32; but also see 33 for evidence of effects in the reverse direction).

As youth develop, they become more skilled at directing their actions toward their long-term goals. Using a person-oriented approach, which identifies patterns of associations between variables to describe distinctive groups of individuals (34), one study classified youth based on the amount of time they spent in different activities and with different companions (35). Youth's plans for education and marriage predicted their patterns of time use. For example, youth who did not plan to pursue higher education were highly involved in paid work but

less involved in both schoolwork and school-based extracurricular activities in the following year.

Youth's resource and force characteristics may shape not only their time use, but also their susceptibility to the effects of their activities. For example, involvement in school-based, extracurricular activities in middle and high school predicted lower rates of school dropout and criminal arrest, but only for youth rated by middle school teachers as not well adjusted (36). The amount of time youth spent with their mothers in physical activities was linked to youth's overall involvement in physical activities, but only after the transition to adolescence (37). Involvement in physical activity tends to decline in adolescence, and thus mothers' modeling of physical activity may serve as a protective factor during this period (38). More generally, these patterns reflect what Bronfenbrenner (1) termed person $\times$ process interactions, a key focus for continued study within an ecological framework.

The Social Ecology of Youth's Time Use

In addition to emphasizing daily activities, an ecological perspective directs attention to the multilayered context in which youth's daily lives are embedded (1). As elaborated by Weisner (5), the attributes of the larger ecology provide the foundation for cultural scripts that define what constitutes a good life, and what competencies and behaviors are required to achieve it. These scripts, in turn, organize the socialization goals of families and communities, and the everyday experiences of youth. Indeed, cross-cultural comparisons show that the nature and balance between youth's work and leisure are tied closely to the material conditions and subsistence demands of the larger ecology (2, 39): In industrial societies, where food is abundant and making a good living depends on specialized skills, youth's work comes predominantly in the form of schoolwork, which accounts for 20 to 50 percent of their time. However, in nonindustrial societies, where physical and low-skill labor is critical for families to survive, youth may spend nearly all their time doing housework, engaging in the family business, or pursuing jobs in the community. In societies where women and men occupy highly segregated roles, girls and boys also exhibit distinctive patterns of time use, with girls more involved in domestic activities and boys more involved in paid work and leisure activities outside the home (19).

The ecological and cultural context shapes not only the range of activities that allow for youth's participation, but also the meanings associated with these activities. For example, youth from middle-class families are more likely to participate in structured leisure activities than those from working-class families (9, 12). Although such differences may reflect financial and environmental affordances and constraints (6), they may also be related to parents' beliefs about the nature of youth development and the functions of leisure activities. For example, in one study (40), middle-class parents enrolled their children in a range of structured activities, reflecting the parents' beliefs that positive youth development requires concerted cultivation and that structured leisure is an important means toward this goal. In contrast, working-class parents rarely intervened in their children's free-time activities, reflecting their beliefs that, though children should be protected and provided for, they should otherwise be left to grow naturally (40).

To the extent that daily activities hold different meanings across ecologies, their implications may also vary—what Bronfenbrenner (1) termed context $\times$ process interactions. For example, researchers have examined ethnic and socioeconomic differences in the links between daily activities and youth outcomes (12, 13, 41). However, because ethnicity and social class are status or social address variables (1), when group differences are detected, researchers can only speculate about the mechanisms responsible for these differences. Accordingly, some have advocated unpacking status variables to measure underlying social processes that account for their effects (3, 5, 42). In our work on Mexican American families, for example, we moved beyond ethnicity to measure parents' cultural orientations and found that these moderated the associations between daily activities and youth outcomes (43): In highly acculturated families, youth's time with Mexican American peers—which might indicate a mismatch between youth's orientations and their parents' expectations—was linked concurrently to more risky behaviors and lower grades. Researchers should examine whether as well as how social ecology moderates the implications of youth's daily activities by decomposing global, ecological descriptors (e.g., Mexican American, low socioeconomic status) into more specific, ecological measures (e.g., cultural values and practices, family and community resources).

Conclusions

Methodological advances are essential to further understand the role of daily activities in youth development. First, self-selection into activities remains an important confound. Apart from randomized experimental designs, the quest for causal inference can rely on statistical approaches, such as using longitudinal data with strong controls (7, 31), cross-lagged models to test for alternative directions of effect (11, 28), and multilevel modeling to examine within-person associations (16, 17). Second, as advocated by Cattell (44), researchers must consider the representativeness of data on time use along the dimensions of persons (i.e., whether the sample is representative of a population), variables (e.g., whether many methods and measures are used to tap the different dimensions of daily activities), and occasions (i.e., whether variables capture variation across place and time). Because data are unlikely to be perfectly sampled along all these three dimensions in one study, understanding and appreciating the research strategies of different disciplines (e.g., psychology, sociology, demography) would advance the field more rapidly than relying on the approach of any single discipline. Furthermore, time use can be studied as a property of individuals as well as populations. And, as the ecological fallacy holds, conclusions based on individuals may not be generalizable to populations (45). Thus, collecting time use data around the globe, especially in non-Western and nonindustrial societies, will improve our understanding of the implications of daily activities for youth development and adjustment.

Finally, advances in this field require that we develop a theory that captures processes of influence across many levels of analysis. An ecological perspective directs attention to the relations between daily activities and youth outcomes. However, an ecological perspective is not a theory in that it does not identify directional hypotheses about the processes or mechanisms through which particular outcomes ensue. Therefore, it is more useful when applied in combination with theories and models that explain development and adjustment in particular domains. Researchers studying time use have tested hypotheses derived from

such theories as expectancy value (26), gender schema (46), routine activity (10), social capital (47), and social learning (16, 17), and from models of familism (48) and stress physiology (49), among others. An ecological perspective provides a flexible framework to organize findings from these diverse disciplinary approaches and apply them to the study of youth's time use, but researchers must integrate what we have learned to construct an overarching theory of the causes and consequences of youth's time use.

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Figure 1. A conceptual model of the interrelationships between the nature of activities, the social contexts of activities, youth competency and adjustment outcomes, youth resource and force characteristics, and the social ecology.