INTERVIEW

The Holy Grail Of Trading Is Within Us All

Van K. Tharp, Ph.D.

CARL GREEN

The Holy Grail does exist, but it is an inner search. And once you've undertaken that quest, learn position sizing strategies. When you can understand how position sizing applies to your trading system, *then* you have a chance.
— Van K. Tharp

Psychologist and trading coach Van K. Tharp is the president of the International Institute of Trading Mastery, Inc. He has spent the last 15 years working with more than 4,000 traders, and through this work, he has managed to identify themes and characteristics that are key among successful traders. He's developed a home study course on the trading process, but his recent work has to do with the psychology of system development. He has written a book titled Trade Your Way To Financial Freedom, *in which he analyzes how great traders develop their systems and how they stay great.* STOCKS & COMMODITIES *Editor Thom Hartle and Tharp used E-mail to conduct this interview during the week of January 28, 1999, discussing the importance of understanding your own belief systems and position sizing, and determining the steps to designing your own system.*

For those who haven't seen your work in STOCKS & COMMODITIES, tell me about yourself.

I have a doctorate in psychology and I've been working with traders since 1982. I consider myself both a modeler and a coach.

What's a modeler?

A modeler is someone who finds people who can do something well and then determines what they do in common. I use neurolinguistic programming, which I call the science of modeling, to do that. You don't want to model any single individual, because then you'll know all about their idiosyncrasies. You want to know what a *number* of successful people have in common. When you know that, your model usually works for everyone.

Give me an example.

When most people read Jack Schwager's *Market Wizards*, they usually look for traders' secrets — their methods for trading. They are probably disappointed when they realize that the details of those methods aren't in the book. In fact, those interviewed all have different systems, which led me to conclude that their systems weren't that important. Instead, my philosophy in working with those traders or in going through the book is to look for what they all have in common. That's where the real "secrets" are!

What did they have in common?

They had in common low-risk ideas, money management — which I now refer to as *position sizing* — and discipline. There is tremendous value when you use that approach, and I've done modeling in all three areas, plus the area of acquiring wealth.

You need to find out what your beliefs are. Since the most critical beliefs have nothing to do with the market but with you, you need to assess yourself.

What do you do as a coach?

A coach is someone who finds talented players — in this case, traders — and teaches them the fundamentals — the result of the modeling work — and then makes sure those traders follow the fundamentals. It's interesting that trading reflects human performance as much as any athletic endeavor. Almost every top athlete will have a coach, but few traders have coaches.

How did you become interested in working with traders?

When I first started, I was a dismal trader. Twice I had periods when I lost everything, and the second time, I went into debt. Fortunately, after that, I realized those results were *way* beyond random. I realized it couldn't be bad luck. It had to be *me*. I had to find out what I was doing wrong.

So how did you get involved with other traders?

As I started doing research and working to solve various problems, the traders I was doing research with started asking me for help on how they could improve. And most of them were good traders. And after I helped them for a while, I decided I liked coaching better. As a result, my trading is now primarily that of investing with traders I've helped develop, and those results have been super.

During the time you've been a trading coach, have there been certain recurring themes that led you to believe that there are consistent reasons for success and failure?

There *are* consistent reasons, and they are common-enough problems, things like not pulling the trigger or being a gambler or needing to be right. I wrote a couple of articles for S&C on those topics.

Is that it?

No. Usually, the problem is deeper than it seems. It may be something like very poor self-esteem, a deep-seated fear, or something as simple as not having a trading system.

So what's an example of a problem being deeper than it seems?

People who cannot pull the trigger usually don't even have a trading system. They *think* they do, but it's often an after-the-fact entry system. Moreover, they probably have no idea how to get out of the market.

Now **that's** ***a problem!***

It sure is! Most people put all of their emphasis on indicators and on entry, which is 10% or less of a good system and actually has little to do with profitable trading.

How can they correct these problems?

The first step in fixing the problem is in getting those traders to recognize the problem. That's not as easy as it sounds. The second step is getting them to be open to a reasonable solution. Usually, they have excuses like "I don't want to be mechanical" or "I don't want to have to work with computers." You have to get past the excuses. And finally, you have to teach those traders what's involved in a system and why certain elements they've probably neglected — like exits and position sizing — are critical. My new book is a major effort to help people solve this sort of problem.

In your book,* Trade Your Way To Financial Freedom*, you talk about "judgmental biases." What's that?

We're human; we only have a limited capacity for processing information. Yet we are faced with tremendous amounts of information coming at us every day, and especially in the Internet age. As a result, we've developed many shortcuts to make our job easier. These shortcuts make processing information simpler, but they also tend to bias us to do wrong things.

Can you give me a few examples?

Right off the bat, there's the need for control and the need to be right. Obviously, there appears to be a survival function to both, but both needs end up producing biases that have traders looking in the wrong direction.

Like what?

Many people go into trading after 12 to 20 years of being brainwashed by the educational system. Simply, you're taught that 70% or less is failure and 94% or better is an "A." These same intelligent people go into trading wanting to get an "A." As a result, they generally look for a trading system that gives them a high probability of being right — that is, making money. But most of the best traders I know and have worked with don't *care* about that at all.

Expectancy, which is a major way of determining the value of a system, is equal to the probability of winning multiplied by the amount won, less the probability of losing multiplied by the amount lost. Thus, if you're right 80% of the time and win $1 each time you win and lose 20% of the time and lose $10 each time you lose, you'll end up losing a lot of money. The expectancy of that system is minus $1.20 for each dollar risked. Thus, for every dollar you risk, over the long run, you'll lose

$1.20 more than you risked. However, if you reverse the winning and losing (so you're wrong 80% of the time), you'll have a *great* system — you'll keep your dollar and make an additional $1.20.

If only they were all that way!

It actually isn't that difficult if you understand these key principles and eliminate your psychological biases. But there are more biases. For example, we also want to be in control of the process. People love to play the lottery because you get to pick the numbers. People feel in control that way. It doesn't matter that the odds of winning are 10 million to 1. You feel in control because you get to pick the numbers, but doing that has nothing to do with whether you win.

And it's the same control thing in the markets?

That's right. People get to control the markets by when they get in it. They may say, "I'm not getting in until the market does *X* and *Y* and *Z*." But that has nothing to do with making money.

What does it have to do with, then?

Making money has to do with cutting your losses short and letting your profits run — and *that's* all about exits. And if you combine those two biases, wanting to be right and needing control, it really is a disaster for the average investor and for many long-term players in the industry.

How does position sizing fit in?

People frequently don't have enough money to trade so they totally neglect position sizing, which is the key to success. I frequently get calls from people who might say: "I've got a great system. I've made 200% in the first two months, but I've given it all back and now I'm down 50%. I know it's me, so what can I do?" When those people call, it's very obvious to me that they have a small amount of money and their position sizing is a sure way to disaster. Of course, their roller-coaster ride may also stimulate a fear response.

What's too little money?

Too little money depends on the arena you're trading in — for instance, $50,000 or less is too little if you're daytrading Standard & Poor's futures or just trading Internet stocks. Yet you could successfully trade corn with a $10,000 account. It depends on the vehicle.

So part of the solution is to select an arena appropriate for your capital?

Precisely. You need to select the right arena for your capital, your temperament, your knowledge, and your objectives. You also need to assess each of those areas before you start. And that's something most people do not do.

You've stressed that you can't trade the markets — you can only trade your* beliefs *about the markets. Could you elaborate on what you mean by that?

The first thing you do when you trade is chart the market. You might represent it by a daily bar with a high, low, open, and close. You look at this bar and say to yourself — a belief — something like, "This is what the market did today."

That bar is your way of representing the market. Furthermore, most people are not even happy trading the bars. Instead, they find some indicator to summarize the information in the bar — say, a stochastic or a relative strength indicator (RSI) or even a moving average. Then they trade the market when they decide that it's overbought or oversold or breaking out. All those things are just in their heads; those things are not the market at all. Those are just things that *you've* decided are important.

And those are your beliefs.

Right. If you can begin to understand that, then you have a chance of getting closer to what is really the market that will give you a much better chance of making money.

Some people will try to tell you there is perfect order to the markets — that the markets are predictable. Most people would have trouble trading the markets even if they were somewhat predictable. They'd ride the market all the way to the top, and they'd ride it all the way back down. That all has to do with beliefs.

How would you recommend that traders deal with this?

I would strongly recommend that every trader sit down and write out their beliefs about the market and themselves. This should be done right now before you trade any more. As an example, everything I've said so far in this article reflects *my* beliefs. They are not necessarily true. I might find better ones someday. However, they are very useful beliefs now in that they help me be an effective coach.

Are there any particular beliefs useful for traders?

Everything we've covered should be useful for traders, but one thing that traders forget is getting to know the market. The closer you can come to trading the market itself — what the market is actually *doing* — the more successful you'll be. The further you get from the market — into indicators, predictions, fundamentals — the more trouble you'll have responding to the market itself. Good traders make money by responding to the markets according to the rules of their system.

Many novice traders believe that they are lacking some secret trading technique. Their search for it takes them on the quest for trading's Holy Grail. Isn't the search for the perfect indicator along those lines misguided?

I actually like the Holy Grail metaphor, because, according to mythologist Joseph Campbell, its meaning is really a search that brings you back to look inside yourself. And that's really where the secret of success lies. People can't even get good trading systems — much less trade them — until they understand themselves.

So the Holy Grail of trading is within us all?

Basically. To me, if you can make 50% a year on $1 million or more and seldom have a losing month, you have the Holy Grail. I have traders who do that — or better — consistently with big money. Academic wisdom would say that what they were doing was impossible. Yet all they are doing involves simply understanding the elements of expectancy, opportunity, position sizing, themselves, and their own discipline. They might have systems with a reliability of around 35%. Such systems might produce 20 losers in a row, which would cause most people to give up their systems. Yet the same system could then make one large gain that makes up for the 20 losses. And since such trades might all happen in a short period, they seldom have a losing month.

And what does that have to do with *us*? It's the inner search that's key to being able to do that. Most people would probably throw away a system that produced four losses in a row, much less 20.

What are some key steps to designing a system?

Two of the most critical steps are to know yourself and then set some reasonable objectives that fit you. If you don't know what you want, then how can you design something to fit you? If you don't understand you are trading your beliefs, then it's going to be very hard for you to look within yourself and at what you're doing. And if you can't, or won't, do that, you certainly won't improve. You'll keep doing the same thing over and over.

Makes sense. What's next?

Next, you need to search for your beliefs about the market and about yourself. Do those beliefs serve you? You also need to determine what you want to accomplish. Why are you trading? Is it a reasonable goal? What are you willing to accept on the downside? Is *that* reasonable? Do you have the skills and resources to do what you want?

What else?

Then you need to decide on a concept that fits your beliefs about the markets. You need to design a system with a positive expectancy around those beliefs. This requires testing, of course. And you also need to add position sizing — money management — to the equation. People can mess up a good system with poor position sizing. In fact, much of the difference between the performance of various professionals is due much more to position sizing than it is to the system itself.

Many traders believe that setups and profitable market entry are the most important aspect of trading. What's your opinion on that?

Again, we are talking about beliefs. This has to do with the two biases I mentioned — the need to be right and the need for control. I'd say that setups and entry each are about 10% of the equation, exits are about 30%, and position sizing is about 60%. And that's how important they are within the framework of a system. However, a system is probably 30% of success for a trader and discipline/psychology is the other 70%. And since most of the effort in system development is psychology as well, this puts 100% of the problem in the psychological camp. Remember, the Holy Grail search is an inner search.

How important is it to set objectives? Do you think a trader should set profit objectives for the year?

System objectives are very important, but profit objectives are not. Again, this is my opinion. Determining who you are and what you want is 50% of the process of system development. However, once you have the system, then target objectives become relatively unimportant. Your primary objective should be to follow your system and to periodically determine whether your system is performing as it was designed.

Looking at risk management, do you believe that stops should be driven by the market, like a violation of support or a hard money stop?

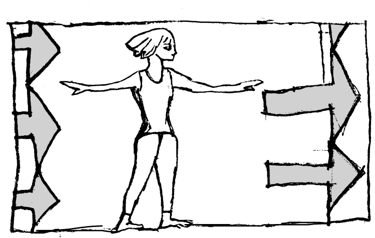
Stops should be driven by your objectives. For example, if you are going for large trades — those that are a large multiple of your initial risk — then you need a very small initial risk. You might get in when the market shows power and get right back out if it turns and goes against you. If the power continues, you could make many times your initial risk. As Paul Tudor Jones says in *Market Wizards*, "I might get stopped out four or five times on a trade before it really gets going." Thus, you might have four losing trades of 1*R*, where *R* is equal to the amount you would lose if you exited at your initial stop-loss, followed by a gain that's 20*R*. That would be a great system, even though you could get stopped out four times. Those stops have to be somewhat reasonable — maybe based on market volatility.

What about other kinds of stops?

I don't have any problem with other stops that are market-driven; it depends on your temperament and what you want to accomplish. However, dollar stops make no sense to me unless they are individually determined for each market. It's just as easy to measure market volatility and then take a percentage or multiple of volatility as your stop. When you do that, you can have the same stop for every market.

But otherwise, dollar stops don't bother you?

I object to dollar stops because too many traders confuse them with money management. Those traders say that they manage money by having a dollar stop. But when they do, they are basically ignoring the most important aspect of their system — position sizing. But they can do that if position sizing is not important in their belief systems.



What about profit objectives versus letting your profits run?

Part of the Golden Rule of trading is to let your profits run. Never violate that rule as long as it falls into your trading objectives. However, you might have a stop that tightens when a profit objective is reached. You might trail the market with a three-times volatility trailing stop that's added to the close each day and never moves against you. We've designed a random entry system that makes money with that stop and good position sizing. But once you've got a profit that's some predetermined multiple of your initial risk — 4*R*, let's say — you might want to tighten it. Again, it really depends on your temperament and your objectives.

Since position sizing is so important, can you tell us a little about that?

Let me tell you a couple of stories that might make it clear. Ralph Vince designed a game that only involved the issue of position sizing. He picked 40 doctorates to play the game; none of them were traders and none of them had a background in statistics. They then played a game in which 100 random trades were generated, one at a time. They started with $1,000, and on each trade, they only had one decision to make: how much to bet.

What happened?

Well, 60% of the time, they won whatever they risked, and 40% of the time, they lost whatever they risked. This is equivalent to a system that gets stopped out 40% of the time (a 1*R* loss) and takes a 1*R* profit 60% of the time. It also has no cost factor, such as slippage or commissions. Mind you, it's not a great system. It has an expectancy of 20 cents per dollar risked (in the long run for every dollar you risk, you keep the dollar and make 20 cents). But every trader should be able to make money playing it. And those Ph.D.s were given 100 trials, which was enough for the expectancy to really come out.

So how many made money?

Only two out of 40. That's terrible, but it shows how important position sizing is. In addition, I'm sure that most of them had different equity levels at the end — except for those who went bankrupt. Yet only two factors were involved in the game — bet size and psychology. It also showed how most people can mess up a good system with poor position sizing.

That's the first story. What's the second?

There's actually a study of 82 portfolio managers over a 10-year period that shows how asset allocation accounted for 91.5% of the variability of returns. In this study, asset allocation really indicated how much was devoted to stocks, bonds, and cash. That's position sizing as I've defined it. Unfortunately, human beings with their biases have turned the study around to devote attention to which classes of stocks or assets we should select. Thus, they've gone from emphasizing the most important element to the least important element. That simple story shows both the importance of position sizing and how judgmental biases work.

Why does position sizing get ignored?

A few reasons. First, they've never heard of it. Most books about trading and trading systems talk about money management. But they just say it is important. They don't really define what it is and I've never seen a systems book that really emphasizes what people need to do and why, which is one reason I wrote mine. Some say money management is important, but don't even bother to say what it is. Others may totally ignore the topic.

Why is it such a hard thing to have defined?

I looked up *money management* in an Internet search. Some sites I found referred to it as how to control your personal finances and get out of debt. Other sites called it how to manage other people's money. That's what they do; they're money managers. Others called it reducing drawdowns, while still other sites called it risk control or risk management. And that's where it gets confused with money management stops. Ralph Vince, who has written three books on the topic, calls it how to make the most money. It's no wonder that most people have no idea what it is, including many professionals! As a result, I now call it position sizing, or the part of your system that tells you how much.

What's the second reason people ignore position sizing?

The second reason is that people have biases about being right and wanting control. This focuses their attention on entries and setups, not position sizing.

The third reason is that software, which now controls most trading, is geared up to emphasize what people want. The software will allow them to optimize their indicators, look at pretty charts, and draw lines on the charts — which is what people want. To do that, you have to look at the data over many periods and optimize it.

But that's not the way people trade.

No. When people trade, they must look at one bar at a time and make decisions about position sizing. Thus, most of the software available totally deemphasizes position sizing. I've been working with a programmer for more than three years to develop software to do it right. However, that software is expensive and it really doesn't do what most people want. Instead, it just helps you achieve your objectives and do what is important.

And that's not what people want!

No! And finally, most people don't have enough money to practice sound position sizing. Futures traders came up with one of the least useful money management algorithms of all time because of this bias. They decide that they will trade one contract per *X* dollars of equity. That was simply because that amount of equity was how much they started with and they wanted minimal risk. That's ridiculous, because risk is defined by how much you lose when you get out to preserve capital. But *risk* is another word that very few people understand.

You've brought up several points that need follow-up questions. First, you said that many professional traders don't understand money management. That's a pretty strong statement.

They don't. Let me give you an example. I was a guest speaker for the Dow Jones Telerate TAG (Technical Analysis Group) tour of Asia in the summer of 1997. I spoke in eight cities, with about 50 to 100 people in the audience at each city. Most of them were debt, equity, or foreign exchange traders for large companies or banks. Those should qualify as professional traders. I played a marble game very similar to Ralph Vince's game to illustrate some of the points that I've talked about here. In most of the cities where we had a few bad runs, more than half the audience lost money.

That's better than the Ph.D.s!

Yes, but it's terrible for professional traders using a positive expectancy system. It shows their lack of knowledge. Proper position sizing depends on how much equity you have. When I asked the audience how many of them knew how much money they were trading, only one or two hands would go up. And those were usually private traders. When I asked them if they knew how much money they could *lose* before they lost their jobs, only a third of the room raised their hands. Think about *that*! These are all professional traders, yet there is no *way* they can practice any position sizing because they don't even know how much money they're trading or how much they can lose!

You also said that few people understood risk. Could you elaborate on that? What's your understanding of risk?

Risk is another one of those words with many definitions. It might mean volatility of the instrument traded. It might mean the leverage involved. It might mean the volatility of one's performance. It might mean how much you're willing to lose on a single position before you get out of a trade to preserve your capital. *Now* do you see why people are confused?

What's the most accurate definition?

I think two of those definitions are critical. Variability of performance is one. I believe that concept should be defined using those very words to avoid confusion; how much you lose on a single position before you get out of the trade to preserve your capital is another. That, to me, is the best definition of risk. Thus, even your stop doesn't totally define risk. Instead, your risk is how much you'd actually lose.

So you're saying most professional traders don't understand these concepts?

That's right. I once considered working with a bank to refine the trading skills of their traders. The head of the forex department said two things to me that made me change my mind. First, he said that he didn't want any of his traders to make over 20%. I asked why, and he answered that if the traders made over 20%, they could lose over 20% and that was too risky. Then he added, "Besides, if they made too much they'd want huge bonuses and then they'd be making more money than me."

A bottom-line type of guy.

Now can you understand why most of these traders don't even know how much money they're trading? Because most of them don't have a clue what good trading is all about. That's why we have rogue traders and big companies going bankrupt or taking huge losses over and over again. It won't stop until these big companies learn the basics. And since they make most of their money in other ways — business, market making, lending money — they probably won't stop.

That's scary. Are there any exceptions?

Not that I know about. I worked with one bank in Australia that actually seemed to understand risk and position sizing. They knew how to find talented traders who could grasp the principles, although probably not at the level that I would have liked, had I had some control over the process. Nevertheless, I was impressed and I thought they had a chance to dominate the world of trading with the money they had.

What happened?

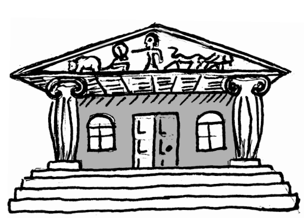
A year later, I returned to Australia and everyone was depressed. The New York office had lost money trading, so no one in Australia was getting a bonus. Morale was very low. Later, that same bank got a new president who said that trading was too risky, and he slashed back every aspect of trading. Ironically, that same bank recently lost a fortune when Long Term Capital collapsed — which also reflects another group of professionals who did not really understand some of these principles.

I see your point that position sizing is overlooked.

These principles are not taught in the academic world of efficient markets, random walk, and behavioral finance. They are not taught in most books or seminars. People are biased against learning them. It's no wonder that most people have trouble making high, consistent returns.

The psychological makeup of the trader is important. With that in mind, what are some steps to developing a positive approach?

The first step is to take responsibility for everything that happens to you as a trader. At the very minimum, assume that what happens is somehow the result of a decision you made.



Can you elaborate?

Sometimes we play the marble game in our seminars that's like the Ralph Vince game. Marbles, representing *R*-multiples of trades in your system, are drawn out of a bag and then replaced. Of the marbles, 60% are winners with most winning what you risk, but there is one 10-to-1 marble. And 40% of the marbles are losers, losing what you risk, and there is one 5-to-1 loser. Even in a 60% game, we are going to get a long streak of losers (say, four or five) in a 50-trade sequence, and that streak might include a 5-to-1 loss. I have people in the audience select the marbles. I'm also a little devious as the moderator of the game. When someone draws out a losing marble, I ask that person to continue drawing until he or she eventually draws out a winning marble. That means someone in the audience will draw out the entire losing streak.

So at the end of the game —

At the end of the game, usually half the audience loses money and many of them go broke. As a result, I ask them, "How many of you think you went broke because person *X* picked out all those losing marbles?" Many of them raise their hands. Now think about this. These people went broke in a positive expectancy game because they practiced poor money management. However, if they blame their loss on someone, they will never learn from their mistake. There is always someone to blame for your mistakes or losses. And when you do that, you'll never learn from those mistakes. Thus, a key step is to always take responsibility in some way for what happens to you.

So what are some more steps?

Determine if you really have a system. Do you have exits in your system, or is it just buy and hold and blame the selection process if you lose? When you get in a position, do you know when to get out to protect your capital

— that is, your stop-loss point? Most people don't, surprisingly enough. In addition, when you get in a position, do you know how to exit to protect your profits? People in today's stock market frequently get a big winner, only to watch their profits totally disappear and turn into a giant loss. And most important, do you know how to size your position? Have you even *thought* about position sizing?

What else?

You can only trade your beliefs, since that's all you really know, not the market. You need to find out what your beliefs are. And whether those beliefs really serve you. Finally, since the most critical beliefs have nothing to do with the market but with you, you need to assess yourself. What do *you* think you are capable of doing? Are you a perfectionist, because perfectionism means you will probably never get around to trading? Is success important? Are you worthy of success? What do you believe about money? If money is security, then do you feel insecure every time you lose in the market? And finally, ask yourself a simple question: Is it more important for you to be right or to make money? If you can't take 10 losses in a row, then you have a real problem and should either get help or find some other way to make a living.

Any closing comments?

The Holy Grail does exist, but it is an inner search. And once you've undertaken that quest, learn position sizing strategies. Spend most of your time studying them. If you don't know about position sizing, then I'd suggest that you try the free game on our Website. When you can make good money playing that game and understand how position sizing applies to your trading system, *then* you have a chance.

Thanks, Van.

Van K. Tharp is the president of the International Institute of Trading Mastery, Inc.

RELATED READING

Schwager, Jack D. [1989]. *The Market Wizards*, New York Institute of Finance/Simon & Schuster.

Sweeney, John [1987]. "Van K. Tharp: The Trader's Psychologist," interview, *Technical Analysis of* STOCKS & COMMODITIES, Volume 5: April.

Tharp, Van K. [1988]. "The Compulsive Trader," *Technical Analysis of* STOCKS & COMMODITIES, Volume 6: January.

_____ [1987]. "The Loss Trap," *Technical Analysis of* STOCKS & COMMODITIES, Volume 5: November.

_____ [1997]. "Protecting Yourself In Tough Markets," *Technical Analysis of* STOCKS & COMMODITIES, Volume 15: March.

_____ [1998]. *Trade Your Way To Financial Freedom*, McGraw-Hill.

†See Traders' Glossary for definition

S&C