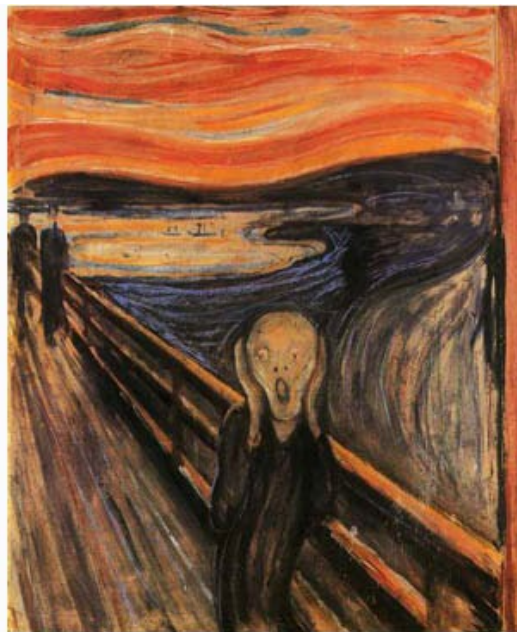




Fund Manager: Tom Hosking

Generally Speaking II: Screaming to Explore

It may seem surprising that the sequel to my piece on the advantages of generalism would be inspired by an artist widely considered to be the ultimate specialist: Edvard Munch. The Norwegian is mostly known for just one famous painting, *The Scream* (1893), a masterpiece that most recently sold at auction for \$120 million in 2012, at the time the most expensive artwork ever. Before a recent holiday to Norway, I naturally thought Munch was a one hit wonder and that a visit to Oslo's new Munch museum would be a rather brief one. The first clue to my ignorance came before we even entered the building: the museum looked suspiciously large from the outside. It towers above the rest of the city's waterfront and, looking architecturally like a mixture between a giant top hat and a periscope, is unmissable. The museum holds a whopping 28,000 artworks by Munch, ranging from small lithographic prints to murals large enough for a cathedral. We were over two hours late for lunch.



'The Scream' (1893), Edvard Munch. © Nasjonalmuseet, Oslo.

Original ideas often come from combining insights from different fields in creative ways. Munch spent his career experimenting with not only different painting styles but also different ways of thinking. He had unusually wide-ranging interests and took inspiration from them all. From engineering: the young Munch attended a technical school where he learned a wider range of drawing techniques than if he had immediately gone to art school. From literature: Munch's favourite writers included Ibsen, Hamsun and Dostoevsky; his paintings reflect these authors' shift of perspective towards the individual and away from the meticulous societal backgrounds created by the likes of Tolstoy. From philosophy: Munch was heavily influenced by the views of Jaeger and of Nietzsche on morality and on women; he painted portraits of both of them. From chemistry: with the help of an anaesthetist, Munch mixed recipes for binding different pigments together to create his characteristic thin, powdery paint effect. From foreign travel: Munch travelled to Berlin and to Paris where he was not only exposed to new painting styles such as impressionism but also to different printing techniques, most notably with woodcuts from which he developed an innovative new jigsaw. From technology: inspired by going to the cinemas that rose to prominence during Munch's time, he attempted to capture movement in

paintings such as *Workers Returning Home* (1913-15). In fact, filmmaking wasn't the only new technology he learned from. Towards the end of his life, during the 1930s, Munch started using a small camera to take what must be among the world's first ever 'selfies'. He never stopped innovating.

However, he did not experiment just for the sake of change. When he found a motif that worked, he would exploit it for all it was worth. There are five versions of *The Scream*, eight versions of *The Sick Child* and at least 14 versions of *The Kiss*.



'The Kiss' (1892), Edvard Munch. © Nasjonalmuseet, Oslo.

The more I learnt about Munch's life, the more it reminded me of a fascinating paper I read last year by a group of academics from Northwestern and Penn State universities in the US (Liu et al., 2021). The researchers decided to investigate what predicted the creative hot streaks of 26,500 artists, film directors and scientists. A vitally important line of enquiry, for who wouldn't want to know how to go about producing their most impactful work? How they did this was intriguing. For artists, they used recent advances in computer vision and machine learning to generate 200-dimensional models of each artwork. This enabled them to compare the evolution of art styles over a career to the auction prices achieved. For film directors, they used similar methods to build representations of each film using plot and cast information. This enabled them to trace film styles over time and compare with the IMDB ratings for each film. For scientists, they traced research topics over individuals' careers using publication datasets. And they were able to quantify the impact each paper had on the academic community by how many citations it achieved within 10 years.

What the researchers found, reliably across the three domains, was that a period of exploration and then of exploitation was the most effective predictor of success. As the names of these strategies suggest, exploration refers to searching beyond one's existing areas of expertise; and exploitation refers to building and refining knowledge in one particular area. There is a large collection of academic literature on the so-called explore/exploit tradeoff and under what circumstance each is optimal, but this was the first paper that was able to examine what sequence is most effective. Interestingly, it is only the shift from exploration to exploitation that increases the probability of success, not either in isolation. Not all explorations are rewarding and not all exploitation is fruitful in the absence of good ideas. The research raises the possibility that society's emphasis on immediate productivity is misplaced if it is not preceded by broad exploration. Today's best explorers are tomorrow's best exploiters. In addition, because scientists often work in teams, the researchers were also able to examine the effects of team size. They found that large teams were better at furthering existing ideas

and that small teams were more able to 'disrupt current ways of thinking with new ideas and opportunities'.

The implication for investors seems quite clear: work in small teams exploring as widely as possible, not limited by geography or industry; and when you find an opportunity, exploit it fully by researching deeply and holding it for the long term. In managing the Liontrust International Fund, Tom Record and I spend most of our time in explore mode. Curiosity drives us to find interesting companies from around the world that most people have never heard of, not just US tech giants whose products and services everyone uses every day. And when we find them, we invest in them for the long run which is reflected in our low stock turnover. The Global Infusions podcast that Tom co-presents provides an excellent flavour of the type of varied conversations we have over the desks in the office every day with the rest of the team. Topics range from interesting takes on seemingly ordinary things like food or transport to more unusual ones like space or virtual worlds.

Ideas can come from anywhere and the wider your breadth of knowledge, the more likely you're able to piece together the important parts of the investment puzzle. For example, it was an esoteric discussion of declining fertility rates in developed countries that eventually led to a successful investment in Zooplus, the German pet food retailer, in 2020. How undervalued this company was became apparent after combining insights from different sources: human demographics, related growth in pets per capita and spending per pet, internal change in marketing efficiency, rising own-label penetration and analogies of online penetration in other sectors and of comparable businesses in other countries.

This final line of inquiry, of researching internationally, has proved to be a particular advantage more generally. For example, it was through researching South Korean and Chinese contract manufacturers of biological drugs in 2018 that we pivoted to investing in one of their suppliers instead, a lesser-known French company called Sartorius Stedim. As a leading provider of specialist equipment, the company has successfully improved the productivity of the pharmaceutical industry with its single-use bioreactors. In searching for non-consensus ideas, the more unconventional the thought process the less likely it is that anyone else has thought of it from that angle before. The key is to read voraciously and experiment with as many ideas as possible.

In many ways, Munch had a similar process and that is how his eponymous museum in Oslo ended up with an almost unbelievable amount of his work. He experimented with his painting and, being a man after my own heart, he never threw any of it away. He wrote the following to a friend before he died: 'You see, I never use the wastepaper basket. I have used my suitcases.' Munch would often start an artwork, leave it and come back to it many years later. This process has proved to be a nightmare for art historians. Munch would sometimes date a painting from when he started it and sometimes up to three years later when he added the final brushstroke, claiming it was the final moment of inspiration that made the painting. If that wasn't confusing enough, he would even change names of paintings years later.

Analysing companies is often a similarly long process: we might be attracted to a company because of its future prospects but its shares may be too expensive at the time. And equally the reverse can happen, where a company's shares are cheap but the fundamentals of the business are currently poor. In both cases, we can choose not to invest. As legendary investor Warren Buffet puts it: 'What's nice about investing is you don't have to swing at every pitch.' We can file away our research for a time when either the share price or the fundamentals change to produce a more favourable trade-off between them. Both elements can change very quickly and that is where the asset mispricing most often occurs, because investors may not adapt to the change in rational ways. For example, we had long admired Shopify, the Canadian builder of ecommerce infrastructure, but considered its shares too expensive to invest. No company is so good that you should own it at any price. In 2022, our patience was rewarded when deteriorating short-term fundamentals led to a disproportionately larger

deterioration in its valuation. A share price decline of 80% contributed to a more favourable trade-off for us to invest for the first time.

In other cases, it is the fundamentals that change more than prices. One such example was Samsung SDI, the South Korean battery maker, in 2016. The company was a neglected member of the Samsung chaebol and was so cheap that it even traded for less than the value of its stakes in other companies. We believed the fundamentals were beginning to change: SDI could use its existing expertise in batteries to take advantage of shifting perspectives on electric vehicles and renewable energy generation. A change in the company's prospects that wasn't being reflected in the share price produced an attractive trade-off for us to initiate a position.



'Morning' (1884), Edvard Munch. © KODE Art Museums, Bergen.

Successful investing requires constant recalibration of these trade-offs over time. In this respect, the analysis is actually never "finished" because you always have to leave yourself open to updating your beliefs in light of new information. A common criticism of Munch's early work by his Norwegian contemporaries was that they looked incomplete compared to the photorealistic style of the time. In addition, Munch refused to apply varnish to his oil paintings, arguing that it made them look too slick and prevented him from making later adjustments. Of *Morning* (1884), one critic wrote that it looked 'just like a sketch. Next time he might try exhibiting a picture that is actually finished'. Although Munch was tormented by such criticism, to us there could be no greater compliment.

Not understanding how his paintings could possibly deserve such vitriol, Munch began to believe that it was actually their presentation that led them to being misunderstood. He developed a hatred of the large gold frames common in this period. He thought they prevented the viewer from seeing the connections between each painting in his exhibitions, most famously in his 'Frieze of Life' series. Although gallery curators haven't always agreed with the eccentric Munch, we think he was onto something. Our investments are certainly not framed and we actively look for the linkages between them; not only to aid our understanding of similar business models but also to avoid taking too much risk by being overexposed to any one sector or style. Hidden risks of concentration can be very damaging when the investing landscape changes.



'The Sick Child' (1886), Edvard Munch. © Munchmuseet, Oslo.

The academic literature suggests that exploration is most fruitful at such times of change. This makes intuitive sense: when conditions change, previous strategies may no longer work and one must be flexible enough to adapt. Munch's career is an example in case. After experimenting with many different painting styles in his youth, he created a new expressionist form of symbolism in the 1890s. To break with convention was extremely difficult to begin with and he was met with ridicule from all corners. None more so than with his seminal painting, *The Sick Child* (1886). One critic commented: 'Are those meant to be hands or are they blobs of fish mousse smeared in lobster sauce?'. Ouch. One contemporary account of that exhibition reveals that it was 'almost impossible to walk past the picture without seeing someone there laughing at it'.

Munch persevered though and over the course of the following decade, his critical reception gradually improved, particularly overseas in Germany. However, his newfound success eventually attracted copycats and his techniques soon became widely recognised methods that failed to yield anything new. So he chose to reinvent himself by painting more trivial motifs but in new expressionist styles and in different media. Munch isn't unique in this respect: other artists such as Picasso, Van Gogh and Pollock evolved through different phases in their careers to produce original pieces throughout.

In investment, the effect is arguably even more pronounced. Investors may identify a certain sector or style that is mispriced, face initial pushback but eventually profit handsomely from it as they are proved right. However, this will attract copycats, particularly if the mispricing is simple to understand and easy to market. The influx of new money will eventually more than eliminate any mispricing that was initially present, thereby making the method ineffective. Investment is reflexive: the underlying determinants of success change over time and they are affected by our beliefs about it. Or as the investor Stanley Druckenmiller put it in an interview earlier this year: 'It's an art form, investing. From cycle to cycle you have to constantly innovate and not just be a slave to past models.'

One aspect that makes Munch truly unique among artists is that it wasn't just his style that changed over time, it was the physical paintings too. Later in his career, when he could finally afford to buy a house, he started painting in an outdoor studio. And it was there that he developed a technique he called the 'Hestekur' or, when translated into English, the 'Horse Cure'. Munch would leave paintings outside to test their resilience against the elements, sometimes even hanging in apple trees. The combination of snow, wind and the beating sun would stain the canvas and wash away areas of paint. Traces of his dogs' pawprints and even bird droppings have been identified on his paintings.



Edvard Munch's 'Death and Life' (1894) shows loss of paint, scratches and large areas of water staining.
© Munchmuseet, Oslo.

In treating his artwork in this way Munch was not only aiming to create a weathered fresco-like surface but, more profoundly, he was also introducing the role of chance into the process. The paintings would change over time, independent from their creator. Similarly, in the world of investments, outcomes are somewhat outside an investor's control. There is no guaranteed steady algorithm for investment performance and behaving as though there is imposes an unrealistic desire for certainty on the world. Successful investing requires acknowledging the role of uncertainty and embracing it. When analysing a company, we estimate what it might be worth in the future both if the sun shines on it and if it faces a hailstorm. In a nutshell, we are looking for investments where if we are wrong, we don't lose too much, but if we are right we gain significantly more. And whereas Munch had to wait for a long time to see which painting techniques would prove to be Darwinian survivors, we are able to stress-test a company's resilience to certain scenarios in advance. And, in reality, we are far from powerless in influencing returns. Firstly, as institutional investors, we are able to engage with company management on how they can increase the probability that their business fulfils its long-term potential. And, secondly, we adjust our position sizes, in response to fluctuating risk/reward ratios, to seek to outperform a simple buy and hold strategy. This latter approach is not unlike how Munch worked in the outdoor studio. He would roam around the enclosure, palette in hand, making adjustments to his work. Painting them simultaneously allowed ideas from one to naturally flow to another.

For me, *The Scream* is the ultimate representation of the power of alternative perspectives. It is a masterpiece that can be interpreted in many ways but, to my mind, what really makes the painting is not the famous image of Munch in the centre, so ubiquitous in modern culture that there is even a widely used emoji icon of him, but the two figures in the background to the left. These two friends are standing further along the path and are no doubt enjoying the view of a beautiful sunset over the Oslo fjord. In stark contrast, Munch recounts a very different interpretation of this visual wonder in his diary: 'Suddenly the sky became blood... I heard a vast infinite scream tear through nature.'

For context, Munch grew up in late 19th century Norway where the only paintings accessible to him were largely romantic landscapes. These images did not correspond to Munch's experience of life, for his difficult upbringing included losing both his mother and his sister to tuberculosis at a young age. What made *The Scream* so revolutionary is the idea that the world is not an objective reality, it appears

to everyone as seen by them. Investing doesn't take place in a stable environment either. It is constantly changing and people interpret these changes in different ways, often due to emotions such as fear and greed. Munch spent his career searching for emotions and he would have found plenty of them in financial markets. As investors, we explore the world for non-consensus opinions that we can exploit but, unlike Munch, we do so whilst being as unemotional as possible.

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