

## Four (More) Arguments Against the Torrance Tests

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I want to thank Division 10, and especially Kyung Hee Kim, for making this debate possible. It has been interesting and illuminating, and I look forward to future Division 10 debates.

I have space here to counter only a few of Kim's arguments (this issue), most of which I've already addressed (Baer, this issue). In this short response, I'd like to focus on four ideas: (a) the use of multiple measures of giftedness, (b) interpretation of Torrance Tests of Creative Thinking (TTCT) subscale scores, (c) what polymaths mean for domain specificity theory, and (d) the need for TTCT proponents to be consistent in their standards.

(a) Like Kim, I strongly endorse the use of multiple measures of ability, and especially ones that tap creativity—but *not* ones that lack validity, which is the problem with TTCT scores. I agree with the many authors Kim cited (in her *Is Using the TTCT Inappropriate?* section) who have argued for more diverse and inclusive measures of ability. But it's important to note that *none* of these experts has endorsed the use of the TTCT, and some of them are actively working on measures of creativity that can be used *instead* of the TTCT. This certainly isn't due to lack of familiarity—no one would argue that the TTCT lacks a substantial track record—and one can only conclude that, although all of these authors endorse and encourage the use of multiple measures of ability, none of them has found the TTCT a sufficiently valid or useful tool. They all seem to agree with Simonton's (2003) summary of the current state of creativity assessment:

None of these suggested measures can be said to have passed all the psychometric hurdles required of established ability tests. For instance, scores on separate creativity tests often correlate too highly with general intelligence (that is, low divergent validity), correlate very weakly among each other (that is, low convergent validity), and correlate very weakly with objective indicators of overt creative behaviors (that is, low predictive validity; p. 216)

(b) Although Torrance strongly discouraged the use of single scores (as Kim noted) and encouraged looking for patterns among subscores to provide insight into individual abilities, this is rarely how the tests are in fact used. Overall scores are commonly used without reference to subscale scores, and when subscale scores are used, they are often simply used as proxies for overall creativity. (See, e.g., Kéri's recent (2009) *Psychological Science* report of a link between psychosis and creativity. Rather than seeking patterns among subscale scores, each is treated as an independent measure of overall creativity.) It is possible that nuanced interpretations of subscale scores might provide insight into an individual's cognitive functioning, but because this is not how the scores are gen-

erally used, I agree with the advice that Kim reminds us Torrance frequently gave: Don't use *any* TTCT scores (including index scores) as general measures of creativity. If that advice were followed, however, it would eliminate most common uses of the TTCT.

(c) Domain specificity theory predicts the existence of polymaths. Contrary to Kim's argument, their existence *supports* domain specificity, which never claims that creative ability in any one domain limits creative ability in other domains. It simply says they are unrelated. Just as someone could have musical talent, leadership skills, and high-jumping ability, people can also be creative in multiple domains. Domain specificity theory predicts polymathy—but it also predicts it will be somewhat rare. Domain generality (as assumed by the TTCT) would predict polymathy to be far more common than it actually is (Kaufman, Beghetto, & Baer, in press a; Kaufman, Beghetto, Baer, & Ivcevic, in press b).

(d) The same evidence used to validate the verbal TTCT *invalidates* the figural TTCT. Kim claimed that Plucker's (1999) reanalysis of Torrance's data shows the TTCT is "the best predictor for adult creative achievements." But Plucker's analysis showed that only *one* of the two TTCT tests predicted the self-reported measures of creative accomplishment used in the validation. The verbal TTCT did not. If a positive prediction supports the verbal TTCT, intellectual consistency requires Kim to acknowledge that the failure of the figural TTCT to predict the same outcomes *invalidates* the figural TTCT. I think a more reasonable response is to question the self-reported measures of achievement used in that study—I don't believe they can possibly validate *any* version of the TTCT—but if one accepts Plucker's reanalysis and the self-report data on which it relies, one must then dismiss the figural TTCT as an invalid measure. You can't simply move the goalposts to fit the outcomes you hope to find.

Sometimes no data is better than bad (invalid) data. That's why we would be better off without the Torrance Tests, at least in the ways they are most commonly used.

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