In this lecture we are going to study a trade example in the Euro versus the Japanese Yen. This particular example is going to be focused on the idea of cross dimensionality in the construction of contextual line work for your price analysis. Cross dimensionality is simply the idea that lines from different fractal dimension can work together, intersect, or point to the same areas as if they were in the same fractal dimension. In other words, lines from the minor flow can work with lines from the major flow as if they belonged to the same market flow. By simple logical deduction, we can conclude that this idea can be used with any type of linework. However, notice the contrast of lines and price itself. The major flow and the minor flows have a hierarchy that must be respected even though everything in a price chart is a vector.

In this chart we have in front of us we have a relatively simple situation. We can see a long vector going down, and then price starts to zigzag a little bit creating an opportunity to sell at the inward frequency line marked with the short black horizontal line, but first let's rewind a little bit and look at the silhouette created by the major vectors in this chart as it is shown by the red line. This is the type of exercise I referred to in the price action trading volume 1 when I talked about the Hausdorff dimension in price action. In other words, the idea of abstracting the perfect price vectors behind the roughness of candlesticks. Notice how simple the implied price vectors marked in red are in relations to the raw candles. Notice also the simplistic zigzagging motion of the red lines.

This seems like a simple exercise, but it is an extremely important ability to develop. Observe that we have a solid high out of which the inward frequency line comes. That's just a textbook selling opportunity because we have a trend bias formed by the fact that price is creating lower highs and lower lows, we have a solid high to place a protective stop loss order, and we have price coming back to inward frequency line that shows the moment where the sellers made a turn in the confirmed high solid high. You'll see this type of situation happen very frequenctly in the market, and it's a good idea to pay very close attention to it because many of the good opportunities happen in this particular setting.

Let's fast forward price to see how it reacts to this inward frequency level and the already existing short bias, but before we do that, let's try to see the evidence that points to a long bias in this market. You could look at this chart and say that at the lowest low we have a clear bullish fractal bar. That would be a first indication. We also have a very expressive hybrid bar pointing to the upside in the middle of the current price vector. This bar shows a fractal quality and a buying pressure quality. The other piece of evidence would be the fact that the inward frequency of this current vector hasn't been broken yet.

Observe that the evidence for the upside is a bit fragmented and not very strong. We only have a few bar patterns and an inward frequency that hasn't been broken yet. We don't have any sort of trend bias or solid lows that could give us a solid place to put a protective stop loss order for example. Beyond all of that, notice the bigger picture of the market. If you asked one hundred traders about this market, I guess most of them would say that this market is clearly going down for obvious reasons. There might be those who are always trying to catch the major reversal instead of going with the flow that might say otherwise, but it's safe to say that the general feeling of this is to the downside.

IMAGE 2

In this picture we can see the development of price action after the first time it hit the inward frequency line of our solid market high. We can see that price started to go down immediatelly after creating a dynamic frequency breakout to the downside. However, we can also see that price failed to break the last major low, and that would be a stronger evidence

for the buyers. Notice that the failure happened more or less in the level that a bullish fractal bar apperaed in the lowest low so far. In the failure point, another bullish fractal bar appears, which is actually a hybrid bar with the outside bar quality as well. All of this is telling us that there are some stubborn buyers at that level. Observe also how this last bullish hybrid bar also breaks the dynamic frequency of the price vector that was supposed to break the lowest low of the chart.

A few candles later we have another interesting situation and what I would call a crossroads or a moment of truth. We are coming back once again to the question we face ourselves constantly, which is which market players has more power over the other. The current candle you see in this chart is absolutely critical for answering this for a few different reasons we are going to explore right now. First thing we can notice is that the current bar is a hybrid bar with fractal and high selling pressure.

The second thing is that its tail is touching the inward frequency line from the solid major high we identified a few moments ago. That implies that the selling pressure we see in that upper wick comes from the inward frequency. In other words, we definetely still have some sellers in that inward frequency line. The other detail as far as raw price action goes is the subtle dynamic frequency breakout to the downside. We can also see that the blue standard pitchfork centerline points exactly at the upper limit of the bar in question. This means, at least theoretically speaking, that those buyers that picked the market after sellers failed to break the lowest low in the chart are at at point of exhaustion.

All of this means that this current bar is a market edge that represents a short opportunity. The other less obvious detail in here is that if this bar had closed above the previous high, we would have a major solid low to worry about in case price starts to fall from this point on. However, notice how the selling pressure at the upper wick prevents this bar from rendering the previous low as a solid market structure. Even though we have stronger evidence for the upside than the last slide, the evidence still doesn't have much structure. We don't have solid lows and no trend bias yet.

Sellers on the other hand have been holding their position even after the failed attemtp to break the lowest low in the chart. Notice how this idea is condensed in one single bar. Let's move on to the next step to watch the principle of cross dimensionality working in this chart to pick a good exit point for our short trade idea.

IMAGE 3

In this image we can see two different standard pitchforks that clearly come from different fractal dimensions. The blue fork is much larger than the red fork. The cross dimensionality in here should givs us a good idea of where price is going to reverse next if the short trade idea is indeed correct. In a situation like this we can employ a very simple entry in case we didn't place a sell limit order at the inward frequency line, which would be the most precise entry for this possible short position. We can enter at the open of the very next candle for a less precise but less scary entry.

It's a lot more comfortable shorting this market after this current bar than selling it with a sell limit order when price is hitting the inward frequency line. That's because when price is up there hitting the line, you would have the impression that buyers were going to disprove the sellers, so an entry like that takes some courage. Let's advanced the chart to see how price responds.

IMAGE 4

In this next picture we can see the development of price and notice a few interesting details about the relationship between price and the pitchfork lines. Observe how price tests

both fork lines in different places, but there is a moment where price touches an intersection of both pitchfork lines with its lower tail as it is marked by the blue square. The blues square also represents the moment where price touches the 200% fibonacci extension using the first two minor vectors after the entry point. Notice the principle engineering in action here.

We already had an idea about the intersection of the two pitchforks, so to make this idea stronger, we actively look for other lines that point to the same area. That's how you know you need to draw the Fibonacci tool in those vectors. They are not randomly picked. They are reverse engineered. In terms of raw price action, take a look at the bar that touches the triple intersection of lines. It's a clear hybrid bar with fractal and buying pressure qualities built in, which makes total sense since the triple intersection should be a point where sellers run out of energy to the downside.

That would be a great place to get out of the market with a great risk reward ratio. If you used the more comfortable and less precise entry, you would get something like 3.5 risk reward ratio, and if you used the scary sell limit at the inward frequency you would get something like 8.6 risk reward ratio. Take a moment to appreciate the important of precision as it is not that obvious that a small change in the precision of your entry will produce a significant change in your average risk reward ratio. The small different between a rather safe entry and an entry that takes a lot of courage almost tripled the risk reward ratio.

Let's take a look at what the market does later on.

IMAGE 5

Here we can see that we didn't get the major reversal of the market as price continued to go down a little more. However, that's meaningless to us because we were able to get in and out of the market with a great risk reward ratio, and that's all that really matters at the end of the day. Wheater or not we can pick the abosolute major reversal is irrelevant. Observe also how price contained itself between the the two forks, which could have generated other trade ideas on its own. At the end there we can see that price finally broke out of this pattern of being contained by the two forks.

This examples is a very good illustration of how the principle of cross dimensionality cannot be ignored as many people will do because they will only focus on what line they should draw next. Those nine principles that underly professional line work are incredibly importartant for you to gauge your drawing with more sophistication, precision, and accuracy. Drawing many types of lines on the chart witout understand the basis of how these lines really work is a mistake, and unfortunately, it's a very easy mistake to commit repeatedly.

I also want to grab your attention once again to the idea of reverse engineering of lines because that seems to be a subtle concept that many people simply gloss over, and yet they keep wondering how to choose the best price vectors to draw certain lines. I already pointed out in the price action trading volume one that there are too many combinations of lines you can draw in a chart, and many of these will make logical sense. However, that's simply not practical, especially for lower timeframes where fast thinking is necessary. The principle of reverse engineering is how a trader filters out the lines that makes sense but that are not relevant to the market situation in question at the moment. The importance of this idea cannot be stressed enough since that its negligence is guaranteed to create analysis paralysis even in the most advanced trader out there.

There is a limit to how much information we can articulate in trading, especially when dealing with lower timeframes where things move faster and you don't have much time to keep wondering about all the possible line work. Higher timeframes are a different story, and

you can really come up with some very complex line work because you will have a lot of time to study and dissect price action. Hopefully you can appreciate the sheer amount of details that a good price analysis require not only in terms of technique, but also in terms of perspetive.