

## **Developing Skill Part 2. Information, autonomy and playing in the ‘ugly zone’.**

**A fresh look at the role of instructions, demonstrations and feedback in learning.**



*Dan Wilkinson nailing a boof on the Soana River, Val Aosta. Photo by Richard Watson*

## **Becoming Skilful**

Like many parents, I owe so much of my learning to my son, Sam. The sheer intensity of my passion and love for him, and the resulting attention I paid to him and his experiences have taught me a lot. Watching him learning and exploring adventure sports was both terrifying and exhilarating. I tried to stop myself telling him to ‘be careful’ and I revelled in our shared experiences and his sheer joy and ability, despite him becoming more proficient than me at everything except horse riding by the time he was just 18 years old. Adventure sports are a precious experience that we still share, and I am fortunate to be writing this article at the end of an awesome skiing holiday with him.

### **Watching, questioning and learning**

If you have read the article about motivation you will know that my son quit paddlesports at the age of eight after going to just one organized club session. He started again after a fortuitous conversation with some of the Bangor University canoe club members, ten years later. He was instantly hooked. Within a matter of months, he was paddling harder than I

ever could, and not just at canoe polo. During this time he was super keen to be out as much as possible and I tried to find places that I could go with him. On one of these early trips, I took him to the Canolfan Tryweryn (CT) during their annual Piranha Festival. The great thing about CT was that I could walk along the bank and watch, without him having to look after, rescue or wait for me.

After some time at the easy upper sections, I wandered down to the café to wait for him. Sitting outside, latte in hand, I watched the constant stream of paddlers stop and play on the 'café wave'. I watched them nonchalantly. They were like small groups of ants, seething over the edge and into the eddies, most of them following the same patterns on the 'cafe wave' each time as they dropped over it, or stopped and played, before disappearing down river. I recognised the distinct pattern of Sam's paddle movements and was instantly focused. Sam flew over the lip of the wave and skidded into the eddy on the café side. After a big grin in my direction, he got into the queue for playing on the wave.



*Sam in his rickety old playboat about to get on the river*

Sam had never paddled the Tryweryn before and was still very green, but he had already developed a solid white water roll, even in his second-hand rickety old playboat. When it was his turn to have a play on the wave he paddled hard into it, got spat off the edge and flipped over. After what seemed like forever, he rolled up on the edge of the next drop. The other paddlers did the same thing as the groups before them. Dropped in at the same place, followed the same patterns on the wave (mostly) and dropped off again. Sam's next turn produced the same result as his first.

He looked up at me enquiringly, I signalled to him to watch and pointed towards the place at the top of the wave that the other paddlers were using to get onto it. He moved further back in the eddy and found a good place to observe from. After watching more of the other paddlers, with different abilities and different boats, all using similar parts of the wave, he asked one of them to confirm his observations and tried again. This time he got onto the wave but dropped off again pretty quickly.

After more watching and more experimenting he started getting a reasonable amount of success. His paddling became smoother and his grin got bigger, and he joined in the banter of the group that was there. I finished my latte and mused about how quickly he was learning and how confident he was. I thought about how much he was able to experiment because he trusted his white water roll so much. And how in contrast, on white water, I always concentrated on staying in my comfort zone and doing the same thing. Carefully. Because I didn't trust mine.

We agreed to meet next at the little footbridge at the bottom of the car park for the CT centre. When I got there, there was a small group there being coached. It was not long before I saw Sam, following one of the better paddlers he had been exchanging banter with on the café wave earlier. As the paddler in front of him got closer to the drop, he changed his angle, then powered up and aimed at a semi-submerged rock just above the lip of the drop. He took flight, flew gracefully over the edge and landed in the pool at the bottom. I then watched in abject horror as Sam aimed for the same rock and paddled as hard as he could. He hit the rock, capsized instantly, and rotated ungracefully over the edge, landing upside down in the middle of a group being coached. He rolled up and grinned sheepishly at everyone.

## **What information was Sam using?**

After berating Sam soundly for risking going over the edge of an unknown drop upside down and out of control, we settled on our usual musings over the day's adventures. The main focus of these reflections was the difference between the information he needed to paddle the river compared to playing canoe polo.

The first thing he pointed out was that he was paying attention to the lines that the other paddlers took and trying to see what water features they were using to move around the river. This was particularly evident on the 'café wave', when, after failing to get on it, he then made extensive use of the visual information that he was exposed to from the other



paddlers. These visual demonstrations were helping to reduce the complexity of the information available to him by refining his visual 'search space'. It was also providing him with information about speed and timing, as well as the ability to link perceptual and tactical information to movement outcomes.

Asking for cues from me and questioning the other paddlers had allowed Sam to further reduce the overwhelming amount of information available to him at that time. He was learning to recognize the wave features and *affordances*. Some of these affordances were shared between different abilities and boat types, others were not. Watching all of the other paddlers with their different boats and levels of success had given Sam the opportunity to experience a hugely rich variety of tactics and their effectiveness.

So, what do we mean by the term *affordances*? This is a concept from general psychology to explain how we individually make sense of the world around us. Particularly in terms of what movement and actions we are offered (afforded) by the environment that we are in. For each of us, these are unique, but many basic ones are shared because we share many experiences. We are also, as a species, attuned to pick up the same range of perceptual information. The features that most of the paddlers were using were the same; the easiest and most obvious lines down the river and the most efficient ways get on and off the features they were playing on.

Using the semi-submerged rock to boof over the last drop was an affordance that Sam would never have picked up without seeing someone else do it. However, just because he could see the other paddler adeptly utilize it, did not mean that he could too! He did not have the skill or perception-action coupling to be able to capably mimic what he had seen. Here, the use of a visual demonstration was generating new opportunities. It was offering creative solutions that he had never even thought of, firing his imagination, inspiring, and offering new possibilities. It is worth mentioning, however, that seeing only one way to do something can constrain creativity and lead to attempts to mimic a single reductionist solution or technique. Highly skilled performers have affordances that they have developed through practice. Both Aled and JD described worlds that they were tightly attuned to in part 1 of this series. In an interview about other elite paddlers, Nouria Newmann said of, Ariol Serrasolses. *"I would like to be in his brain for a river to see what he sees. I think he just perceives things differently."*



*Darren Joy reading the river with great skill in the Grand Canyon. Photo by Glyn Brackenbury*

hat day at CT, the other main focus of our conversations was the wider context in which all of his activity had happened. The way he had been able to play and experiment with confidence due to his reliable roll. But it was not just the roll. Sam had also taken his playfulness and his deeply curious, gregarious, and self-motivated attitude from the way he street-skated with his friends, skied and went bouldering. He was being highly autonomous. And he was happy to spend a lot of time in his 'ugly zone'. These were things that we discussed less at the time because for him, it was normal. Sam thought little about the way in which he practised because it was what he always did. That day, he wanted to talk about the information that he needed to become attuned to on the river. What I found fascinating was that this reflected the descriptions of the information and experiences that elite performers like Aled and JD had described to me (in part 1). Sam was becoming skilful through developing his ability to perceive the river and understand how he could use and interact with the features he was becoming attuned to.

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## **Further reading**

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