# The Science of Psyching Yourself Up

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SUPER
AGE

# Pump-up techniques designed for your personality can help you lift heavier. Here’s what to do.

If you’ve ever seen powerlifters screaming, shaking the bar before a big lift, or snorting ammonia (**not advisable**), it’s not just macho theater. Studies show that psych-up strategies like these can help people lift more weight, which could make them get stronger, faster.

In fact, **one new study** just published in the *Journal of Strength and Conditioning Research* found that when lifters psyched themselves up, they moved the bar measurably faster than when they didn’t — an 18.6% increase in bar speed on average. That kind of speed improvement translates to roughly a 4.3% increase in the maximum weight an experienced lifter could handle for a single rep.

For Super Agers, that matters: Being able to lift more weight means more strength and muscle. And **muscle mass** is a key determinant of our long-term health and function.

## The Real Science of Psyching Yourself Up

But hold up for a second, **healthspan-seekers**, before you start slapping yourselves in the face and head-butting the gym wall. There’s another finding from this study that’s important: Not all pump-up techniques work for everyone. The right stimulation depends on your unique psychology and personality. And where you fall on that scale might surprise you.

“There’s a theory called the individual zone of optimal functioning, which is an arousal theory where each individual has their own individual threshold for arousal,” says lead study author Kurtis Cusimano, PhD, a research scientist at the University of Essex and a former national level strongman competitor in the UK.

Dr. Cusimano explains that for each person, there’s a Goldilocks zone for **performance in the gym**. Some people run too cold, and need to pump their arousal levels up to have their best lifts and workouts. But other people run hot, starting above their ideal zone, and instead need to pump the breaks.

Before you amp yourself up, you’ll want to first identify your own personality type and motivation style. With that roadmap to better performance in hand, these pump-up and calm-down strategies will take your performance to the next level — no screaming required, unless you want to.

## What’s Your Pump Up Style Based on Your Personality?

For this study, Dr. Cusimano and his colleagues wanted to move beyond previous research on psyching up, which usually tested untrained university students. Instead, they recruited 200 English and Scottish strongman and powerlifting competitors (127 men, 73 women) — all experienced athletes who already knew which strategies helped maximize their performance.

To measure the effect, they had each athlete deadlift twice: once after using a psych-up method of their own choosing, and once without any psyching up as a control. Some lifters did the psych-up version first; others did the control first. The scientists measured bar speed on both lifts, since faster bar speed on the deadlift correlates with greater strength.

Before lifting, athletes also completed two quick personality tests. Their answers grouped them into two categories:

- **“Arousal-enhancers”** = Those who perform best by ramping up first
- **“Arousal-reducers”** = Those who perform best by winding down first

Though the two tests include scores of questions, they’re all trying to establish just three core aspects of your personality:

- How anxious are you?
- How aggressive are you?
- How sensitive are you to rewards?

**People who were more aggressive,** less anxious, and more sensitive to rewards tended to gravitate toward arousal-enhancing strategies, like motivational self-talk, jumping before a set, or aggressively “attacking the bar.”

**People who were less aggressive**, more anxious, and less reward-sensitive tended to prefer arousal-reducing strategies, like a calming pre-lift routine.

The results were clear: when lifters used their preferred motivational strategy, they moved the bar faster than in the control condition — an improvement equivalent to adding 4.3 percent to their one-rep max. Crucially, neither approach outperformed the other. What mattered wasn’t which strategy a lifter used, but simply that they used the one that worked for them. The athletes also naturally gravitated toward strategies that matched their personality type — suggesting that when it comes to psyching up, self-knowledge may be the most important variable of all.

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When designing your own motivation strategy, it’s tempting to look at those three

questions and think you know how you'll score — especially since many of the people in the study intuited their own best course of action. But Dr. Cusimano says you may not know yourself as well as you think, especially if you fall at the middle of the spectrum for any category.

"It's worthwhile doing the personality measures, because you get a lot of people who may find themselves almost in the neutral ground," he says. "Somebody might not consider themselves particularly sensitive to reward, because when they get some sort of gratification, it doesn't feel *amazing.* But there are three subtypes to this sensitivity… it may be that their actual gratification levels are fairly low, but they have greater impulsivity and drive."

Translation: When you take the two tests, you may be surprised to learn that instead of an "arousal-enhancing" pump-up talk, you actually need to join the calm-down crowd and reduce your arousal before a big workout or heavy set.

# Take These Two Tests: What's Your Psych-Up Profile?

Before you start slapping yourself on the back or queuing up death metal, it helps to know what your nervous system actually responds to. These two free quizzes (they take five minutes total) measure three things that turn out to predict your ideal pump-up style better than intuition alone: how sensitive you are to anxiety, how motivated you are by reward, and how naturally aggressive you run. Together, they'll tell you whether you're someone who performs best by ramping up or by settling down.

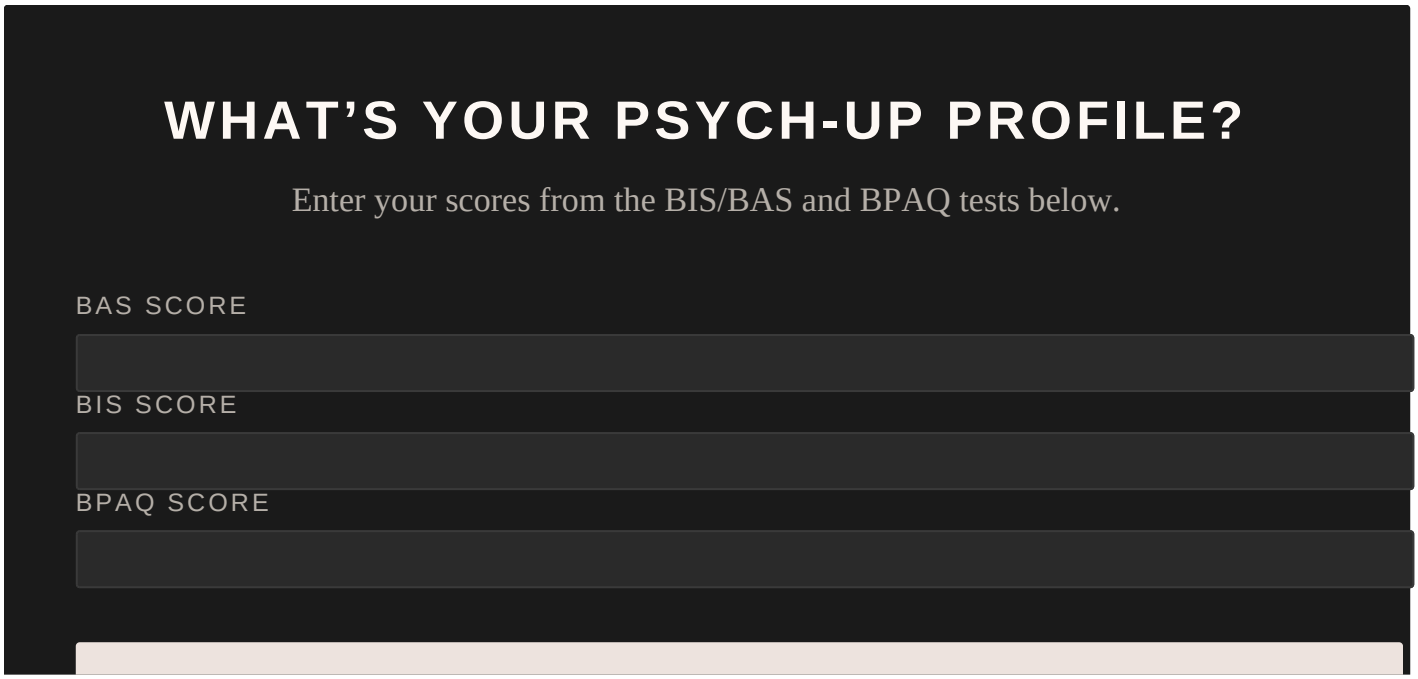
## Test 1: Reward or Punishment?

- **How do you respond to reward and punishment?** This one measures two things at once: how much potential setbacks put the brakes on you (your BIS score), and how much potential rewards get your engine running (your BAS score). When you finish, add the three BAS component scores together for your total BAS number.

## Test 2: How Naturally Aggressive?

- **How naturally aggressive are you?** This isn't about whether you're a hothead — it's measuring trait aggression across physical, verbal, anger, and hostility dimensions. Turns out it's a real predictor of which psych-up approaches work.

Once you have your three numbers, plug them into this calculator to find out if you're an arousal-enhancer, someone who performs better by turning it up, or an arousal-reducer, someone who does their best work by dialing it down first.



CALCULATE MY PROFILE ?

The formula this calculator uses is: D = -5.366 + 0.133(BAS) – 0.097(BIS) + 0.023(BPAQ)

If your “D” value is above 0.0275, you’re in the “arousal-enhancing” camp. If it’s below that number, you’re in the “arousal-reducing” group.

## If “Arousal-Reducing” Works For You, Try This

**Create a Routine or Ritual:** The most common and most effective method for reducing arousal and anxiety before a heavy set — or another stress-inducing or high-pressure sports or athletic moment — is to create a repeatable pre-performance routine, Dr. Cusimano says.

Like an NBA player who does the same ball spin and number of dribbles before every free throw, a soccer athlete who always puts his uniform on the same way, or a golfer who does the same steps and butt wiggle before each shot, a routinized pre-performance routine signals to your body to calm down and enter a state of flow, Dr. Cusimano says.

“It’s such a simplistic approach, but you see this person going from being nervous and tensed-up in a little ball. Then you’re watching them be able to calm down just through their mannerisms and actions,” he says. “If you’ve got something you’ve done tens of thousands of times, it just switches off the areas of your brain that are relevant to things like negative self-talk.”

*Some potential parts of a pre-performance routine to bring arousal down could include:*

• Placing your feet on the floor in the same order each time, or grabbing the bar or handles of a machine in the same order each time

• Pulling lifting gloves tight or adding chalk in the same way before each set

• Taking a specific number of slow, deep breaths

• Adjusting your headphones before starting a set or interval

• Saying a motivational phrase in the third person (think: “you’re ready” or “you’ve got this.”)

• Closing your eyes and doing a slow, controlled countdown: “3, 2, 1, lift.”

It doesn’t matter what your routine consists of, Dr. Cusimano says. What’s important is that you do the same thing each time, building up a series of signals that tell your body it’s *go time*.

## If “Arousal-Enhancing” Works For You, Try This

**Psych-Yourself Up**: If instead you’re in the camp that needs pumping up, the study suggests that any psych-up strategy works if it feels good for the athlete. So experiment on yourself: Find a motivational strategy from the lists below that resonates, and try it on for size.

*If positive thoughts and words generally motivate you, try:*

• Simple, first person statements before efforts you want to nail: “I can do it”

• Simple, first person affirmations that remind you of your talent and work: “I’m great at this”

• Watching short videos of athletes or others who motivate you between sets

• Listening to motivating, positive music

• Visualizing yourself performing the lift or effort successfully

*If you're more aggressive, try:*

• Performing aggressive physical acts, like attacking or shaking the bar

• Listening to aggressive music

• Yelling

*If you're more reward-focused, try:*

• Reminding yourself of your goals verbally before a set or workout

• Looking at visual reminders of your goals, like pictures of someone whose physique you admire

• Reviewing a list of your goals before your workout to remind yourself to work hard

• Silently reminding yourself of the hard work you've already put in towards your goals

*If you get pumped up by physical movement, but want to keep things positive, try:*

• Pacing between sets

• Doing some small jumps up and down before each set

• Taking some fast, short breaths before starting a lift or effort

Importantly, don't be afraid to stack them. Most studies limit people to a single strategy, but in the real world, motivation is combinable — and the combination can be more powerful than any one approach alone. A 2024 **research review** by Dr. Cusimano and colleagues highlighted a study in which pairing motivational self-talk with success visualization outperformed either method on its own. Your ideal pre-

performance ritual might be one thing, or it might be three. The point is to experiment until something clicks — then own it as you tackle your next big lift, fast interval, or athletic competition.

## A Note on the Strategies

In a **separate study**, Dr. Cusimano and his team categorized and evaluated various psyching up strategies. Beginning with a total of 64 approaches, they clustered them into eight groups:

- Pre-performance routines
- Positive thoughts, feelings, images, and behaviors
- Goals and performance accomplishments
- Self deprecation
- Negative thoughts, feelings, images, and behaviors
- Stimulation
- Physical and physiological techniques
- Aggressive acts

Overall, people marked pre-performance routines as being the most effective psych-up strategy, “with males reporting significantly higher ratings for self deprecation, negative thoughts, feelings, images, and behaviors, stimulation, and aggressive acts.”

Of course, just because something *works* doesn’t mean it’s good for you — especially in the fitness world. Instead of leaning into negative approaches, aim for strategies that “alter activation or enhance mental preparedness” over those that berate you into better performance.

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