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# Editor's Column

I received a number of positive comments about the initial Newsletter of the Temperament Consortium which was sent to all Consortium members in the Fall of 2009. The goal of the Newsletter is to enhance communication between members and with publics that are not consortium members. In the future I envision the Newsletter to be an outlet for research and clinical pieces, particularly those presented at the Occasional Temperament Conferences.

At the upcoming conference (the 18<sup>th</sup>) to be held in Bowdoin College, Brunswick, Maine in October I hope there will be time to discuss the best way to enhance communication between members. The temperament community is becoming larger and more diverse with each passing year, and we need, I believe, methods of communicating ideas that are distinct from typical formal journals. We should have a place where new concepts, problems with measures, applications of statistical methods, and applications of temperament research can be discussed in a friendly and open fashion. A newsletter may not be the best way to do this. What are the alternatives:

## A. More frequent conferences

**Pros:** There is nothing like face to face interaction

**Cons:** It is very expensive, and might be receive support for institutions for travel

## B. Some type of semi-organized email probes

**Description:** A few individuals are selected to send out an email to all members about an ideas, and controversy, etc. This idea is then responded to by those individuals who find it interesting.

**Pros:** Very inexpensive; communication is immediate

**Cons:** Individuals have to be selected and have to send out the provocative ideas.

## C. Encouragement email exchanges, but no formal structure

**Description:** When an idea or controversy arises, individuals are encouraged to send it out to others for comment.

**Pros:** Requires no structure, is a simple extension of what occurs naturally

**Cons:** People may not feel free enough to present their ideas without some institutional support and recognition, or may simply not take the time to do it.

So I have present four ideas for enhanced communication (newsletter, more conferences, formalized email probes, non-formalized email probes), and I would encourage anyone else to put forth additional ideas. I hope at a business meeting at the OTC in Maine we can debate the pro's and con's of these ideas.

If you have comments for me please send them to [rpmartin@uga.edu](mailto:rpmartin@uga.edu). If you would like to have a person-to-person voice exchange, in office phone if 706-542-4261. I am typically in the office from 7:30 am to 3:00 pm Eastern Daylight Time in the U.S.

*Roy Martin, Interim Editor*

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## A Brief History of the Occasional Temperament Conference

*(Details supplied by Bill Carey)*

Year	Place	Host
1978	Louisville, KY	Ron Wilson & Adam Mathey
1979	Lund, Sweden	Inger Personn-Blennow & Tom McNeil
1980	New Haven, CT	Bill Carey & Sean McDevitt
1982	Salem, MA	Charlie Super & Sara Harkness
1984	Keystone, CO	Robert Plomin
1986	Penn State University	Richard & Jaquie Lerner
1988	Athens, GA	Roy Martin & Charles Halverson
1990	Scottsdale, AZ	Sean McDevitt & Nancy Melvin
1992	Bloomington, IN	Jack Bates and Ted Wachs
1994	Berkeley, CA	Jim Cameron
1996	Eugene, OR	Mary Rothbart & Beverly Fagot
1998	Philadelphia, PA	Bill Carey & Sean McDevitt
2000	Mystic, CT	Sara Harkness and Charlie Super
2002	Newport Beach, CA	Diana Guerin
2004	Athens, GA	Roy Martin & Charles Halverson
2006	Providence, RI	Ron Seifer
2008	San Rafael, CA	Jan Kristal
2010	Brunswick, ME	Sam Putnam

# Up-Coming Events

## The Next Occasional Temperament Conference

- Name:** 18<sup>th</sup> Occasional Temperament Conference
- Host:** Sam Putnam (Associate Professor and Chair, Psychology Department)
- Contact Info:** Sam's Office Telephone: 207-725-3152  
Sam's email: [sputnam@bowdoin.edu](mailto:sputnam@bowdoin.edu)
- A web site has been created to communicate the evolving details of the conference.*  
[www.bowdoin.edu/events/occasional-temperament-conference.shtml](http://www.bowdoin.edu/events/occasional-temperament-conference.shtml)
- Location:** Bowdoin College, Brunswick, Maine
- Dates:** October 9 and 10, 2010  
(An meetings of the Temperament Consortium will be held on the morning of October 11—see tentative schedule)
- Registration Fee:** Early bird registration (prior to July 15, 2010) the fee is \$150 for general registration; \$75 for students. After July 15, fees are \$200 and \$100.
- Theme:** How are Constitutions Amended?
- Presentations:** See Conference Overview in box to right
- Posters:** There is an open call for posters addressing any aspect of temperament research or application.  
*(Editors note: Unlike many conferences, the poster sessions at the OTC's are very well attended, and have proven to be lively and informative. Some of the most memorable work presented at prior meetings has been in the form of posters. Sam and I strongly encourage your applications.)*
- Where to Stay:** Rooms are set aside at the Brunswick Comfort Inn for a reduced Rate (\$119 per night; two bed room).  
*Shuttles will be available from the Inn to the College*
- How to Get There:** Most attendees will wish to fly into Portland, Maine, which is about 25 miles south of Brunswick.

## Overview of Conference

### Pre-session (October 8)

- 9:30 **Workshop: Applications of Cluster Analysis to Temperament Data-Methods, Problems**  
*Organizer:* Martin  
*Topic:* Sharing of an 18-month experience with cluster analysis and latent-trait analysis of temperament data. Participants can bring data and work through example, or simply come to learn the issues and procedures. Illustrations in SAS, SPSS, and M-Plus will be provided.
- 9:30 **Preconference on Clinical Applications**  
*Organizers:* Carey, McDevitt
- 9:30 **Preconference on Interpretation of Cross-Cultural Data**  
*Organizers:* Super, Garstein

### Conference (October 9-10) October 9

- 8:00 **Continental Breakfast**
- 9:00 **Introductory Remarks and Announcements**  
*Speakers:* Putnam, Nevill
- 9:30 **Session 1:** Temperament and Parenting  
*Organizer:* Bridgett
- 11:15 **Session 2:** Non-clinical applications  
*Organizer:* Martin
- 12:45 **Lunch**
- 2:00 **Session 3:** Posters
- 3:45 **Session 4:** What is temperament now?  
*Organizer:* Shiner
- 6:00 **Keynote Address**  
*Speaker:* Kagan
- 7:30 **Dinner**

### October 10

- 8:00 **Continental Breakfast**
- 9:00 **Introductory Remarks and Announcements**  
*Speaker:* Putnam
- 9:15 **Session 5:** Clinical issues: Prevention and Early Intervention  
*Organizers:* McDevitt, Carey
- 11:00 **Sessions 6:** Clinical issues: Pediatrics and Psychopathology  
*Organizers:* Carey, McDevitt
- 12:30 **Lunch**
- 1:45 **Session 7:** Poster-Session
- 3:30 **Session 8:** Cognition-Temperament Links  
*Organizers:* Dixon, Teglassi-Golubcow
- 5:00 **Closing remarks/Discussion**
- 5:45 **Planning meeting of the Temperament Consortium**
- 6:30 **Close**



# Thoughts on Temperament Research

## Measurement Issues

Measurement of the phenomena of interest is central to all scientific endeavors. It is also central to clinical diagnosis and many other aspects of application of psychological knowledge. Most of us who have labored in the field of temperament research have confronted measurement issues and could list many of the controversies that surround our measures. However, these issues are so central to our endeavors that reconsideration from time-to-time seems appropriate.

An acute awareness of the limitations of our measurement tools and the research related to measurement can serve several important functions. First, understanding of errors of measurement may help researchers understand why their results have been more tepid than they expected. Second, it might help researchers obtain better measurements through minimizing some of the contributors to error. Third, in practice, increased understanding of the strengths and weakness of our measurements should make clinicians and others who apply our knowledge better practitioners. In fact, detailed understanding of measurement issues provides a rationale for well-trained practitioners, and places them at the center of the application enterprise. In part, it is this expertise that separates the wise practitioner from the cookbook applier of knowledge.

The following are a few questions that address some of the most central measurement issues:

### Question 1:

*What are we measuring when we give a temperament questionnaire to a parent or teacher (or other caretaker) and ask them to describe their children's behavior?*

#### A. View I: The biological point of view

A temperament measure provides a window into the biological processes that produce individual differences in children. The measurement is not direct, and is clouded by a variety of noise, but what we are doing in temperament measurement is much like what Galileo did when it looked into the heavens with a crude telescope. He got a glimpse of a real physical phenomenon.

The data supportive of this view are those findings in behavior and molecular genetics linking personality/temperament data to the genetic variation. Also, research in the neurological sciences relating personality/temperament to elements of the neurological soup (e.g., peptides, neurotransmitters) support this view.

#### B. View II: The social point of view

A temperament measurement of a child by a caregiver is primarily a reflection of the relationship between these two parties as viewed by the caregiver. This view gives primary importance to the factors (e.g., life experiences, cultural expectations, stress) that are known to affect perception, and thus to affect the observations of the child by the caregiver. Of course, this perception is affected by the genetic and neurological substrate of both parties, but the relationship between the parties and caregivers perception of this relationship is said to be primary.

The data supportive of this view is the persistent finding that the correlation between measurements provided by different sources (mother and fathers; two teachers; mothers and teachers, etc) are low. Seldom is there inter-rater agreement above .50, and frequently this agreement is around .35. Such findings seem to suggest that individual perspectives regarding the nature of the child's behaviors are playing a major role in the measurement process. Also, data on the role of stress in altering interpersonal perception is support of the social point of view. Further, the correlations between observed behaviors and ratings by parents or teachers are typically very low (i.e., .20 to .40). Ted Wachs, one of the members of the temperament consortium, was recently lamenting this fact to me, and has data from a study in Peru which clearly demonstrated the lack of convergence between data sources.

#### Summary:

It seems insufficient to simply say our ratings are probably a combination of these factors. This leaves us in the position of defending a measurement scheme in which we cannot tell our publics what we are measuring.

# Thoughts on Temperament Research

## Question 2:

*How does questionnaire design alter our measurements.*

### **A. Does the generality of the question alter reliability and validity?**

This question was recently posed to me by Maria Joao Seabra from Coimbra University in Portugal. I had to say that I did not know of a study in the temperament literature that compared assessments based on more behavior specific items (my child splashes and actively play in the bathtub) versus a more general item (my child seems more active than other children of his/her age). Perhaps others of you can address this question. My feeling is that that there would be little difference in measurement reliability based on item specificity. The more uncertain question has to do with validity. However, my guess is that despite our inculcated bias toward item specificity, when these items are aggregated across a number of situations, the specific nature of the measurement is lost, and it is of limited interest. Temperament researchers are interested in cross-situational, general behavioral trends so I doubt item specificity is a major factor in reliability and validity. This, however, is speculation.

### **B. How does questionnaire length alter reliability and validity?**

In an effort to create a number of scales to measure different aspects of temperament, some instruments have been created that contain more than 100 items. The rationale for such scales is clear: in order to have scales with adequate psychometric properties, a number of items (5 to 10) is often necessary for each scale. If the instrument is designed to produce 10 scales, then it begins to approximate 100 items. I have wondered if such instruments produced internally consistent scales because respondents would begin to form (or had already formed) general conceptions, and were responding to the items in terms of these general attitudes about the child instead of carefully responding to specific item content. This seems particularly likely in long instruments when fatigue becomes an issue. However, this is speculation on my part. I know of no empirical study, or a carefully done qualitative investigation of even a few respondents that would address this issue.

## Question 3:

*Is direct observation of behavior in specified settings the gold standard of temperament measurement? If so, why has this technology been so slow to develop?*

**A. Pro:** Some take the position that it is obvious that some form of direct observation is far superior to any questionnaire method. Temperament is, after all, a description of a behavior pattern. Why not have a trained professional do the observation. Advocates of this position state that the only reason direct observation has not developed more than it has, is that it is time consuming and expensive. Thus, its use is most often restricted to well-funded laboratories.

**B. Con:** Some would say that there are two major limitations to most attempts at direct observation of temperament/personality in children. First, the context (a laboratory, etc.) in which the observations occur are critical and almost always are artificial; that is, they have little resemblance to the real world of the child. Second, temperament/personality can be conceptualized as a social phenomenon. As discussed above, it may be predominantly the result of a social process by a group in which an evaluation of behavior is made in a social context. In this case, temperament or personality is more like a reputation held by a group of a child's behavior. In this case, the behaviors that we call temperament/personality cannot be divorced from the evaluative, social component.

### **Summary:**

Most psychologists would acknowledge both perspectives, but again this is unsatisfying. One major variable is the age of the child. For infants and preschoolers, direct observation may be more fruitful than for older children and adolescents because the complexities of the social environment are much more limited for young children. In support of this point, most observational studies of temperament-related phenomenon are done of very young children.

These three questions, and several others, speak to a clear need to clarify some of these issues. We can always hope for a clean marker for a behavior pattern that advanced technology might provide. However, judging from the very limited success of our colleagues in molecular genetics, perhaps this hope for a silver bullet can be likened to the hope to draw a winning lottery ticket. It is possible, but the probability seems vanishingly small. It is probably only through the refinement of our current methodologies of direct observation of behavior by trained professionals, or attempt to capitalize on the observations of others through questionnaire technology, that the field will make progress.

*Roy Martin, Editor*

# Thoughts on Temperament in Applied Settings

## Helping Clients Understand the Differences in Life-Trajectories of Two Types of Gifted Children

In a series (of as yet unpublished) studies of temperament types, I have repeatedly been able to isolate four subtypes of children who are considered by their parents or teachers to be unusually bright. For the purposes of this column, I would like to describe two of these types. The purpose of this exposition is to ask practitioners in the field if, and how often, they come across these groups, and to provide some insight into the developmental problems and trajectories of these children.

The first type I will refer to as Bright/Positive. This type of child and early adolescent (the data that was analyzed included children ages 8-15) is rated by caretakers as being unusually bright, and also is given a high score on all temperament variables in which a high score is most socially desirable, and a low score on those variables in which a low score is desirable. Specifically, they are given very high scores on intelligence (typically more than 1 s.d. above the mean as a group), and are also given high scores on positive emotionality and activity level. (The high activity level score of this group seems related to vigor and energy more than unregulated activity.) They are given low scores on distractibility, shyness, fearfulness, and negative emotionality (typically more than 1 s.d. below the mean on all variables as a group). On more personality related variables they are rated as highly compliant, considerate, and social, with average scores on a variable labeled strong willed, and low scores on antagonism.

These children seem to be coping very well with the tasks and stress of childhood and adolescence, and are considered near ideal children by adults. Aggregated peer ratings of these children indicated they perceived by their peers as higher than all other types in the use of cooperative/affiliative influence when trying to bring others to their point of view. They were also popular. However, they were not as dominant of peers as several other groups, and were not rated as being a 'cool' as some other groups.

The developmental trajectory of this group seems unusually bright. Being perceived as highly competent, compliant, social, and energetic seems like a recipe

for achievement and group leadership. A few area of vulnerability, however, do not seem out of the question. This group exhibits unusual compliance to adult norms. One wonders if this level of compliance might have a negative consequence in some developmental circumstances. Might it lead to compulsive hyper-achievement at the expense of other life experiences? Might it lead in some cases to being less effective as a leader due to reluctance to take chances that might lead to failure? One is reminded of the outcomes for the children of the Berkley 'Genius' studies, in which many of the individuals failed to live up to the expectations the researchers had when the children were first identified. Also, what happens when a child who has been perceived as unusually competent and likable during much of childhood find themselves in an environment in which they are not so perceived. If things have come easily, when the feedback becomes negative how do they cope?

Let's consider another type of competent child I refer to as Bright/Negative. With regard to the perception of teachers and parents, this group of children and young adolescents is perceived to be only marginally less intelligent than the Bright/Positive group. With regard to temperament, their mean ratings for distractibility, shyness, positive emotionality are near the mean for all children. They are perceived as active and energetic (much like the Bright/Positive group) but are rated as more fearful than other children (about 1/2 s.d. above the mean). But the most striking characteristic of children in this group is the level of negative emotionality. It is, on average, 1 s.d. above the mean. In summary, compared to their Bright/Positive peers, this group is somewhat more distractible, they exhibit more shyness, and they are less positive and more fearful, but in all these respects their scores are near the mean for all students. They are most distinct from the Bright/Positive group by being perceived as exhibiting much more negative emotionality. With regard to peer relationships, this group receives near average ratings, far below the very positive ratings of the Bright/Positive group in all areas but dominance, where both groups are perceived as being about average.

# Thoughts on Temperament in Applied Settings

The areas of vulnerability of the Bright/Negative type seem more manifold than those of the Bright/Positive type. One would expect higher levels of interpersonal conflict. We have determined that the negative emotionality exhibited by this group is often displayed in interactions with caretakers as stubbornness and antagonism.. It is unknown to what extent they exhibit these traits toward peers. But very little is known about the long-range development consequences of this combination of temperamental traits for children who are academically highly competent. The following questions arise: Do children in this group have more difficulty than other children as they progress into higher education and the work world? Do they have more difficulty than other children in dating and marital relationships? Is the negativity experienced by caretakers primarily a developmental phase related to independence striving, that will dissipate with age and the ability of the individual to select environments that are a better fit.

Most child clinicians spend their time helping children and parents cope with diagnosable pathology (e.g., learning disabilities, depression, autism). Third-party payments are conditioned on diagnosable pathology. But these two groups of ‘gifted’ (the number of each type that would meet formal criterion for gifted placements in educational settings is unknown) children and adolescents just described each seem to have distinct sets of vulnerabilities.

I would like to know if some of the practitioners in the group could provide case examples of such children and some of the developmental stresses they experience. How often do parents present such children to clinicians or other helping professionals? Are there other areas of vulnerability that I have not mentioned.

## Bibliographic Selections

*The following are some recently published studies that may be of interest.*

Abel, E. L. & Kruger, M. L. (2010). Smile intensity in photographs predicts longevity. *Psychological Science, 21*, 542-544.

Barkley, R. A., & Fischer, M. (2010). The unique contribution of emotional impulsiveness to impairment in major life activities in hyperactive children as adults. *Journal of the American Academy of Child and Adolescent Psychiatry, 49*, 503-513.

Obradovic, J., Bush, N. R., Stamplerdahl, J., Adler, N., & Boyce, W. T. (2010). Biological sensitivity to context: the interactive effects of stress reactivity and family adversity on socioemotional behavior and school readiness. 270-289.

Rudolph, K. D., & Klein, D. N. (2009). Exploring depressive personality traits in youth: Origins, correlates, and developmental consequences. *Development and Psychopathology, 21*, 1155-1180.

Stringaris, A. Moughanb, B., & Goodman, R. (2010). What’s in a disruptive disorder? Temperamental antecedents of oppositional defiant disorder: Findings from the Avon Longitudinal Study. *Journal of the American Academy of Child and Adolescent Psychiatry, 49*, 474-483.