Commentary response: Handling long-term attrition in randomised controlled field trials: novel approaches by BEIP and a response to McCall (2011)

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Over and above our interest in the effects of early experience, we are mindful of the effects of subsequent life experience (i.e., post-randomization) on development, and for this reason we supplemented our intent-to-treat analyses with a “current placement approach” in which we compared children who remained in their original placement at age 8 to those who did not (see Figures 1 and 2, Fox et al., 2011). From these analyses it is apparent that changes in placement do impact IQ or, put another way, remaining in foster care homes created by the BEIP has a positive effect on children’s IQ scores that is maintained at 8 years of age.

McCall’s main question focuses on the longitudinal profiles of IQ we present and how these may differ for children who remained in their original placement (CAU or FCG) versus those who did not. Sample size restricts our ability to examine profiles for smaller groups of children based on their status at age 8; however, we were able to examine the probability of membership in the two profiles for CAU and FCG children separately that are presented in our paper.

A one-way analysis of variance (ANOVA) comparing CAU children who remained in the institutions versus those CAU children who were transferred out of institutional care at or before age 8 revealed that these two groups did not differ in their probability of membership in the low or average IQ profile (F = .22, p = .64). Similarly, FCG children who remained in their MacArthur foster care homes versus those who were transferred out at or before age 8 did not differ in their probability of membership in the high-average IQ profile (F = 2.35, p = .13). In the latter case, the means were more discrepant than in the CAU groups in that FCG children who remained in their MacArthur homes had a higher mean probability of membership in the high-average IQ profile (M = .76) than did those children who did not (M = .58).

Although McCall raises an important point regarding the effects of multiple transitions and caregiving context changes across age, his supposition that these experiences influenced the IQ profiles in our paper is not supported by our data. Instead, caregiving context placement at age 8 seems to particularly influence IQ at age 8 for children in our sample, as is shown in the analyses presented in our article (Fox et al., 2011).

One possible reason for these patterns and lack of differences amongst the groups as a function of transition is that many of the changes in placement experienced by children in both the FCG and CAU groups occurred after 54 months of age. Given that the first three IQ assessments conducted post-randomization for our study were done when the children were 30, 42 and 54 months of age, the majority of care placement changes would not have a significant impact on the profiles. Had we completed multiple assessment points between 54 months and 8 years of age and used these data to create the IQ profiles we might have found that transitions in and out of caregiving context to affect 8 year IQ. Instead, with our current data, and no assessment points between 54 months and 8 years, we expected to see the effects of placement at age 8 which, indeed, we do.

McCall notes that there are very few longitudinal studies examining the impact of continued institutional care on children’s IQ. Indeed in our sample only 12 children remained in this type of care at the 8-year assessment. Nonetheless, these children provide important insight into the course of cognitive

Figure 1 Profile of IQ scores for care are as usual (CAU) children (n = 12) remaining in institutional care at 96 months of age in the Bucharest Early Intervention Project study

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development in an institutional context. As can be seen from our data (see new Figure 1), these children showed a slight decline over time in their already low IQ scores.

We conclude with two final points. First, McCall states that “environmental deprivation very early in life can produce long term corrosive effects even among children subsequently placed in advantaged homes.” We agree with this statement and indeed, the purpose of the BEIP was to demonstrate this with a randomized controlled trial. The “intent to treat” analyses further support that conclusion. Second, McCall raises the question as to what specific characteristics of the institutional environment produce the deficiencies we have found. Although we cannot answer this question definitively, BEIP data support the position that lack of contingent, responsive, and stimulating caregiving significantly contribute to deficits not only in IQ but in domains of social behavior as well. Examination of factors associated with the profiles we present in our paper finds that children’s attachment status at 42 months of age significantly affected the pattern.

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