

SPECIAL REVIEW

R. J. Sternberg and R. K. Wagner (Eds): *Practical Intelligence. Nature and Origins of Competence in the Everyday World*. Cambridge University Press, Cambridge. x + 386. 35.00 HC. 11, 95 P/b.

While reading this book, I was struck by a vivid mental image. A group of people are in a wilderness, searching for water. They disperse over the landscape, and everyone digs his own well, each one a couple of feet deep. Finding no water, they wander off to another place and dig many more two-foot holes. It wouldn't be original or creative enough for all of them to pitch in together and dig, in one spot, a 100-foot hole instead of digging fifty 2-foot holes all over the landscape.

Isn't this, by and large, The Story of Psychology? Unfortunately, the present book reinforces this depressing impression. Endless *horizontal* proliferation of descriptive psychological observations can, of course, make for entertaining pop psychology, such as appeals to readers of *Psychology Today*. But in terms of scientific development of the field, it is a detraction from the much more arduous task of digging *vertically* into the few key phenomena that are generally recognized as the most central and basic in a particular domain of study, with the aim of achieving a theoretically coherent and, yes, frankly reductionistic understanding of the phenomena in the manner of the natural sciences.

Joy P. Guilford had already given us 150 different abilities, then Howard Gardner added seven more different "intelligences." Now, Robert Sternberg and Richard Wagner (no relation to the composer) have discovered still another kind of intelligence—this time, *practical* intelligence. Along with Sternberg and Wagner, twenty other well-known psychologists, in fifteen well-written and often entertaining chapters, provide variations of this theme: practical intelligence in jobs and in daily life, its lifespan development, and some of its cross-cultural varieties.

What is this "practical intelligence"? Mainly, it is considered to be something radically different from what many of the contributors, following Neisser, repeatedly and rather disdainfully refer to as "academic intelligence," with its distinctive stigma as the kind of intelligence that IQ tests are supposed to be quite good at measuring. Psychometrics, factor analysis, Spearman's *g*, and all their near relatives are most clearly what practical intelligence is *not* about. One can think of many psychologists and educators for whom these notions will undoubtedly have great appeal.

Practical intelligence is described as "intelligent performance in natural settings," and as the ability "to achieve the goals of the everyday activities in which one engages." Elaborated examples are given of practical intelligence as it operates in bartending, racetrack handicapping, business management, waitressing, and other mundane but often seemingly complex skills and competencies in which, it is claimed, proficiency shows little correlation with "academic intelligence," IQ, or *g*. One of the distinguishing features of practical intelligence is *tacit knowledge*, a possibly useful concept originated by Sternberg, referring to informally acquired "know-how" and "tricks of the trade"—the unique kinds of practical wisdom that one finds in the most successful practitioners of any occupation, even academic psychologists, of which a detailed study in this regard is presented by Wagner and Sternberg. It all rings true and is easy to accept, but the findings, although interesting because they relate to one's personal experience, seem quite unremarkable and easily explainable in terms of concepts of ability, interests, and personality that have been around for a very long time. The same can be said of most of the other examples of practical intelligence discussed in these chapters. The most fascinating and puzzling claims, perhaps, are those made by Cici and Liker, who report certain kinds of complex reasoning, such as goes into racehorse handicapping, that are apparently unrelated or, at most, little related, to psychometric intelligence. But their chapter presents insufficient information of the kind that would be needed to permit a critical evaluation of this claim, a claim which is apt to become as widely touted in this decade as was the equally startling claim made two decades ago in Rosenthal's and Jacobson's *Pygmalion in the Classroom*. One wonders if it will meet the same fate. One might also wonder how long psychologists will continue to be obsessed with debunking the IQ, which, viewed realistically, seems such a modest thing. Yet it still holds center stage. However, the ability it mainly reflects, best termed *g*, is never manifested behaviorally in a vacuum. It is always accompanied by a host of other traits—non-*g* group factors of ability, special talents, interests, motives, values, personality, experience, and innumerable specific acquired skills and specialized knowledge. The relative importance of *g* in any particular circumstance is not a matter for argument but for empirical analysis.

Few would argue that *g*, in combination with all these other factors, has virtually infinite superficial manifestations, including the many forms of practical intelligence. (It can be likened to the carbon atom in this respect.) But should we label every single kind of observed behavior in which *g* and other established factors of ability are manifested as another kind of intelligence? In what seems to me one of the empirically soundest and least armchairish chapters, Sherry Willis and Warner Schaie explicitly examine practical intelligence in relation to psychometric *g* (both fluid and crystallized) in later adulthood. Objective measures of a host of practical real-life skills were, in fact, found to be *highly* loaded with *g*, especially fluid *g*, which is really indistinguishable from what we have long known as Spearman's *g*. Indeed, it appears that the phenomena associated with "practical intelligence" hardly call for any special theoretical innovation, but can most likely be well accommodated within the existing theoretical framework of the factor analysis of abilities and personality. The disappointment of many of these chapters is their *a priori* assumption that the phenomena of practical intelligence require a new theory of intelligence and rejection of the supposedly limited theories identified with IQ, or *g*, or the factor analysis of psychometric tests. The various authors rarely bring the standard tools of research methodology fully to bear on proving their main point that practical intelligence qualifies as a broad ability in the sense that *g*, verbal ability, and spatial visualization qualify as important factors of human ability. A factor analysis of various forms of practical intelligence, assuming they can even be adequately assessed with objective precision, might well show them to consist of one or two minor group factors, or even to disappear altogether, when residualized from *g* and all the other established factors of traditional psychometric tests. And, of course, one would predict rather small communalities and enormous specificities for measures of practical intelligence, in which individual differences seem to be highly task and situation specific, and the product of complex interactions among interest, opportunity, experience, special talents, and, not least, general ability.

While the theoretical importance of practical intelligence is doubtful, few would disagree that the development of objective methods for assessing and predicting performances of the kind characterized as "practical intelligence" would be highly

useful if they were shown to have greater validity for their specific purpose than existing psychometric tests. Although such an outcome may seem unlikely in light of recent research by Hunter and Schmidt and other personnel psychologists on the validity generalization of our standard *g*-loaded tests, the next logical step is clearly for the proponents of practical intelligence to make the required empirical demonstration of its practical utility.

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