

INSIDE The JAR

The
PLANT **The**
MAN **The**
MARKET **The**
REST

Search ITJ for

Go



Jesse Klein:

Putting the indica/sativa debate to rest with a blind taste test

by **Jesse Klein** on Mar 25, 2020

Photo credit: Roberto Valdivia via Unsplash

Walk into most cannabis stores and the first question a budtender will ask is: “are you looking for a sativa or an indica?” The two names have become shortcuts for describing the type of high a consumer is hoping to experience. Sativa is synonymous with energizing and uplifting feelings, while indica is regarded as having chilled and spacey effects. But if a cannabis scientist walked into a dispensary on their day off for a little recreational research and heard that question, they would likely roll their eyes.

It has become common knowledge in the world of cannabis research that the indica and sativa naming convention is a semantic distinction without a scientific difference. In 2015, University of British Columbia botanist Jonathan Page **studied** the DNA of 81 cannabis “strains” that were self-identified by the growers or distributors as either **indicas or sativas**. They found that they were almost genetically identical, and many were mislabeled.

Cannabis Species



indica



sativa



sativa



indica

Many prescribe to the idea that plants with different physical characteristics (ie. broad vs. thin leaves) have different effects when consumed. This notion has been debunked by several scientists. (Photo credit: Wikimedia Commons)

“Close examination of the chemical makeup of the plant shows that it has no rhyme or reason,” Dr. Ethan Russo, neurologist, and founder and CEO of **CReDO Science** and former senior medical advisor to GW pharmaceuticals said in an interview with *Inside the Jar*. “What people should really be concentrating on at this point is the chemical compounds of the plants, including cannabinoids and terpenes.”

Russo explained that certain chemicals can create different types of highs. Limonene produces an uplifting high usually considered typical of a sativa, and linalool, a chemical common in lavender but also present in some cannabis plants, has anti-anxiety effects.

“High [tetrahydrocannabinol] THC with high myrcene produces the sedative high that people equate to a quote indica,” he said. “It’s responsible for the phenomenon called couchlock, where people feel they are immobilized.”

But for the average smoker, this is much too *in the weeds*. Many say they do notice a difference between sativas and indicas, even if the lab coats say it’s all a myth. But Dr. Robert Laprairie, assistant professor of drug discovery and development at the University of Saskatchewan, has his own theory.

“The placebo is very real and the placebo effect drives our belief,” he said.

So, I decided to put that idea to the test—a blind taste test, to be exact.

The Weed

I bought four pre-rolled, one gram joints from the **OC3 dispensary** in Orange County, California—two indicas and two sativas with roughly the same percentage of THC.

Indicas

1. Banana OG: 18.81 per cent THC
2. Skywalker OG: 21.96 per cent THC

Sativas

3. Clementine: 20.17 per cent THC

4. Banjo: 17.88 per cent THC

The Method

I had a friend randomly give me one of the joints each night for four nights (not in a row). I tried to smoke about the same amount of the joint each time, usually between a third to a half. I recorded my experiences and made a guess as to whether the pre-roll was labeled indica or sativa.

The Test

Joint #1

After the second or third puff from the first joint, I felt a wave of anxiety lift and my chest relax. The body high soon took over. I wasn't very talkative and easily spaced out for long periods of time. I usually prefer so-called indicas and this high felt similar to my past experiences. However, I did notice that it felt like a much lighter high. I smoked the most of this joint of any in the experiment in order to feel the full effects. I felt pretty confident with my guess of this one being an indica.

Ratings

Munchies: 2/5

Paranoia: 1/5

Racing Mind: 1/5

Chilled: 4/5

Giggly: 3.5/5

Chattiness: 2/5

Cottonmouth: 1/5

Joint #2

When I smoked this one, instead of a relaxation in my chest, I felt a tightness in my forehead and nose, a sensation I usually equate to sativas. My heartbeat felt faster and my mind was racing. I was very chatty, wanting to verbalize my thoughts. This definitely felt like a head high to me.

Ratings

Munchies 4/5

Paranoia: 0/5

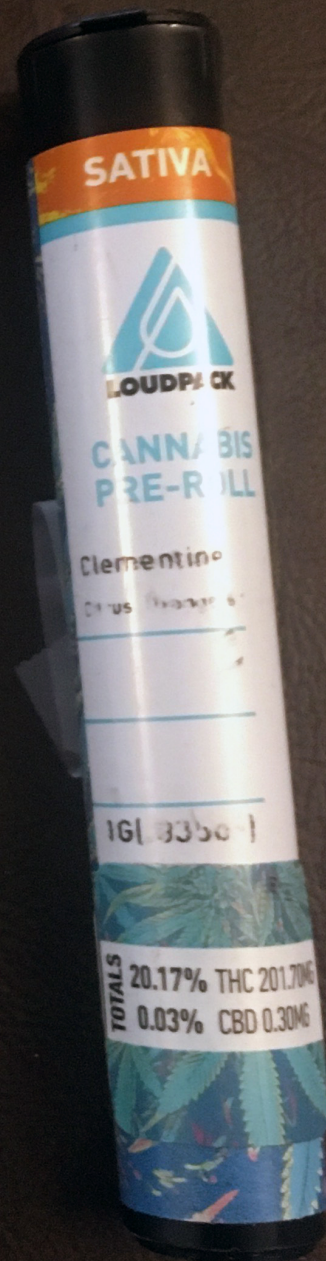
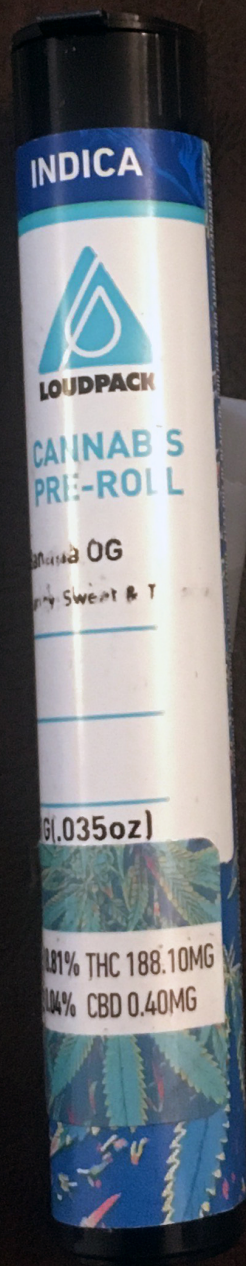
Racing Mind: 4/5

Chilled: 2.5/5

Giggly: 1/5

Chatty: 4/5

Cottonmouth: 1/5



Joint #3

I was extremely unmotivated to do anything after this joint. Washing the dishes from my dinner took every ounce of my willpower and the next morning I saw I hadn't done a very good job. After washing up, I sat in uninterrupted silence with my friend without any anxiety about the lack of conversation. I felt the same feeling in my chest I experienced with the first joint leading me to peg this one as an indica as well.

Ratings

Munchies 3.5/5:

Paranoia: 0/5

Racing mind: 1/5

Chilled: 4/5

Giggly: 2.5/5

Chatty: 1/5

Cottonmouth: 1/5

Joint #4

This almost immediately read sativa to me. I felt energized, dancing around my kitchen to **Jungle**. And when I wasn't singing, I was chatting. My arms felt a little shaky, and I spent 10 minutes looking for my car keys, paranoid I had dropped them somewhere in my driveway, only to find them on the kitchen counter. And the head-high tightness behind my eyes seemed like a dead giveaway.

Ratings

Munchies 2/5

Paranoia: 3/5

Racing mind: 4/5

Chilled: 2/5

Giggly: 2/5

Chatty: 4/5

Cottonmouth: 2/5

The Reveal

So, the scientists may have the stoners on this debate. Half of my guesses were correct for an experiment with a 50/50 shot of getting it right on chance alone. It was no better than if I had made my guesses before ever taking a puff.

Joint #1: WRONG

My guess: indica

Actual: sativa

Variety: Banjo

Joint #2: WRONG

My guess: sativa

Actual: indica

Variety: Banana OG

Joint #3: CORRECT

My guess: indica

Actual: indica

Variety: Skywalker OG

Joint #4: CORRECT

My guess: sativa

Actual: sativa

Variety: Clementine

While I didn't quite detect the sativa and indica distinction, I did notice the change in THC percentage. I could distinguish between the first joint as a light high with its lower THC percentage at 17.88 per cent, and the highest joint, number three with almost 22 per cent, producing a much more intense effect.

After looking up their chemical profiles, I saw a few things that could explain my guesses. While **Banana OG** is an indica, it has a higher limonene content than the other strains, at 0.21 per cent, which could explain why I interpreted the “sunny” effects it produced as a sativa. On the other hand, **Skywalker OG** had a very high myrcene level and a high THC percentage, which like Russo said, made me very lazy. While I correctly guessed that this one was an indica, it was the myrcene and THC leading me in that direction.

But according to Russo, the psychoactive effects are mostly determined by your set and setting. And while I tried to control as many factors as possible, not every session's environment was identical, and neither was my headspace.

“There is still [a] tremendous amount of subjective input into the effects a person is going to have,” Russo said. “But can consumers tell the difference in the effects of one cannabis versus another based on the biochemical content? Yes.”

So, there you have it. My *very* scientific experiment to determine if there really is a detectable difference between cultivars labeled as sativas and indicas came to the same conclusion as millions of dollars of academic research. If you don't believe me, try it for yourself next time you're at the counter.



Jesse Klein

Freelancer writer

HELP FILL OUR JAR

Inside the Jar is dedicated to publishing independent journalism—without a paywall. Our readers should never have to pay to access our work. Instead, we maintain several arms of support, a crucial one being membership. This includes a minimum \$5 recurring monthly fee, using one of the payment methods listed below. Your donation allows our team to offer [free and shareable content under a creative commons](#)

licence, operate without display ads, invest in new voices, and produce long form investigative journalism. Interested in filling our jar? Become a member today.

I got

5.00

CDN on it monthly (plus GST)

PAY NOW

Or you can make a one-time contribution

I'd like to chip in

0.00

CDN (plus GST)

PAY NOW

LATEST STORIES



News Hit:



Jesse Klein:



News Hit:

NORML Canada finds a new director in Caryma Sa'd

Putting the indica/sativa debate to rest with a blind taste test

DTES community groups organize response to COVID-19



News Hit:

COVID-19 rocks Canadian cannabis industry at all levels



product review:

Interprovincial OG



Pills, liquor, and pot:

From handcuffed to hindered

MORE TO READ