

APA Division 33 Conversation Hour Denver, CO Aug 5, 2016  
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“Why DSM5 suggested a switch from adaptive functioning to adaptive reasoning”

(for my papers related to this topic, or to discuss any issues, contact [stephen.greenspan@gmail.com](mailto:stephen.greenspan@gmail.com))  
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My plan is to use the first 30 of this 50-minute period to make some remarks based on this outline, and then open it up to discussion. So please save your comments until the last 15 or so minutes. Thank you.

1. The IDD section in DSM5 is a departure in emphasizing a need for prong two (adaptive functioning) deficits to be cognitive (linked to prong one). This has posed confusion, especially in court cases. In the online edition of DSM5 (the only one that contains citations), I am the person credited with suggesting this change. So it seems appropriate that I be the one to clarify the reasons for this change (note: I use ID or IDD even when discussing developments 45 years ago).
2. The second ID diagnostic criterion--adaptive behavior (AB, termed adaptive functioning in DSM5)--was added by AAMD (today AAIDD—so that is the abbreviation I shall use) in 1961 in order to address the problem of false positives (people who are ID in the classroom, or on IQ scores, but not in the schoolyard or neighborhood)
3. A problem is that AB was an invented construct, borrowed from the animal ecology literature, and lacked an adequate constitutive definition. As with other psychological constructs, including intelligence, what happened is that an instrument was developed (the AAMD Adaptive Behavior Scale) and then a definition of the construct was derived from analyses of that measure. A better approach, obviously, would have been to devise an adequate definition of the AB construct and then develop measures based on the pre-defined construct.
4. One problem with basing a definition of AB on the AAMD ABS (different from the more recent ABAS) is that it was developed at an institution (the Parsons [KS] State School), and thus the items were devised with lower-functioning individuals in mind. Thus, the items tended to focus on behaviors that are problems for lower-functioning individuals, such as basic self-help and acting out difficulties.
5. In several publications beginning around 1980, I argued for basing the definition of ID (and of prong two) on a tripartite model of intelligence (conceptual, practical, social) first proposed by EL Thorndike in 1920 and found in various studies (under different names) ever since. The two main factors from the AAMD ABS (daily living and social) would have been folded into this model, along with IQ (being conceptual). An additional difference is that Social (which to me is the key to AB) would have been social intelligence rather than adjustment or acting out
6. The 1992 “blue book” AAIDD classification manual cited my work as a theoretical framework for adaptive behavior in the second chapter as the basis for prong two, but then presented a 10 factor model that came from a Syracuse U community curriculum that lacked any connection to the tripartite model (social in it as only one of 9 [later 10], not one of three).

7. What happens is that the next to last draft version of the manual implemented my tripartite model, but at the last minute they switched to the Syracuse community curriculum (for people with moderate ID) but did not bother to change the theory chapter. The reason for this switch (I was told) is that social intelligence lacked empirical justification. (However, the Syracuse curriculum lacked both empirical or theoretical justification). The one thing they did adopt is to drop maladaptive behavior from Social and try to make it more social competence, but still not social- cognitive (The social items on current AB measures, while no longer tapping psychopathology, are infused with “niceness” items. Which explains why the SS score on the social domain for ID subjects is typically the highest, even for people whose lives are marked by a history of social incompetence). Since then, there have been studies, such as by K McGrew (before he shifted his focus to the WJ), that supports my tripartite model, including soc. intell.
8. In the next version of the AAIDD manual (the 2002 “red book”), the tripartite model was more fully implemented, except that it became a tripartite model of adaptive behavior rather than of ID. The effect of this was to keep IQ as the centerpiece of ID and continued the role of prong two as distinctly inferior (I had suggested that IQ would be the conceptual piece of the model). Furthermore, conceptual AB makes little sense, while conceptual (IQ) plus two other forms of intelligence makes sense. (Bob Schalock, the theorist behind the last two AAIDD manuals, called this shift a “Hegelian synthesis.” I consider it unfortunate).
9. Additional evidence for the continued second class status of prong two under Bob Schalock’s synthesis, is that one only needs one out of three deficits in AB in order to meet the criterion for prong two. The reason given in the 2010 green book is that the three domains are correlated, so one is justified in assuming they are all low if only one is low. This is of course a rather illogical rationale. A hint as to the real reason came in earlier manuals (including the blue book, where it was only 2 out of 10 [turned into 11 in DSM4 through a clerical error when “health and safety” got split up)—the statement indicated a wish to make prong two an easy hurdle to clear, to avoid false negatives. In other words, a policy justification disguised as a scientific one.
10. The reason for making the ID criterion so easy is that IQ was still considered the real basis for ID and they wanted to avoid having prong two be an obstacle. If the tripartite model of intelligence was adopted as the basis for the definition of ID, then one would expect to see impairments in all three aspects of what I have termed “adaptive intelligence.”
11. The idea of using one out of three deficits in the Schalock version of my model (namely as a model of adaptive functioning rather than of ID) was also adopted by DSM5. A major difference, however (and this is the main focus of my talk) is that DSM5 emphasized that it should emphasize cognitive aspects of adaptive functioning, or what it termed “adaptive reasoning”
12. Up to now, I have not mentioned the reason why I (and DSM5) think that adaptive functioning should be approached in cognitive terms. The reason simply is that ID is a disorder of intelligence, and its definition therefore should emphasize deficits in intelligence, broadly defined.

13. In the absence of a cognitive emphasis, adaptive functioning is basically unrelated to the ID construct (viewed almost like an isomorphic personality domain which while maybe correlated with ID, is not central to its definition).
14. There is a fundamental lack of acceptance in the ID field of the idea that adaptive behavior items on rating instruments should have a cognitive emphasis. Recently I asked Marc Tassé, the first author of the (still) long-awaited DABS, why the items on that instrument lack a cognitive emphasis (the only exceptions are the gullibility items, which I contributed, and which according to him are the most powerfully discriminating items). Marc replied with a statement that I found surprising, namely that when compiling the items for the DABS, they looked for any items that were worded in a cognitive manner, and actually eliminated or changed them to remove such an emphasis. A favorite example (from the ABAS not the DABS) is “has pleasant breath” rather than the (to me) more meaningful “understands the importance of having pleasant breath”
15. I do not know for sure the reason for this extirpation of cognitive wording, but I suspect that it reflects two forms of worship practiced by psychologists: (a) worship of IQ as the best indicator of intelligence and therefore eliminating any competing form of intelligence, and even more likely (b) worship of reliability, and the related behaviorist belief that the way to get reliable items is to word them in terms of narrowly observable behaviors rather than inferences about internal states.
16. I am not sure I accept that cognitively worded items are less reliable. In fact, when rating someone who has significant cognitive deficits, I think cognitively worded items could produce greater rather than less reliability. (In fact, in his classic statistics textbook, J. P. Guilford wrote that for complex constructs, one has to give up a little reliability to get decent validity. Past a certain point, the higher the reliability the lower the validity). My fundamental point is that cognitively worded items capture the essence of ID while non-cognitively worded items don't
17. Here is a quirky historical fact (I have been around long enough that I know a few): the DABS is being portrayed as a new initiative of AAIDD, but in fact the organization (back when it was AAMD before it became AAMR and then AAIDD) published something called the AAMD Adaptive Behavior Scale, or ABS (not to be confused with the later ABAS). It was developed under the auspices of the 1959/ 1961 T&C committee that invented AB and the “dual criteria” definition of ID. They felt they needed an instrument to go along with the newly invented construct and they contracted with a group of researchers at the Parsons (KS) State School to develop the instrument. A consequence of developing the instrument at a large institution was that the items reflected relatively low-level behaviors (such as toileting) rather than items more pertinent to community living. A major drawback of the ABS (reflecting Henry Leland's infatuation with Vygotsky's approach to assessment) is that it did not have population norms. (It was to remedy that deficiency that the revitalized VABS and the new ABAS were developed).
18. During the period when the ABS was the only instrument out there, AAIDD (then AAMD) made a fair amount of money from its sales. The authors (Nihira, Lambert, Leland et al) got no royalties but thought they had an understanding that the organization would put money aside for further development and revision. When that did not happen they complained and requested return of

the rights. I was on an *ad hoc* committee to address the matter, and we recommended AAIDD drop it. For me, I felt it was a conflict of interest for the organization defining ID to have a stake in an instrument based on a certain definition. (Thus, the DABS reflects [bad] history repeating).

19. AAIDD refused the recommendation and kept the ABS until its sales dwindled to nothing. They then sold the ABS to Pro-Ed, which after a few years reissued it in 2015 as the “Adaptive Behavior Diagnostic Scale” (ABDS), co-authored by Jim Patton. So the ABDS joins the (now AAIDD-published but not out yet) DABS as one of two AB rating instrument developed solely for diagnostic purposes: discriminating between children and adults with and without ID. (Existing instruments were originally devised mainly for programming purposes and never to my knowledge devised an ID cut-off empirically outside of standard score deviation from the mean)
20. Although the ABDS developers (unlike with the DABS) did not make an explicit effort to get rid of items that had some cognitive wording, the majority of items (like all other AB instruments) are worded noncognitively. However, there are a number of cognitively worded items in the ABDS. To test my belief that cognitively worded items are better able to determine ID, I conducted a little experiment. It involves a 25-year-old male subject named “Jessie”, who was born to an alcohol-addicted mother, and has IQ scores on the cusp of ID, along with low executive functioning scores. The Social items only were used for this exercise, as it is the only domain on the ABDS that has a sizeable (8 out of 50) number of cognitively-worded items.
21. Jessie was rated by two raters: a sister who was a year younger and who describes Jessie as “my best friend,” and a long-time girlfriend who has known Jessie since middle school, and who had lived with Jessie for several years before the serious crime that landed the young man in jail (the evaluation was conducted as part of a forensic assessment). Both raters were asked to score each of the 50 Social items, using the ABDS’ 5-point scale, as he functioned at around age 18. Standard scores were calculated, using the norms in the ABDS manual, in three ways: (a) the usual method where raw scores were added and the sums were converted to standard scores using the ABDS norming Table for age 18; (b) mean item scores computed for the 42 noncognitively-worded Social items, with these multiplied by 50 and the resulting sum converted to standard scores using the same norming Table; and (c) mean item scores computed for the 8 cognitively-worded Social items, with these multiplied by 50 and the resulting sum converted to standard scores using the same norming Table. The results of this exercise are shown in the Figure below. (Retrospective ratings to 18 or younger are common in AB assessments for determining ID in death penalty cases).
- 22.

**STANDARD SCORES ON ABDS SOCIAL FOR JESSIE USING THREE ITEM COMPILATIONS**

<b>Rater</b>	<b>ABDS USUAL</b>	<b>ABDS NON-COGNL</b>	<b>ABDS COGNITIVE</b>
<b>SISTER</b>	<b>83</b>	<b>89</b>	<b>51</b>
<b>GIRLFRIEND</b>	<b>58</b>	<b>60</b>	<b>51</b>

23. With the normal methods, using the Social items as defined in the ABDS scoring form, the two raters obtained significantly different standard scores, with the sister having him (standard score of 83) about one standard deviation below the mean and the girlfriend having him (standard score of 58) about two and a half standard deviations below the mean. This difference probably reflected the fact that the sister idolized her older brother and tended to see mainly his positive qualities. This difference was even more marked on the non-cognitive items, with the sister's score going up 6 points (standard score of 89) while the girlfriend's score went up only 2 points (standard score of 60). This suggests that the sister's higher score was substantially influenced by the fact that on the noncognitive items (which emphasized Jessie's niceness), he developed a halo effect which the girlfriend (who probably knew Jessie's dark side better) was less susceptible to. Because the noncognitive items comprised over 80% of the Social items, the standard scores with the normal method were fairly high for both raters, especially the sister.
24. The interesting, even exciting, finding in this exercise was how dramatically lower the sister's standard scores were when using only the non-cognitive items. For the sister, her standard scores were about two standard deviations lower than her scores using the normally comprised items, and about two and a half standard deviations lower on the cognitive items than when using the noncognitive items. For the girlfriend, whose standard scores were already low when using the typical method, the results showed a similar pattern, but the differences were not as dramatic: about a half standard deviation lower than with the typical or noncognitive item configurations. Admittedly, this is a highly preliminary finding, but what it indicates is that adaptive behavior items, when worded in a cognitive (judgment- or reasoning-based) manner, produces standard scores that are more likely to capture the true degree of everyday functioning impairment in brain-impaired individuals at the milder upper level of ID. The finding also suggests that cognitively-worded items may contribute to greater reliability across AB informants. (For an illustration of cognitive and noncognitive item wording on the ABDS, see the Appendix).
25. I want to end by returning to the statement in DSM5 that there should be some linkage between prong 1 / criterion A (intellectual functioning deficit) and prong 2 / criterion B (adaptive functioning deficit). This has been seized upon by some experts in Atkins cases to argue that in spite of low scores on adaptive functioning measures, ID has not been established because the person has mental illness (often the case with homicide defendants), and his adaptive deficits cannot be proven to be due to his intellectual deficiencies. I think this is an overly concrete interpretation of the DSM5 recommendation, and misses the point that what is really called for is to look at behaviors (such as a history of gullibility) which reflect problems of judgment rather than motivation or overt behavior. Unfortunately, to really meet the spirit of the DSM5 recommendation (which, whether deserved or not, has been attributed to me), we will need to develop AB measures –both rating and direct--with more cognitive emphasis than is currently the case.

## APPENDIX—EXAMPLES OF ABDS ITEMS WRITTEN COGNITIVELY OR NONCOGNITIVELY

### NONCOGNITIVE ITEMS

- tells someone if he or she is not feeling well
- initiates group activities
- takes turns when speaking
- has a group of friends

### COGNITIVE ITEMS

- recognizes when someone is teasing him or her
- recognizes when another person is happy or sad
- recognizes intentions of others
- identifies people who might get him or her into trouble