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Does Playing Pay? The Fitness-Effect of Free Play during Childhood

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Abstract: Evolutionary developmental psychology claims that the sequences and processes of human development, in fact the mere fact of ontogeny itself, have to be viewed as evolutionary products. However, although the functional benefits of childish behavior (child playing) for cognitive and emotional development have been shown repeatedly, claiming evolutionary adaptiveness of playing in childhood suggests that childish play supports evolutionary success in mature stages of development. This hypothesis is tested in a study with N = 134 adults (93 females; age range 20-66 years). Participants were asked to recollect their play experiences during childhood in detail, and to report their current developmental status with respect to several aspects of social success. Results show that the opportunity for and the promotion of free play in childhood significantly predict some indicators of social success. Additional analyses strive to explore mediating processes for this relationship. In particular, the mediating role of individual adaptivity (flexibility of goal adjustment) is investigated. Results suggest that freely playing in childhood promotes developmental resources, in particular individual adaptivity in adulthood, which, in turn, promote developmental success.

Keywords: child play, adaptive value, adaptivity, social success

Introduction

It is the central tenet of evolutionary developmental psychology (e.g., Bjorklund and Hernandez Blasi, 2005; Bjorklund and Pellegrini, 2002; Burgess and MacDonald, 2005; Ellis and Bjorklund, 2005; Geary and Bjorklund, 2000; Konner, 2010) that both the duration and the course of human development are products of evolutionary processes. Although evolutionary psychology has mainly focused on the attributes and behavior of adults (e.g., mating, problem solving, aggression; Buss, 2011), this general assumption is
hardly ever questioned. However, the concrete advantages (i.e., the evolutionary history) of several aspects of human development that are unusual in the animal kingdom remain to be explained. In particular, the prereproductive periods of humans are prolonged in the extreme, encompassing about 15 years (much more than even other primates, let alone other mammals; Poirier and Smith, 1974), and thus exposing them to risky constellations over a very long period of time before they can even attempt to reproduce (Bjorklund and Pellegrini, 2002; Konner, 2010; Periss and Bjorklund, 2011). This is particularly astonishing in that humans do not give birth to many children (and raise even fewer), which increases the risk of ending up with no second generation, evolution’s capital punishment. What, then, might be the adaptive advantages of our extended childhood?

The journey to adulthood through different stages (infancy, childhood, adolescence) requires not only that infants and children have several strategies available to survive the long trek to maturity (i.e., “ontogenetic adaptations”), but suggests that this high investment has notable adaptive advantages for adulthood that outbalance the costs and risks of a prolonged prereproductive lifetime (i.e., “deferred adaptations”; Bjorklund and Pellegrini, 2011; Hernández Blasi and Bjorklund, 2003). Whereas sufficient ontogenetic adaptations are the necessary condition for reaching a stage of reproductive maturity, deferred adaptations are the necessary condition for the evolution of a long childhood to occur in the first place.

Individual niche adaptation requires time to learn and adapt

Given that children survive their childhoods (due to their ontogenetic adaptations – e.g., a greater flexibility of their bones; Turner, 2007), a course of development that prepares adults to become more “fit” to their particular physical and social environment, by means of whatever capacities, will reproduce more successfully. As a consequence, this advantageous aspect of development (e.g., learning options) will be favored, assuming it is inherited. These developmental advantages, however, have to outweigh the corresponding risks (e.g., some learning options entail the risk of death before reproduction). The crucial question, then, is which favorable capacities are produced by prolonged development that are useful or necessary for the reproductive success (i.e., fitness) of adults (Bjorklund and Pellegrini, 2011).

The central idea of the evolutionary developmental perspective is that beyond the development of at-birth “unfinished” components of our physical shape (Periss and Bjorklund, 2011), a long and flexible period of development offers the opportunity to better adapt the individual to varying demands of the environment. Because development is clearly more than just the “unfolding” of a genetic program but rather a dynamic and interactive process (West-Eberhard, 2003), human ontogeny opens large windows of plasticity both in physiological and psychological respects. Thus, the main argument of evolutionary developmental psychology is that a prolonged development tremendously increases the species’ flexibility. The additional years improve individuals’ abilities to fit the particular ecological niches they are born into, offering humans the option of living almost anywhere: from the dry desert to the never-melting ice, from the scantiest mountains to the richest valleys. Through development, we learn what we need in our particular world (niche) in order to survive and reproduce “here and now,” as it were (Bjorklund and
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Pellegrini, 2011). This is what a long development is for: It enables humans, more than any other species on earth, to adapt ontogenetically (i.e., individually) to all kinds of physical and social niches (Greve and Bjorklund, 2012).

Child play is a valuable and flexible learning opportunity

Arguably, child play is among the most important means of deferred adaptation (Bjorklund and Pellegrini, 2011; King and Bjorklund, 2010), a reflection of the adaptive value of immaturity (Bjorklund, 1997; Bjorklund and Green, 1992). We learn through trial and error (no less than through guidance and education) what our physical and social environments require, and we acquire the competencies that are useful or necessary within our respective environment – the rules of surviving (e.g., getting food, avoiding predators, infections, or poisonous fruits) as well as the rules of social life (e.g., cooperation, competition, getting accepted by peers; Bjorklund, 2007).

In fact, the value and use of child play has been shown numerous times in many studies, both from a classical developmental psychology perspective (e.g., Mogel, 2008; Pellegrini, 2013) and from an evolutionary developmental psychology point of view (e.g., Bjorklund, 2007; Bjorklund and Pellegrini, 2002).

Though it is clear by now that we learn useful things through play, the fitness (deferred adaptive) value of child play remains to be shown. It is not enough just getting better in some respects (say, motoric flexibility) with playing than without; it is necessary that child play improves individuals’ opportunities and prospects for reproduction. And if this reproductive advantage of a prolonged childhood has shaped the evolutionary history of our species (Homo sapiens), it seems plausible to expect this advantage to still be present. The prospects of developmental and reproductive success depend on individuals’ capacities both on concrete (e.g., the individual’s flirting competence) and abstract levels (e.g., the individual’s tenacity to overcome obstacles). Whereas the ultimate test of this assumption is, of course, actual reproductive success, an intermediate step toward this proof is arguably the predictive value of extensive and free child play for social success. Because social success (social connectedness, social status, etc.) is both a valuable means for attracting partners and raising children (for a general account see Buss, 2011), it seems plausible to view it as an indicator (i.e., as an important condition and, thus, a proxy variable) for evolutionary success.

Because child play obviously cannot “produce” social and developmental success directly, an empirical hypothesis claiming the prediction of social success from child play has to include at least some important preconditions of social success, such as physical and psychological health or self esteem, which may be more immediate consequences of play. Technically, such preconditions are to be viewed as (possible) mediators of the effect of child play on social success. Though there are certainly a plethora of possible conditions of social success (e.g., SES of one’s parents, social circumstances of one’s upbringing, quality of one’s teachers, etc.), child play is expected to influence only a selection of these. Here, personal facets and/or conditions of social competence, including psychological health and self-esteem, should plausibly both predict social success on the one hand and be predicted by positive childhood experiences in general and social learning in particular (Bjorklund, 2007) on the other. For instance, one’s sense of mastery and control is expected to benefit
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from play experiences during childhood (Bjorklund and Pellegrini, 2002). This, in turn, could fuel the individual’s self-esteem, which in turn is a condition of social success in general (for an overview see Kernis, 2006). More generally, self-esteem and psychological health can be viewed as conditions, even indicators, of successful development (Baltes and Baltes, 1990).

The development of adaptability: Acquiring individual flexibility

Due to the high costs (risks), a prolonged period of playing should have more than particular effects like those described earlier. Therefore, the claim of the present study is that humans, by playing extensively and freely in childhood, not only acquire complex social and locally adapted competencies, but in particular develop the competence to adapt individually (i.e., develop adaptability; Greve and Bjorklund, 2012). Actually, humans are not only able to individually adapt to a particular and complex environment through child development, but have, above and beyond that, the capacity to re-adapt individually throughout their whole lifespan if the demands and challenges of the environment should vary or the individual’s capacities should change (e.g., loss of mobility in old age). In short, the most unique feature of humans is to reshape one’s profile of attributes and competencies if the fit between the individual and its environment should decrease.

One core component of this adaptivity is the individual’s flexibility to adjust their goals, values, and norms if they are blocked or threatened by obstacles and problems that could not be solved or overcome by means and strategies the individual has command of. This particular competence, which is the necessary complement of the individual’s capacity to solve problems actively, is the central concept of the two process-model of developmental regulation (e.g., Brandstätter and Renner, 1990; Brandstätter and Rothermund, 2002). In this theory, individual adaptivity (termed as “accommodation”) is conceptualized as the individual’s capacity to revise or readjust its own goals in order to bring them in line with the perceived options and restrictions (e.g., by focusing on the good aspects of the problematic situation, by thinking about resulting opportunities or things that can be learned, or by concentrating on new attractive goals).

Several studies have shown that this aspect of individual adaptivity is an important predictor of successful development throughout adulthood and aging (e.g., Brandstätter and Greve, 1994; for an overview see Brandstätter, 2006, 2007). Recent studies suggest that the roots of accommodative capacity are developed in childhood and adolescence. In particular, these studies support the hypothesis that heterogeneity and diversity of an individual’s experience throughout childhood predicts one’s flexibility. In two cross-sectional studies, heterogeneous, free, and undirected playing and shaping of one’s leisure time during childhood (as reported by the parents) was found to be a significant predictor of cognitive facets of the individual’s adaptivity (“accommodation”) in adolescence (as assessed by a questionnaire from the adolescents; Greve and Thomsen, 2014; Thomsen and Greve, 2013). We suggest that this is one important function of free play: Beyond acquiring particular physical and social skills, we develop flexibility and adaptivity to further adjust ourselves to the demands of our physical and social environment. The more time we have to play and the greater the diversity of experiences we can make, the greater our accommodative flexibility throughout adulthood and, hence, the greater our developmental
and social success over the lifespan. In contrast to strongly regulated playing (e.g., learning to play the piano), unguided playing (i.e., the possibility for trying out things) should be of particular use here. As a consequence, the extension of child play should predict not only more concrete preconditions of social success (e.g., self esteem, psychological health), but more generally the individual’s adaptivity. The degree of the individual’s flexibility (adaptivity) is claimed to be one important aspect of the relationship between child play on the one hand and evolutionary success on the other.

**Aims of the present study**

The present study investigates the particular, “additional,” value of free child play for social (and, hence, evolutionary) success in a cross-sectional questionnaire study. In a first step, we investigate the prediction of a high degree of free play experienced in childhood for social success. Here, we defined childhood as the time period between the beginning of kindergarten (by the age of 3) and the end of elementary school (by the age of 10). Indicators for social success were the availability of interpersonal relationships, the ability to use social support, and having a sense of a personal social appreciation (Becker, 2006; for an evolutionary psychology account see Buss, 2011). In a second step, we investigated whether some conditions of social success are mediators of the relationship between free play in childhood and social success in adulthood. In particular, physical and psychological health (plausibly necessary conditions of social connectivity and status) and self-esteem (a central component or criterion of successful development and thus a valuable condition of social success in many respects; Baltes and Baltes, 1990) are investigated as possible mediators. Given that this relationship between child play and social success can be empirically demonstrated, the flexibility hypothesis discussed above was investigated in a third step. According to the considerations described in the previous section, extended child play is expected to be one important source for the development of individual adaptivity in adulthood, which in turn is an important source of adult social success. Hence, individual adult adaptivity is proposed to be another mediator of the relationship between child play and adult social success. According to the two-process-model of developmental regulation, flexibility of goal adjustment (i.e., the individual’s flexibility to adapt to problems that cannot be mastered by available skills and competencies of problem solving) was selected as an indicator for adaptivity.

**Materials and Methods**

**Design and procedure**

The present study was conducted as a questionnaire study with participants in adulthood across different ages. Questionnaires were distributed in restaurants, nursery schools, public places, railway stations, adult education centers, companies, and the university. After completion, the questionnaires were collected or participants were requested to send or bring them back to the authors’ university address. All data were collected anonymously.
Participants

The sample included 134 participants, with 93 (69.4%) women and 41 (30.6%) men. Participants’ ages ranged from 20 to 66 years ($M = 32.98$, $SD = 12.34$, $N = 132$; two participants without specification). The educational achievement status was dominated by higher degrees: 33.6% of the participants had a university degree, 44% finished with an advanced school certificate (German “Abitur”), 22.4% had a high school certificate of different degrees (16.4% “Realschule”; 6% “Hauptschule”). Concerning the family status, 29.9% defined themselves as single, 38.1% lived in an unmarried partnership, 26.1% were married, 3% were divorced, and 1.5% were widowed.

Measures

Social success. Participants’ social success was assessed by a scale that was created by the authors (see Table 1). Based on 10 items, participants had to estimate heterogeneous possible indicators for social success, such as their social relationships (e.g., “Friends come to ask me for advice”), their social support system (e.g. “If something goes wrong, I have friends by my side that support me”), or their social acceptance (e.g., “My work is appreciated by others”). Each item had to be answered on a five-point Likert scale (from 1 = “disagree completely” to 5 = “agree completely”). The arithmetical mean across all items was calculated ($M = 3.85$, $SD = .53$); the internal consistency (Cronbach’s alpha) was $\alpha = .81$.

Table 1. List of items and factor loadings for the social success scale

|   | Factor Loading |
|---|----------------|
| 1 | In conversations with others I usually find the right words. | .70 |
| 2 | Friends come to ask me for advice. | .61 |
| 3 | From time to time I get involved in conflicts because other people want something else than I want. | .35 |
| 4 | If something goes wrong, I have friends by my side that support me. | .67 |
| 5 | From time to time I feel that people do not respect me. | .75 |
| 6 | People in my surrounding appreciate me. | .78 |
| 7 | Sometimes I miss the contact with other people. | .49 |
| 8 | People in my surrounding feel sympathy for the things affecting me. | .68 |
| 9 | My work is appreciated by others. | .50 |
| 10 | I can present myself well in company of others. | .60 |

Notes: Principal component analysis; Items 3, 5, and 7 were recoded

Subjective experience of free play in childhood. In order to measure the participants’ subjective experiences of free play in childhood (defined as the ages of 3 to 10
years), a seven-item scale was constructed by the authors (see Table 2). The scale contained items concerning their own liberty of free play (e.g., “Looking back, I tried many things and experimented a lot by myself”) and the freedom their parents gave to their own free play (e.g., “My parents had a good balance between freedom and protection”). Each item had to be answered on a five-point Likert scale (from 1 = “disagree completely” to 5 = “agree completely”). The scale was constructed by calculating the arithmetical mean across the seven items ($M = 3.68, SD = .71$); the internal consistency was $\alpha = .78$.

### Table 2. List of items and factor loadings for the subjective experience of free play in childhood scale

| Factor Loading |
|----------------|
| 1 | My parents placed high demands on myself. | .45 |
| 2 | Looking back, I tried many things and experimented a lot by myself. | .67 |
| 3 | My parents always were in fear that something could happen to me, so they did not let me do many things by myself. | .56 |
| 4 | From time to time I stroke out on my own or with my friends to discover the neighborhood. | .77 |
| 5 | I think I grew up in a spacious environment that was barely restricted. | .74 |
| 6 | In former times, I tried out a good balance between freedom and protection. | .78 |
| 7 | My parents had a good balance between freedom and protection. | .62 |

**Notes:** Principal component analysis; Items 1 and 3 were recoded

**Flexible goal adjustment.** Participants’ flexibility was assessed by the Flexible Goal Adjustment Scale (Brandstätter and Renner, 1990). The scale applied in the study contained 14 items (e.g., “Sometimes things in life don’t go the way you want them to. But I still find it easy to see the good in the unpleasant things in life”), and each item had to be answered on a five-point Likert scale (1 = “disagree completely” to 5 = “agree completely”). The scale was constructed by calculating the arithmetical mean across the items ($M = 3.34, SD = .52$); the internal consistency was $\alpha = .82$.

**Self-esteem.** The self-esteem of the participants was assessed by a German version of the Rosenberg-Scale (Ferring and Fillip, 1996; Rosenberg, 1965), consisting of 10 items. Here, participants had to rate their generalized self-esteem (e.g., “I feel that I have a number of good qualities,” “I take a positive attitude toward myself”) on a five point-Likert scale (from 1 = “disagree completely” to 5 = “agree completely”). The scale was constructed by calculating the arithmetic average across the 10 items ($M = 4.03, SD = .69$); the internal consistency was $\alpha = .90$. 

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Psychological health. In order to measure the participants’ psychological health, a scale following a model of psychological health (Becker, 2006) was constructed by the authors. It contained 13 items that assessed heterogeneous indicators for psychological health, such as self-efficacy (e.g., “If I get into difficulties, I trust in my own abilities”), positive feelings (e.g., “I feel full of energy”), or well-being (e.g., “I enjoy the everyday affairs of life”). All items had to be answered on a five-point Likert scale (1 = “disagree completely” to 5 = “agree completely”). The arithmetical mean across all items was calculated (\(M = 3.62, SD = .55\)); the internal consistency was \(\alpha = .85\).

Physical health. Participants’ physical health was measured by the assessment of nine health conditions (influenza infection, common cold, headaches, sleeplessness, nervousness, anxiety, stomach pain, joint pain, and heart complaints). Participants had to rate the occurrence of each disease (1 = “never,” 2 = “once a year,” 3 = “several times a year,” 4 = “once a month,” 5 = “once a week,” 6 = “several times a week”). The arithmetical mean across all items was calculated (\(M = 4.57, SD = .74\)); the internal consistency was \(\alpha = .74\).

Results

Bivariate results

As expected, there was a significant positive correlation (see Table 3) between subjective experience of free play in childhood and social success in adulthood. Moreover, bivariate results showed significant positive correlations between the subjective experience of free play in childhood and the conditions/components of developmental success (psychological and physical health, self-esteem). Furthermore, child play was positively related to flexibility of goal adjustment. As expected, the four predictors are also positively interrelated.

Table 3. Correlations among study variables (130 ≤ N ≤ 134)

|       | 2     | 3     | 4     | 5     | 6     |
|-------|-------|-------|-------|-------|-------|
| 1 Social success | .28** | .68** | .55** | .69** | .35** |
| 2 Subjective experience of free play in childhood | -- | .20* | .22* | .29** | .26** |
| 3 Self-esteem | -- | .61** | .79** | .46** |
| 4 Flexible goal adjustment | -- | .64** | .42** |
| 5 Psychological health | -- | .51** |
| 6 Physical health | -- |

Notes: ** \(p < .01\); * \(p < .05\)

Mediation analyses

Results show, first, that the three measured conditions of success (physical health,
psychological health, self-esteem) mediate the relationship between subjective experience of free play and social success (see figure 1), and second, that the individuals’ flexibility does so as well (see figure 2). According to each mediation analysis, the beta weight coefficient of the path of free play in childhood to social success in adulthood is lower than the total effect before ($\beta = .28, p < .01$). To test if the beta weight coefficient is reduced significantly, Sobel-Tests were conducted. All Sobel-Tests showed a significant reduction of the beta weight coefficient. Hence, a significant indirect effect for each mediator could be identified for all four analyses.

In order to test whether the contribution of individual adaptivity (flexibility) is independent of the contribution of the three components, an additional regression analysis was conducted. The results show that beyond a substantial prediction of social success by all four predictors ($R^2 = .51, F = 35.32, p < .01$), the regression weight of flexible goal adjustment (.16, $p < .05$) was significant beyond the predictive value of the other components (self-esteem: .18, $p < .05$; psychological health: .37, $p < .01$; physiological health: n.s.).

**Figure 1.** Mediating pathways: conditions of success (standardized coefficients)

![Diagram](image)

*Notes: * $p < .005$; ** $p < .001$; total effects in parentheses*
Discussion

The results of this study support the assumptions that free child play is in fact a predictor of social success in adulthood. As expected, self-esteem and psychological health were found to mediate this relationship. Moreover, the individual’s flexibility to adapt to problems and obstacles that could not be overcome by active efforts (i.e., “accommodation” in terms of the two-process model of development; Brandtstädter and Rothermund, 2002) was found to be a separate mediator of the positive relationship between free play and social success.

To be clear, the degree of the correlation between play and success \( (r = .28, p < .01) \) is not the point of our argument. Rather, the mere existence and significance of the correlation is the precondition for the further steps (i.e., the mediator analyses). In particular, we attempted to demonstrate that this correlation decreases when the mediators (preconditions of success, flexibility) are added. It goes without saying that child play is not the sole, nor perhaps even the most important predictor of social success. Actually, in our view, the correlation we found in this study was surprisingly high for these “distant” variables, strongly supporting the basic argument from the evolutionary developmental perspective. The bivariate correlation between the proximal predictors of success was higher – supporting our assumption that they are in fact proximal conditions.

Certainly, the present study is to be viewed as a first exploratory stepping stone into this research perspective. In particular, certain limitations of the present study have to be acknowledged. First, the sample size and the lack of control of the composition of the sample necessitate the extension and replication of the present results. Since the present study is cross-sectional, a longitudinal confirmation of the predictive value of child play is particularly needed. Second, the retrospective assessment of free child play entails methodical restrictions. Actually, the present data cannot exclude the possibility that social success, health, and self-esteem cause more positive memories of one’s childhood. Yet, even though this “reverse” effect on one’s memories seems plausible to a certain degree, it is improbable that this effect alone accounts for the entire variance of the participants’ reports of their play as children. Rather, it seems reasonable to assume that these reports at least partly reflect one’s actual experiences. Again, this problem can only be solved in a
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longitudinal study (e.g., using observational data). Third, quality and quantity both of child play and of adult success could (and should) be assessed in a more fine-grained manner. In particular, it will be important to distinguish both measures from other constructs (e.g., for social success: social dependence vs. social support; for free play: general parenting guidance and educational style vs. giving the possibility of free play), thus sharpening the analyses of differential pathways for the individuals’ adaptivity and adaptation. Fourth, objective indicators of social success (e.g., income, professional status) should be included in future studies. Although effects of social desirability or self-boosting biases with respect to self-reports of social success are expected to be constant (i.e., mean-level) effects, additional indicators are expected to add further information about particular pathways of child play’s effects. One interesting aspect here could be the transgenerational effect of child play. Hence, further studies (with larger samples) should include some measures with respect to the participants’ children (in the present study, just a relatively small proportion of participants \( n = 42 \) already had their own children, a number too small for substantial analyses). Do the children of adults who experienced much opportunity to play experience more opportunities as well? First results indicate that the children of more adaptive adults show more adaptivity (“accommodation”; Thomsen and Greve, 2013).

Moreover, additional predictors of social (and evolutionary) success should be included in future investigations (e.g., emotional balance, moral thinking, or social skills). In particular, “assimilative” regulatory competencies as the second category of metacompetencies predicting successful development should be important. In this respect, free play as well as guided play (education) should be important to develop this capacity of active problem solving (e.g., by means of varying strategies and efforts; Kopp, 1982; Skinner and Zimmer-Gembeck, 2011). Finally, although it is plausible that the heterogeneity and variability of the individuals’ experiences (as prototypically represented in freely chosen child play) is a developmental condition for accommodative self-regulatory capacities (Greve and Thomsen, 2013; Thomsen and Greve, 2013), there is more to say about the development of adaptivity. Certainly, child play is just one of several developmental conditions of individual adaptivity (Meyer and Greve, 2012). It would be useful to include others, such as cognitive capabilities, in future studies. Whereas self-esteem or mental health are necessary conditions of social success only under certain circumstances (e.g., sometimes self-esteem that is too high may become detrimental; Greve, 2000), individual adaptivity across the lifespan can arguably be seen as a supporting condition in almost all circumstances and necessary in many constellations, in particular when circumstances change. Here, we do need more empirical information on the adaptive value (including possible limitations; Brandststädt, 2007) of individual adaptivity.

One general limitation of the present study (and of many, if not most, studies within the realm of evolutionary psychology) is the unavoidable restriction to ontogenetic answers (analyses) for phylogenetic questions (hypotheses). The study corroborates the hypothesis that free child play contributes to the development of the individual’s adaptivity, which, in turn, contributes to the individual’s social success. This supports the hypothesis that the development of individual adaptivity could be a particular advantage of adult humans and, hence, an important part of the evolutionary explanation of the extended prereproductive stages of human development. Though this line of argument is plausible, it is, of course,
not a straight proof of the evolutionary hypothesis. However, for the time being this is all we can get since longitudinal studies with a 300,000 year-interval are not yet available. In any case, the present analyses, though preliminary in some respect, support the considerations discussed in the first sections of the paper. A prolonged development deserves explanation due to the risks associated with it. A possible explanation might be that it opens the opportunity to develop both the components of psychological functioning and individual adaptability necessary for social and, thus, evolutionary success.

Whether or not the ultimate evolutionary causes of certain developmental pathways can be theoretically and empirically corroborated, the present results, though in need of longitudinal and methodical confirmation, are in line with Bjorklund’s (2007) suggestion that children and juveniles not only deserve, but in fact need, their childhood and youth in general and possibilities of free, unguided, and unrestricted play in particular.

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