Newsletter of the
TEMPERAMENT CONSORTIUM
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Sections:

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Editor's Column

It is with considerable joy and satisfaction that I present to you the first edition of the Newsletter for the Temperament Consortium. The joy and satisfaction are based on the simple existence of such a communication vehicle, not necessarily on its current content. This newsletter represents a first-step, along with continuous email traffic, in creating a community of producers, consumers, and application experts for temperament research. This vehicle allows us to communicate more frequently than once every two years (the approximate periodicity of the Occasional Temperament Conference) about the promise and frustrations of temperament research and applications.

I volunteered to begin the process of developing a newsletter. In this role, I have taken unusual liberties to construct this issue in the image of what I would like to see in such a communication device. Forgive me for not consulting with you. My only excuse for this blatant abuse of power was the notion that getting something 'out of the door' that people could shoot at was preferable to debating for months (perhaps years) how it should look. However, it is critical to understand that I (and Sam, the co-editor) have only started the ball rolling. If we don't receive comments, suggestions, criticisms, and new ideas, this will be a very short lived idea. It will be the Edsel of vehicles of communication (for those you are too young to remember, the Edsel was a car developed by Ford in which some of the design features were supposedly based on Freudian ideas; it was a classic design and advertising flop).

This issue was designed around the following headings:

A. Editor's comments
B. In Future, I would like to have a spot for editorial comments on previous Newsletters (none for this issue)
C. Plans for upcoming Occasional Temperament Conference
D. Thoughts on Temperament Research
E. Thoughts on Temperament in Applied Settings
F. Bibliographical Selections: Recent Published Articles of Interest

The current issue is exclusively written by the editor. Future issues must contain contributions written by you. You are encouraged to view the current sections as examples of what can be done, not necessarily models. You are strongly encouraged to submit to any of Sections B through F, or to suggest other sections. If the editorial board (Sam and I at present) have too many entries to place in the next issue, we will select the ones we view as most appropriate. After the next OTC (our 18th temperament conference), the Temperament Research and Temperament in Applied Settings, sections can be filled with some of the best abstracts of talks and posters at the conference, as well as with original pieces not presented.

So have fun, and send me an email with any comments or ideas to rpmartin@uga.edu. If you would like to have a person-to-person voice exchange, my office phone is 706-542-4261. I am typically in the office 7:30 am to 9:30 am, and 1:00 pm to 3:00 pm Eastern Daylight Time. If these times are not convenient for you, leave a message and a time I can return your call.

A Brief History of the Occasional Temperament Conference

(*Details supplied by Bill Carey*)

Year	Place	Host
1978	Louisville, Kentucky	Ron Wilson & Adam Mathey
1979	Lund, Sweden	Inger Personn-Blennow & Tom McNeil
1980	New Haven, Conn.	Bill Carey & Sean McDevitt
1982	Salem, Mass.	Charlie Super & Sara Harkness
1984	Keystone, Colorado	Robert Plomin
1986	Penn State University	Richard & Jaquie Lerner
1988	Athens, Ga.	Roy Martin & Charles Halverson
1990	Scottsdale, Arizona	Sean McDevitt & Nancy Melvin
1992	Bloomington, Indiana	Jack Bates and Ted Wachs
1994	Berkeley, Ca.	Jim Cameron
1996	Eugene, Oregon	Mary Rothbart & Beverly Fagot
1998	Philadelphia, Pa.	Bill Carey & Sean McDevitt
2000	Mystic, Conn.	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

Up-Coming Events

The Next Occasional Temperament Conference

Name: 18th Occasional Temperament Conference

Host: Sam Putnam (Associate Professor and Chair, Psychology Department)

Contact Info: Sam's Office Telephone: 207-725-3152
Sam's email address: sputnam@bowdoin.edu
A web site has been created to communicate the evolving details of the conference.
http://www.bowdoin.edu/events/occasional-temperament-conference.shtml
(Editors note: please use email and the website when possible to protect Sam's time)

Location: Bowdoin College, Brunswick, Maine

Dates: October 9 and 10, 2010 (An additional informal meeting of the Temperament Consortium will be held on the morning of October 11)

Registration Fee: For 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: It has been a long tradition of the Occasional Temperament Conferences that the host(s) can plan the types and topics of the presentations and select presenters in any way he/she sees fit. Sam has tentatively put together some topics for symposia and may be contacting some of you to participate in these. However, if you feel you have work that would fit well with this theme, you are encouraged to contact the organizer.

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.

Attractions in Area: (Editors Note: While I am no expert on Maine, my wife and I have traveled along the coast on several occasions and have found it charming and beautiful. There are a number of small towns of interest. Others, in addition to Sam, (e.g., Bill Carey) who are in our Consortium have deep knowledge of region.

Thoughts on Temperament Research

From The Editor:

I envision this section of our Newsletter as containing a brief description of a current research issue that someone who is currently doing research is attempting to address. It could be a question about methodology, about measurement, a theoretical issue of interest, or some data that illustrate a point that the author wishes to make. I thought that the tone should be conversational, somewhat informal, with lots of openness about doubts and problems. With that brief introduction, I will offer a first attempt.

On the Question of Temperament Types

I recently have been made aware of a quotation from Steven Pinker (How the Mind Works, 1997, Norton, New York) that I would like to share.

> **"An intelligent being cannot treat every object it sees as a unique entity unlike anything else in the universe. It has to put objects into categories so that it may apply its hard-won knowledge about similar objects encountered in the past, to the object at hand"**
> (I obtained the quotation from Everitt, B. S., Landau, S., & Leese, M. (2001) Cluster Analysis (4th edition). Arnold: London (pg. 1).

The utility of categories in every day life is exemplified by the fact that all nouns are categories. They may have fuzzy boundaries, and may be over generalized, but the word 'chair' and 'car' mean something that is useful to us all. Science also seems to progress by defining and refining categories. The number of heavenly bodies has expanded greatly from my grade school days in which I was taught about sun like objects, planets, and bodies that circulate around planets (called moons). The list today would include supernovae, black holes, dwarf stars, giant stars, and a number of other celestial objects that my lack of astronomical knowledge keeps me from listing.

Why do we categorize? The quotation by Pinker seems to get at the heart of the matter. We categorize because it helps us adapt, even survive. We categorize because we need to know if we are entering a dangerous situation by extracting information about similar situations in the past. We need to know if the person we are going to write a paper with is conscientious and trustworthy.

When it comes to people, our psychological training, however, has taught us that categories are dangerous. They are dangerous because (1) people have a tendency to judge others based on a few attributes, and the lumping of all people with those attributes together may be harmful (e.g., stereotyping); (2) we don't know where the boundaries are for categories of people, so generalization can be misleading (e.g., is that child hyperactive in a medical sense, or very active in a temperamental sense). There are other reasons that categorical descriptions of human beings is frowned on, but these two will suffice.

The zeitgeist in psychological circles is strongly toward dimensional descriptions. Even in psychopathology, where categorical models of disease once reigned supreme, we now have an autistic spectrum of disorders, an intellectual deficiency spectrum, and several others seem to be on the horizon.

In our own little world of temperamental descriptions of children and adolescents, we have predominantly described our subjects and clients on a dimensional basis. Thus, we can describe children with regard to their level of (a) activity, (b) stimulation thresholds, (c) attention regulation, (d) speed of adaptation to new environments, and perhaps 50 other temperamental descriptors. But there has been interest also in some types: 'easy' or 'difficult' children; 'slow to warm-up' children, or 'highly inhibited' children. One set of our intellectual founders (Alexander Thomas and Stella Chess) and other eminent contributors to our literature (e.g., Jerome Kagan) created some of categories because they seemed then, and now, to be useful.

So here is the intellectual and practical issue. Do we get more 'mileage' from the use of temperamental 'types' or from temperamental dimensions in our research and clinical practice? My tentative thought (I invite any alternative view) is that we have not given types a thorough, rigorous and systematic look. Let me outline a few advantages to typological thinking. I do this assuming that the advantages of dimensional thinking are well inculcated in the readers of this Newsletter.

Thoughts on Temperament Research

Temperamental types are categorized based on profile characteristics across a number of dimensions thought to measure important traits. For example, a category might be defined in which the members of the category are high on self-regulation and high on inhibition, while another similar category would be defined by low scores on self-regulation with high scores inhibition.

The first advantage of the typal point of view is that knowing a child's level of behavior on a dimension provides less information than knowing their level on a number of dimensions. It surprises me how much temperament research is still unidimensional (e.g., how inhibited children differ from uninhibited children with regard to some outcome). However, wouldn't we believe that highly conscientious, self-regulated children who are inhibited would have a different developmental trajectory than inhibited children who have poorly developed self-regulation skills? Of course, we could study a number of dimensions simultaneously using a dimensional approach (e.g., using regression based methods), but it may be that the social world (peers, parents, teachers) evaluates and responds to inhibited/conscientious children qualitatively in a different manner from they way they evaluate and respond to inhibited/non-conscientious children. Further, this qualitative difference in response may have long-term effects on development.

Second, it may be that the temperament world is not multivariate normal. Think of three variables (inhibition, conscientiousness, positive emotionality). If these variables are all normally distributed and are uncorrelated, in large samples the distribution of children would look like a smooth pile, like an ant-hill. If it is multivariate normal, no matter how you sliced it, looking at the slice, the anthill would look like a normal distribution. This is what we assume in our traditional linear statistical models like multiple regression. However, many temperamental variables are correlated with one another to at least a modest extent. This means that some combinations of characteristics do not exist, or only a few people possess them. If positive emotionality and activity level are positively correlated, then it will be rare to find a child who is high on positive emotionality and low on activity level. They will exist, but will be rare. As the number of variables in the multi-dimensional space expands, the possibilities of infrequent categories increase. Hill Goldsmith and colleagues at Wisconsin, did a study which I can only dimly remember using configural frequency analysis (a statistical technique that looks for types and antitypes, or groups with very low frequency) and infrequent types were found in his temperament data. This is one kind of study which sheds light on the internal structure of the multi-dimensional space of temperament.

It is also possible that some temperament variables have non-linear relationships with other temperament variables. That is, at some levels of a variable the two variables may be positively related but at other levels they are unrelated. This would result in our anthill having lumps; it would not be smooth. Recent models of the temperamental/personality space (Asendorpg et al., 2001, European Journal of Personality 15, 169-198) have explored the possibility of a lumpy space, and report data that supports the lumpy model.

The point of this brief discussion is that I am not sure that the internal structure of the multivariate space of temperament dimensions has been well investigated. If this space is lumpy, then defining types of children based on temperamental characteristics may make sense. Perhaps, even if our multi-dimensional space is close to normally distributed and smooth, there is some utility in talking about categories. The human brain seems to more easily utilize categorical indicators than dimensional indicators. I submit the reason that we still talk about 'difficult' children is because in most cultural setting, this name has some consistent meaning. Of course, there are dangers of over-generalization or of using the term in a way that different persons will give it different connotations. But categories can be used in a nuanced way. For example, a category provides a prototype against which we can judge individuals. This allows us to say that a child is prototypic of the group, while another child has some characteristics of this group, but is not prototypic. So, categories may enhance communication even if their boundaries are rather arbitrarily drawn.

Finally, there are a number of progressively more sophisticated statistical techniques now available in most statistical packages (e.g., SPSS, SAS) for extraction of clusters. Traditional agglomerative or divisive hierarchical cluster analysis procedures are available in various types, as are a range of latent trait modeling procedures.

Thus, I no longer believe that the arguments against typal or categorical thinking in the world of temperament research and practice constitute an open-and-shut case. I hope there will be more research that illuminates this issue. I also look forward to your comments on my opinions.

Thoughts on Temperament in Applied Settings

From The Editor:

As was the case for the research section of this newsletter, I envision this section as containing a brief description of an issue that persons who are currently in practice, or are dealing with practice issues, are attempting to address. It could be a question about assessment, diagnosis, treatment, or issues of how to communicate temperamental information to clients, patients, and the medical establishment. It could also be issues of translating temperamental information into practice in education, parenting, or any setting in which caretakers are responsible for children. I think that the tone should be conversational, somewhat informal, with lots of openness about doubts and problems. With that brief introduction, I will offer a first attempt.

Temperament and the Zone of Diagnostic Ambiguity

Several members of the Temperament Consortium (Bill Carey, Sara Harkness, Charlie Super and I) have been involved for the past couple of years in meetings organized by the NIMH and the Hastings Institution (a biomedical ethics think tank). The purpose of the meetings is to develop ethical guidelines for the medical community with regard to use of psychotropic medications for children. Attending these meetings has been a fascinating experience for me. Many important issues by leaders in their field (pediatrics, psychiatry, and medical ethics) have been addressed. One of these issues is the state of art of psychiatric diagnosis. It is in this context that temperament plays a role.

Put bluntly, the state of the art of psychiatric diagnosis is in its early childhood phase (a little past infancy, but not much). This is the view of some of the developers of the DSM past and present (the new incarnation will be at your book sellers in a year or so), and many of the leaders of the child psychiatric community. Child psychiatric diagnosis has clearly progressed from its infancy. Psychological and psychiatric knowledge has propelled us from the bad old days of state-run warehouses for the mentally ill (even children and adolescents) or from the days of ignoring childhood mental illness. Further, we have a lot of research on phenotypic (behavioral) descriptions of troubling behavior, and this research has become instantiated in the DSM diagnostic system. However, the DSM and its international counterpart (the International Classification of Disease) are limited to descriptions of types of behavior that seem to fall into syndromes. Not only are diagnosticians not sure we have carved reality at its joints (created the correct diagnostic categories), but the DSM system is nearly mute on such critical applied questions as etiology, prognosis, and most appropriate treatment. Thus diagnosticians are at the place that physicians were in the mid to late 19th century with regard to infectious disease. We can describe a pattern of symptoms, but we are mostly (there are few notable exceptions) blind with regard to etiology. Our treatments tend to be non-specific, similar to the 19th century treatment of tuberculosis by placing patients in a sanitaria. These settings were generally helpful, kept transmission of the disease under control, and provided a range of general symptomatic treatment and control, but no specific cure or mechanistic understanding of the disease was available.

Because clinicians must rely on observations of behavior to make their diagnoses, separating the child who is 'sick' (requires the armamentarium of the medical world to address the problem) from the child who is troubling (has a difficult temperament) or in a difficult developmental period, is problematic. No, 'problematic' is too weak a word. In many cases appropriate diagnosis is impossible. It is the equivalent of making a diagnosis of an infectious disease based on varying combinations of (a) increased heart rate, (b) increased respiration rate, (c) increased body temperature, (d) subjective symptoms of malaise, (e) self-reports of joint pain, (f) self-report of headache, and (g) clinician observations of skin pallor (I exaggerate only slightly).

The picture I have laid out is incomplete, however. There are children who are presented to clinicians who are clearly not 'sick'. Further, there are children who are clearly in need of every type of appropriate intervention we can provide, including medical interventions. Stated in another way, there would be high agreement among trained clinicians that the one group is experiencing normal problems, and the other is presenting problems that are clinically significant. The difficulty is that there is a middle group: a group in the zone of ambiguity where there can and will be significant disagreement about the presence of illness even among the best trained practitioners.

For some childhood psychiatric diseases, this zone of ambiguity is relatively narrow (e.g., moderate through profound intellectual handicaps; phobias; eating disorders). For others, it is wider (e.g., childhood depression, attention deficits/hyperactivity disorder), and for others it appears to be extremely wide (e.g., high functioning autism; childhood bipolar disorder). This zone of diagnostic ambiguity has important implications for all types of clinical practice, including issues of whether to treat and how to treat. In the latter category are decisions about the type of treatment (e.g., psychosocial interventions versus medication).

Thoughts on Temperament in Applied Settings

So what do we, as persons with knowledge of temperament research, and skills in interpreting this research for clients, have to contribute to making better decisions in the zone of ambiguity? It seems to me there are many places in the referral and diagnostic chain of events, where we can contribute.

Most basically, many persons have a limited understanding of individual differences. Teachers are a case in point. Most teachers seem to have three types of children in mind: highly gifted, compliant children; normal or typical children; and children with special problems. They have typically no training in temperamental differences in the normal range. They initially believe it will be obvious who those children are that have clinically significant problematic behavior. Specifically, they do not know that normal children vary greatly in negative emotionality. They do not know that there is a natural tendency of parents and teachers to erroneously associate behavioral inhibition with intellectual slowness. Educational policy makers do not understand the discomfort experienced by an active child who is confined to a desk or to quiet activities for a lengthy period of time. Many teachers do not understand the discomfort experienced by some children in making rapid, unprepared transitions from one activity to another.

When this lack of understanding results in problematic behavior on the part of the child, the teacher often falls back on punitive tactics modeled after how they were treated when they were children. This may create increased negative emotionality and/or inhibition, depending on the predispositions of the child. Alternatively, based on recent reading of an article in some popular magazine, they make a fuzzy, amateur diagnosis (the child is probably bipolar). This lack of knowledge about temperament and other aspects of child development is critical because teachers are responsible for initiating about 80% of the referrals for clinical intervention. That is, through creating parental concern, sometimes even offering potential diagnoses, they begin the chain of events that leads to medical diagnosis. The need for enhanced teacher education about temperament is clear.

The lack of knowledge that has just been attributed to teachers can be attributed to many parents. In fact, most parents have less knowledge of the social and emotional behaviors of children than teachers, and look to teachers for guidance about their child's behavior (e.g., Is my child's behavior out of the ordinary?). Further, these same parents view new advertisements on television on a daily basis talking about the effectiveness of new pharmaceuticals for mental health problems, with particular instructions in the ads to talk to their physician about this medication. Given a general parental lack of awareness of emotional development and temperamental individual differences, they are susceptible to influences based on other types of information (from ill informed teachers, or profit oriented advertisements). This brief discussion makes it clear that parental education about individual differences in temperament-related behaviors could prove most helpful in reducing the medicalization of normal developmental issues.

Now parents, armed with the observations of the teacher, present their child to the pediatrician. The average pediatrician (we are told by researchers in medical policy) spends on average about 15 minutes per visit. Predictions are that this will soon be closer to 8 minutes. The pediatrician, who is poorly trained in individual differences in general, and developmental psychopathology specifically, must make a determination of the severity of the presenting problem and a make a diagnosis on the basis of very limited observation of the child. As a result, the overworked pediatrician must rely on the behavioral observations and opinions of parents and teachers. Further, the physician feels some pressure to act, a social and professional pressure to solve the problem. At the end of this brief appointment, the easiest option can often be pharmaceutical interventions. Finding well trained therapists for implementation of psychosocial interventions is difficult, the intervention is viewed as taking a good deal of time to work, and as having only a moderate chance of success. Psychotropic interventions seem to be the answer, in many situations. Better training and information designed for pediatricians and general practitioners about temperamental individual differences might have an important salutary effect on ability of the physician to make a more sophisticated judgment.

If the pediatrician or general practitioner wants to seek help from the specialist community, a referral to a child psychiatrist might be sought. There is a shortage of child psychiatrists in the U.S., and waiting periods are often measured in months. Understanding this shortage, the pediatrician is further biased toward prescribing pharmaceuticals in an attempt to do something about the obvious suffering of the parents and apparent suffering of the child. Utilization of this option is further increased in probability by the effective marketing work engaged in by pharmaceutical companies at every level of medical training from relationships with basic medical training institutions, through support of in-service training, to direct marketing.

Although the medicalization of childhood difficulties is a multi-faceted problem, at its foundation is diagnostic ambiguity. Until we have better diagnostic procedures, better biological markers, more efficient and reliable methods of behavioral observation, and a better understanding of individual differences at all stages of the referral and diagnostic process, this zone of ambiguity will continue to exist. Given that ambiguity will be with us for a long time (perhaps forever), we can be sure that many medical diagnoses will be made that are better attributed to normal temperamental variability. Many children will be inappropriately treated. Our ethical mandate is to share our knowledge with others (teachers, parents, children, physicians), through the mass media, and many other avenues.

Bibliographic Selections

Editors Note:

We are a diverse group, and we read different professional journals and other publications. I would like to start an informal data base of articles that you have found interesting. Please send me the references in APA form, and a few sentences about the article. If you send me more than four or five sentences I will probably have to cut it down. Below you will find a few that I have found particularly noteworthy.

I have divided these into types of research. My arbitrary categories are as follows:

Category A.	Issues in measurement of temperament
Category B.	Issues in structure (factors, clusters) of temperament
Category C	Temperament Theory
Category D	The Genetics of Temperament/Childhood Personality
Category E	Other contributors to early temperamental differences (e.g., prenatal disruptions of development)
Category F:	Temperament as a predictor of mental health outcomes
Category G:	Temperamental characteristics of diagnosed children
Category H:	Interventions that alter manifestations of temperament
Category I:	Miscellaneous reports

Category E: Other contributors to early temperament

Spittle, A. J., Treyvaud, K., Doyle, L. W., Roberts, G., Lee, K. J. et al. (2009). Early emergence of behavior and social-emotional problems in very preterm infants. Journal of American Academy of Child and Adolescent Psychiatry, 48, 909-918.

Subjects and Method: At 2 years' corrected age, the parents of 188 very preterm (gestational age < 30 weeks) and 70 full-term children completed the Infant Toddler Social and Emotional Assessment to determine externalizing, internalizing, and dysregulation problems and social-emotional competencies. Among the internalizing problems measured were inhibition to novelty, and among the dysregulated behaviors examined were sleep difficulties, negative emotionality, picky eating, and sensory sensitivity.

Results: The very preterm children at 2 years demonstrated significantly higher internalizing and dysregulation scores as well as lower social competence scores than peers born at term.

Category F : Temperament as a predictor of mental health outcomes

Christopher, J. P., Fowles, D. C., & Krueger, R. F. (2009). Triarchic conceptualization of psychopathy: Developmenal origins of disinhibition, boldness, and meanness. Development and Psychopathology, 21, 913-938.

This is a review and theoretical article with lays out a model of the temperamental characteristics of the psychopathic personality. The essential elements of this theory are that the phenotypic characteristics of psychopaths is : disinhibition, which reflects a general propensity toward problems of impulse control; boldness, which is defined as the nexus of social dominance, emotional resiliency, and venturesomeness; and meanness, which is defined as aggressive resource seeking without regard for others.

Bibliographic Selections

Chronis-Tuscano, A., Degnan, K. A., Pine, D. S., Perez-Edgar, K., Henderson, H. A. et al., (2009). Stable early maternal report of behavioral inhibition predicts lifetime social anxiety disorder in adolescence. Journal of American Academy of Child and Adolescent Psychiatry, 48, 928-944.

Subjects and Method: Participants included 126 adolescents aged 14 to 16 years who were first recruited at 4 months of age from hospital birth records. Temperament was measured at multiple points between the ages of 14 months 7 years. In adolescence, diagnostic interviews were conducted with parents and adolescents, and continuous measures of adolescent- and parent-reported social anxiety were collected.

Results: Stable maternal-reported early behavioral inhibition was associated with 3.79 times increased odds of a lifetime social anxiety disorder diagnosis during adolescence, but not other diagnoses. Stable maternal-reported early behavioral inhibition also predicted independent adolescent and parent ratings of ongoing social anxiety symptoms.

Eggum, N. D., Eisenberg, N., Sinrad, T. L., Valiente, C., Edwards, A., Kupfer, A. S., & Reiser, M. (2009). Predictors of withdrawal: possible precursors of avoidant personality disorder. Development and Psychopathology, 21, 815-838.

Subjects and Method: Approximately 200 children (n differed by assessment period) ages 4.5- to 7-years of age were assessed four times, 2 years apart. Children were grouped based on initial levels of withdrawal and their pattern over subsequent assessment periods.

Results: The mother-identified high and declining withdrawal category of children were associated with relatively high levels of anger and low levels of attention control and resiliency when compared to less withdrawn children. A similar result occurred for a teacher identified high and declining withdrawal category. The mother-identified moderate and increasing withdrawal groups were characterized by higher anger, lower resiliency, and lower attentional control than less withdrawn peers.

Shiner, R. L. (2009). The development of personality disorders: perspectives from normal personality development in childhood and adolescence. Development and Psychopathology, 21, 715-734.

This is a theoretical article that reviews a good deal of research that is of use to temperament researchers regarding the antecedents of personality disorders. Special emphasis is placed on McAdams and Pals' personality model and offers a taxonomy of personality differences that can account for the known patterns of emerging personality pathology. This taxonomy includes youths' temperament and personality traits.

Category G: Temperament Characteristics of Diagnosed Children

Paloyelis, Y., Asherson, P., & Kuntsi, J. (2009). Are ADHD symptoms associated with delay aversion or choice impulsivity? A general population study. Journal of American Academy of Child and Adolescent Psychiatry, 48, 837-846.

Subjects and Method: Participants consisted of 1,062 children aged 7.90 to 10.90 years (49% girls). They made a fixed number of repeated choices between a smaller reward delivered immediately and a larger reward delivered after a delay (choice-delay task), under two conditions (including and excluding a post-reward delay).

Results: Inattention ratings uniquely predicted preference for smaller-immediate rewards under both task conditions for both sexes. An index of delay aversion was associated with inattention only in boys. Hyperactivity-impulsivity ratings were negatively associated with choice impulsivity in girls in the post-reward delay condition. This study is among the first to report a unique association between inattention symptoms and behavioral measures of choice impulsivity and delay aversion.