INTERVIEW

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On The Aerodynamic Trader

Constance Brown

*"Aerodynamic" may seem like **a** peculiar description for a trader, considering what the word brings to mind at first glance: smooth and sleek, streamlined to minimize resistance. And yet, think about it. Successful traders are mentally streamlined. Winning traders display minimal emotional resistance to a high-risk environment, only trusting their skills to trade. This focused mental state is comparable to those of top athletes who go into head-to-head competition concentrating on their goal, free of any excess mental baggage that could weaken their performance; they operate with a mental toughness to bring home the gold. One trader knows both challenges: Connie Brown, who was at one time a world-class swimmer, and who is today **a professional** trader **as** well as the author of the work* Aerodynamic Trading. STOCKS & COMMODITIES *Editor Thorn Hurtle interviewed Brown via telephone on March 24, 1997, about trading, the similarities to athletic competition and other topics.*

So did you come right out of school and jump into trading?

No. My business career began with Eastman Kodak. I was first hired as a sales representative and had various positions throughout my 11 years there. By the time I finally resigned from Kodak, I was a brand manager with responsibilities for Kodak's professional color films. That was back in the days when the Hunt brothers had such an impact on the silver market.

So you were aware of the Hunt brothers and the silver market before you actually got into the market?

Definitely! Silver is a major cost factor in manufacturing film, so I became very interested in the futures markets. Of course, I didn't know very much about the markets, but I started asking a lot of questions, and my interest grew into a passion. Soon, I found I was working on my charts most of the night and on the marketing plans by day. Something had to go. I was still very young at the time, and the prospect of living in Rochester, NY, for the rest of my working days, well —

Your career options weren't quite as diversified in upstate New York as they might have been if you had been living elsewhere, I would imagine.

No. So I decided to start a new career and pursue these new interests.

So you ultimately left Kodak for Wall Street?

Yes. I jumped at the first opportunity, and that placed me inside a bond department. Before I was hired, I had barely heard of junk bonds -excuse me, high-yield bonds.

In that case, what led you to the bond department?

Actually, I was interviewed for the job without my even being aware of it.

How'd you manage that?

I found myself on a plane seated next to a man who I later learned was a Wall Street bond king. I don't remember much about that flight, except that he asked me a lot of questions about the interpretation of two market plans in reports he had. As I recall, one had serious lems with discount stores in geographic areas that offered a perfect solution and target market for the other company's expansion plans. Shortly after that, flowers began to arrive on my desk in Rochester, finally culminating with an offer that tripled my salary with Kodak. So I jumped.

Were you interested in technical analysis first off?

No, the firm I joined used fundamental research. In fact, I was told that if I ever brought a chart into the trading room, I would be instantly fired.

The firm I joined used fundamental research. In fact, I was told that if I ever brought a chart into the trading room, I would be instantly fired.

That sounds harsh! But...

However, everything at Kodak is visual, from the quality and impact that an image has to the technical analysis of a film's recording characteristics with a chart.

Out of curiosity, how do you use charts in photography?

We used charts that indicate a film's image characteristic. If you have even a 2% slope shift in a graph, it'll have a visual impact in the final photograph. For example, we could pick out the exact film emulsion that would he a perfect fit for a National Geographic assignment by evaluating these charts.

In my opinion, technical analysis was similar, but the subtle chart interpretations that Kodak required allowed me to pick up market signals long before major divergence or crossovers occurred. These signals were so strong and visually clear. Irealized that I was definitely geared toward technical analysis, and that's why I left all fundamentals behind to work for firms that applied charting techniques.

You probably looked at a lot of differ- & aspects of technical analysis. What approaches did you settle on?

I've evolved into using three non-correlated methods: momentum, Gann, and the Elliott wave principle.

How did that come about?

It's really a cycle. When you're first starting out and you don't really know a lot about technical analysis, you try to get your hands on everything possible to learn as much as you can. Sometimes a method will work for you, sometimes it won't. The more you learn, the more tempting it is to become more complex and try to incorporate all these different methods you've been studying into one single approach. That's the first phase.

What's the nextphase?

The next phase is when you begin to realize that there arc similarities among indicators. Then you study which indicators provide the strongest signals to you and which methods don't have a high correlation to one other. That's the point you realize you want to remove the redundant indicators and work on the weaknesses of those you keep.

And finally?

Finally, it evolves to the point that you come back to something that may be simpler, but by then you'll have a tremendous understanding of the indicators that you've studied and that you can now use effectively.

So the goal is to really narrow your focus?

Yes.

You mentioned you use momentum. Could you elaborate on that?

Sure. I use indicators on indicators. For example, it's very common for traders to use stochastics and the relative strength indicator (RSI), but I use indicators on *those* indicators so I can improve the timing and be able to see market turns before the masses actually see it through more typical methods.

So what would be an example of an indicator on an indicator?

Hm. I'm not intentionally holding back, but the formulas, techniques and rules are just too complex to cover here. *The MTA Journal* published an article of mine called "The derivative oscillator," and it's nearly 20 pages long. I really don't want to give your readers a simplitied version, because it would be misleading. [*Editor's note*: For more information on the article, see the references section at tbe end of this interview.]

In that case, can you just tell me about the derivative oscillator?

Sure. I use the oscillator with an indicator I developed called the composite index (Figure 1). The composite index is an indicator on the relative strength indicator (RSI), and it shows signals before the RSI itself has revealed a market signal.

You also mentioned that you use Elliott wave analysis. Why do you think Elliott wave works for you?

I strongly believe you cannot use Elliott wave analysis by itself. I study momentum and Gann first and only then apply Elliott wave analysis to provide a sense of scale. The count has to fit what your indicators are telling you and you have to stay objective.

For example?

Let's say that your momentum indicators are showing divergence and your price projections from Gann arc telling you that you definitely have a major pivot approaching, the way we do now in both bonds and the Standard & Poor's. Elliott wave analysis can give you an idea of what the scale might be of the next decline after your initial work. For example, indicators strongly suggest the 1987 low was a second wave, not a fourth, andtheapproachingdecline will be a fourth wave, with new markethighs to eventually follow (Figure 2).

I've evolved into using three non-correlated methods: momentum, Gann, and the Elliott wave principle.

But the wave principle by itself suggests a very different interpretation. I'd put more weight on what the indicators are suggesting. It also helps in the very short horizon to find lower-risk entry levels. In fact, it's mandatory in some markets like the S&P because the locals are heavily influenced by wave struc-

To be competitive in the very short horizon, you have to know the methods that have an influence on your market.

Elliott wave analysis can sometimes have a wide choice of scenarios. How do you deal with that issue?

When you have several scenarios for consideration, you have a low probable entry, and you don't want to be trading at that point. But if you've identified a C wave decline, for example, or a third wave — it doesn't matter — both of those will be pointing in the same direction. Then if you take

methods that have nothing to do with Elliott wave, such as momentum indicators, and lay that on top and everything is pointing in the same direction, that's when you want to pull the trigger.

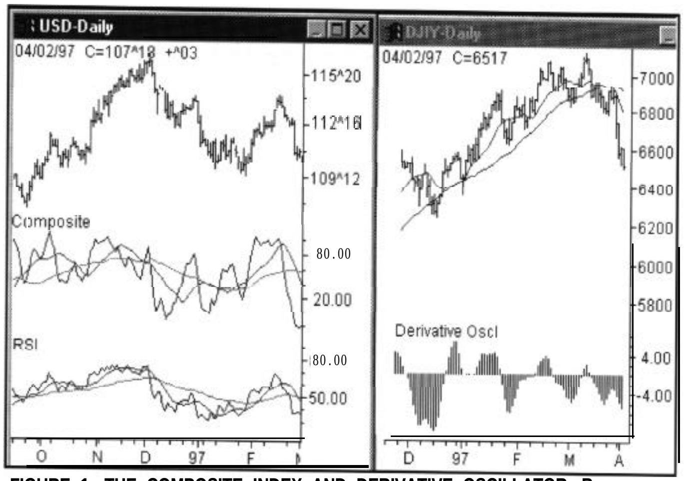

FIGURE 1: THE COMPOSITE INDEX AND DERIVATIVE OSCILLATOR. Brown uses *the derivative oscillator with an indicator called the composite index. The composite index is an indicator on the relative strength indicator, which shows signals before the RSI itself has revealed a market signal.*

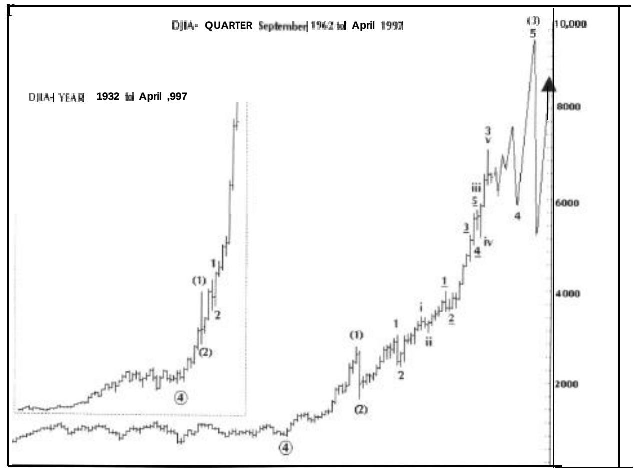

FIGURE 2: DJIA AND ELLIOTT WAVE. Brown uses Elliott *wave theory to ge an idea of what the scale might be of the next decline. For example, indicator: strongly suggest the 1987 low was a second wave, not a fourth, and the approaching decline will be a fourth wave, with new market highs to eventual) follow, as seen here.*

If you got interested in a new technique, what are some of the steps you would take before implementing the new method?

That's a good question. I don't test a new technique for the sake of seeing what's new. I have to have a specific problem in mind that needs to be resolved. Then I'd have to test it and compare it against what I already use. For example, I know the volatility in the Standard & Poor's 500 index in February 1997 was as high as 20%, and some of the indicators I worked with needed some modification, although they have been performing very well over the last three years. Volatility was extreme, and so, market conditions changed. So even if you've done a lot of backtesting and developed a system, it's not static. You have to constantly grow and test it.

So you would —

I'd take a look at the signals. It really is a process of just a lot of grunt work. I use an Excel spreadsheet frequently. You have to manually put in all the price calculations, all the signals, all the triggers, how long it took to reach a price objective, if a signal was negated, or if it never produced a move. You have to record every variable that may give some insight into how the indicator performs — and then you let the computer sort through all the different criteria you have. When you see a pattern start to emerge, you have to create enough data statistically so that you know you're working with something viable.

You really can't get this information by looking at someone else's summary tables.

No, you can't, and you can't just bypass this step because there's more to this than just developing the indicator. It becomes part of your gut. You begin to be able to sense when it's going to fail. You get to know what its weaknesses are, and in fact, if it has a reliable weakness, that can be a powerful tool — knowing when to go against it. So it's not just a question of picking up someone's summary. You really have to sit there and do the work yourself.

Not everyone's willing to make that commitment.

A lot of people don't want to do the work, yet it can't be handed to you. Anyone who takes a shortcut is actually missing the most valuable parts of the backtesting. Doing the work yourself is really knowing in an intimate way what you're working with, because it has to become instinctive. If there's even a pause in your thinking about which method to use and how to apply it, you're finished. You just lost your opportunity.

The psychology of the trader really comes into play. In* Aerodynamic Trading*, you offer a series of comparisons between being a balanced trade? and an athlete. I'd like to cover some of the individual points, but first, could you explain how athletes and traders are similar?

Sure. In both sports and trading, everything comes down to a track record That, of course, has a direct impact or our livelihood, and that's not only or our income and our standard of living but also on our self-esteem. Both trad. ers and international-level or professional athletes become endorsement: for someone, it doesn't matter who. I could be for your own company, or it could be a client. If you think about it clients are actually sponsors.

So for either traders or athletes to survive —

So both traders and athletes have to produce to survive. Actually, if we con tinued our discussion and never referrer to sports *or* trading, it would be hard fo a listener to know the difference as we used phrases like "Anxiety to produce," or "Stress associated with failure," of even "Ways to come back from a slump.' You wouldn't really know if we were talking about trading or internationa athletics. That's because the ties are so strong.

In* Aerodynamic Trading, *you make the comparison that the athlete and the trader are primarily individualistic. What are the important aspects of individualism in these cases?

There are two key aspects with regard to individualism. Not only are traders and athletes self-motivated, which they have to be, both have an intense drive or passion that keeps them moving forward. More important is that both top-performance traders and athletes take responsibility for their own actions; performance results are used as stepping-stones to learn from. Both traders and athletes are constantly pushing themselves to learn, study and improve.

How do you separate taking responsibility for your actions from not being too critical of yourself?

We can be our own worst critics. We're being overly critical when we yell at ourselves, saying things like, "How could I be so stupid?" when a loss occurs. It's more constructive when we can look at a loss and say: "This was a particularly hard day for me in the market. What did I learn from it?' When you can do that, *then* you're adding to your arsenal of skills for the next time.

And yet you need to be coachable, don't you? You need to be able to listen to someone's direction.

Yes, but that's very much tied to ego. If you're not coachable, it's because you already know. And if you already know, then your ego's out of line and you're not going to survive in a market environment or a sports environment. If we always keep a beginner's mindset, we'll have an unlimited ability to learn. As soon as we become *experts* we're no longer open to learn or change-and as a result, we stop growing.

The next point is both traders and athletes have the courage to risk failure. Is the possibility of failure a motivation?

We're all motivated in different ways, but failure as a motivation doesn't fit here. That's more adiscussion about self-sabotage because we don't believe we are deserving. Winners have the courage to risk failure because they *don't* become fearless. It's important to understand that courage is not the absence of fear in a risky environment; courage is the ability to control the fear that accompanies risk. The key is to learn how to manage anxiety by fully analyzing, understanding and accepting the implications of an associated risk.

For example?

The S&P is just about the meanest, toughest market out there right now. If you're doing your homework and you know that you can suddenly watch the price plummet by six handles? in a heartbeat, you also know the rewards can be huge. So only the mentally toughest and the technically strongest are taking on the S&P in an intraday or short-term horizon these days. But it's manageable if you put in the work to backtest and prepare yourself to make the tough odds appear more friendly. That's how you find the courage to dive into an extremely volatile market. When you've deduced that the worst-case scenario is an acceptable outcome, then you find the courage to take on the calculated risk.

The next parallel you discussed was how traders and athletes learn and grow from past setbacks and mistakes. How do you continue to learn from setbacks?

As far as learning from your past setbacks is concerned, you have to use the setback as an opportunity. If you keep repeating something negative like, "Why was I so stupid in doing this?" you're not helping yourself. You need to backtrack and try to understand why the setback occurred. You have to determine if something misled you, or how you're going to improve your trading. You have to focus on constantly building the foundation, as opposed to destroying it by being negative. One of my favorite quotes on this is a comment by Thomas Edison. He said: "We have not failed 5,000 times. We have successfully determined 5,000 ways the lightbulb will not work." What that quote's telling us is that setbacks can provide us with a positive piece of information that we'll need to reach our larger goals.

Your next point is both traders and athletes possess a multidimensional approach to competition. Is your use of multidimensional techniques for the markets the key here?

Actually, this is quite different. A mulitdimensional approach comes from the understanding that every aspect of our skill and character contributes to our performance record. We each have inner obstacles to unravel while we also work to develop our technical ability. The gap between knowing what to do and then doing it is the weak link for most of us. Knowing what to do is usually not the problem. We go back, develop our indicators and we're technically sound. Of course, if you're not technically sound, then that's another problem; you don't want to do the work. That's not what we're talking about here.

So in other words —

If you have to wait for another technical confirmation or if you have to wait for your doubts to dissolve, you'll never pull the trigger. You won't be able to pull the trigger until you face your inner adversaries. Here's an example: I'm a student of tae kwon do. In North America, many people think the martial arts are for those who want to develop their tough-guy image. But that couldn't be farther from the truth. The more you're involved in the martial arts, the more you realize that all battles, physical or otherwise, are ultimately against yourself. And anyone trading S&P futures knows that that's a market that's definitely a battlefield!

So what's it come down to?

It really comes down to testing what you have inside yourself. Trading quires that you have technical skills, but the important part is acquiring a deeper understanding of ourselves to use those skills well.

Your next point is that contrary to common belief, athletes and traders see competitors as partners who can facilitate improvement in their own performance level. What's the advantage to forming partnerships?

The company I started, Aerodynamic Investments, specializes in trading the S&P market exclusively for insti tutional clients. Now, it's a tough time to start up with any size in the S&P, as the market is thin. We all have the same problems and now, small support groups of institutional traders are beginning to pool their research findings and thoughts together on how best to execute trades in this hostile environment. The traders who keep themselves isolated, for ego or other reasons, are making a mistake. This market's too big. No one has ever seen a market like this before. Traders who are helping one another or have some form of a support group in place, be it a mentor or someone whose skills they respect, are going to come out of it better than if they were going at it alone. When you work together, you have a situation where everyone benefits.

How about an example?

I discuss my favorite example of that type of support in *Aerodynamic Trading*. In the 1936 Olympic Games in Berlin, which was coordinated by Adolf Hitler, Jesse Owens, an African-American athlete who was the world record holder for the long jump, was on the edge of elimination after having fouled on his first two attempts. But then Lutz Long, Germany's top jumper, suggested to Owens that he make a technical change to his approach.

What happened?

Owens took the advice, then qualified on the next jump for the finals. During the finals they continued to push one another until Owens's last jump, which won and set the Olympic record. Then, in what is probably the ultimate image of competitors becoming partners, Lutz took Owens's hand and held it up high as they walked around the stadium. Lutz was a very courageous man to support Owens that day, especially in front of Hitler. Elite athletes and professional traders reach a point where they can't shut out everybody. You can't sustain that level of success by yourself.

The next point you highlight is how traders focus on how the game is played, as opposed to the bottom line. What's the danger of focusing on the bottom line?

If you're focusing on the bottom line, you're not focusing on the present, you're focusing on the future. You can't produce in the present if you're thinking about the future. You have to be in the present to be able to win in the present. In sports, functioning in the present is referred to as *entering a zone.* You're oblivious to everything around you. You're totally wrapped up in the moment and everything comes together.

So this is where all the training kicks in?

Exactly. When you're in the zone, you don't pause and think about choosing this technique or that technique, because if there's time to think, then there's a flaw. As [football star] Joe Montana said: "If I ever stopped to think about what happens after the ball hits my hands, it might screw up the whole process." It's the same for traders. Not only do we have to be focused on the present, we have to have developed our skills to a level that they become instinctive.

Still, even the best of athletes and traders can run into a slump and start thinking instead of acting...

The true test of what you're made of comes when you're in a slump. Everyone goes through a slump at some time. At that point, all the work that you've done, all your skills, just seem to leave you. The challenge is to overcome this situation. You have to go through the process of facing your own inner demons in order to get back on track. I recently faced a trading slump.

I appreciate your frankness. What happened?

In February 1997, the volatility in the S&P skyrocketed; I had never seen volatility like that before. The market was illiquid, making it hard to execute orders. It wasn't so much the volatility as it was the extreme retracements that both long and short positions experienced. Money management within an intraday time horizon became very difficult. I lost my confidence. I stopped trading from strength; I started trading from fear.

What happened then?

Then my performance began to fall off. At the same time, I was asked to trade the S&P for the private account of an individual I held in very high regard. It was a tremendous honor to be asked. I only trade for institutions, but this individual was himself an institution, so we went ahead and opened his account. But I choked.

Uh-oh.

Right. So not only was I facing these extremely difficult market conditions, I put tremendous pressure on myself because the orders had to be entered through his desk rather than pooled with my other clients. I knew every order, pivot calculation and outcome would be closely monitored. The pressure to produce for this individual became a tremendous mental block. I couldn't pull the trigger.

How did it turn out?

The added pressure began to hurt my other clients as well, so eventually, we ended the financial relationship.

And?

And my clients' accounts began to see a 20% advance in four weeks, which showed me the problem was all psychological. The market was very choppy and weak as it advanced from the February lows, the volatility remained high, and the retracements were again very deep for both intraday long or short positions. The market conditions were similar, but mentally, I was trading without the emotional baggage. My point is that we're constantly learning about ourselves as we work through these types of challenges --- challenges that reside in our own minds.

The next point you make in* Aerodynamic Trading *is traders* blend *with forces so as not to create a counter-force. What's the goal of blending forces ?

Think of the situation this way. Think of the chaos that can be generated around a particular competition. If you think of sports it's the media hype, the size of the event, and the risks and rewards — and suddenly it sounds as if I'm talking about trading again.

Sure does!

And I am. The chaos associated with the sporting event from the media hype is comparable to the volatility of the markets and all the news hype that accompanies the sudden market movement.

What can you do?

The more chaos we have around us, the more we need to develop an even greater inner calm to establish a workable balance. If you decide to filter out all the distractions and tell yourself that you can cope with the market conditions, you'll be a much more relaxed trader. Essentially, if everything around you is stressful and you put more stress on yourself, then you won't be able to perform.

Your nextpoint is athletes and traders understand that performance is a roller coaster, and they have to have the patience to ride the ups and downs. I assume this patience is driven by confidence?

No, I don't think being able to ride a roller coaster of performance has any relationship to confidence. The trader has the advantage over the athlete here because traders accept that there are cycles in markets. That's a foreign concept to an athlete. But our own performance *is* cyclical. That roller coaster is tied with our own cycles, and that's something that a trader just has to accept. There are going to be ups and downs.

How do you manage those ups and downs?

You have to learn to recognize when not to trade, which is as important as knowing when to trade. If you see a down period happening to you, then it's a good time to focus your energies on other aspects of trading. Spend some time doing technical or background research. Take yourself off the front lines for a while.

The next point is traders and athletes visualize, allowing dreams to become possibilities and realities.

Visualization is extremely important. The image you have of yourself will directly translate into performance.

How so?

If you get up in the morning and you're still upset about a series of trades that you did, or really bothered by a poor performance for the month, then you're reinforcing negative thoughts and carrying the mental baggage that comes along with it. If that sort of thinking continues, it can become harder and harder to turn the negative image around. But if you're visualizing success as a trader, recalling in detail how you felt when you were in the zone, then you can reenter the mindset that brought about the past success. Everything else is inner baggage, which is just a negative distraction. Do you see the difference here?

I think I do.

If you're trying to move toward a previous winning mindset, then you're moving toward something that's positive. Each step forward reinforces the next. But if you're trying to move away from a strong image of a past- performance, then you're focused on moving away from a negative. Athletes in high-risk/high-reward situations are taught to make this shift in focus. It's really no different from the competition we face in the trading room.

Your final point from the list in* Aerodynamic Trading *is athletes and traders have to enjoy their sport and market environment for the pleasure it gives. I don't think anyone could reach success as a trader if the markets are* always *a grind.

Exactly! I would also add that traders must understand what motivates them. This ties into that wonderful quote by Red Auerbach of the Boston Celtics: "You can only win one for the Gipper once." It's not just the money, because you couldn't stay in the game based solely on chasing the dollar; that's an empty endeavor. Ultimately, it has to be a passion, a passion that gives you a lot of satisfaction from undertaking a challenge that few are able to succeed at.

Visualization is extremely important. The image you have of yourself will directly translate into performance.

Is there anything in particular use to keep yourself motivated?

Yes. I have a very large banner that hangs on one of the walls in my trading room. It's the actual banner that hung over the entrance to the stadium in Atlanta for the 1996 Centennial Olympic Games.

Wow!

I knew what that banner stood for to the athletes who walked under it to enter the stadium. That banner meant everything.

In what way?

Athletes are taught to take a huge overwhelming event and find smaller visual focal points that help them regroup. These important focal points allow them to filter out the distractions of the event itself and allow them to tap back into their skills and abilities that brought them that far. The entrance to the stadium and this banner marked the point where many athletes told themselves, "It's now or never." At that point, all the training, all the preparation, all the sacrifices, all the injuries that had to be overcome, all of that had to come together when they crossed under that banner. It had to, because each knew this day was never going to be repeated — there would never be another chance. *That's* what that banner meant to those athletes.

That's a very powerful image.

I thought that if I had that banner on my wall, that would remind me that when I sat down in front of my trading screens each morning, if I didn't have that same mindset, then I wouldn't have the right to be there that day.

So how did you come into possession of it? The banner, not the mindset.

I found out where the banner was stored and then I found out when the auction was going to take place. I *really* wanted it, and I really worried the night before, because I was sure that some of the big sponsors would want it. I went to that auction committed to getting it, and I was ready to bid for it in units of $500 because I was investing in future S&P points. I was prepared for an ugly bidding war.

And?

As it turned out, I only had to bid against one other person, and I couldn't believe the final price.

What did you finally pay for it?

$140!

You're kidding!

No. And after it was over, I walked over to the other bidder and asked him what *he* had wanted the banner for. He said that he thought that the banner would make a good tarp to cover his truck with during the winter. And this wasn't just an Olympic banner. It was one of the most widely televised symbols for the Centennial Olympic Games!

Oh, no!

Yes. Since then, I've received a bid of $35,000 for it, but I'd never sell it. Today, whenever I speak at seminars, I bring along the banner and tell this story, because I think it illustrates something important. If you want to trade simply for the money, then you're not too different from that bidder who just saw the banner as a tarp, not as a symbol for something more. There's much, much more to being a trader than just making money. Trading can bring you closer to your dreams, trading can add value to who you are-it can add depth to your life if you're willing to make the commitment.

Thanks for your time, Connie.

RELATED READING, RESOURCES

Brown, Constance [1995]. ***Aerodynamic Trading, New*** Classics Library. This volume can be purchased through Brown's Web site at: http://www.aeroinvest.com. E-mail address: Cbspz@ibm.net or fax: 770 536-1337.

_____ [1993]. "Neural networks with learning disabilities," ***Technical Analysis of*** STOCKS & COMMODITIES, Volume 11: May.

- To purchase a copy of Brown's article from *The MTA Journal*, *fax*, do not call:
  Market Technicians Association, Inc. (MTA), 1 World Trade Center, #4447, New York, NY 10048, fax: 212 912-1064. "The derivative oscillator" is available for $10.00. The MTA accepts VISA/MasterCard only.
- A conference tape can be purchased for $30 that provides more information about the composite index and how Brown applies it to trade the S&P market. Contact Dow Jones Telerate, Inc., Telerate Seminars, 701 Poydras St. Suite 3900, New Orleans, LA 70139-9901, or call 504 592-4550: VISA/Mastercard and American Express are accepted.