

# Viral Time

## Chapter 5: Viral Time

### Observer Commentary

Temporal scale analysis: Biological evolution vs. cultural evolution.

**Biological evolution** operates across approximately  $10^5$  to  $10^6$  years for significant speciation in complex organisms. Human genetic differentiation across populations typically requires 5,000–10,000 years of reproductive isolation to produce observable frequency shifts in alleles, 50,000–100,000 years for substantial differentiation.

**Cultural evolution** (memetic replication and mutation) operates across single generation timescales: 20–30 years for substantial shift in transmitted behaviors, beliefs, and practices. Under conditions of intensive information exposure, cultural evolution can occur within single organism lifetime—5–10 years for complete identity reconfiguration.

Taiwan–mainland genetic differentiation: Negligible. The populations are effectively identical at genetic level. 75 years of separation is 0.075% of the timescale required for biological speciation.

Taiwan–mainland cultural differentiation: Substantial. Three generations of separation, differential political systems, differential information environments. Cultural divergence has proceeded at maximum possible rate.

This creates paradox in identity politics: Biology says “same people.” Culture says “different people.” Which determines identity?

Nationalist position (both mainland and Taiwan variants) privileges biology: “We are the same race, same blood, same ancestry.”

Constructivist position privileges culture: “Identity is performed, not inherited.”

Observer position: Both are correct and both are irrelevant. Identity is whatever criterion the organisms use to distinguish coalition members from non-members. The criterion can be biological, cultural, linguistic, political,

or arbitrary. What matters is not the criterion's objective validity but its functional effectiveness in coordinating group behavior.

Subject under observation: Sarah Huang (黃雅琪), age 35, American-born Chinese with Taiwanese family origin, currently residing in San Francisco. She represents diaspora condition: Multiple identity claims simultaneously available, none fully satisfying, all partially activated depending on context.

Her cognitive processes demonstrate memetic mutation at maximum rate: Identity shifts occurring across contexts on timescales of hours to days, not generations.

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## Human Narrative

Sarah Huang woke at 6:15 AM to her alarm, silenced it, and checked her phone before getting out of bed. Email, Slack messages from colleagues in different time zones, news notifications. One headline caught her attention:

**“Taiwan Semiconductor Manufacturing Company Announces New Export Restrictions Amid US-China Tech War”**

She skimmed the article. TSMC, the world's most advanced semiconductor manufacturer, was caught between US pressure to limit exports to China and Chinese pressure to maintain access. Taiwan's economy—and by extension, global tech supply chains—hung in the balance.

Sarah worked as a product manager at a tech company in San Francisco. Her entire career depended on semiconductor supply chains that flowed through Taiwan. If the strait became a war zone, the global economy would collapse. Not slowly, not gradually, but immediately. Every smartphone, laptop, car, medical device—all contained chips manufactured in Taiwan.

She got out of bed and went through her morning routine on autopilot: shower, coffee, breakfast of yogurt and granola while scrolling through more news. Her apartment was in the Mission District, a one-bedroom that cost \$3,200 per month and was considered a good deal. Through the window, she could see the fog rolling in from the bay, the city's microclimate creating its usual morning gloom.

At 8:30, she joined a video call with her team. Three colleagues in San Francisco, two in New York, one in London, one in Bangalore. They discussed a product roadmap for Q3, debated feature priorities, reviewed user research data. Sarah led the meeting efficiently, keeping everyone on topic, making decisions when consensus stalled.

It was only near the end of the meeting that Tom, one of the New York engineers, said: “Hey Sarah, you're Taiwanese, right? What do you think about the situation? Should we be worried about supply chain disruption?”

The rest of the team's faces appeared in their Zoom squares, looking at her with polite curiosity.

Sarah felt the familiar discomfort of being asked to represent. "I'm American," she said. "My parents are from Taiwan, but I grew up here."

"But you visit, right? You have family there?"

"Yeah, I have cousins in Taipei. We're not super close, but we keep in touch."

"So what's the vibe? Are people worried about war?"

Sarah chose her words carefully. "I think most people in Taiwan are used to living with the threat. It's background noise. Like how people in California live with earthquake risk—you're aware of it, but you don't panic every day."

Tom nodded. "Makes sense. But I mean, this time feels different, right? China's getting more aggressive. The military exercises are more frequent. What if it actually happens?"

"Then we're all fucked," said Maya, the London colleague. "Not just Taiwan. Global recession, supply chain collapse, potentially World War III if the US gets involved militarily."

The meeting derailed into speculation about geopolitics for another five minutes before Sarah steered them back to work topics and wrapped up the call.

After the meeting ended, she sat staring at her screen, feeling the familiar mix of irritation and responsibility.

She was Taiwanese when people wanted to ask about the geopolitical situation. She was American when filling out forms or introducing herself to strangers. She was Chinese when visiting her parents' friends or attending Lunar New Year celebrations. She was Asian-American when people talked about diversity initiatives.

None of these categories felt entirely accurate, but all of them were partially true.

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Her parents had immigrated to the US in 1985, part of the wave of Taiwanese professionals who left during Taiwan's transition from authoritarian rule to democracy. Her father had been an engineer, her mother a pharmacist. They'd settled in the San Gabriel Valley in Los Angeles, a suburb that became heavily Chinese and Taiwanese in the 1990s.

Sarah had grown up in a strange hybrid environment: American school with Chinese after-school programs, English with friends and Mandarin at home, Thanksgiving turkey and hot dogs alongside braised pork and

dumplings. She was fluent in both languages but native in neither—her English was perfect but her references were occasionally off, her Mandarin was functional but she sounded like a foreigner, with an American accent her relatives found amusing.

As a teenager, she had resented the hybridity. She wanted to be simply American, to not have teachers mispronounce her Chinese name (she started going by “Sarah” in fourth grade), to not have to explain where Taiwan was or why it wasn’t the same as Thailand.

In college, she had swung the other direction, joining Asian American student groups, taking classes on Asian American history, becoming fluent in the vocabulary of identity politics and diaspora studies. She learned about the Chinese Exclusion Act, about Japanese internment, about the model minority myth. She learned to critique Orientalism and to recognize microaggressions.

She learned, in short, to perform Asian American identity with sophistication.

But then she graduated and entered the tech industry, where Asian identity worked differently. Asians were overrepresented in technical roles, underrepresented in leadership. Asian Americans were stereotyped as hard-working but not creative, competent but not charismatic. Sarah learned to code-switch again: be assertive in meetings to counter the submissive Asian woman stereotype, but not too assertive or she’d be labeled difficult. Show technical competence but also cultural fluency—make references to American TV shows, sports, music.

It was exhausting.

And now, in her mid-thirties, she was facing a new phase: Her parents were aging, becoming more insistent that she visit Taiwan, reconnect with family, learn about her roots. Her mother had started saying: “You should find a nice Taiwanese boy to marry. Keep the culture alive.”

Sarah didn’t know how to explain that she didn’t have a “culture” to keep alive, at least not in the singular. She had multiple partial cultures, fragments assembled into something functional but incoherent.

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That evening, she had dinner with her cousin Derek, who was visiting San Francisco for a tech conference. Derek had grown up in Taipei, moved to California for grad school at Stanford, and then returned to Taiwan to work at TSMC. He was in town for three days, staying in a hotel near the conference venue.

They met at a Taiwanese restaurant in the Richmond District. The owner recognized Derek from previous visits and greeted him in Hokkien, which

Sarah didn't speak. Derek responded fluently, then switched to Mandarin when including Sarah in the conversation.

They ordered: beef noodle soup, braised pork rice, stir-fried water spinach, oyster omelet.

"So how's work?" Sarah asked.

"Intense," Derek said. "We're expanding capacity for the next-generation chips, but we're also dealing with the US export restrictions, Chinese government pressure, and the general paranoia about whether there's going to be a war that destroys all our factories."

"That sounds stressful."

"It is. But also kind of surreal? Like, I go to work every day, sit in meetings about production yields and defect rates, eat lunch in the cafeteria, go home and watch Netflix. Meanwhile, Chinese military jets are crossing the median line in the strait and American senators are giving speeches about defending Taiwan. It's like living in two realities at once."

"Welcome to my entire life," Sarah said.

Derek laughed. "Yeah, I guess you get it. But it's different for you, right? You're American. If things go bad, you're safe here."

"My family isn't."

"Fair. But you're not on the island. You don't have to make the choice about whether to stay or leave."

Sarah poked at her noodles. "Are you thinking about leaving?"

"Everyone's thinking about leaving. But where would I go? My whole life is in Taiwan. My job, my friends, my apartment. I can't just transplant to California and expect to rebuild everything from scratch. And even if I could, it would feel like giving up. Like letting them win."

"Them being China?"

"Them being everyone who says we have no choice, that resistance is futile, that we should just accept reunification."

"Do you think it's inevitable?"

Derek was quiet for a moment, chewing thoughtfully. "I don't know. Maybe? Probably? I mean, look at the power asymmetry. We're 24 million people. They're 1.4 billion. Our economy is sophisticated, but they're the world's second-largest economy. We have a competent military, but they have the largest military on Earth. If it comes to actual war, we lose."

"But the US—"

“The US might help. Might not. That’s the gamble. We’re betting our survival on whether America decides Taiwan is worth World War III. Would you take that bet?”

Sarah didn’t answer.

Derek continued: “But here’s the thing. Even if reunification is inevitable in the long term—50 years, 100 years—why does that mean we have to accept it now? Why can’t we have another generation of freedom? Another 25 years of living in a democracy, making our own choices, before being absorbed into an authoritarian system?”

“Because China won’t wait 25 years.”

“Exactly. So it’s not really about inevitability. It’s about timing. They want reunification now, while they have momentum, while Xi is still in power, while the US is distracted. We want to delay as long as possible, hoping something changes—the CCP collapses, China democratizes, global power shifts. It’s a temporal negotiation.”

Sarah thought about this. “That’s a depressing way to frame your entire political existence.”

“Yeah, but it’s honest. We’re playing for time. That’s the real war—not military, but temporal. Can we outlast their patience?”

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After dinner, they walked along Ocean Beach, where the fog had rolled in thick and cold. The Pacific crashed against the shore, invisible in the darkness, only sound and spray.

“Do you ever think about moving back?” Derek asked.

“To Taiwan? No. I don’t think of it as ‘back.’ I was born here. Taiwan is where my parents are from, not where I’m from.”

“Do you feel American, then?”

“Yes. And no. I feel American when I’m around my Taiwanese relatives—I don’t understand all the cultural references, I can’t speak Hokkien, I’m uncomfortable with the directness of the family dynamics. But I feel foreign when I’m around white Americans, too. Not in a hostile way, just... distinct. Like I’m code-switching all the time, and sometimes I forget which code I’m supposed to be running.”

“That sounds exhausting.”

“It is. But it’s also normal. I think a lot of diaspora people feel this way. You’re always translating between worlds.”

Derek kicked at the sand. “I don’t envy that. At least in Taiwan, I know who I am. I’m Taiwanese. Simple.”

“Is it, though? You said yourself you’re caught between China and the US, playing for time, not sure whether your country will exist in 25 years.”

“Okay, fair. But the uncertainty is external, not internal. I know my identity. I just don’t know whether external forces will destroy the conditions that make that identity possible.”

Sarah stopped walking and turned to face the ocean, though she could only hear it, not see it.

“I think identity is always like that,” she said. “It’s always contingent on external conditions. Even Americans who think they have stable identity—that stability depends on the persistence of American power, American culture, American institutions. If those collapse, what does ‘American’ identity even mean?”

“But at least they don’t have to think about it. That’s the privilege.”

“Yeah. That’s the privilege.”

They stood in silence for a while, the fog pressing in, cold and wet.

Finally Derek said: “If there is a war, you should come to Taiwan. Before it happens. Say goodbye to everyone, just in case.”

“You think it’s coming?”

“I think the probability is non-zero and rising. Which is terrifying, but also clarifying. Makes you think about what matters.”

“And what matters?”

“Family. Friends. Being present. Not wasting time pretending everything is fine when it might not be.”

Sarah didn’t argue. The fog swirled around them, and she felt suddenly how fragile everything was—not just Taiwan’s political status, but her own constructed life, her career and apartment and carefully curated identity. All of it was held together by invisible threads: economic stability, geopolitical peace, the continued functioning of systems she didn’t control and barely understood.

“I’ll think about visiting,” she said.

“Don’t think too long.”

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That night, back in her apartment, Sarah lay awake scrolling through her phone. She opened Instagram, scrolled through friends’ posts: vacation photos, food, pets, children. Everyone’s carefully curated life, the highlight reel.

She opened WeChat, the Chinese social media app she'd downloaded to stay in touch with some colleagues who had moved to China. Her feed there was different: posts about career success, luxury purchases, patriotic messages about China's rise. A former colleague had posted a photo of himself at a government-organized event, smiling in front of a banner that read "Reunification is the Shared Dream of All Chinese People."

She wondered what he actually believed. Was he genuinely enthusiastic? Or was he performing for the surveillance state, ensuring his social credit score remained high?

She closed WeChat and opened her messages. Scrolled back to a conversation with her mother from three weeks ago.

Mom: When are you coming to visit Taipei? You haven't been back in two years.

Sarah: Work is busy, Mom. Maybe next year.

Mom: Next year you'll say the same thing. You're forgetting where you come from.

Sarah: I was born in LA. I'm not forgetting anything.

Mom: You know what I mean. Your roots. Your family. Your culture.

Sarah had ended the conversation there, irritated by her mother's insistence on some authentic "roots" that Sarah was supposed to remember and honor.

But now, lying in the dark, she wondered if her mother was right in some way. Not about authentic roots—that was essentialist bullshit—but about connection. About the threads that tied people across space and time, the obligations that came with family history even if you hadn't chosen that history.

Derek was right. She should visit. Not because of some mystical connection to ancestral homeland, but because her cousins were there, her aunts and uncles, the people her parents had left behind when they immigrated. Real people with real lives that might be destroyed if bombs started falling.

She pulled up a flight search app and checked prices for Taipei. The algorithm immediately showed her a warning: "US State Department advises increased caution when traveling to Taiwan due to elevated tensions in the Taiwan Strait."

She closed the app without booking.

Maybe tomorrow. Maybe next week. There was time.

Wasn't there?

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## Observer Commentary

Duration of narrated events: 14 hours. Geographical distance traversed: ~30 kilometers (within San Francisco). Cognitive distance traversed: Significant.

The organism Sarah Huang demonstrates memetic fluidity characteristic of diaspora populations and high information-exposure environments. Observed identity performances in single 24-hour period:

- Professional American (team meeting context)
- Ethnic representative (when questioned about Taiwan)
- Asian American (reflexive self-categorization)
- Taiwanese American (dinner with cousin)
- Generic Californian (beach walk)
- Hybridized individual resisting categorization (internal monologue)

Each performance is functionally real within its context. None is “true identity” in essentialist sense. Identity operates as context-dependent protocol activation: Situation triggers identity performance most likely to achieve local goals (acceptance, competence signaling, coalition membership, etc.).

This represents maximum memetic mutation rate: Identity shifts occurring within single organism’s lifetime, across contexts, even within single day. This is possible only in high-information, high-mobility environments where traditional identity markers (kinship, territory, language) are unbundled and recombined.

Compare to biological evolution timescale: Genetic changes require  $10^5$  years to produce speciation. Memetic changes can produce new identity categories in  $10^1$  years (single generation) or  $10^0$  years (single lifetime).

Result: Cultural evolution now operates faster than human cognitive architecture evolved to handle. The organism Sarah Huang experiences identity indeterminacy as confusion and stress. This is standard response when system receives inputs faster than processing capacity allows.

Observation on temporal framing:

The organism Derek frames cross-strait conflict as “temporal negotiation”—Taiwan attempting to delay integration while hoping for environmental change. This is accurate. All political struggles contain temporal dimension: Who controls the pace of change?

Mainland position: Accelerate timeline for reunification. Current window of opportunity (US distracted, China strong, Taiwan not yet fully psychologically separated) must be exploited before it closes.

Taiwan position: Decelerate timeline. Delay indefinitely, betting that long-term trends (potential CCP collapse, Chinese democratization, shifting great power dynamics) will create better conditions.

Time is not neutral. Every year of delay allows: – One more cohort to grow up thinking of “Taiwan” as their country – Deeper institutionalization of separate political system – Greater memetic divergence from mainland China – Reduced number of living memory–bearers of pre–1949 unity

From mainland perspective, this makes delay intolerable. From Taiwan perspective, this makes delay essential survival strategy.

The conflict is thus fundamentally temporal: Not just “will reunification happen?” but “when will reunification happen, and who controls the timing?”

Observation on the organism’s decision paralysis regarding travel:

She recognizes she should visit Taiwan before potential conflict but delays booking. This is standard human temporal discounting: Immediate costs (time, money, work disruption) weigh heavier than distant risks (war, family harm), even when the distant risks are catastrophic.

The organism’s behavior is rational at individual level (probability of war in specific near-term time window is low; cost of preventive action is real and immediate) but collectively produces fragility (many individuals making same calculation = reduced preparation for low-probability high-impact events).

This is the paradox of distributed decision-making: Individually rational choices aggregate to collectively suboptimal outcomes.

Projection: The organism Sarah Huang will continue delaying visit until either: (a) Risk becomes immediate enough to overcome temporal discounting (b) Event occurs, rendering visit impossible (c) External pressure (family, friends) overcomes individual inertia

Probability distribution: – 60%: Visits Taiwan within 90 days due to increasing pressure – 25%: Continues delaying until too late – 15%: Event forces decision before decision made

The organism represents broader pattern: Diaspora populations attempting to maintain connection to homeland while physically distant, always planning to visit “next year,” always finding reasons to delay. Connection erodes not through active rejection but through passive drift.

This is memetic evolution at population level: Identity markers fade across generations not because they’re actively suppressed but because they’re not actively maintained. Grandmother speaks fluent Chinese; mother speaks accented Chinese; daughter speaks textbook Chinese; granddaughter doesn’t speak Chinese.

Over four generations (100 years), cultural continuity breaks down despite no single generation making decisive break.

This is how ethnic categories dissolve in diaspora: Not through dramatic rejection but through gradual drift, each generation slightly less connected

than the last, until “Chinese” or “Taiwanese” identity is purely abstract—knowledge that ancestors came from somewhere, but no lived connection to that somewhere.

End observation log.

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[Chapter 5 Complete – Part I: Time Dilation Complete]