

Traders and Mistakes Part 1: Mechanical Traders

by Van K. Tharp, Ph.D.

I've always said that trading is mostly psychological and that traders should spend a lot of time working on their core issues. In fact, most of my Super Traders spend at least a year working on psychological issues before they get to work on their business plan or trading systems. One area where psychological issues can appear in trading is in mistakes.

So let's look at the psychology of trading from the angle of mistakes. When you don't follow your rules, you make a mistake. It's that simple. And making the same mistake repeatedly is called self-sabotage. Self sabotage is another area of psychology rich with the opportunity for understanding yourself to improve your trading results. Here, however, we'll focus on mistakes relating to some broad categories of traders.

First, let me introduce one way to measure mistakes' impact on your trading. Trader efficiency is a measure of how effective a trader is in making mistake free trades. So a person who makes five mistakes in 100 trades is 95% efficient. In the last five years I've requested that my Super Traders document their mistakes so that we can look at their efficiency levels. I have found that 95% is actually a very good trading efficiency level; many traders can't even trade at 75% efficiency—which is terrible. That's one mistake in about every four trades. This is most important for one category of traders: rule-based discretionary traders. In my opinion, when rule based discretionary traders become efficient, they are by far the best type of trader.

There are two other groups of traders I'd like to talk about: 1) mechanical traders and 2) no-rule discretionary traders.

First, we'll look at mechanical traders. Mechanical traders believe that they can eliminate psychologically related trading problems by becoming mechanical. Many people aspire to be mechanical traders, letting a computer make all the decisions for them, because they believe it factors out many human-based errors.

In fact, one of my best trader friends said to me once that psychology didn't enter into his trading because his operation was totally automated. My response was "You could decide not to take a trade." About 18 years after I made that statement, his CTA business closed down. His partner decided against taking one trade—the trade that would have made their entire year had they taken it.

I've always said that people can only trade their beliefs about the market, so let's look at some of the most important beliefs that a pure mechanical trader might have:

- With mechanical trading, I can be objective and not make mistakes (except the psychological mistake of overriding my system).
- Mechanical trading is objective. My system testing will allow me to determine my future results.
- Mechanical trading is accurate.
- If a system's underlying logic cannot be turned into a mechanical trading system, it probably isn't worth trading.
- Human judgment is too prone to errors. I can eliminate those through mechanical trading.

So then, is mechanical trading truly objective? I tend to think not because there are all sorts of errors that can creep into an automated trading system: data errors, errors in the software platform, errors in your own programming, and many more. (Interestingly, one of the main categories of errors that my Super Traders come up with consistently is programming errors.) Let's consider data errors. Is your data accurate or does it have bad ticks and other issues with it? Mechanical traders are always dealing with data errors of some sort. For example, price errors can show up in streaming data quite regularly. Sometimes those are resolved within seconds and the error "disappears" but, by that point, the bad data may have triggered a trade already. Additionally, historical stock data may or may not have dividend and split adjustments. And what happens when a

company goes bankrupt? What if it goes private or is bought out by another company? Those companies' data may simply disappear from your data set.

I once wanted to research an efficient stock trading system. We looked for efficient stocks (moving up without much noise) and bought them with a 25% trailing stop. We had an S&P 500 data set going back 40 years that was supposed to be clean and adjusted for splits and dividends. I was very pleased with the results because my system made a small fortune. I didn't realize this at the time, however, but the system traded on "inside information." Because of the data set, I was able to buy stocks at the IPO that would later become part of the S&P 500. Thus, my system, in back test, bought Microsoft, EBay, Intel, and many other companies before anyone knew they would become part of the S&P 500. Why? Because, as I said, my data set was today's S&P 500 going back 40 years.

And what about Thursday May 6th, 2010? The Dow Jones dropped 1,000 points in the space of about 20 minutes. Blue chip stocks like Procter & Gamble dropped over 20 points, and Accenture even went to a penny per share briefly. While there may not have been one root cause for that mini-crash, it had a major effect on mechanical trading systems. Things like that happen in the markets; such are the challenges (error/mistakes) for mechanical systems. (That afternoon's swing affected lots of regular traders, too. One client said he used 25% trailing stops on all of his positions and got stopped out of every single stock.)

Meanwhile, one of our instructors, Ken Long, trades rule-based discretionary systems and made 100R in that same week. As always, he was very conservative in his trading and very careful to make sure that he fully managed his risk.

There is another class of error that is made by mechanical trading systems: the error of omission. Because the criteria by which trade setups and entries are so precisely defined, mechanical systems miss many good (or great) trades that a discretionary trader would spot easily.

For example, suppose your systems screens for five consecutive lower closes. After you get five consecutive lower closes you then look for an inside day. Now you have your full setup. Your entry is a few cents above yesterday's high.

So let's look at some examples of other entry signals you might miss by being so precise. You could have four down days that were extreme—perhaps the price is down 30%. Or you could have less than four down days that where the price is 30% lower or more. However, neither of those example would be an adequate down move according to your strict mechanical criteria.

Let's say you found something that had five days of new lower lows but the fifth down day might open on a new low and then close on a new high. That's usually an extremely bullish signal, but you'd miss it by your precise definition. Or, you could have five days of lower closes and the sixth day opens on a new low but closes on a new high. Thus, the precise entry definition would miss a trade opportunity with even more weakness followed by an extreme bullish signal.

There are a lot more variations of this entry that a mechanical system would miss, but you get the point. As soon as you state your rules so precisely that a computer can execute the trades, you open yourself to errors of omission—good or outstanding trades that your automated system cannot take because of its precision. Those missed opportunities don't qualify as mistakes but they severely limit the potential results of the underlying logic behind the system. The mechanical system results will look rather weak next to the results of a trader who used that same system and was allowed some discretion to take the all of those other trades that didn't quite fit the precise mechanical system rules.

Traders and Mistakes Part 2: No-Rules Discretionary Traders

by Van K. Tharp, Ph.D.

In my experience, when most people say "I am a discretionary trader," it basically means that they are free to do whatever they want. They can take a newsletter recommendation, trade a high probability setup based on what some guru said in a workshop last year, or perhaps just buy something on a whim. They might feel they have 20 different systems with none of them rigid.

In reality, they have no systems at all. What they really have is a little bit of nothing and a lot of "into-wishing" (as opposed to intuition). As a result of having no system and no rules, they have no way of effectively managing their trading. How well do you think a company would operate with no plans, no business systems and no rules? Because they have no rules to follow, everything no-rules discretionary traders do is a mistake.

Now in fairness, some of discretionary traders have rules for at least a portion of their trading. There's hope for these people because they have a starting point. Those who are totally no-rules discretionary traders, however, have no hope and should either stop trading or totally revamp their trading business.

Are you a discretionary trader? How would you be able to tell? Here is a quiz that will help you decide. Answer *Yes* or *No* to the following questions.

1. Do you sometimes buy newsletter recommendations without having a real plan for how you'll get out of the trade?
2. Do you occasionally (or often) take trades based upon some interesting indicator that you learned in a workshop (i.e., when you see that indicator go, you usually get into a trade, but again you have no real plan about how you'll get out of the trade)?
3. Do you trade three or more different systems in the same account?
4. Do you trade more than ten different systems?
5. Do you sometimes enter a trade and later not remember why?
6. Are you unsure of how many systems you have?
7. Do most of your systems lack a complete set of rules to guide your behavior?
8. Are your systems equivalent to the setups used to get into the trades and nothing more?
9. Are you unable to list the rules for the last trade you made?
10. Are you unable to list the rules for any of the last five trades you made?

If you answered *Yes* to as many as two of the questions above, you have some elements of a no-rules discretionary trader. However, if you answered *Yes* to 6 or more questions above, you definitely are a no-rules discretionary trader.

Chances are you seldom make money in the market because you are not playing a winning game. You probably make many mistakes. In fact, since you don't have rules, I would consider everything you do to be a mistake until you have a set of rules in place. How can you effectively learn from any of your trading experiences if you do not know which ones are mistakes?

If it is any consolation, most traders fall into the no-rules discretionary category. The best among this group might be dedicated to following the trades of a single newsletter. If that applies to you, do you even know the rules of the newsletter? Does the newsletter writer have rules to guide his trading? Chances are, if he must come out with a specific recommendation once every month on a specific date, he doesn't have such rules. And chances are also good that you don't follow the recommendations of the newsletter writer exactly: you don't take some trades, you may miss some others, you buy at a price other than that recommended, and you probably don't sell when you are told to. Again, these are all signs of a no-rules discretionary trader.

Traders and Mistakes Part 3:

Rule-based Discretionary Traders

by Van K. Tharp, Ph.D.

Chances are you've never heard of a rule-based discretionary trader. They are rare, but they are among the best traders in the world. I can safely say that anyone who graduates from my Super Trader program has become either a rule-based discretionary trader or a mechanical trader.

Here are some rules that such a trader might have:

- Look at a small universe of stocks that behave well according to my rules. (In other words, not every stock has to behave according to your rules; you just find stocks that do).
- Look for a strong overreaction to the downside. (This would have a very specific description—e.g., market closes down for six straight days).
- Look for moves with a high probability for a continuation in my favor. (This might be one or several rules that are clearly specified).
- Have a likely target in mind based on a prior swing high so that the difference between the entry price and the high is my likely target.
- Place a stop below the most recent low of the last down day so that the difference between that low and the entry price is the risk of the trade.
- Make sure that the reward-to-risk ratio of any trade is at least 3 to 1. If it's not, look for another trade.
- Raise the stop when the market makes a new level of support and rises to a new high. Make sure that the ongoing reward to risk in the trade is always above 1 to 1 to allow for profits bigger than 3R.
- Never have more than four active positions at a time so that every trade can be carefully managed.
- Never risk more than 0.5% of equity per position.
- Never have more than 1% open risk in my account at any given time.
- Evaluate my mistakes each evening and work to make my trading efficiency 95% or better.
- Re-evaluate my rules if I'm not up by at least 5R at the end of the month.

Notice how every aspect of trading is covered by these rules. They allow for some discretion (i.e., what constitutes a 3 to 1 reward-to-risk trade and the ability to stay in the trade after it reaches your target), but at the same time there are clear guidelines for the trade. In addition, the trader could add a few other discretionary rules to improve his/her performance:

- I can re-enter the trade once if the reward-to-risk potential is still at least 3 to 1.
- I can add a second position to the trade the first time I raise my stop if the new reward-to-risk ratio is at least 5 to 1.
- If something really bothers me about the trade and I can document it, I don't take it.

The rules I've given are just examples. I'm not even saying that they are profitable rules, although I've seen similar rule sets that are exceptionally good.

At the end of the day, this trader can do a daily debriefing and ask, "Did I make any mistakes? Did I follow my rules?" Based on his answers to those questions, he can 1) record any mistakes, 2) assess the impact of the mistakes in terms of R-multiples, and 3) take corrective steps to avoid those mistakes in the future. These tasks are critical to developing strong, consistent performance. Can you see how these steps are impossible for the no-rules discretionary trader?