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## The Neurobiology of Protest

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Literature and Medicine, Volume 39, Number 1, Spring 2021, pp. 1-8 (Article)

Published by Johns Hopkins University Press



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# The Neurobiology of Protest

Rocío Pichon-Rivière

What I know about the real toll of recessions, I've learned at home.

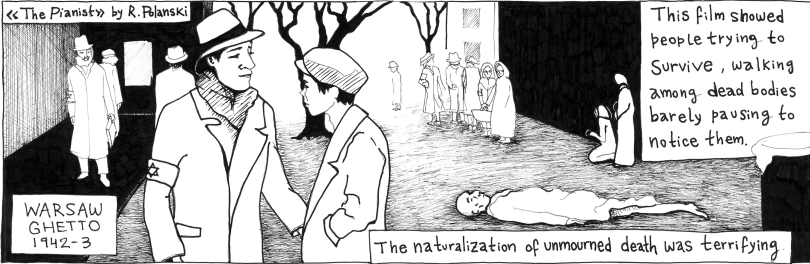


Buenos Aires, Argentina. 2002.

Each time an economic crisis is looming, I worry about the men.

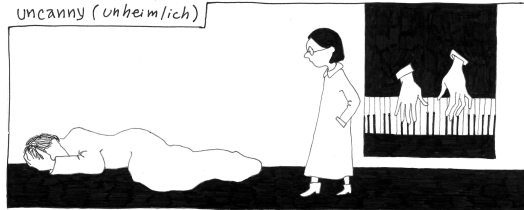
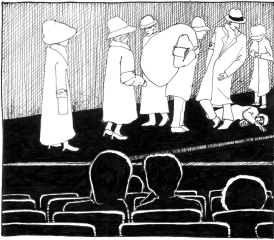


«The Pianist» by R. Polanski

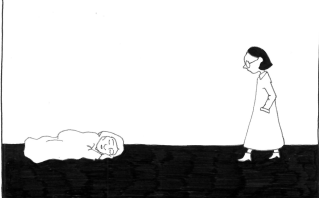


The naturalization of unmourned death was terrifying

I remember watching the film and then walking home at night. It had shaken my eyes open. My neighborhood looked uncanny (*unheimlich*)



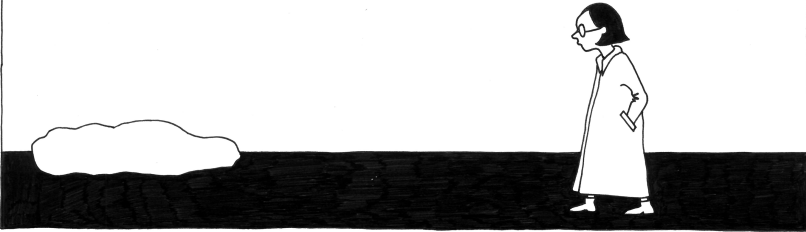
The bodies followed the same rhythm - still, horizontal on the ground.



Except they weren't dead. (or were they?)



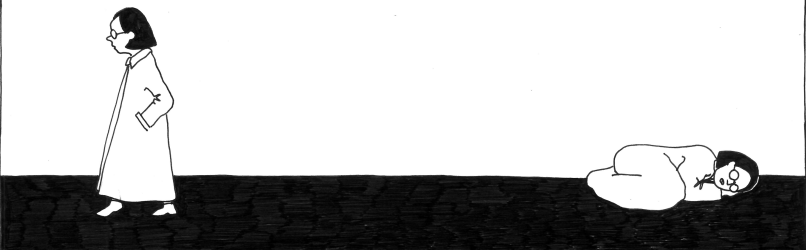
In 2002 the unemployment rate in Argentina escalated to **19.59%**. Losing your job can send the message to your body that you are in a life or death situation.



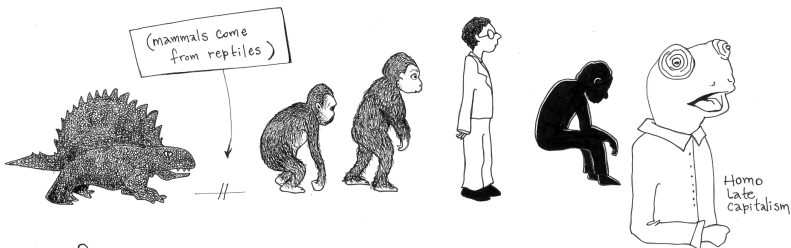
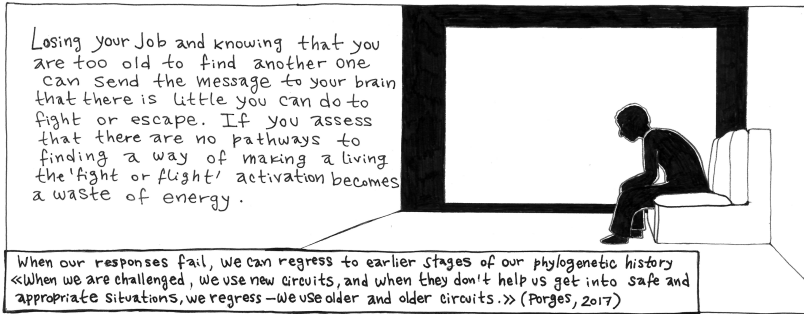
This insight (which Porges calls neuroception, because it is the brain that assesses it, not the consciousness) activates your fight or flight response. Your heart beat and sugar levels go up, providing the energy to respond.



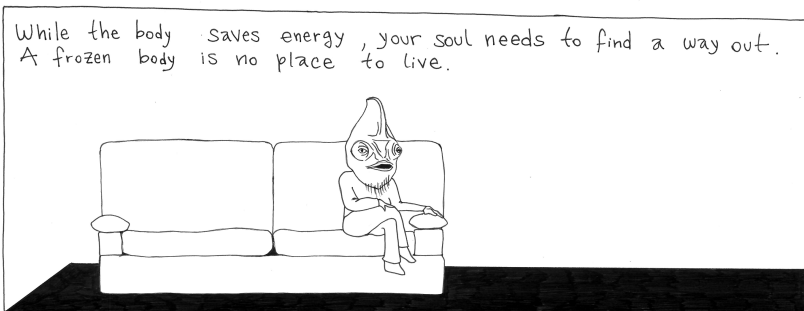
There were so many people living off the city trash cans that a name had to be coined: "cartoneros" - those who pick up cardboard ("cartón") to sell it. We silently knew that many were also eating from the trash.

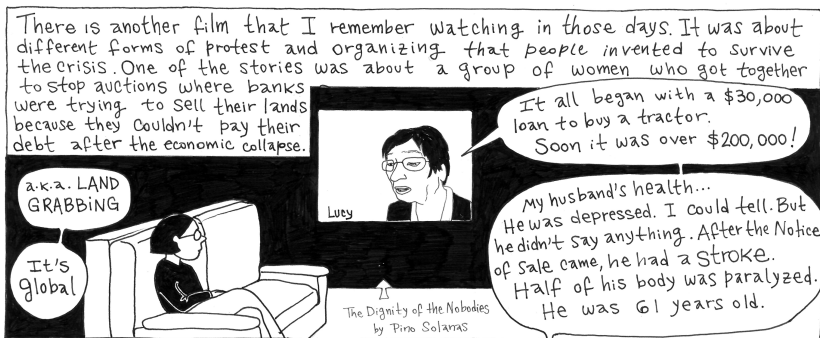






When facing imminent death (real or social) we can go into a more primal survival response: "freeze". We got this response (and the primitive vagal nerve that controls it) from our brothers and sisters the reptiles. The unmyelinated pathways in the vagus nerve serve as a break to stop the activation. Popularly known as "playing dead", we can also freeze emotionally, when feeling has become useless, or unbearable.





I think the biology of protest has everything to do with the neurocircuitry of love and connection. Even though Lucy and the other women use the language of "fight," protest is more than fighting. In my experience protest is filled with solidarity. It says: we are in this together.

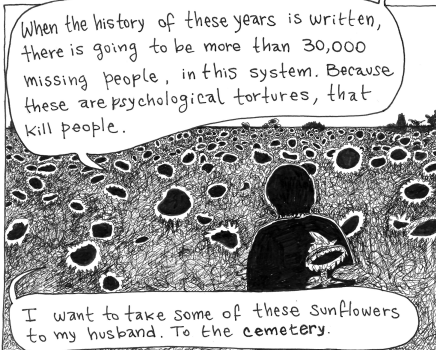


According to Shelley E. Taylor's "Tend and Befriend" theory, it is more common for women than for men to respond to stress with a social activity of care, instead of the "fight or flight" reaction. We "tend to offspring to ensure their survival and affiliate with others for joint protection and comfort." The social positive exchange (that this impulse seeks) in turn, helps to restore the body's chemical balance.

"This model (...) may shed light on why women live longer than men."

The whole country was like this. There were 14 million hectares of land under mortgage in the national Bank.

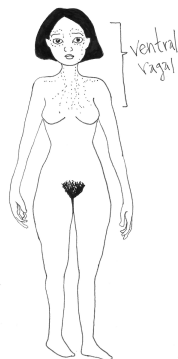
Si no hubiéramos nacido se habría llevado a cabo la extranjerización total de esta república.



## ENDNOTES

### POLYVAGAL THEORY

According to Stephen Porges (2017) the vagal nerve has an old ("reptilian") pathway which works like a radical break that can paralyze the body ("freeze") but it also has a phylogenetically more recent pathway that we share with other mammals which explains how positive social interactions can calm the stress response. The ventral vagus connects the face and the heart through neural circuits that make our face (especially the area around the eyes) reflect the state of our heart. As vagus tone increases, in turn, this circuitry regulates our heart beat.



### SUSTO

Modern science confirmed in the last two decades what indigenous peoples in the Americas have known for hundreds of years: when faced with terror and the feeling that we cannot fight or escape (which define traumatic experiences) we can lose pieces of our soul or spirit ("perder pedatos de alma") (Levine)

Biologically, we lose a part of our humanity inasmuch as we lose our grip of the mammalian social engagement neurocircuits that connect us with others. When a child is frightened (susto) a shaman sings with the child's community a sweet song to call the soul back home (back to the body, back to the community).

Now we know that the melody and rhythm of singing and prosody elicit a calming effect on the heart beat due to their impact on the ventral vagus nerve circuits.

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