Triple Symmetry: Intelligence, Education, and Human Effectiveness

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OUTLINE
Intelligence and Effectiveness

Historical treatments of human intelligence
Alfred Binet and Francis Galton
IQs prediction of academic success
IQs prediction of occupational success
IQ and job status
IQ and job performance
Intelligence operationalized as IQ can predict certain expressions of personal effectiveness
Limitations: imperfect prediction and limited scope of success outcomes
Respectable prediction nonetheless
Emergent theories: Gardner’s
Emergent theories: Sternberg’s
Emergent theories: Emotional intelligence
Reconstruals beyond analytical intelligence
Reconstruals beyond academic and job success
Greater breadth on the predictor and criterion and attempts to cultivate intelligence
Expanding conceptualizations of the nature and constituents of intelligence
Constituents of analytical intelligence
Symmetry: entities constituent to intelligence are constituent also to effectiveness and to education

The Construct of Education

Theories of intelligence and effectiveness can co-evolve
A third major social construct and phenomenon, education
What is education?
Definable relationships connect effectiveness to its two precursors: intelligence and education

Mutual Reference and Definition

Education, intelligence, and effectiveness form a conceptual triangle

Intelligence \((\text{facilitates})\) \(\rightarrow\) Effectiveness

Recognized from the earliest days of intelligence testing and theory-building.
Intelligence contributes to diverse valued outcomes

Effectiveness - (guides theories of) -> Intelligence

Expanded conceptions of effectiveness have suggested varieties of intelligence that were previously unrecognized.

In Gardner’s theory and in Sternberg’s, diverse manifestations of effectiveness suggest and justify, along with other evidence (e.g., neurological), intelligences that are distinguishable from analytic ability.

Education – (prepares for) -> Effectiveness

One purpose of school is the preparation of young people to be successful in the world, especially as adults.

The model of triple symmetry recognizes that a major function of education is to prepare learners to be effective as they engage complex problems in future contexts.

Effectiveness – (is the measure of) -> Education

A broadened theory of effectiveness would permit a comparably broad span of effectiveness criteria to apply to judgments about the quality of education.

Education – (cultivates) -> Intelligence

Education promotes effectiveness partly through its capacity to enhance intelligence.

The Flynn effect is likely attributable (in part) to worldwide increase in universal education and the rise in average duration of formal education in the U.S. and elsewhere.

Intelligence – (is the curriculum of) -> Education

Educate for capabilities most likely to contribute to the economic viability, emotional fulfillment, and creative expression of individuals, families, communities, and nations.

Perhaps only through its articulation with intelligence and effectiveness constructs will education solve its most pressing problems.

If intelligence theories are to guide the appraisal and revision of educational practice, then the quality of intelligence theories will be a limiting factor to the success of the project.

Intelligence-enhancing experiences are presented through many informational and social channels of society and culture, including families, peers, and the mass media.

Conclusions
A model of triple symmetry has heuristic value in correcting design misalignments among the three superconstructs.

With theories of intelligence and effectiveness as reference points, we can appraise how students allocate time, attention, and effort in schools and in other potentially educative contexts.

Educative experiences designed within the logic of a three-construct triangle could be differently conceived and carried out than are typical manifestations of formal education.