Ideas in their infancy

How to measure a child's rational development

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THE INTELLECTUAL LIVES OF CHILDREN SUSAN ENGEL

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INCE CHILDREN CANNOT be expected to repeat subtly different versions of unexciting tasks under controlled conditions, experiments gauging their psychological capacities require patient and ingenious work. Many labs are conducting such work, but their results give us relatively few soundings into some waters that are unfathomably deep.

The data-sparse environment in which theories of child development have been forced to grow has not always been to their detriment. Developmental psychologists have been extraordinarily open to supplementing experimental data with informal observations, reminiscences, tape-recordings, and parental diaries. The long-term effects of such a diet can be seen in Susan Engel's *The Intellectual Lives of Children*.

Engel focuses on children of early primary-school age, and sometimes proffers claims about "the first moments of life". As such, her book examines a region where the difficulties of evidence-gathering are severe. In accordance with a policy that Engel's previous books have explicitly advocated, it makes liberal use of whatever formal or informal observa-



tions are available, including some frank appeals to the reader's imagination. Experimental data figures in a supporting role, but even when experiments provide objective measurements of the ages at which certain intellectual achievements can be made, Engel is less concerned with the claims that might be inferred from those achievements, and more concerned with the way in which we should interpret the things said or done by the children who are making them.

Since the influence of one's own partialities on these interpretations is hard to gauge, they are a tenuous foundation on which to erect any sort of explanatory theory. But Engel's intention is not to establish the truth of any such theory, only to advocate a certain interpretive emphasis. When considering children whose reiterated "why" questions exhaust the explanatory resources of their parents, she emphasizes the element of disquisition, not the fact that children enjoy being a perplexing nuisance. When considering a child collecting shells on the beach, she emphasizes the pleasures of curation and categorization, not those of acquisition or aesthetic

Deborah Kelemen, a psychologist, conducting an interview with a seven-year-old child, Boston University Department of Psychology

Christopher Mole chairs the Cognitive Systems Programme at the University of British Columbia appreciation. She takes a child holding onto a brightly coloured symmetrical leaf to be preserving a paradigmatic specimen, not merely enjoying a colour or shape. Even a six-year-old's fascination with the fighting styles exemplified by characters in *Star Wars* is taken to illustrate his capacity for researching "structures of knowledge".

The book's short concluding chapter suggests that an emphasis on intellectual capacities might be usefully applied when designing the school curriculum. Few readers would reject that general sentiment, but the particulars of its application are likely to be contentious. Engel is enthusiastic about an artist-in-residence who suggests that her primary school pupils have "learned so much about gravity" by seeing pieces fall off a months-long project in which they chained together the tabs from soft drink cans. One wonders if they might have learned more, and if their intellectual capacities might have been nurtured just as effectively, if a teacher who understood gravity had explained it to them.

In the practicalities of implementation, particulars of local situations come to be important, and generalizations are perilous. Engel asserts that "a deliberate focus on ideas" is "completely missing from educational policy". She means only that it is missing from educational policy in the United States. Her American perspective might also influence her more general approach. When Freud (whom Engel praises) took children in nineteenth-century Vienna to be libidinous, we now read him as speaking up on behalf of libido in a society that could find no place for it. When Engel sees children in contemporary America as engaged in patient, rational, and broadminded enquiry, it is tempting to read her as making a similar appeal.

The pandemic has done much to disrupt the usual arrangement of having undergraduates do double duty as audience for, and participants in, psychological research. The resulting dearth of experimental data has led the editors of psychology journals to issue warnings against the lowering of evidential standards, and might yet lead other psychologists to follow the lead of their developmentalist colleagues in adopting less data-hungry forms of enquiry, the merits and risks of which are well illustrated by

Engel's book.