Distinguishing Science from Pseudoscience: Overexcitability in the Gifted
NAGC 2021

Chris Wells, PhD and R. Frank Falk, PhD interviewed by Michele Kane, EdD for the virtual component of the conference

---

Michele Kane: Hi, everybody. My name is Michele Kane, and I want to welcome you to the session entitled "Distinguishing Science from Pseudoscience: Overexcitability and the Gifted." It's my deep pleasure to welcome Dr. Frank Falk and Dr. Christiane Wells to this presentation today. They're going to be sharing some of their work, and I also want to tell you a little bit about my interest in it.

Some of you may know me from NAGC. I've had leadership positions in both the Global Awareness Network and the Parent Community and Advocacy Network, but what you might not know is that I have a longstanding interest in Dąbrowski's theory and what it means for not only the field of gifted education, but also for giftedness along the lifespan and people in general—bringing Dąbrowski's theory into the world.

I have been the co-host of two Dąbrowski Congresses, and I would also like to invite you to think about coming to the Dąbrowski Congress that's going to be held in Denver in the summer of 2022. So without further ado, I would like to have Chris first introduce herself and then Frank.

Chris Wells: Thanks, Michele. My name is Chris Wells. I'm the Director of Qualitative Research at the Institute for the Study of Advanced Development in Westminster, Colorado.

I'm also a licensed social worker and I specialize in Dąbrowski's theory of positive disintegration. I first discovered it while I was in graduate school working on my PhD in psychology, and aside from my collaboration with Frank here in Colorado, I've worked to study overexcitability and the broader theory with Michael Piechowski.

I've been very fortunate to have the chance to get to know Michael well. He's my mentor, and I've been learning Polish with his help for nearly five years now. I've approached studying the theory and its constructs in significant depth.

One of the things I think that separates me from most people who claim to have expertise on Dąbrowski's theory is that I've actually made the effort to read the available Polish works with Michael's help. I also just recently started a new podcast called *Positive Disintegration* that you can find on Apple and Substack for now. It's brand new, so more soon on that.

Frank Falk: Hi, my name is Frank Falk, and I'm the Director of Research at the Institute for the Study of Advanced Development in Colorado. I'm also Professor Emeritus at the University of Akron. I've been studying Dąbrowski's theory since the 1980s, and my primary focus has been to look at the question of measuring the various concepts in Dąbrowski's theory and trying to bring those forward in ways that can help us understand those concepts empirically.

I also am the Coordinator of the Dąbrowski Study Group, a group of people that have been reading Dąbrowski's work and other related works for probably more than five years now. We meet every month, and that's always been an exciting part of our learning process.

Michele: Thanks, Frank. Thanks, Chris. I wondered if you could start us off, Chris, by telling us a little bit about what the inspiration was behind this session.

Chris: I'd be glad to. This session was inspired by NAGC sessions called "Confronting Pseudoscience and Gifted Education" in 2019 and 2020. I have a slide with a tweet that I captured from Twitter in 2019:

> "Many things that keep perpetuating myths are things that aren't really scientific theories that we can test effectively, like multiple intelligences or positive disintegration."

I also saved a quote from last year at NAGC. There was one academic who had about five minutes to talk about her opinions about Dąbrowski's theory and overexcitability:

> "It's difficult to see that another construct actually captures all aspects of the construct, such as overexcitabilities and positive disintegration. And the big five personality factors are better at explaining. And that's why you don't see a lot of Dąbrowski in mainstream psychology. So that has been my journey from being enamored with the theories of Dąbrowski to seeing that scientifically. And as far as utility, that there are better concepts and better constructs and better theories that are going to be more useful for us."

When I saw this two years in a row at NAGC, I could see that, as somebody who studies the theory of positive disintegration, there was a need to actively work to correct some of the misconceptions about overexcitability in the field.

Of course, it's true that there have been problems with the application of OE in gifted ed, but the theory is not pseudoscience, neither is the overexcitability research. Dąbrowski's theory is a scientific theory, and overexcitability is not the same as openness to experience. This is our chance to respond to these claims.

Michele: For you, Frank?

Frank: For me, when I first started hearing about the conflict between the five-factor model and the theory of positive disintegration, it caused me to remember an article that I published in 1983, where I was looking at the problem of the conflicts and methodologies among symbolic interactionists. I'm one of those symbolic interactionists also.

What strikes me so much about these kinds of conflicts is that they have a very negative impact and effect on individuals. We see things like identities are proclaimed and personalities are assaulted, internships are debated, and even more importantly, tenure and promotion decisions are made in academic communities based on confronting statements like "you're a pseudoscientist."

In fact, according to Schirmer in 2011, the boundary problem between science and pseudoscience is notoriously fraught with definitional disagreements because the categories are too broad and fuzzy at the edges. The term “social science” is subject to adjectival abuse against any claim one happens to dislike for any reason. That's a major problem.

The problem essentially boils down to the fact that most scientists are not aware of the work being done in philosophy in an area called the theory of knowledge. In that theory of knowledge, the problem of the demarcation between science and pseudoscience is of major importance. It's critical that people begin to understand that inductive procedures—or a particular methodological procedure—does not guarantee that something is being done in a scientific manner.

Michele: Chris, do you want to comment on that and talk a little bit about how you see the difference between science and pseudoscience, specifically focused on that pseudoscience aspect?

Chris: Well, for one thing, there's a long history of scientific inquiry and empirical evidence that supports Dąbrowski's work, as well as the work of his closest collaborator, Michael Piechowski. The fact that people are making these claims about pseudoscience really shows how political this is and how little effort has been made on the part of people making these claims to investigate the broader theory.

I can see that not only in what people say on social media, but even in some of the published work that's come out—I'm thinking here specifically of the overexcitability and openness to experience issue. You can see in what is being said that the authors haven't necessarily actually read what Dąbrowski wrote.

If you haven't made the effort to read Dąbrowski’s original writings, then I have little confidence that you can actually make claims like that.

Michele: I would say in response to that, to both of you, that just in my own experience, when I'm talking to people who seem to have a lot of pushback against Dąbrowski's theory, when I ask them specifically, “What have you read?”" or “Tell me the parts of Dąbrowski's theory that bring you to that conclusion,” usually there's just sort of a blank response, or “I read an article that somebody wrote,” and so they're basing their information on that.

Can you help us to clarify, Chris, what are the characteristics of overexcitability?

Chris: I can. Our discussion of overexcitability is based on the work that Frank and I did to understand the entire history of the construct. This is our paper, “The Origins and Conceptual Evolution of Overexcitability,” that came out this year in a journal in Poland.

We learned along the way that the history of overexcitability is much longer and deeper than most people realize. First of all, it's not a term that Dąbrowski even came up with himself. It predates him and his theory. One example is you can find it in William James's 1890 *Principles*

of Psychology, including emotional excitability. It's really interesting to dig into the long history of overexcitability and see how people other than Dąbrowski used it.

Dąbrowski studied overexcitability from his perspective as a medical doctor and a psychologist. He used a 100-item questionnaire to study overexcitability in his early work, but he also used a neurological exam in his clinical practice. It's really important to understand that overexcitability is a difference in the nervous system. It's a heightened response or a lowered threshold to stimuli. That stimuli can be external—a strong reaction to external stimuli—or it can be a strong reaction to internal stimuli, such as emotions or one's imagination.

People with overexcitability have outsized reactions to stimuli that other people may not even notice or find bothersome. They may also have an extended reaction to stimuli compared to the norm.

Dąbrowski differentiated overexcitability into five types, and each of these types have different types of reactions. He saw that there were vast individual differences in responding to stimuli, and that people who had overexcitability were more sensitive than those who didn't have it, and they were more likely to experience psychoneurosis.

It would take quite a bit of time to really get into depth about how overexcitability led him to create the theory, but it was a foundational aspect of the creation of his theory.

Another important thing to mention while we're talking about the characteristics is that not all gifted individuals have overexcitability. This is something that we have learned thanks to empirical research in this field. And not all individuals with overexcitability are gifted. We know that too. However, this doesn't diminish the importance of overexcitability when it comes to understanding gifted and twice-exceptional individuals.

Michele: Frank, do you have anything you'd like to add about the characteristics of overexcitabilities?

Frank: Yes. I think it's really important to recognize that overexcitability is a medical neurological term. It is not a personality concept.

In 1899, Clouston even suggested “that I would draw your direct attention to simple hyper-excitability, an undue brain reactiveness to mental and emotional stimuli.” The actual work with regard to overexcitability dates all the way back into the 1700s.

What Dąbrowski did was to take the overexcitabilities and extend them into four types: emotional, sensual, psychomotor, and imaginational, originally. Much later, he added intellectual.

But also very important is the fact that he recognized two major fundamental differences in overexcitabilities. There are those that are global in their nature, which can lead to increased forms of development. And there are those that are narrow. The narrow ones lead to things like phobias, tics, and one-sided development. They produce changes that are weak and do not last

very long. They also lead, when they're done singularly, into major psychoneurotic problems and problems of adjustment in society.

Michele: That's really helpful. Thank you for adding that piece. I think one of the things we want to also talk about here is something that you alluded to earlier, Chris—that there are some problems with the use of the term overexcitability in gifted education. Could you elucidate that a little bit more clearly for us?

Chris: Sure. We want to make clear in this presentation that even though we're saying that the theory itself is not pseudoscience, there have been problems with its application at times.

One of the features of pseudoscience is an absence of self-correction. That is a problem that I see in gifted education, because there was a real drive to use overexcitability to identify the gifted. In fact, a paper just came out last year by Wood and Laycraft claiming that overexcitability might be a helpful way to identify the highly and profoundly gifted.

But this kind of claim ignores the fact that the research has not worked out when it comes to identifying the gifted with overexcitability. It just hasn't borne that out. We have to adjust our understanding of overexcitability and how we can apply it based on the data. If we don't like the data, we still have to respect it and work with it and understand that this is the way it is.

This is a tough spot because there are a lot of people who love overexcitability and Dąbrowski's theory. They see it as relevant. I say this as somebody who's dealt with a lot of people. A lot of teachers tell me how useful they find it in understanding students. A lot of parents tell me how much they find it useful in understanding their kids. I'm one of those parents. I do, too. But that doesn't mean that it's a general characteristic of giftedness.

Aside from the lack of self-correction, there's also been an emphasis on confirmation rather than refutation. There's been a lot of doctoral work or master's level work done by people who set out to confirm something about overexcitability rather than to prove it wrong. It's a rare study where you see them trying to refute overexcitability in the gifted.

These are issues that we can adjust and change in the culture of gifted education. It's really a matter of getting the word out from people who are perceived as experts. That's part of why we're doing this today.

I also had a chapter come out over the summer with Michael where we went out of our way to tackle another misconception, and this is the one around overexcitability and ADHD. In our chapter, we discouraged counselors from looking at ADHD and overexcitability as an either-or situation.

From the work that I've done, especially in the early Polish works from Dąbrowski, it's extremely clear that overexcitability is a broad construct that encompasses ADHD within it. When I say that, what I mean is that overexcitability is much bigger than just ADHD, but hyperactivity lives under the umbrella of psychomotor overexcitability. You cannot, and you never should, say that

psychomotor overexcitability is something different than the hyperactivity you see in ADHD. These are the same physiological phenomena.

This is just something that's happened, where even Elizabeth Mika came out in a paper in 2006 and said there's not a meaningful difference here, and yet everyone just kind of ignored it. This is a problem of cherry-picking what you want to believe or not believe when it comes to the theory.

We're saying it's important to recognize these discoveries that we've made. Even though we see a lot of problems in the overexcitability research, these are not actual indictments of overexcitability itself or the theory. This is simply a disconnect between research and practice, and it's something that can be fixed.

Michele: Thanks so much for adding all of that, Chris. Frank, do you have anything that you want to add in terms of what you see?

Frank: I think the way I look at it, it's a problem of over-generalization. A good example of that is that Michael Piechowski's book, *Mellow Out*, provides us with individual cases which clearly demonstrate gifted individuals with overexcitabilities. It's a rich book because it really provides excellent examples.

But what people don't recognize is that examples from one individual does not generalize to the entire population of non-gifted. The other thing is we clearly know that non-gifted people have overexcitabilities. So it is a mistake to over-generalize, which is what I think has been a major problem for many people in gifted education.

The other thing is, if you look at the findings: what we know, using data from parents, is that the only overexcitability that continually shows up with regard to gifted is intellectual overexcitability. When we look at all the other overexcitabilities, there's essentially no difference in the mean levels of the overexcitabilities across levels of intellectual ability.

There's a really important point here: you can't even say that as people become more intelligent, as measured in IQ, that they become more over-excitable. It's simply not true.

This is the kind of thing where those of us that create empirical data keep wondering what it is we need to do to get people to stop saying things which don't fit with the data themselves.

Michele: Great. Thanks so much for sharing that information. What's the source of that slide? I'm sure that there's going to be people who are going to ask where that data came from.

Frank: That comes from the Institute database.

Michele: And people could contact you—you're going to have your contact information available. People could contact you at ISAD and get more information if they wanted to pursue this, right?

Frank: Yes.

Michele: So that kind of leads us to what next? What is the future of Dąbrowski's theory? I'd really like to hear from both of you about where you see things going in the future.

Chris: When it comes to the overexcitability and openness to experience issue, there are two papers from this year that refute the belief that overexcitability and openness to experience are the same. The first one by Shelagh Gallagher just actually became available today online. The link allows you to download the PDF—it's not even behind a paywall, which is pretty wonderful. The second paper is from Barry Grant, and it came out earlier this year. His paper was a direct critique in response to the Vuyk papers. I just wanted to make that available.

When it comes to the future of Dąbrowski's theory, the first thing that comes to mind is the neurodiversity movement. We know that overexcitability can be found in people who are autistic, ADHD, and other areas that are considered disorders, as well as in the gifted. It looks different in these populations. It looks different based on gifted or non-gifted. There is so much still to explore when it comes to overexcitability.

The second thing is that Dąbrowski's theory of positive disintegration is an alternative to the mainstream biomedical model of mental illness. This was actually the major thrust of the theory itself. Our understanding of overexcitability within gifted education is in some ways a footnote to the broader theory itself.

His major thesis was that psychoneurosis is not an illness. He saw all of the more minor mental illnesses—anxiety, depression, obsessions, dissociation—all of this, he saw as positive signs of development, not something that was wrong with you. And overexcitability, he saw as a disintegrative force that created conflicts and challenges for people that could also then be overcome with the strength of their developmental potential.

There's an entire theory around all of this that much of it has been kind of lost in gifted ed because of the emphasis on the gifted connection. We're really hopeful that people will be enthusiastic about researching these other aspects and elements of the theory that should be studied.

The third major point is that Dąbrowski translated the spiritual path into a psychological theory. When we see Michael Piechowski's work on exemplars of development, we are seeing the highest end of development. He was interested in that. He was interested in the entire range of humanity. This is a deep, rich theory that has so much to offer.

I hope that graduate students who haven't chosen their dissertation topic yet, who might be watching this session, will consider exploring some aspects of the theory other than how can we use this to identify the gifted. We need to investigate these other aspects.

Michele: Thanks for bringing that up, Chris. I just know for me personally that some of that—Michael's work on reading about Eleanor Roosevelt, Etty Hillesum, Peace Pilgrim, some of these spiritual and moral exemplars and their journeys—the way that they were able to be with their suffering is really a gift in terms of opening us up to other aspects, not only of the theory itself,

but also for our own selves. I think that's the human connection where people really connect to it. It's helpful in that way.

How about for you, Frank, where do you see the future of Dąbrowski's theory?

Frank: I think one of the important parts is his therapeutic approach. There hasn't been much emphasis in the literature about that, and I'm starting to explore that in a little more detail.

One of the things that's very interesting is that he's very interested in a narrow aspect of what he can do, and that's to deal with psychoneurosis problems. He really doesn't talk about trying to help schizophrenics or psychotics or psychopaths. These are not part of what he is interested in trying to help with.

But he is very interested in working with people in the area of psychoneurosis, which can lead the individual to a heightened developmental level. His approach is one that emphasizes an advisor role, which includes trying to guide the individual in their own therapeutic approach and in their own education about their current and future conditions.

It provides a different kind of notion about what can be done and who can be helped. He really sees that for these other kinds of things, in some cases, there is no hope. And in some cases, drugs and therapeutic systems may be helpful. But it's not part of what his major concerns are.

Michele: It's really interesting that you would say that because I think it dovetails really nicely into what is being explored in a lot of educational systems right now—trauma-informed schools, trauma-informed interventions, trauma-informed educational practices. I could see it as a springboard to inform some of the work that's being done in those areas as well. That makes good sense to me in terms of a path forward.

This has been wonderful fun for me. I've really enjoyed participating. I am very sorry that I'm not going to be able to be with you in Colorado, but I know that it will be great for those folks who, like me, aren't going to be able to be there who can at least get the resources.

They have access to this information. They have ways that they can contact you and connect if they want more information about this or they want to dialogue with you or they want to have more conversations. And as I said, there will be a Dąbrowski Congress in Colorado this summer that is being sponsored by the University of Denver. More information could be found on that.

Any last words that you want to say before we sign off?

Frank: Thanks, Michele.

Chris: Yeah, thank you, Michele. These are our email addresses—if anybody wants to reach out to us, please do. We would love to hear from you.

I think my final words really are: I respectfully ask that people in this field stop referring to Dąbrowski's theory as pseudoscience and stop trying to shut down the conversation on a theory

that has decades and decades worth of research. I think it is more fair to all of us who study the theory to say, "Hey, let's prove him wrong." Test the theory if you don't like it. That's how science works.

Thanks so much.

Transcribed with TurboScribe and lightly edited for clarity.