

Psycho-reportage: The Great Belgrade Brain Shock

A journalist's account of the physical and mental effects of an alleged sonic cannon or other cognitive mass crowd-control device used against anti-government protesters in Belgrade, Serbia.

On Saturday, 15 March 2025, at 7 p.m., I climbed onto a rubbish bin on Kralja Milana Street in Belgrade. Suddenly, I was overtaken by an unknown force, which caused me and everyone on the street to lose control of our bodies briefly and run away in a state of panic.

That same evening it was alleged that this response was not mass panic, but rather a reaction to a device widely speculated to be some acoustic cannon or other neurological weapon. The Serbian authorities continue to deny using such a device. Experts warn that this type of device may have unforeseen long-term effects on cognitive function. The European Court of Human Rights (ECHR) has ordered Serbia to respond by Monday² to the court's inquiry into allegations concerning the use of the sonic cannon.

I stood on a rubbish bin to watch a 15-minute vigil in memory of the 15, now 16, people who died when a canopy collapsed at the newly renovated train sta-

1 Miha K. Turk, historian and philosopher by education, journalist and correspondent for newspaper Dnevnik, covering social and political topics. Email: mihat911@gmail.com

2 First published on 28 March 2025 in the Objektiv edition of Slovenian daily newspaper Dnevnik. ECHR's investigation is still ongoing as of October 2025. The court published an interim measure in March 2025 where the court ordered Serbia to refrain from using such devices. The case was brought before the Court in Strasbourg by civil society organizations – who submitted to the court around 4,000 testimonies (CRTA, 2025).

tion in Novi Sad.³ The vigil was not observed in full as a mysterious force caused the people to disperse from the street. I did not choose the rubbish bin in that spot at random; I expected the incident to happen there at that time, and I wanted to be able to see what was going on while maintaining control in case something happened.

Opposite me was Andrićev Venac Park, with Pionirski Park behind it and the presidential palace a little to the left. The day before, the building had been surrounded by tractors; behind them was a fence, with police officers in full protective gear. About 100 metres behind the police officers, on a hill in the park, a crowd of counter-protesters, members of the Students 2.0 movement, had gathered. At the beginning of the 15-minute silence, they were quiet, although the day before, they had repeatedly tried to provoke the protesters in the street with shouts. However, the unruly crowd always drowned them out. This was their moment, the only one in the last two days when they could be heard, I thought. But they were silent. It was not that they wanted to honour the memory of the dead with silence, as bursts of laughter could be heard from the hill several times. This led me to believe that something was brewing.

In the 11th minute of silence, people to my left started running towards the edges of the street. From my position, I could clearly see that there was nothing behind them. The police officers standing in the shelter of the presidential palace noticed the movement, lined up, and raised their shields. It was so quiet that individual footsteps could be heard.

The person to my left also started running. Before I could even look back, I felt a cool breeze. For a moment, my mind went blank. I jumped off the rubbish bin and ran towards the monument to the last Russian tsar, Nicholas II, in the park behind me. At the tsar's feet, someone shouted, "Stop!" I stood there as if in a trance, my left leg shaking uncontrollably. At first, I did not suspect anything. Perhaps my nerves had betrayed me, and I was only disappointed in myself as a journalist, as I had been expecting some provocation the whole time, but then

3 The fall of the canopy at the newly renovated Novi Sad train station on November 1st, 2024, caused an unprecedented wave of civil unrest across Serbia. Arhiv javnih skupova, who documents mass gatherings in Serbia, estimates that there were protests in over 500 cities across Serbia (Arhiv javnih skupova, 2025). The instigators of the protests are students who declared blockades of most public universities, high and even elementary schools until their demands were met. Protests across the country are in support of these blockades and students' demands. Though most blockades have ended with the end of the school year the protests activities are ongoing. Students' demands first focused on accountability for the accident which they blame on corruption and that full documentation of the renovation would be made publicly available. Only in the second half of 2025 they called for elections. Protests range from smaller gatherings in virtually every municipality to larger protests such as the protest on 15th of march where more than 100 thousand protesters attended.



Thousands of protesters gathered in Belgrade to demand accountability and condemn the corruption that led to the Novi Sad railway tragedy that claimed 16 lives. Photo: Luka Cjuha

nothing happened. Yet I lost my nerve, even though I could see everything clearly. I ran away with the crowd. Why? There was also a sense of relief, as I had been petrified, for no apparent reason.

Our part of the street was generally calm and peaceful, as there were fewer people there than near Slavija Square, where the demonstration was taking place. It really seemed as if only a few dozen people had moved aside. People on our side of the street started shouting and whistling. A few seconds later, we heard a loud roar coming from the direction of Slavija. A large group of people were coming towards us. They had come to see what was going on after hearing reports of a 'provocation in Pionirski Park'. This was also the reason the students gave when they ended their protest half an hour later.

About two hours later, while waiting for our photographer, Luka Cjuha, who was at another location, I started writing my report for the day. I realised that I could not quite describe this event. The more I thought about it, the more

blurred it became, even though it did not seem like anything special to me (yet). I put this down to fatigue.

Then, reports of a potential sonic cannon began to spread, along with recordings of a loud wave cutting through the crowd towards Slavija.

I wondered if we had experienced this wave too. But how could we have done so when it was so quiet and peaceful where we were?

A few days later, investigations by journalists and the non-governmental organisation Earshot indicated that the cause of the panic was not loud noise. Instead, they speculated that the panic had been caused by an inaudible ultrasonic signal or even a type of gas weapon, known as a vortex cannon (Abu Hamdan et al., 2025). Although both sources are inaudible to the human ear, they cause feelings of panic and a sense of loss of control. Or so the theory goes, at least.

But why do most testimonies mention noise? I heard the footsteps of individuals fleeing, which multiplied as a wave of panic swept a large number of people towards the east. Many people were screaming, and the noise from their screams and thousands of footsteps travelled faster than the human wave itself. At least, that is how the local journalists analysed the phenomenon.⁴ They also reported that cannon shots were fired at that moment, which people probably attributed to the ensuing panic.

Journalists from the Vreme newspaper collected numerous testimonies. The first documented case of 'flight' occurred about 150 metres from my location. The BBC later reported that people were also fleeing from that location towards Terazije, i.e., westwards. The proximity of the source, therefore, explains the relative silence.

Unusual paranoia

I am now certain that some form of neurological weapon was used to create a feeling of panic and cause a person to lose control of their body, with effects lasting for at least a few days. It was a long and painful journey to reach this conclusion. The first proof that this was not mass hysteria is that I did not experience the

4 Since this article was first published, a comprehensive visualisation based on 3,032 testimonies from affected individuals has been made available at <https://zvuk.labs.rs/>. Of these testimonies, 2,851 reported hearing a sound. While the majority described a machine-like or aeroplane sound, only a small proportion described a detonation sound (Joler et al., 2025). Mentions of sounds increased the closer they were to the crowd. NGOs that collected testimonies: Inicijativa A11, FemPlatz, Komitet pravnika za ljudska prava - Yucum, Beogradski centar za ljudska prava, Crta, Građanske inicijative.



Riot police and gendarmerie units are protecting the pro-government protesters in front of the presidential palace. Photo: Luka Cjuha

event alongside the protesters. While they observed 15 minutes of silence—a form of mass meditation—I was on the lookout for signs of agitation. For the first few hours after the event, I felt great, calm, and almost euphoric. The next day, however, I was mentally broken and unable to put myself together. I experienced mild panic attacks over minor things. My mood fluctuated greatly, and I felt very uncertain. Interestingly, I only developed these symptoms after reading initial reports about the alleged use of a sonic cannon. In my impaired state of mind, I wasn't sure if I was imagining it all.

In the days following the attack, I developed an unusual paranoia. All the objective indicators suggested that the state had interfered with my brain. But I fought against this idea. No, my nerves just gave way. I am developing symptoms as I read newspaper reports, I convinced myself. Once I had calmed down and familiarised myself with the aforementioned reports, I somehow managed to accept that an unknown, invisible, and inaudible force had interfered with my



Silent vigil of March 15 just moments before a mysterious device dispersed the crowd.
Photo: Luka Cjuha

consciousness and briefly taken control of my body. But even that was not easy to come to terms with.

The feeling of someone invading your consciousness is similar to the discomfort experienced by people whose homes have been broken into. Someone was inside, and something was stolen. The discomfort remains for some time, knowing that someone has invaded your intimate space without your knowledge. I felt the same way, except they did not break into my home; they broke into my brain. The intruders were not strangers; all signs point to it being the Ministry of Internal Affairs of the Republic of Serbia.

I found myself caught in an endless cycle of reliving and pondering the exact moment: how could someone take away your control over your own body? Had they taken something or planted something? I still allow for the possibility that, had I gone home after the protest and disconnected from all the news, I might have just been tired and not noticed anything unusual. I would probably have at-

tributed my physical and mental exhaustion to my own shortcomings. It would be like someone breaking into my flat and rearranging the furniture around a bit, but without leaving any obvious signs of a break-in.

Visit to the psychiatrist in Trnovo

The day after the attack, I developed several symptoms, including nausea, loss of appetite, sleep disturbances, and nightmares. However, unlike Serbian neurologists report, I did not experience any problems with my ears or ringing in my ears. Professor of the Faculty of Medicine and neurologist Dr. Nikola Vojvodić, in an interview for N1 (N1 Beograd, 2025), reported that around 140 people were treated at the Belgrade neurological emergency centre alone on Sunday. The emergency rooms were reportedly full on Monday as well.

I thought I had experienced a trauma that I could not understand, and these thoughts were poisoning my body. I went to see psychiatrist Breda Jelen Sobočan. In her Trnovo office in Ljubljana, she agreed to my request for an interview as a form of therapy.

Firstly, I wanted to know whether we had experienced collective hysteria, or simply been frightened by the emotional tension of 15 minutes of silence and the tense atmosphere. "Judging by your account and the footage of people running away, I don't think it was mass hysteria. Had it been the case, they would not have stopped. You say yourself that you only ran a few metres before stopping immediately. In my opinion, you did not stop because someone told you to stop; you stopped because something inside you stopped working," the psychiatrist commented.

She also explained the use of the sonic cannon and the piercing silence: "We know that there is a certain frequency of infrasound that you feel more as a thermal fluctuation. Perhaps that was the cold breeze you felt. This sound does not enter through the ears, but goes directly into the skull. This causes the brain to receive an energy signal, expand rapidly, and then contract again. This creates a brain shock. Humans experience fear at different levels, which is a human peculiarity: they can be afraid yet still retain control over themselves. You obviously lost control for a moment."

At that moment, I really did not have control over myself; I am sure of that, and other testimonies say the same. The psychiatrist explained that it seems we started running and then became afraid of our bodies moving, as our minds were temporarily dysfunctional.

The thalamus regulates brain function. It balances feelings, impulses and reason, enabling us to function in everyday life without being overwhelmed by fear or anxiety. "The thalamus is like a plate that captures information from the present moment and the body, creating a sense of the here and now. Perhaps what happened was that the shock was so great that this plate shattered. One part of this plate contains information from the auditory system, which plays a key role in the perception of fear."

We turned into a herd of animals

According to this explanation, a certain frequency temporarily disabled the connection that, among other things, maintains the balance between instinct and reason in those who were attacked. Control was taken over by the amygdala, a part of the brain that regulates fear and instinct. The psychiatrist actually described this as our 'reptilian brain' to me in simple terms.

"We started out as prey mammals and only recently became predators," she continued. "We are sensitive to noise, slow rhythms, and low sounds, which trigger a sense of danger in us. If something were to go off right now, we would both jump before we even realised what it was. The effect at the protests was transmitted directly into your skull, without your awareness, and you could only hear the noise from within. Where you were standing made a difference: if you had been standing just a little higher, you might have received the signal differently. Interestingly, you all ran in the same way. It did not look like hysterical panic; it looked more like you had experienced an electric shock."

She also had an explanation for why many people's ears were ringing or bleeding despite the silence. The ultrasonic shock wave could have travelled through the skull and out of the ears, damaging them in the process.

The immediate and lingering sense of relief I felt after the event may have been due to the panic passing while I was running for my life, as if from a pouncing lion. At least that was the impression I got, even though I wasn't aware of it at the time. I felt relieved that I had not been eaten. That is also a pleasant feeling.

Before I visited the psychiatrist, I had often used animal metaphors to describe my own behaviour, as well as that of others, in that moment. For example, I would say that I was running like a deer and that the people on the street were like a herd of gazelles fleeing from an invisible lion. I also paid attention to other accounts, as many people used animal metaphors to describe the event. "It sounded like a herd of rhinos was charging towards us. I remember thinking, what would a herd of animals be doing in an urban centre like Belgrade?" Vuk, a



Serbia is experiencing a wave of protests that touched every municipality and is lasting for over a year now. Photo: Luka Cjuha

resident of Ljubljana who experienced the sonic boom with his wife and daughter, told me. However, he was not sure whether he was running away from the herd or had become part of it himself. When we spoke on Thursday, he was still taking medication for headaches, while I was more or less fine by Tuesday. Now, only the barking of dogs gives me a feeling of dread, which I assume is a remnant of my temporary demotion to prey.

"Your brain needs to recover from this shock. You probably have some functional lesions. This happens when the emotional and cognitive parts of the brain try to realign, which can affect your physical well-being, including digestion. Post-traumatic stress is also associated with a concussion of the thalamus," the psychiatrist explained, outlining the short-term consequences. The effect of the drug was like being hit on the head with an invisible baton that targeted specific nerves in my brain. For a moment, I felt like a reptile running for its life.

Although this was an unusual experience, I left the office feeling calm because I had at least a rough understanding of what was going on.

Psychological weapons for an already paranoid society

They released a substance on the demonstrators that I do not believe had ever been used on a crowd before. All other accounts of the sound cannon describe a deafening noise. This was completely different. There was certainly no noise. Not only is this based on my memory of the events, but something like that would also have echoed for some time in Belgrade's concrete jungle. I hypothesised that uncertainty and demoralisation were secondary effects of this weapon. This is why I documented the symptoms from day one.

I also asked Vuk if he felt the same uncertainty swinging between euphoria and despair as I do. "You know, I'm Serbian. It is different for me. I thought we would actually achieve something that day. We had only just arrived when they cancelled the protest, so we wandered around for a while before going to sleep. Now, I just feel empty. Nothing. But the students were right to cancel the event immediately." I did not press the issue. Protests are, by definition, collective expressions of emotion towards the state that unite individuals. The sound cannon cut through that in a second, but I didn't really experience that collective emotion against the state. A few days later, Vuk called me and said, "Now that the worst is over, I'm left with the awful feeling that my own homeland has used me as a guinea pig for an unknown weapon."

The Serbian Psychological Association called on the authorities to disclose the weapons used for health reasons. "Given that our society is already so traumatised, any renewed connection with the trauma constitutes an additional psychological attack. Denial and maintaining a state of ignorance can further exacerbate the existing psychological effects." I spoke with people who had also been affected by the attack. Most of them said they find it difficult to read news about the event, especially to watch videos, even after the physical symptoms have gone.

However, you do not have to have experienced trauma yourself to feel unwell when you hear the news from Serbia about the event. On the first day, the President and the Minister of the Interior denied that they had the technology for a sound cannon, let alone that they had used it. Serbian President Aleksandar Vučić also announced that anyone spreading these rumours would face criminal prosecution. In other words, most of the media. Then the US non-governmental organisation Earshot published an analysis of the sound, suggesting it was not

a sound cannon at all, but a chemical weapon that rapidly releases a gas into a crowd, supposedly having a similar effect. The next day, a receipt was made public showing that Serbia had purchased 16 large LRAD loudspeakers that, in theory, could be capable of such a transmission. Minister of the Interior Ivica Dačić quickly clarified that he had misspoken, categorically denying the existence of these devices. He clarified that they do have them, but they are stored in warehouses (Jovanović, 2025). However, photographs then emerged showing these devices on jeeps near the assembly point and in various parts of the city. The next day, Genasys, the company that manufactures and sold these devices to Serbia, came forward to assure us that their technology had definitely not been used at the event. However, based on the footage, it appears that a sound cannon or similar device was indeed used – just not one of theirs.

President Vučić has since announced that he will resign if it is proven that a sound cannon was used.

The media reality of a regime that has lost touch with its citizens is perhaps best encapsulated by a joke that circulated online in the days following the attack: "The only way I would believe that they didn't use a sound cannon is if president Vučić went on television and said, 'We used a sonic cannon.'"⁵

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5 Originally published on 28 March 2025 in the Dnevnik newspaper as “Veliki beograjski šok možganov.” Thanks to Dnevnik and photojournalist Luka Cjuha for permission to republish.

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