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A Performance-Based Comparison of Kettlebell Methods

Steve Cotter

There is an art to kettlebell lifting and it begins with selecting a formula for success. This article aims to highlight differences among kettlebell training methodologies and to help you understand these differences so you can maximize the productivity of your kettlebell lifting practice.

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If you ask someone why they do something a certain way and their answer is "because that is the way it was taught" or "because that is the way everyone else does it," is that a sufficient reason to adopt the same way? I think that would depend greatly upon the performance of the person doing that thing.

It is performance that drives the CrossFit athlete, and it is performance that can be measured and tested. My opinion about kettlebell lifting styles is not necessarily important to your goals. However, rather than just my opinions, what I try to offer here is an analysis that allows you to test and evaluate the two methodologies with respect to your performance and progress.

Matching methods to goals

To understand performance, we must first understand the goals.

An important question to be able to answer before selecting a particular tool or modality is "why?" Why would you select one tool over another, or one approach instead of another?

So, why use kettlebells? This is a relative question because what we are really asking is why we would select a kettlebell instead of something else (dumbbell, barbell, a can of soup, or something else).

The kettlebell is a tool that that is used specifically for the development of work capacity via ballistic repetition. That is its greatest gift. Sure, we can juggle and do tricks with kettlebells, but it is the combination of endurance and strength training that gives them a place among basic strength and conditioning tools.

If your goal is to lift a weight as heavy as possible one time, is the kettlebell the best implement to choose? Most likely not, in that you will be limited by how big the kettlebell can be and by its shape. Sure you can have a 200-pound kettlebell, but it becomes cumbersome beyond a certain size. Traditionally, 48 kg is the heaviest a KB will weigh, unless you move into kettlebells for circus stunts. Anything heavier than 48 kg requires the mold to be larger, and the leverage parameters will change and make the bell unwieldy for all but the most massive frames. A barbell, however, is quite conveniently designed to hold maximum weights, whether 200, 500, or 1,000 pounds. So, for the purpose of lifting a maximal weight one time, a barbell is the logical choice and will allow optimal lifting for that goal.

On the other hand, if the goal is to lift a sub-maximal weight many times, for the purpose of training muscular and systemic endurance, a kettlebell offers unique qualities that will facilitate this goal. The shape and length of the handle and its placement behind the mass of the bell favors high repetition lifting, because the hand can move within the handle and allow a relaxed grip (in a way that dumbbells and cans of soup do not).

A basic classification is useful here. There are three fundamental categories of kettlebell lifting. (They can be divided further, but this is the stripped-down version.)

1. Classical (also called "competitive."). These are the foundational lifts, the basics, the ones that are contested in kettlebell sport meets: clean and jerk and snatch. Simply put, if you're good at these, you're good at kettlebell lifting.

2. Fitness. This category consists of a wide array of movements used to build coordination and general conditioning; includes bodybuilding and feats of strength.

3. Juggling. Just like it sounds, this type involves throwing and catching kettlebells in any imaginable fashion.

Most people first start using kettlebells for basic fitness, in which they do a wide range of activities to learn techniques for working with KBs and start to develop strength and a solid base of conditioning. This is like gym class for kettlebells. Then the question usually becomes, what's next? What happens once you have a basic fitness level?

At this point, a lifter will typically use that basic training either to move into another activity, such as Olympic lifting, powerlifting, or another sport (or CrossFit), or to progress into serious kettlebell lifting.

This is when the study of the classical lifts becomes more important and the finer points of learning are needed most. It is in the precise study of the basic lifts that high achievement can be developed through repetition.

The emergence of kettlebell lifting as a viable fitness method

With the growth and popularity of kettlebell lifting as a mode of effective exercise, it is time to get a clear view of what has transpired over the past seven years, when kettlebells have been marketed to the American public.

In the early days, virtually all the educational information about kettlebell lifting was coming from one source. This information was—and still is—presented as the "Hard Style" or RKC ("Russian Kettlebell Challenge") school. It is a school of thought as well as a school of technique. With the techniques comes also a particular approach to the lifting that suits the types of goals that a student will realistically set and meet.

I will refer this particular approach to kettlebell lifting hereafter as the rigid style (RS).

In contrast to the RS approach is a less promoted, yet more traditional manner of lifting kettlebells. It is not new; rather, it is a long-established approach that emphasizes kettlebell as a primary tool for strength-endurance and repetition ballistic lifting. This traditional style has most closely been associated with Girevoy Sport, which consists of lifting competitions contesting the jerk, the snatch, and the clean and jerk. Maximum repetitions are contested within a 10-minute period. It is a sport that deals with work capacity in terms of reps per minute. The results are easily quantifiable by the numbers performed.

The Girevoy Sport athletes have studied the most efficient manner of lifting kettlebells. Their particular approach to kettlebell lifting will hereafter be referred to as the fluid style (FS).

After almost four years of sustained exposure to kettlebell lifting, practiced in the rigid style, I became interested in the high-performance aspect of the lifts, which requires more refined development of the basics. You can get only so far on conditioning and grit; at some point, the finer points of the lifts must be addressed if you want to make continued progress and performance improvements.

For me it took a trip all the way to Moscow, Russia, before I could differentiate between the rigid and fluid styles of kettlebell lifting. It was at the 2005 World Championship Classics there that I witnessed the tremendous work capacity of the lifters and it was clear that their technique was very different from what I had learned and been exposed to initially in my RS training in the U.S.

Since then, spurred on by the emergence of Valery Fedorenko, a world champion in kettlebell sport who lives and teaches kettlebell lifting in the U.S., more information has become available about the most efficient methods for achieving optimal performance from kettlebell training.

Below is a comparison of the way the most basic technique, the swing, is taught in RS and FS methods. I focus on the swing here as an example, but these differences between the two styles can be found throughout the teaching and execution of all the basic lifts.

Rigid vs. fluid styles: Mechanics

Rigid style:

- Hip action: choppy; forced overextension
- Head/eye position: locked into horizontal; restricts hamstring function
- Breathing: opposes movement; exhale coincides with trunk extension
- Grip: maximal tension
- Arm: locked out horizontally; the arm supports the entire load

Fluid style:

- Hip action: natural extension; neutral alignment
- Head/eye position: follows movement; allows full activation of hamstrings
- Breathing: coordinates with movement; inhale coincides with trunk extension
- Grip: only as much tension as is needed to hold on
- Arm: relaxed and slightly bent; load supported vertically by base (feet)

The rigid style promotes a short, choppy, snappy motion; the forced extension promotes a hyper-lordosis (excessively arched) quality to the movement of the lower back. The position of the head (always facing straight forward, regardless of the position of the back) causes tension in the back of the neck and down into the trunk extensors and hamstrings; these tensed extensors inhibit elasticity and reduce loading potential. The inhale occurs at the point of greatest load; this becomes problematic with heavier loads with regards to stabilizing the spine. Squeezing the handle tightly with the palm promotes crushing grip strength, but it diminishes grip endurance. The locked-out elbow requires control of the load by the arm at full extension.

In the fluid style, the trunk goes through a greater range of motion, yet not all the way to overextension of the hip. Neutral alignment is achieved and the head-trunk angle stays constant throughout the range of motion. Breathing matches the trunk movement, and exhaling at the point of greatest spinal load offers greater protection. The grip is firm yet loose, so that output can be sustained. The arm remains loose and slightly bent so that the load stays close to the body and closer to the base.

One manner of lifting is clearly more economical than the other. The rigid style is useful for caloric expenditure, but its mechanics don't allow for prolonged work periods. The fluid style adopts the mechanics that allow for greatest sustained output, which is the whole purpose of kettlebell lifting in the context of performance. This brings the focus of kettlebell lifting back to the basics.

Key differences in approach

The fluid lifter works primarily to time, not to reps. There is a natural cadence that is right for each person, and that varies according to conditioning and control of the body.

In the fluid style, the muscles of the girevik (kettlebell lifter) have to be able to recover ATP stores while holding the KB. This means that he or she is working while resting. This quality of resting under load is a demand unique to kettlebell lifting among the competitive lifting sports.

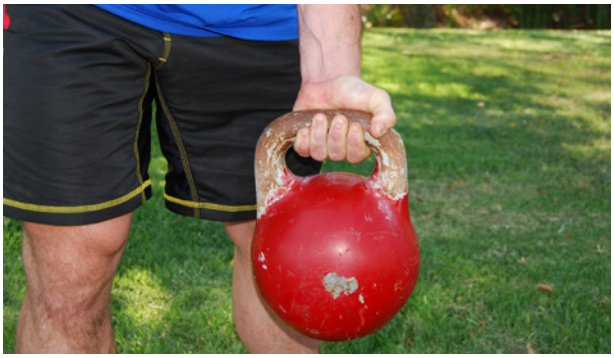
In many other forms of athletics as well, there is a prominent need for relaxation under load. A prime example is in the fighting sports, which require the ability to relax and recover while subject to external stressors. The relaxed, natural manner of FS lifting is consistent with athletic movements. The signature of a trained athlete is fluidity and grace, an effortless quality of motion.

The RS approach, in contrast, generally focuses on reps, not on time. Typically the goal is reps done as fast as possible. While this is a demanding task and quite admirable, there is a limiting factor because once you approach your anaerobic threshold; you will not be able to continue.

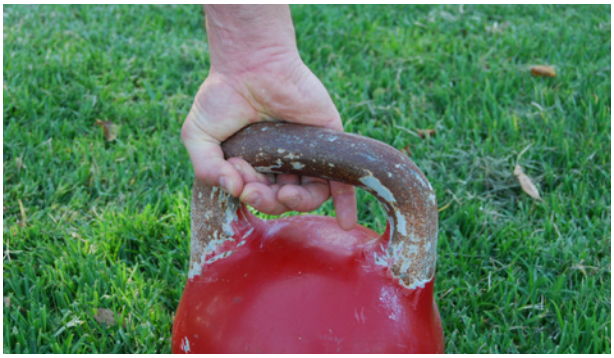
The difference in the quantity of work that can be accomplished in each style, RS vs. FS, becomes very

RS head position

FS head position



RS grip



RS grip

obvious when the sets are extended over a full ten minutes, which is the duration of time given to complete your reps in a competition.

A rigid-style practitioner may be able to do 25 rpm but will be able to sustain that effort for only a few minutes, because of the fast pace and the amount of tension held in the muscles. He or she will tire and lose power very quickly. For example, a well-conditioned RS athlete may be able to last at that pace for as long as four or five minutes. When the set is over, he or she may have 125 total reps.

On the other hand, a fluid-style athlete who maintains patience and a controlled pace may move slightly slower, so that he or she has a chance to breathe and rest after each rep. This athlete moving at the more moderate pace of 20 rpm will likely be able to sustain the effort for twice as long. At this slower pace he or she will have completed 200 reps with the same load. This is the way of pacing, and as it extends out, the pacing will allow much greater volume per set and overall.

It is the story of the tortoise and the hare. Everyone wants to be the dashing and fast and confident hare. Yet the tortoise is patient and constant and very calm; confident, too, but in a steady sort of way.

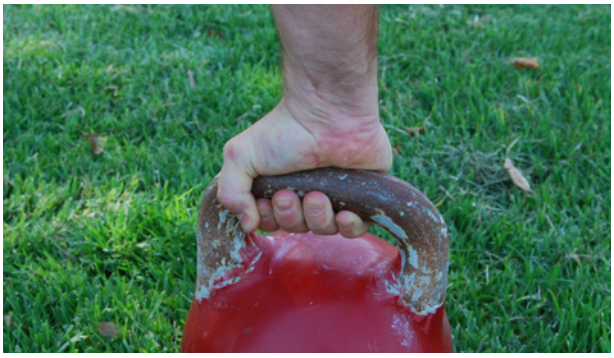
Sports fans in the U.S. often settle performance-based arguments with "Scoreboard, baby!" In competition, the numbers tell the story that ultimately really matters. We can look at the scoreboard and know which team played "better."

In kettlebell lifting, the tortoise wins every time.

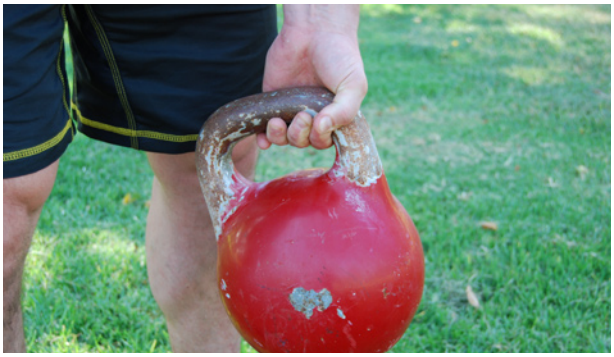
Developing capacity

In the broader scope of strength and conditioning training with kettlebells, we regularly mix the dosages and durations of the sets. We may wish to go very, very fast for a shorter period of time, to train power, or more slowly for a more extended period, to train muscular stamina and cardio-respiratory endurance.

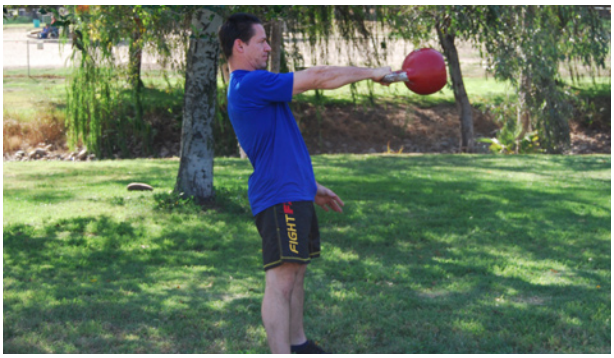
The interesting nature of kettlebell training is that you can go from slow to fast (i.e. pick up the pace later in the effort), but you cannot go from fast to slow. You have to learn how to go slow first. This is very important, because, going very fast out of the gate will deplete your energy stores quickly, and once this happens, your set is over. On the other hand, by pacing yourself you can sustain your output over an extended



FS grip



FS grip



RS arm position

FS arm position

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period of time. As your conditioning improves, you will be able to increase the rpms for the period of time that you are working, but you are already accustomed to working, at some level, for the duration. Even if you are training for longer-duration sets using a fluid style, it is certainly possible to move at a much faster pace for shorter sets, when you want to optimize power output. There is a definite place for that approach in the context of circuit and general fitness training. If you can work for six minutes at 20 rpm, for example, you will also be able to work for one or two minutes at 26 to 28 rpm. But if you only practice working at a fast pace for short durations, it will be very difficult to make the leap to longer-duration sets. There is a very specific quality of endurance and stamina that can be developed only by doing longer sets.

The kind of lifting I'm talking about is not taking a heavy kettlebell and doing something one or two or five times. That is exercise, yes, but it does not lead into anything beyond that. This is why it would be referred to as a feat of strength. It shows that you can do some things, but it doesn't say anything about how good you really are with kettlebells. As kettlebells are primarily a strength-endurance tool, and not for maximal strength development, it is appropriate to start slow and build the volume through pacing rather than through maximal effort in each rep. Those feats of strength can be done with anything—a barbell, a sand bag, even a person. Learning how to go slow and relax between reps is the key to excellence.

To the casual observer, an elite kettlebell lifter will appear to move very quickly and very powerfully. It will look as if there is no resting at all because of the pace that is maintained. For example, the world record for jerks in the men's competition is 175 jerks with two 32kg bells. This was accomplished in a period of 10 minutes. We know that this is over 17.5 rpm, or one rep every 3.42 seconds for ten minutes straight! The numbers are astounding. That is a gross measure of 11,200 kg (24,640 pounds) of overhead lifting in one set.

That example uses the best lifter in the world, so it doesn't relate to you or me personally except as a point of reference. Yet, this lifter, Ivan Denisov, like all the best lifters, actually relaxes between reps. So it is a period of intense explosion, followed by a complete relaxation. In effect, each rep is the same as the previous. The athlete stops because the clock stops. He doesn't rest for long, but you can see that he is recharged before he does his next rep. That is the only way to accomplish such workloads.

RS hip overextension

The same level of control is possible at whatever your current level. By approaching your kettlebell training with a FS approach, focusing on relaxing as much as possible and training to time and not just reps, you can build a wide and solid endurance base and improve your performance of the basics. Don't be in a hurry to rush through your sets. Spend some time working on holding on to the bell and breathing through the movements.

There are two sides to work capacity. Developing the ability to generate force is an aspect of training that we are all aware of; learning how to control and sustain that force via pacing is an equally important aspect of becoming a skilled athlete, but one that typically garners less attention. This is what the relaxation properties of FS kettlebell lifting teach. Let's start paying closer attention.

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Steve Cotter is a renowned kettlebell instructor who teaches his unique blend of Full Kontact kettlebell training throughout North America, Asia, and Europe.

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