WRESTLING WITH ANGELS AND ISOTOPES: IT'S COMPLICATED
GREG ROSZA

Stuart Hall once quipped that struggling with theory was like wrestling with angels, that "the only theory worth having is that which you have to fight off, not that which you speak with profound fluency."[1] I whole-heartedly agree; although, there was once a time that I adored theory. I remember dancing with the Wu Li Masters and playing hide and seek with Schrodinger's cat.[2] When you are young it seems like you have all the time in the world, yet we only had three minutes till midnight.[3] And when you are young, you do not question who your idols are, you just try to emulate them, to follow in their footsteps, even if they are Edward Teller Leo Szilard, Eugene Wigner, and especially my father, György Geza Rózsa.[4] Lately, however, I have been wrestling with my own demons. But then again, what are demons after all, if nothing other than former angels who have fallen far from grace. This paper outlines the source of that struggle and hints at a possible resolution.

[ENTER STAGE RIGHT]
Walter Benjamin's "Angel of History"

T_0.........T_1.........T_2..T_∞

Figure 1.

In the Western enlightenment tradition, we generally perceive time as flowing along a horizontal and progressive timeline from left to right. And where we see a "chain of events" ($T_0...T_1...T_2$), Benjamin writes, the angel of history witnesses "one single catastrophe which keeps piling wreckage upon wreckage and hurls it in front of his feet" ($T_\infty = \sum T_0 + T_1 + T_2 ...$).[5] Benjamin's angel is tragically fixated on a past, which it cannot alter—a past, which simultaneously propels it into a fatalistically determined future. Rebecca Solnit excuses Benjamin's "tragic" and "immobilized" portrayal of history given "the storm of the Third Reich [which] was upon him when he wrote his 'Theses,'" a storm which Solnit writes, "would destroy him later that year."[6] My father knew this storm too, and like Benjamin, this storm would also consume his family—my family, a family that I would never come to know. My father was just four years old when the Arrow Cross imprisoned him, and my grandmother, in the Budapest Ghetto.[7] It was November 1944 in German-Occupied Hungary. My grandfather had already died in the war, and within a month, my father would become orphaned when my grandmother

was sent to Auschwitz. To my father's credit, however, he, unlike Benjamin's angel, never gave up his faith in possibility, however unlikely. This, more than anything else, was his legacy to me.[8]

[ENTER STAGE LEFT]
Rebecca Solnit's "Angel of Alternative History"

$$
T_0 < \begin{cases} T_{1a} < \begin{cases} T_{2a1} < \begin{cases} T_{3a1} < \{ \\ T_{3a12} < \{ \end{cases} \\ T_{2a2} < \quad \underline{\mathbf{T_{3ab}}} < \cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots \mathbf{T_{\infty'} = \sum T_\infty^\infty} \\ \end{cases} \\ T_{1b} < \begin{cases} T_{2b1} < \begin{cases} T_{3b12} < \{ \\ \end{cases} \\ T_{2b2} < \begin{cases} T_{3b2} < \{ \end{cases} \end{cases} \end{cases}
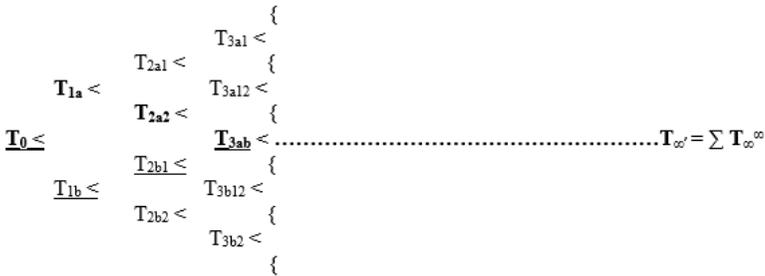$$

Figure 2.

As you can see from the above diagram, we are still locked into a Western "frame of mind" where history proceeds on a continuum from left to right. Only now, we've introduced some contingency. Likewise, there are multiple paths one could take and still reach T_{3ab}—$T_0 \rightarrow T_{1a} \rightarrow T_{2a2} \rightarrow T_{3ab}$ or $T_0 \rightarrow T_{1b} \rightarrow T_{2b1} \rightarrow T_{3ab}$.[9] While the shape of history is no longer determined, the outcome can sometimes remain the same. This is not only the source of my first dilemma, but also the first demon that I grapple with. Just how determined is history? Are we doomed to repeating it? And, is Benjamin's angel internally laughing at our impotent attempts to intervene in the inevitable? In contrast to Benjamin's deterministic "Angel of History," Solnit contemplates, an "Angel of Alternate History," a comedic angel whose face, unlike Benjamin's angel, "is turned towards the futures that never come to pass."[10] While Solnit models her angel on Clarence, the comedic angel of Frank Capra's *It's a Wonderful Life*, mapping out possible futures that never come to fruition somehow seems more tragic than comedic. In Solnit's defense, she argues that "most environmental victories look like nothing happened," at all.[11] So, while we see only a vacant lot, Solnit's angel of alternative history sees a downtown lot that was never turned into a toxic waste treatment plant. Benjamin's angel gives us the particulars. Solnit's "Angel of Alternate History," on the other hand, "tells that our acts count, that we are making history all the time, because of what doesn't happen as well as what does."[12]

In "Environmental Justice Storytelling: Angels and Isotopes at Yucca Mountain, Nevada," (for which this paper is partially named), Donna Houston argues that "(1) the disruption of the continuity between past and present reveals a plurality of stories that shape alternative practices; and (2) these alternatives are often invisible, fragmented and no longer available to us as direct experience but are sustained through storytelling and imagination."[13] Storytelling opens up spaces of possibility, possibilities, my father whole-heartedly believed in.
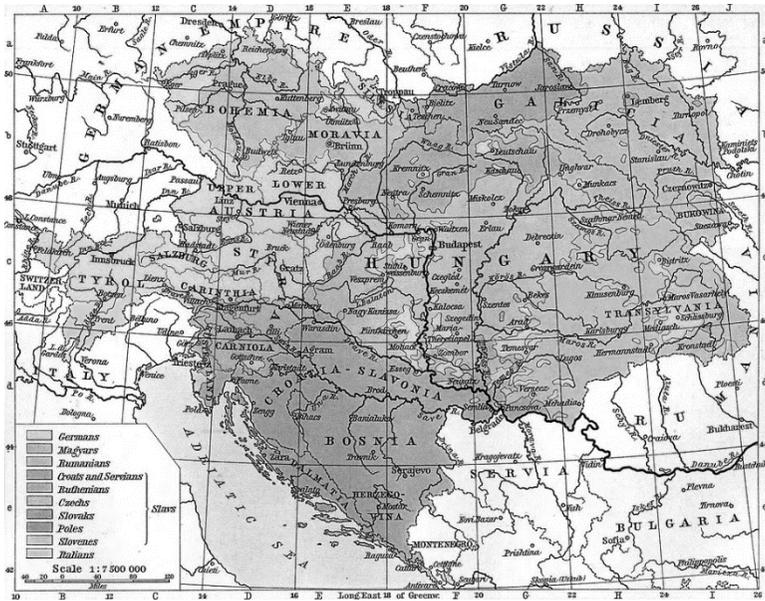

Figure 3: A Map outlining Austria, Hungary, and Bosnia. Royalty free image from Pixabay.com.

Hall too believed in the possibilities opened through storytelling, through personal autobiography. Such autobiography, Hall explained, "is usually thought of as seizing the authority of authenticity. But in order not to be authoritative," Hall remarked, "I've got to speak autobiographically."[14] David Morley and Kuan-Hsing Chen argue that Hall's own story, offers, "a way of illuminating not simply his own autobiography, but also the diasporic experience itself: precisely the awareness he refers to, of being (often doubly) peripheral, displaced or marginalized"—doubly marginalized, like my father.[15] Fast-forward to Soviet-Occupied Hungary, October 1956—to one of the few remaining inheritances and stories my father left me. My father is just fifteen at the time when the first shots of the Revolution ring out. The Hungarian anti-Soviet forces are poorly equipped, but Radio Free Europe promises the rebels U.S. aid, and U.S. intervention—neither of which materializes.[16] My father never the less becomes a card-carrying member of the resistance; he is given a Hungarian version of the Soviet PPSh-41

submachine gun, three-tiered stick grenades, and placed second in command of his squadron.

Without U.S. aid, things go downhill fast and my father decides to make a break for Austria, crossing a part of Budapest where the fighting has subsided. The Soviets have reoccupied this part of town and my father is summarily arrested, and without trial, placed in front of a firing squad. But instead of firing, the Soviet commander takes him on two-hour tour of heavily mechanized Soviet troops and T-54/T-55 tanks. The commander then releases my father and tells him to go back to Budapest to tell the rebels there that the war is over. My father has other plans and heads northwest towards Austria. He covers over eighty miles of snow-covered wilderness in four days on foot. His feet and calves are bloody and raw, but he is free. Within a month, he will turn sixteen and a refugee in a foreign land.

[ENTER UP STAGE]
Untold Stories + Laughing Angels + All That Might Have Been.

While my father headed north to Austria, Soviet tanks rolled south into Budapest. And twelve hundred miles away, on the other side of Europe, an academic watched from afar and contemplated an alternate future for Marxism. "I came into Marxism backwards," Hall would later quip, "against the Soviet tanks in Budapest."[17] In *Hope in the Dark*, Sonit, contemplating, herself, on the difference between hope and faith, writes that, "Every act is an act of faith, because you don't know what will happen."[18] Our actions count. We make history all the time, even

Figure 4: Poet and activist Olzhas Suleimenov. Creative Commons Attribution 2.0 Generic license.

if we cannot see past the horizon of their effects. "Nobody can know the full consequences of their actions," Solnit argues, "and history is full of small acts that changed the world in surprising ways."[19] By way of illustration, Solnit points to hundreds of antinuclear demonstrations that took place at the Nevada Test Site during the late 1980s. Such acts of faith were largely ignored by U.S. media, but they were witnessed halfway around the world, inspiring an indigenous antinuclear movement in Kazakhstan.

February 27, 1989, Kazakh national poet Olzhas Suleimenov appears on national television to read his poetry to the nation. Instead, he condemns Soviet nuclear weapons testing at the Polygon site in Semipalatinsk, Kazakhstan, calling for its immediate closure.[20] Within a day, over 5000 Kazakhs gather in an act of faith. They name their movement Nevada-Semipalatinsk in solidarity with activists at the Nevada Test Site (NTS). The Kazakhs deeply identify with the Western Shoshone who were trying to (1) end nuclear weapons testing at the NTS; and (2) trying to reclaim their ancestral homeland from the U.S. government—land appropriated from the them despite an active treaty guaranteeing Western Shoshone title to it. To her credit, Solnit has probably written more on the Western Shoshone's role in this transnational partnership than any other writer, and yet I feel their story is greatly underrepresented in academia. I estimate that less than fifty pages of academic scholarship have been devoted to this truly unique and important transnational partnership. This lack of scholarship, however, raises certain ethical concerns for me, which form the basis of the second demon I wrestle with.
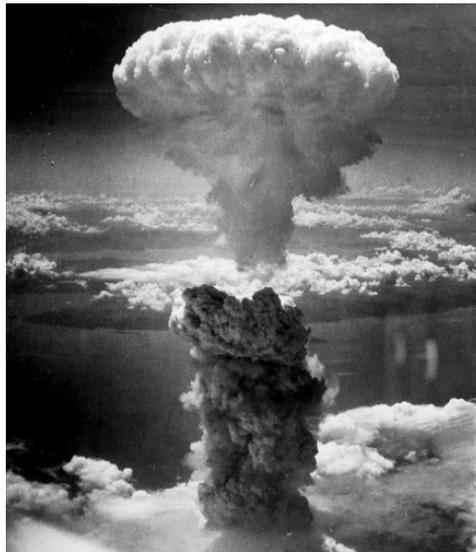

Figure 5: Nuclear Cloud. Royalty free image from Pixabay.com.

This story is not mine to tell, it belongs to the Western Shoshone, it belongs to the Kazakhs, to the Nevada Desert Experience and American Peace Test activists who were there and put their own bodies to the hazard through their direct-action protests.

In an alternative past, it might somehow have been mine too. I chose the University of California, Santa Barbara for my undergraduate education because of their dual degree program in nuclear physics and engineering. I graduated in 1991—the year Mikhail Gorbachev called for a year-long moratorium on Soviet nuclear weapons testing—the year Boris Yeltsin halted all nuclear testing in the Soviet Union—the year Kazakhstan declared its independence from the Soviet Union—and the year my mother passed away from emphysema. As a nuclear scientist I might have been present or at least active in the denuclearization of this former Soviet state. But in 1988, I changed my major to Economics and yet, when I graduated in 1991, my first interview was with the Central Intelligence Agency. They were looking for German-speaking analysts with backgrounds in economics and physics to monitor the newly formed republic from within the U.S. State Department. Had I chosen to continue the employment process, part of this tale might have been mine to witness, if not tell. Fast-forward twenty-plus years, years of private corporate industry concerns, years in which I have taken as many paths *in the wrong direction* as a person can take, and yet, I find myself back where I began—studying this transnational antinuclear alliance between U.S. and Kazakh activists. If you close your eyes, lean in, and listen closely, you just might hear the faint sound of laughter. Never trust an angel.

Notes

[1] Stuart Hall, "Cultural Studies and its Theoretical Legacies," in *Cultural Studies*, ed. Lawrence Grossberg, Cary Nelson, and Paula Treichler (New York: Routledge, 1992), 280.

[2] Gary Zukav's *Dancing Wu Li Masters: An Overview of the New Physics* (New York: Harper Collins, 1979) and John Gribbin's *In Search of Schrodinger's Cat: Quantum Physics and Reality* (New York: Bantam Books, 1984) introduced me to the amazing, yet invisible world of quantum mechanics.

[3] From their website, the *Bulletin of the Atomic Scientists* created the Doomsday Clock in 1947 "using the imagery of apocalypse (midnight) and the contemporary idiom of nuclear explosion (countdown to zero) to convey threats to humanity and the planet…. The Clock has become a universally recognized indicator of the world's vulnerability to catastrophe from nuclear weapons." In 1986 when I began my studies at the University of California,

Santa Barbara, the clock read "Three minutes to midnight." https://thebulletin.org/2018-doomsday-clock-statement.

[4] Edward Teller, Leo Szilard, and Eugene Wigner were trio of Hungarian-born theoretical/nuclear physicists who "changed the course of history" by prompting President Franklin D. Roosevelt to establish the Manhattan Project. While Szilard would later decry the usage of atomic bomb on the civilians of Nagasaki and Hiroshima, Teller went on to develop the Hydrogen bomb. https://www.atomicheritage.org/history/einstein-szilard-letter-1939.

[5] Walter Benjamin. Illuminations (New York: Schocken Books, 1968), 257. Along Figure 1., T_1, T_2, etc., represent unique events at specific moments in time. While we experience the uniqueness of each event, Benjamin's Angel witnesses one single event at T_∞, where the sum of all previous events are flattened into T_∞, itself.

[6] Rebecca Solnit, *Hope in the Dark: Untold Histories, Wild Possibilities* (Chicago: Haymarket Books, 2016), 70.

[7] The Arrow Cross was Hungary's version of the National Socialist Party.

[8] For reasons that will become apparent later in this paper, my father never believed in No-Win situations. "Where there's a whip, there's a way." My father was a product of that whip. And as a bi-product of that intergenerational trauma, so am I. I can still feel my father's knuckles bearing down on the top of my head anytime I whisper to myself that I "can't" do something. The upshot to this is, I have always found a way through or around any obstacle.

[9] Figure 2. represents a similar timeline to Figure 1., but with the added complexity of a field of possibilities representing multiple determinations rather than the simple linear cause and effect of Figure 1. This diagram, however, is far too simple, but for the ease of presentation I chose a binary branching system to illustrate my point that divergent paths can sometimes lead to the same conclusion.

[10] Solnit, Hope in the Dark, 71.

[11] Ibid.

[12] Ibid.

[13] Donna Houston, "Environmental Justice Storytelling: Angels and Isotopes at Yucca Mountain, Nevada," Antipode 45 no. 3 (2013): 418.

[14] David Morley and Kuan-Hsing Chen, Eds. *Stuart Hall: Critical Dialogues in Cultural Studies*. New York: Routledge, 1996, p. 261.

[15] Ibid., p. 13.

[16] "Policy Review of Voice for Free Hungary Programming, October 23-November 23, 1956," National Security Archive, George Washington University. https://nsarchive2.gwu.edu//NSAEBB/NSAEBB76/doc10.pdf.

[17] Hall, "Cultural Studies and its Theoretical Legacies," 279.

[18] Solnit, Hope in the Dark, 65.

[19] Ibid.

[20] "Polygon" was the colloquial name of the Soviet's counterpart to the Nevada Test Site.

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