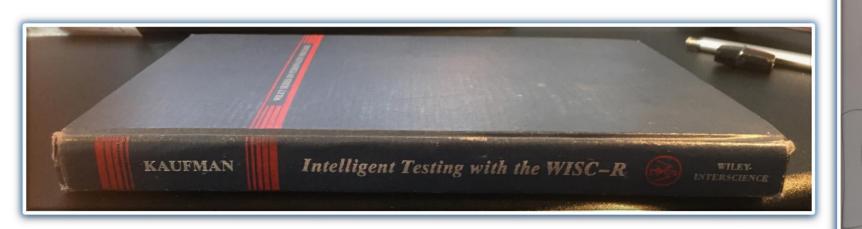
Dr. Alan Kaufman is credited with operationalizing "intelligent" intelligence testing and interpretation in 1979.

Intelligent Testing with the WISC-R (Kaufman, 1979)

This book had a huge impact on my professional life





CHAPTER Interpreting the Distractibility Factor

It may seem that the third WISC-R factor has been almost forgotten in the preceding chapter, but this is not quite true. The fact that Arithmetic, Digit Span, and Coding load together is always kept in mind when interpreting the Verbal and Performance IQs and sometimes plays a key role in understanding V–P discrepancies (see pp. 43-46). Indeed, scores on the third factor are characteristically low for reading-disabled children (McManis, Figley, et al. 1978; Robeck 1971; Rugel 1974b) and are sometimes depressed for learning-disabled children as well (Lutey 1977; Myklebust, Bannochie, et al. 1971; Smith, Coleman, et al. 1977b). Nevertheless, the distractibility factor does not always play a featured role in test interpretation; it is easily the smallest of the three factors (in terms of the percentage of variance accounted for), is occasionally not isolated in factoranalytic studies (Reschly 1978), and is the only factor that may correspond to a behavioral rather than intellective variable.

Consequently, the method of interpretation described in this book focuses on the large Verbal Comprehension and Perceptual Organization factors and operates firmly from the vantage point of Wechsler's V-P dichotomy. Factor scores for the third factor do not even have to be computed routinely for each child tested. There are, however, some children for whom the third factor holds the key to competent WISC-R interpretation, and hence it must be understood thoroughly by examiners. This chapter is devoted to an explanation of the various possible meanings of the so-called Freedom from Distractibility factor; it also discusses and illustrates when to interpret the dimension and how to make sense out of the third factor for different individuals.

The third factor was labeled Freedom from Distractibility for historical reasons involving factor analyses of the Wechsler-Bellevue, WAIS, and 1949 WISC, and also because of research (Wender 1971, pp. 88–93) showing that drug therapy with minimally brain-impaired children typically results in decreased distractibility coupled with a corresponding increase in their scores on memory and arithmetic tests (Kaufman 1975). It is easy to see how children may score very poorly on the three WISC-R subtests constituting the third factor because of distractible behavior, but it is more difficult to visualize children scoring very

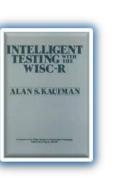


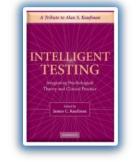
### Waves Of Intelligence Test Interpretation

(Kamphaus et al., 1997)

- Wave 1 Quantification of a General Level (g)
- Wave 2 Clinical Profile Analysis
- Wave 3 Psychometric Profile Analysis
- Wave 4 Applying Theory to Intelligence Test Interpretation





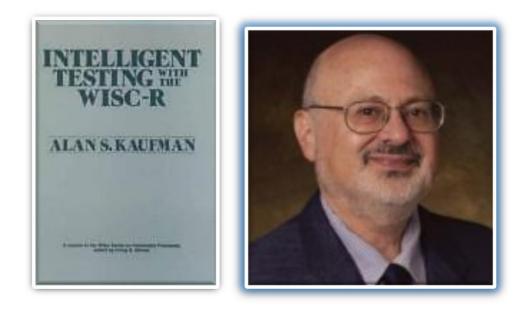




## Wave 3: Psychometric Profile Analyses

Cohen, J. (1959). The factorial structure of the WISC at ages 7-6, 10-6, and 13-6, *Journal of Consulting Psychology, 23*, 285-299.

Kaufman, A. S. (1979). Intelligent testing with the WISC-R. New York: Wiley-Interscience.



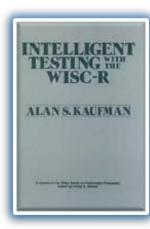
#### **Picture Completion**

Empirical Analysis		
Reliability:		
Split-half	.77	
Test-retest	.81	
g loading	.60 (Fair)	
Subtest specificity	39% vs. 23%	anan M
vs. error variance	(Ample)	
Most related to:		
Block Design	.52	
Object Assembly	.49	
Least related to:		
Coding	.18	
Digit Span	.25	
Proportion of Variance Attribut	ted to:	
Factor 1. Verbal Comprehension		14%
Factor 2. Perceptual Organization		28%
Factor 3. Freedom from Distractibility		1%
Factor 4. Processing Speed		1%
Abilities other than the 4 factors		33%
Error		23%
Proportion of Variance When 2	Factors Are Rotated:	
Factor 1. General Verbal Ability		15%
Factor 2. General Nonverbal Ability		25%
Abilities Shared with Other Subte	ests (Unique abilities are	asterisked)

#### INPUT

Visual perception of meaningful stimuli (people-things)

INTEGRATION/STORAGE Perceptual Organization (Factor Analysis: 4-Factor and 2-Factor) Gv-Broad Visual Intelligence (Horn) Holistic (right-brain) processing Cognition and Evaluation of figural stimuli (Guilford) Spatial (Bannatyne) Simultaneous processing Distinguishing essential from nonessential details Visual organization without essential motor activity \*Visual recognition and identification (long-term memory) OUTPUT Simple motor (pointing) or vocal Subject to Influence of: Ability to respond when uncertain Alertness to the environment Cognitive style (field dependence-field independence) Concentration Negativism ("Nothing's missing") Working under time pressure



The Relationship Between Theories of Intelligence and Intelligence Tests

W. Joel Schneider and Dawn P. Flanagan

2. Kaufman and Sattler had the right idea (and still do)-if you must retrofit old tests with new interpretations, all flights of fancy must take off and land on the runway of psychometric constraints. For example, if two tests are allegedly measuring the same thing based on your task analysis, they should probably correlate with each other more highly than they do with other tests.

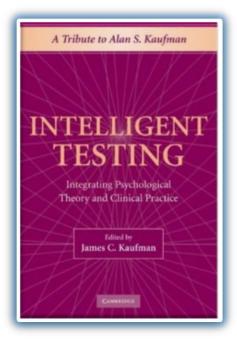
W. Joel Schneider and Dawn P. Flanagan Between of Intelligence and Intelligence Relationshi **Theories** 

3. The human mind has trouble grasping nature's preference for continua over dichotomies. As a shorthand for communication, it is common to label a test as belonging to a certain category ("the WISC-IV matrix reasoning subtest measures Gf and the WJ III Visual Closure test measures Gv."). In reality, tests reflect one or more factors, each to varying degrees (e.g., matrix reasoning has a secondary loading on Gv that is slightly larger than visual closure's primary loading.). The important question is not so much "Does this test measure factor X?" but "How well does this test measure factor X? For whom? Under what conditions?"

N M. Joel Schneider and Dawn P. Flanagan Between of Intelligence onship and Intelligence **The Relati Theories** 

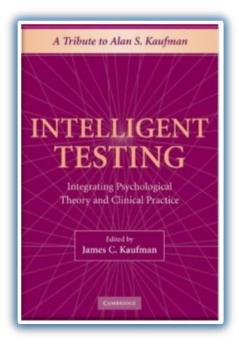
obviated fully by scientific findings. The underappreciated genius, William Stern (1900, as cited in Lamiell 2003), said it best:

[E]very individual is a singularity, a one-time existing being, nowhere else and never before present. To be sure, certain law-like regularities apply to him, certain types are embodied in him, but the individual is not exhausted by these laws and types; there remains ever something more, through which the individual is distinct from others who conform to the same laws and types. And this last kernel of being, which reveals the individual to be thus and so, distinct from all others, is not expressible in the language of scientific concepts, it is unclassifiable, incommensurable. In this sense, the individual is a limiting concept, toward which theoretical investigation strives but can never reach; it is, one could say, the asymptote of science. (pp. 15-16)



The intent of the intelligent testing model was and remains to "bring together empirical data, psychometrics, clinical acumen, psychological theory, and careful reasoning to build an assessment of an individual leading to the derivation of an intervention to improve the life circumstances of the subject" (Reynolds, 2007, p. 1133) – in Fletcher-Janzen (2009)

## Intelligent Testing: Bridging the Gap between Classical and Romantic Science in Assessment (Elaine Fletch-Janzen, 2009)



-The **gold standard** for clinical-psychometric test interpretation

-Incorporates both quantitative and qualitative analysis

-The first system of test interpretation that followed scientific principles and at the same tame overtly sought to reduce inappropriate use of obtained test scores

-Demands a very high standard of clinical expertise

-The central point of intelligent testing is that the clinician's judgement regarding the patient is the central point



"Tests do not think for themselves, nor do they directly communicate with patients. Like a stethoscope, a blood pressure gauge, or an MRI scan, a <u>psychological test is a</u> <u>dumb tool</u>, and the worth of the tool cannot be <u>separated from the sophistication of the clinician who</u> draws inferences from it and then communicates with patients and professionals"

Meyer et al. (2001). Psychological testing and psychological assessment. <u>American Psychologist</u>

If you give a monkey a Stradivarius violin and you get bad music.....



You don't blame the violin !!!!

# We (psychologists) are the instrument !!!!



"Intelligent" intelligence testing and interpretation requires ... knowing thy instruments

An "intelligent" clinician understands and "romances the stones (tests)" which have different and multiple facets

