

Falsifiability

Karl Popper (1902-1994) became famous among academics and intellectuals for stating that we advance in understanding of the world not by proving theories, but by attempting to falsify them. He wrote, “Instead of discussing the ‘probability’ of an hypothesis we should try to assess what tests, what trials, it has withstood; that is, we should try to assess how far it has been able to prove its fitness to survive by standing up to tests.” Should this not also be true of a martial art, or at least of the techniques an art teaches?

I have been advocating tests for techniques for decades but in this article, I want to suggest why testing, or as Popper might say, “Falsifiability”, is so difficult in the realm of martial theory.

First, no test can contain all the elements of a real self-defense situation, which can contain various degrees of several variables like intensity, number of assailants, distance, relative position, availability of makeshift weapons, escape routes, etc. No kata, self-defense combination, or drill can possibly recreate all those elements.

Second, if a drill *could* create those elements, it could not do so safely. To the extent that threatening elements are recreated, they must, per force, be threatening and therefore unsafe.

Third, if elements of a drill were really threatening, they either would be limited so that safety is taken into account or they would become no longer parts of a drill but real self-defense.

Therefore, you can only *approximately* falsify some aspect of a drill, which is intended to be real, while you must assume to be false (and not intended to be tested) other elements. Let’s say you create a drill in which three people are supposed to attack a single person who is standing against a wall. Do they attack one-at-a-time or all at once? If the defender cannot really retaliate by making forceful contact, how do you know an attacker, once struck, locked, or thrown, won’t be able to attack again? Shouldn’t that defender be able to run away? But if he does, he cannot possibly test the very techniques under examination.

Anything that approaches testing in a martial art must occur in increasingly realistic increments yet can never achieve full realism. Let’s assume you study an art like karate. Have you tested your basic blocks, not against symbolic attacks but against someone who is really trying to hit you? Do they work in the same way if the attacker is at a closer distance or strikes at an unusual angle? If the blocks have to be modified, have you tested the modifications? Do your counter strikes work? You can’t really hit your classmate, but you can have him put some padding on and try again. Are you quick enough to apply your block/strike combination on the attacker before he strikes a second time? If not, would it make sense to use your blocks such that they not only deflect his blows but also slow him up, perhaps with pain or off balancing? Feeling pretty good about handling various angles from this attacker? What if there were two attackers? Or three?

Quite often in a beginners’ class, there is a Yabut Wuttif student. You teach how to angle the body to get the most powerful upper block with the least physical effort and he says, “ Yeah, but what if he has a pipe?” No matter what you teach or how functional it is, there is always a Yabut Wuttif question that your wondrous

technique does not take into account. Yabut obviously does not understand how learning occurs. One must learn how to pronounce your native language before you study how other languages “adjust” your standard pronunciation.

But it is also true that some teachers, frustrated by Yabut’s constant challenging, would rather dismiss his questions than address them. No, not in the beginners’ class, but eventually, perhaps in his forty-third repetition of a lesson on one-step sparring, perhaps in a format where at least some of the elements of an encounter are used. And maybe he will do so in an attempt to falsify them, at least in certain contexts, honestly. Only then will his understanding advance.