
THE CrossFit JOURNAL

Judgement as a Virtue

Assessing Experts with Skepticism and Reason

By **Russell Berger** CrossFit Huntsville

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Susannah Dy/CrossFit Journal

CrossFit is an open-source fitness program, meaning the internal workings of our program are exposed for everyone to see, experiment with and change as desired. This gives our methodology a unique advantage: when someone discovers a better method for improving fitness, we can adopt it into the CrossFit program.

Just what qualifies as a “better method,” however, is open to debate.

Let the Debate Begin

While many historically common fitness questions have been sufficiently answered by CrossFit—yes, below-parallel squats are safe—today’s most common questions come from within our community as experts and coaches suggest the next evolutionary steps for CrossFit.

The CrossFit “Thinker” demands measurable, observable and repeatable results.

Does CrossFit need more strength workouts and fewer long runs—or vice versa?

Does the Zone Diet really work better than the Paleo Diet, or is there really no need for measuring of any kind?

Is a lack of affiliate regulation damaging the community, or are the efficient workings of the open market sufficient to eliminate bad apples?

These are just a few examples of simple questions that have turned into serious debates, with many folks claiming to be authorities and experts. So how does the average CrossFitter know what, and whom, to believe?

CrossFit's scientific approach to fitness means that claims must be measurable, observable and repeatable. This is central to the evolution of our fitness efforts. It's also essential to performing evaluations of criticisms and critiques (of CrossFit or any other method, for that matter).

Regardless of credentials or experience, each of us has the ability to make reasonable judgments on the ideas that shape our community. With a little reasoning and exposure to the principles of sound logic and evidence, anyone can assess the strength of a claim or argument. Intellectual rigor and a degree of honesty are all you require to differentiate between claims based in reason and those based in ego and emotional attachment.

Types of Criticism

To start, all claims are a form of criticism, and criticism can come in many flavors. In a perfect world, the only type of criticism we would offer as CrossFitters would be both constructive and measurable, meaning the delivery was reasonable and the claim could be tested. Obviously, things don't always work out this way, but taking the time to analyze the type of criticism you are dealing with can make your assessment much more valuable.

Types of criticism

Constructive and measurable:

"Programming 20 percent more strength-focused workouts into CrossFit training will produce fitter athletes."

Constructive and immeasurable:

"CrossFit should focus more on strength training because conditioning is really just about pushing through it mentally."

Destructive and measurable:

"CrossFit programming sucks for improving your max shoulder press."

Destructive and Immeasurable:

"Weaker affiliates are scaring away potential clients and damaging the CrossFit brand."



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CrossFit strives to be measurable, observable and repeatable, which is why the stopwatch is such a critical part of the program.

Measurability is clearly the most important aspect of analyzing a claim. If you can't measure something, believing in it is pretty much a matter of faith, and you have no way to validate the accuracy of that claim. Nothing is wrong with having immeasurable opinions—I've got a few of my own—but if you're trying to establish the boundaries of a scientifically based fitness methodology, you're going to need something a little more concrete than an opinion.

The delivery of a claim also comes in two forms: constructive and destructive. If a claim contains a generally positive or productive message, it's a form of constructive criticism. A claim that relies on a negative assumption or insult or is intentionally polarizing is categorized as destructive. This doesn't mean you must be politically correct or sugar-coat the message. It means a difference exists between trying to make something better and trying to make something look worse.

If you're mumbling something about how the delivery of a claim clearly doesn't determine its accuracy, you're absolutely right. Being aware of destructive criticism, however, can act as a warning sign for something more sinister. Destructive claims often reveal a lack of reason and an origin in the nasty, intangible world of ego and emotion. Some claims, of course, should be attacked wholeheartedly (Hitler's position on the Jews comes to mind), but CrossFit's position is not one of them.



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You can perform the deadlift in a number of different ways. Is one style better than the other? Perhaps, but perhaps not. What really matters is that people are deadlifting.

The goal of CrossFit Inc. and CrossFit.com is to promote the improvement of fitness for all who seek it. We offer an abundance of free resources, and the program is generally very effective. We have indisputably done more good than harm. That doesn't mean there is no room for critique of the program or any of its proponents, but on the spectrum of possible endeavors, improving fitness is a fairly benign, if not noble, pursuit.

Furthermore, we openly invite discussion and debate. We challenge all to demonstrate better results and promise to reward those who can do so in a measurable, observable and repeatable manner. CrossFit is not an environment that requires yelling to be heard. Therefore, it's quite telling when an argument launches with a broad-based attack or a warning of impending doom. While plenty of bad ideas have come with the best of intentions, the opposite is rarely true.

Evaluating a Claim

While it's politically correct to value everyone's right to an opinion, the truth is that not all ideas are equally valid. Evaluating the strength of a claim is essential to knowing if you should buy what's being sold. Let's look at two claims from our list above:

1. "Programming 20 percent more strength-focused workouts into CrossFit training will produce fitter athletes."
2. "Weaker affiliates are scaring away potential clients and damaging the CrossFit brand."



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Step 1: Define Terms

Confirm the definition of all the terms being used. Without clear definitions, you are likely to be comparing apples and oranges. Example No. 1 was presented as constructive and measurable. The idea appears simple—a greater focus on strength training will produce fitter athletes. It's a claim that's certainly being made these days, but there is an important gap in the statement.

The first part about programming 20 percent more strength-focused workouts is fine. The problem is that we can't accurately evaluate it until we have a measurable definition for "fitness." CrossFit has provided one, but it's fairly complex and certainly hard to measure. Anyone who does not address this inherent complexity has a weaker stance than one who does.

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Example No. 2, on the other hand, uses ambiguous and vague language—warning signs that the author doesn't have more measurable definitions available.

What characteristics must an affiliate have in order to be considered "weak"? What constitutes the CrossFit brand being "damaged"?

If you are lucky, the author will have taken the time to define these terms, but it's not likely. Even in the presence of a definition, how would you measure "damage" to a brand? The deconstructive delivery of this claim, paired with its lack of measurability, makes it look more like an emotional reaction than a reasonable assessment of facts.

Louie Simmons teaches an ultra-wide squat stance at Westside Barbell, while CrossFitters generally use a narrower stance. Both have produced great athletes, so is either one "wrong"?

Step 2: Define the Relevance

It's easy to get overwhelmed by details when discussing issues of controversy: evidence for and against a claim, why that evidence is or isn't being interpreted correctly, and how terms should be defined. Fortunately, one simple question can often prevent you from getting bogged down in the details of an unnecessary debate: "Does it really matter?"

In this case, asking that question really raises a few others: Does the claim address an actual or imaginary deficit? Does the outcome of the claim affect a CrossFit trainer's ability to improve fitness? Is there any evidence of the claim's actual manifestation?

makes sense to experiment with ideas and different approaches. But the debate should be kept in context.

While our second example above (weaker affiliates) probably didn't stand up very well in defining its terms—and it clearly isn't measurable—it could still be important. After all, anyone who cares about CrossFit would care about damaging the CrossFit brand. And, in fact, this is where the claim gets its strength.

But is the claim really relevant? Is there any real evidence that weaker affiliates have a negative effect on other affiliates? I have never seen any.

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The quintessential example of a debate that has been taken way out of context and overwhelmed by minutia is the disagreement over where the scapula should lie in relationship to the barbell during the set-up for a deadlift. Some experts argue that the hips should be high, bringing the shoulder over the bar, while others find that a lower hip position seems to be more effective.

Does it really matter? What's the role of this discussion in the big picture: achieving fitness or delivering it to others? It's mostly irrelevant. To quote Coach Greg Glassman, "One percent of the world deadlifts and we're arguing if the shoulders should go over the bar?" Coach's point, of course, is that the act of doing and teaching the movement matters far more than the exact details of its execution. For trainers and elite athletes, it certainly



Mike Markentin/CrossFit Journal

Fitness is hard to define. CrossFit chooses to define it as performing more work in less time because force, distance and time are easily measurable.

Step 3: Assess the Evidence

The burden of proof lies on he who makes the claim. In other words, if you have a better method, it's up to you to prove it. If you say something is dangerous, demonstrate it with real numbers. Failing to provide evidence of your claim is the equivalent of having no evidence at all.

So what makes for good evidence? As we've already said, good evidence needs to be measurable, observable and repeatable. In other words, it needs to provide results consistently, but the evidence you have is sometimes less important than the evidence you don't have. Good science is the process of removing all nonviable options until only one explanation is left. Simply looking for evidence that supports your theory will leave you aware of everything that validates your theory and completely ignorant or dismissive of evidence that might prove you wrong.

One of the aims of CrossFit is to improve the quality of discussion about fitness and its various components. To do so, we must recognize the role of intellectual rigor in navigating these complex waters.

Establishing solid evidence for any claim within the realm of fitness is actually very challenging. So many factors are involved in fitness and health that it's difficult to assess which one causes what. Good arguments recognize this inherent difficulty and accommodate it. Oversimplification of cause and effect is often an indication of weak evidence.

For example, everyone has slightly different strengths and weaknesses, so the same workout is going to work one person's strength and another's weakness. As we all know, the impact of training your weaknesses is very different than the impact of training your strengths. How do you incorporate that into any claims you might make about the general efficacy of the workout?

The other problem is that while we can measure the effect of someone's workouts (seeing the gains and/or losses over time), we can't say with any degree of accuracy what would have happened had they done a different program in that same period. In other words, we can provide evidence that a program works, but we have to be careful about how we establish that it works better than another program. There are several legitimate ways to do this, but they tend to involve larger numbers of people over a longer period of time.

The CrossFit Games are very useful when it comes to establishing the best programs for the highest levels of fitness. CrossFit claims that the winners of the Games are the world's fittest men and women. Each athlete is a unique case, but any consistency among the top competitors is pretty compelling evidence about the efficacy of that approach. In contrast, if none of the top competitors are following a particular program, that's a pretty strong statement.

Now, there is an alternate explanation. Perhaps the CrossFit Games are not a true test of the world's fittest. This is certainly within the realm of possibilities, but anyone who claims to have superior programming but doesn't perform well at the Games must provide an alternate venue to establish dominance. CrossFitters can then accept the alternate venue and compete in it or dismiss it as inferior (with evidence of course!).



Staff/CrossFit Journal

The debate about the safety of the below-parallel squat is over for the most part, but a host of other discussions have taken its place.

Separating Emotion and Ideas

So where do good ideas go bad? When emotions blur the line between good and bad science, it can create ripples of confusion across our community.

The marriage that occurs between people and their ideas isn't a bad thing. In fact, it's clearly part of being human. I would be fooling myself if I said I didn't have an emotional attachment to the idea of CrossFit. The trick is being able to identify emotional attachments and prevent them from having a blinding effect on judgment. Unfortunately, not everyone is capable of making the distinction, or perhaps it's better said that many don't practice making the distinction.

Emotion and consensus have nothing to do with science. Something is true or effective or it's not. It doesn't matter if anyone likes the idea or hates the idea or even if people agree about its validity.

A difference also exists between a claim's validity and one's ability to prove it. The absence of evidence doesn't necessarily mean a claim is false, nor does the presence of evidence necessarily prove it's true.

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There is no easy answer, nor any formula to resolve all debates. One of the aims of CrossFit is to improve the quality of discussion about fitness and its various components. To do so, we must recognize the role of intellectual rigor in navigating these complex waters. Passion oozing out of a foundation of evidence-based reason has produced many of science's greatest gains; emotional outbursts that eclipse reason, none.

The Future of Debate

There is little doubt that the CrossFit program has improved the quality of fitness in the world. There is also little doubt that the program can and will be better in the years to come. Creative disagreement, a commitment to evidence-based argumentation, and a perspective focused by keeping the main goal in mind will both strengthen the community in the present and produce the environment in which it will improve and thrive in the future.



About the Author

Raised in Atlanta, Russell Berger spent four years in 1st Ranger Battalion and saw numerous combat deployments. After starting CrossFit in 2004, he left the military, moved to Alabama and opened [CrossFit Huntsville](#).

He currently splits his time between running his gym, training for the CrossFit Games (he won the 2009 Dirty South Regional Qualifier), writing for CrossFit, and spending time with his family.