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Aiming for Achilles' Heel: A relational explanation of the ascendency of pro-nuclear activism in Taiwan, 2013-2020

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ABSTRACT

Movement-countermovement dynamics have frequently been examined under the lenses of resource mobilization theory and political opportunity theory. This article develops a relational perspective, which is implicit in previous works and complementary to existing perspectives, to analyze how an initially weak countermovement expands and defeats its stronger opponent. The movement's strength is not determined by its internal characteristics, but is contextually defined by its relationship with opponents. A countermovement gains ground by strategically targeting the opposing movement's vulnerabilities. This article examines the emergence of Taiwan's pro-nuclear movement in 2013 and how it succeeded in a 2018 referendum by abolishing a planned nuclear phase-out deadline. Taiwan's environmentalists' diffuse concerns, adoption of institutional channels after the 2016 transition of power, and insufficient attention to the climate change issue were all extensively exploited by pro-nuclear activists. As such, Taiwan's pro-nuclear activists gained ground not because of their strength, but because of skilled exploitation of the weakness of their rivals.

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In the wake of the 2011 Fukushima Incident, Taiwan's dormant anti-nuclear movement resuscitated and evolved into a powerful challenge to the Kuomintang government, whose prolonged rule had witnessed nuclear energy expansion since the 1970s. In response to the anti-nuclear resurgence, the pro-nuclear Kuomintang promised a 'steady phase-out' of nuclear power by decommissioning the existing three nuclear power plants after the expiration of their permits and strengthening the safety design of the Fourth Nuclear Power Plant (FNPP), then under construction. In 2014, a week of intensified anti-nuclear protests erupted on the heels of the Sunflower Movement, a successful student-led three-week occupation of the legislature in opposition to a free-trade agreement with China. The government was forced to halt the FNPP construction to defuse the crisis. In the 2016 presidential election, both candidates Tsai Ing-wen of Democratic Progressive Party (DPP) and Eric Chu of the Kuomintang concurred on the phase-out goal and the abandonment of the FNPP project. The election ended with a landslide for the DPP, which enshrined an anti-nuclear clause in its party charter. Tsai won the presidency by a wide margin and her party obtained the legislative majority for the

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first time, which appeared to have put an end to the dispute over nuclear energy that had persisted over the past three decades. The DPP government rolled out an ambitious program to expand green energy. In tandem with the 'nuclear-free homeland' goal, the DPP amended the Electricity Act that prescribed a hard deadline of 2025 for nuclear energy.

Viewed in 2016, Taiwan was on the cusp of joining the worldwide energy transition trend away from nuclear dependency. A consensual phase-out deadline was enacted, and mainstream politicians appeared settled on the issue. However, a group of pro-nuclear activists, Nuclear Myth Busters (NMB), initiated their dissident campaign in 2013, and over the years, they fiercely battled the political headwind and articulated their preference for nuclear power. In 2018, NMB activists initiated a referendum to repeal the 2025 phase-out deadline in the Electricity Act. Voter turnout was 54.8%, and among those who voted, 59.5% supported scrapping the hard deadline. Following this win, pro-nuclear activists launched another referendum proposal to restart the FNPP, to be put to a vote in December 2021.[1] While DPP incumbents found themselves besieged by the unexpected rise of pro-nuclear sentiments, Kuomintang politicians switched back to their traditional stance. Han Kuo-yu, the party's 2020 candidate, adopted a pro-nuclear platform. Luckily for Taiwan's anti-nuclear activists, the DPP managed to secure a second presidential term and retained the legislative majority, which meant Taiwan was still on the phase-out course until Tsai's term ending in 2024.

The unanticipated ascendency of pro-nuclear sentiment when the allies of Taiwan's anti-nuclear campaigners were in power raises an intriguing puzzle. How could a countermovement overcome an unfavourable political climate (an anti-nuclear party in power after 2016) and succeed in flipping the strong anti-nuclear sentiments in the wake of 2011 Fukushima Incident? The 2018 referendum was an embarrassing lesson for anti-nuclear activists because they had advocated for a direct democracy measure since the mid-1990s. When Taiwan's voters joined the first ballot initiative with legal binding power, the result was a resounding defeat for them.

Taiwan's post-Fukushima anti-nuclear activism appeared the strongest in East Asia, whereas similar efforts in Japan and South Korea failed in obtaining the government concessions (Fraser & Aldrich, 2019, p. 58; Ho, 2014, p. 965). Unlike its neighboring comrades, Taiwan's anti-nuclear activists forged a durable alliance with a major political party (Ho, 2003), and were capable of continuously recruiting new generation participants (Grano, 2015; Wei, 2016) and launching disruptive protests (Ho, 2018). The strength of Taiwan's anti-nuclear movement is also indicated by the fact that Taiwan's Green Party was the earliest ecological party in Asia (Fell, 2021). Taiwan's nuclear reactor operator appeared vulnerable because it was limited to a state-owned utility company that did not develop indigenous technology for export (Kim & Chung, 2018). South Korean and Japanese nuclear industry players had long consolidated local support in hosting communities which were financially dependent on energy facilities (Aldrich, 2008; Jobin, 2020; Park & Sovacool, 2018), whereas Taiwan's existing and prospective sites continued to be hotbeds of oppositional activism. Japan's nuclear industry has pre-emptively mobilized small business, union workers, and housewives prior to its expansion in the 1970s, which turned out to be helpful in surviving the Fukushima Incident

(Dusinberre & Aldrich, 2011; Weiss, 2020). In contrast, Taiwan's nuclear industry's investment in public relations was belated and largely ineffective, which makes the bottom-up pro-nuclear activism a more intriguing research topic.

Existing works explain the reversal by highlighting the ruling party's problematic policy-making (Huang & Chen, 2021), or the role of policy entrepreneurship on the part of pro-nuclear activists (Chung, 2020). Many anti-nuclear activists believe the defeat had more to do with the unpopularity of the ruling party, rather than a genuine pro-nuclear shift in public opinion. An interviewed anti-nuclear activist interpreted the referendum result as partisan mobilization, rather than 'a nation-wide consensus (*quanmin gongshi*)' (Interview, 13 June 2019). On the other hand, the pro-nuclear campaigners I interviewed denied such explanation and saw their success as a 'genuine reflection of popular opinion.' Moreover, there seems to be evidence that the pro-nuclear victory is a conjunctural combination of an unpopular ruling party and a miraculously rejuvenated opposition party. Given that the 2018 referendum was held together at the same time with local elections, which witnessed the dramatic surge of Han Kuo-yu who captured the mayoral seat of Kaohsiung City, it is plausible that voters expressed their pro-nuclear preference in order to punish the DPP. Both analyses on district-level voting data (Wang, 2018) and online big data (Ying & Liu, 2020) indicate significant correlation of pro-Kuomintang votes and pro-nuclear votes. As such, Taiwan's anti-nuclear movement appeared to be an innocent victim in this drastic reversal of voters' partisan preference.

This article is not interested in adjudicating the competing explanations proffered by anti-nuclear and pro-nuclear camps. As the following sections will indicate, Taiwan's nuclear debate has a long history of partisan divide. Both the anti-nuclear movement and the DPP emerged and mutually reinforced each other in the mid-1980s, as Taiwan's prolonged martial-law authoritarianism was about to disintegrate. Yet, this political alliance immediately faltered after the DPP came to power and decided to shelve its anti-nuclear promise after a nasty fight with the opposition-controlled legislature in 2001. When the Fukushima Incident rekindled Taiwan's anti-nuclear opposition ten years later, the newer campaign appeared less partisan, as evidenced in the defection of some prominent Kuomintang politicians to the anti-nuclear side in the 2014 confrontation and the anti-nuclear policy statement of Kuomintang presidential candidate in 2016. In short, whether the 2018 referendum is a result of partisan mobilization or not, it cannot be denied that the partisan gap on nuclear energy has been significantly narrowed prior to the power turnover in 2016. With this background understanding, this article is interested in solving the apparent puzzle of how a ragtag army of nuclear enthusiasts were able to turn the table unexpectedly.

Granted, the political ascendency of Taiwan's pro-nuclear activism is facilitated by the political climate change beyond its control, this article provides a complementary perspective from social movement research. While Taiwan's anti-nuclear camp gained the upper hand in the post-Fukushima era, its opponents swiftly beat the learning curve and effectively targeted its weak spots. The anti-nuclear activists' alliance with the DPP was a valuable asset in effecting policy changes, but quickly turned into a liability when the incumbents suffered a drop in popular support. In particular, the DPP's problematic approach to boost electricity production by launching a coal-fired power plant in the densely populated area and encouraging solar panels in ecologically sensitive areas divided and confounded environmentally conscious voters, who became a vulnerable

target for the pro-nuclear poaching. Pro-nuclear activism rode on the wave of mass dissatisfaction with the DPP incumbents, whose reforms in pension and Kuomintang's illicit assets alienated conservative voters and its hesitation and reversals in working-hour reform and same-sex marriage disappointed their liberal supporters. In addition, Taiwan's environmentalists were simultaneously pursuing different goals, and the conflicts in agenda-setting made it possible for the countermovement to frame nuclear power as a green solution to the issues of air pollution, bird conservation, and climate change. As Taiwan's anti-nuclear activists gained insider status within the government and promoted policy changes through official channels, opponents quickly occupied the vacated space of social protests and usurped the protest repertoire pioneered by anti-nuclear activists. The pro-nuclear countermovement was able to make a comeback because its leaders skilfully exploited the vulnerabilities of their rivals. Anti-nuclear activists took a beating not because they were not strong enough, but rather that their Achilles' heel became an exposed target for their opponents.

The research data come from in-depth interviews, field observations, and documentary sources. The author relies on 15 interviews conducted in the period from 2014 to 2020; among them, seven are pro-nuclear activists, either as core members of or collaborators with the NMB, while the other eight hailed from the anti-nuclear camp, whose main areas of concern include not only energy policy, but also air pollution and conservation. Reflecting the changing political landscape after 2016, three of my anti-nuclear interviewees were recruited into the government. The interview questions primarily focused on movement strategies and relationships with opposing movements, and all the interviews were transcribed into text. The author participated in a number of related forums, lectures, and field trips and also collected second-hand information from various media outlets and social media platforms.

A Relational Approach to Movement-Countermovement Dynamics

As an attempt to bring about desired changes, social movements beget their own opposition, including repression from the authorities, resistance from dominant sectors, or collaboration among state and non-state actors. Countermovements are those collective actions that emerge to oppose the goals pursued by another movement. Resource mobilization theory (RMT) has elucidated the significance of 'movement-countermovement interaction', and places it squarely on the research agenda (Gale, 1986; Mottl, 1980; Zald & Useem, 1987). As the opponents of a movement begin to organise their own campaign, rather than relying on the government to maintain the status quo, a complicated dynamic of contention ensues, and movement advocates generally find it more difficult to realize their claims.

RMT works focus on the organisational infrastructure of opposing movements and how it shapes the respective movement tactics. For instance, the American pro-choice movement was led by professional women with monetary resources, while the pro-life movement found its strength among grassroots church-going women. As such, the former was more likely to use commercial advertisement or mainstream media, whereas the latter made up their deficit with community organising (McCarthy, 1987; Rohlinger, 2002). Elite sponsorship of countermovements is common because they are likely to be threatened by the prospective change. They typically bring valuable resources that are

unavailable to movement activists (Pichardo, 1995; Shriver et al., 2013). When a movement's tactics turns out to be successful, the countermovement is likely to adopt similar measures (Burstein, 1991). Such mutual tactical learning and adaptation can potentially stimulate organisational growth on both sides. As Fetner (2008, p. 61) pointed out, the relentless cross-fire between the pro-gay movement and anti-gay countermovement brought out ideologically opposed large-scale organisations, competing in placing their core concerns on the political agenda.

Meyer and Staggenborg (1996) apply the political opportunity structure (POS) approach to analyze movement-countermovement dynamics. POS refers to features of a political regime that have an impact on movement mobilization. Since this concept adopts a state-centric assumption by prioritizing the state-movement relationship (Tarrow, 1996), such reformulation highlights the patterning power of state structure. Meyer and Staggenborg (1996, p. 1635) suggest that the favourable conditions for the emergence of a countermovement include signs of movement success, elites' threatened interests, and the presence of political allies. State structures exert a profound influence on opposing movements. Contending movements are expected to become isomorphic when engaging in the same political arena; for instance, congressional lobbying encourages both movements to adopt professional and formal organisation (*ibid.*, p. 1649). POS researchers are interested in how the authorities repress challenging movements and facilitate conservative countermovements (Alimi & Hirsch-Hoefler, 2012; Dixon, 2010; Irons, 2006). This approach underscores the availability of multiple 'entry points' in the modern polity so that movements and countermovements are constantly searching for favourable arenas to promote their agendas (Halfmann, 2011; Werum & Winders, 2001).

While RMT-oriented works generally focus on the societal aspects (resources and organisation), POS researchers are more interested in the relationship with state institutions. The two perspectives are not exclusive, but mutually supportive in many ways. For example, in his study on the resistance to school desegregation in Mississippi, Andrews (2002) finds civil-rights movement success (a political opportunity) and whites' organisational capacity (a resource) are both present. The existing literature has underscored the essentially interactive nature of movement-countermovement relationship. Banaszak and Ondercin (2016, p. 403) note that 'the feminists and antifeminist movements are entwined in a dramatic dance.' Similarly, Lind and Stepan-Norris (2011) mention the 'relationality' in the movement-countermovement dyad.

Deepening these insights, this article proposes a relational perspective to analyze the movement-countermovement dynamic. The trajectory of a movement cannot be fully understood without reference to its ideological opponent. A movement is not inherently strong or weak because of its intrinsic characteristics, and its strength is always relative to and determined by comparison with the countermovement. Whether a movement tactic works or not is not solely determined by movement actors and the objective conditions that confront them, but is also affected by action or non-action by opponents. Since a countermovement usually originates as a reaction, its scope of action tends to be defined by its predecessor. Unlike the preceding movement, which targets the authorities or dominant sectors, the countermovement, whose mission is to defend the status quo, often strategizes with an eye to exploiting its opponents' weaknesses. It follows that political opportunity structure (understood as the regime's openness to the movement's

demands) matters more for movements than countermovements. From the latter's viewpoint, the state is not necessarily the prime target; how to discredit the movement's claims, demobilize its constituencies, and delay its agenda are the more pressing issues.

Countermovement activists tend to make tactical choices in light of what their rivals have done by imitating those strategies that have apparently been successful. For instance, multicultural diversity used to be as a progressive ideal when advocating for the inclusion of ethnic minorities. The same idea was later appropriated by White Supremacists (Berbrier, 1998) and religious conservatives (Davies, 1999) to preserve their 'distinctive way of life.' The violence against abortion clinics and their patients mobilized by Operation Rescue was said to represent 'the civil rights movements of the eighties' (Johnson, 1999, p. 248).

Countermovement activists attempt to locate the Achilles' heel of the preceding movement. The American conservative opposition against abortion rights and the Equal Rights Amendment drew its support from among homemakers because the feminist movement was typically led by professional women whose concerns deviated from those of housewives (Mansbridge, 1986, pp. 98–107). In her study on the American politics of child sexual abuse survivors, Whittier (2009, pp. 92–99) found accused parents resorted to scientific authority to construct a 'false memory syndrome' to discredit the claims of victims. Similarly, Canadian French antifeminists sought to cut off public subsidies to those groups that assisted women seeking a divorce (Blais & Dupuis-Déri, 2012, p. 34).

The relational perspective does not supersede RMT and POS findings, but rather accentuates a hitherto less theorized insight in the existing works. The relational approach has been widely adopted in social movement research. For some, relational thinking represents an ontological revolution to dethrone the notions of structure and agency with a more conceptually fluid alternative (Emirbayer, 1997). Tilly (2002, pp. 32–5) makes a strong case for a relation-based understanding of movement identities. della Porta (2015) maintains that radicalization is best understood as a relational outcome of movement organisations' interaction with the state, competitors, and participants. Such insight has been recently applied to Hong Kong's anti-extradition movement of 2019 (Lee et al., 2021). There exists a narrower understanding of relationalism, which is synonymous with the technique of network analysis of social movements (Diani & McAdam, 2003). Finally, relationalism is also used as shorthand for interpersonal connections. This represents a more specific attention to how social ties play a role in contentious politics (Deng & O'Brien, 2013). The use of relational approach here is closer to the first strand in that the strength of a movement or a countermovement is not directly explicable by its own resources (agentic explanation) or external conditions (structural explanation), but by its strategic encounter with ideological opponents.

Taiwan's Nuclear Politics before the Countermovement

Taiwan entered the age of nuclear energy in the 1970s, when the country was still under repressive authoritarianism. All three nuclear power plants (six reactors) were operated by the state-owned Taiwan Power Company (Taipower) and were constructed and activated before the lifting of martial law in 1987. The government did not fully inform the affected communities, and neither was there an attempt to obtain local consent.

Once the political controls were lifted, communities hosting nuclear facilities rose in protest. The DPP, the successor of the political opposition movement since the late 1970s, quickly adopted an anti-nuclear stance. The bone of contention was the FNPP, whose budget was suspended in 1985 and then approved in 1991. Throughout the 1990s, Taiwan's anti-nuclear activists, in collaboration with the DPP, launched demonstrations, referenda, re-calls, and other actions without being able to halt the project. Before the DPP incidentally won the presidential election in 2000 due to a Kuomintang split, there was no realistic path to stopping the FNPP.

The first DPP government (2000–2008) briefly raised the hopes of terminating the FNPP. President Chen Shui-bian ordered a halt to construction a few months after his inauguration, and the result was a determined boycott from opposition parties, which controlled the legislature. To defuse the crisis, the DPP swiftly stepped back and resumed FNPP construction in 2001. The abrupt turnabout left anti-nuclear activists deeply frustrated and the movement fell into the doldrums until the Fukushima Incident ten years later.

As the Kuomintang took over power in 2008, Taiwan's nuclear enthusiasts were expecting a 'nuclear renaissance.' President Ma Ying-jeou viewed nuclear power as a carbon-zero source of energy and supported its expansion. Yet, Taipower encountered intractable problems because the FNPP was the first nuclear power plant for which a domestic firm took charge of the building process. Repeated delays and negative journalistic reports dampened public confidence. The mounting nuclear scepticism gave a mighty impetus to Taiwan's anti-nuclear movement. The Kuomintang government was forced to halt its construction and retreated to a nuclear phase-out policy, albeit without a set deadline.

Taiwan's pro-nuclear proponents were composed of an interlocking group of Atomic Energy Council officials, Taipower engineers, and university-based nuclear physicists. Before the DPP came to power in 2000, their vested interests were never seriously challenged, and they developed a top-down pro-nuclear communication method using resources from the public sector. Under the first DPP government, these pro-nuclear communication activities were scaled back, and the Taipower labour union (Taipower Labour Union) emerged as the most vocal champion for nuclear energy with protest actions. This development echoes the observations of Useem and Zald (1982) on the pro-nuclear mobilization of American nuclear workers in the 1970s: as the nuclear industry lost the protected status, adopting a social movement strategy became necessary to defend its threatened interests.

After 2008, the official pro-nuclear communication efforts resumed, but apparently achieved little. As one NMB participant said, 'the way experts and bureaucrats promote nuclear energy is too official and too formalistic. It can never have the effect of moving people.' What should Taiwan's pro-nuclear activists do? The solution is straightforward: learn from the enemies in order to outsmart them. The interviewee continued,

> We had a novel idea to take our cause to the streets. People like Hung Sun-han [a young anti-nuclear leader who became a DPP lawmaker in 2020] are very clever. Young people's ideas are constantly evolving. They have more experience with street protests than us, and we are trailing them by five or ten years. We should surpass them. We are learning what anti-nuclear activists were doing in the past in order to make a comeback (Interview, 19 October 2020).

The Making of a Pro-nuclear Activism

With this understanding, a group of pro-nuclear activists launched their countermovement. March 2013 witnessed an unprecedented wave of anti-nuclear mobilization, as demonstrations and rallies were simultaneously held in seven cities and purportedly attracted more than 200,000 participants. That same month, Huang Shih-hsiu, a prolific blogger who studied mathematical physics abroad without finishing the degree, founded a private pro-nuclear chat group that attracted like-minded people. Huang described initial participants as 'nerds' (*kexue zhai*) who enjoyed finding scientific evidence to refute anti-nuclear claims. For them, the anti-nuclear sentiments spread on the back of untrue rumours and unfounded fear. They decided to assume a public persona by establishing a Facebook group named 'Nuclear Myth Busters,' and held a number of lectures and speeches to counter what they labelled as bullying by the anti-nuclear camp (Interview, 28 June 2019). Liao Yan-peng, a young medical physicist who later pursued doctoral studies in Japan, operated his own pro-nuclear blog before joining the NMB. Liao published a popular science book on radioactivity in which he claimed that real protection comes from scientific knowledge rather than groundless fear. The work is written in a witty tone, mixing scientific basics with jibes at environmentalists.

NMB has around 150 core members scattered throughout Taiwan. As the biographies of Huang and Liao indicate, its initiators did not hail from the old pro-nuclear establishment, and they were more motivated by personal conviction rather than commercial interests. They were tech-savvy and well-versed in the art of digital communication. The organisation quickly gathered notoriety for being aggressive in both online and offline rhetoric, and Huang Shih-hsiu became a bête noire among anti-nuclear activists. The ascendency of Taiwan's pro-nuclear countermovement was made possible by two political changes.

First, the DPP became the ruling party again in May 2016. For two consecutive summers, Taiwan was running dangerously low on power reserve margins. The nightmare broke out in 2017. In July, a transmission tower incident led to nationwide energy rationing, and as soon as the two-week crisis was over, a failure at a natural gas power plant led to a blackout for several hours on 15 August. These back-to-back incidents were not entirely attributable to power generation, but were more about faulty distribution management. Pro-nuclear activists seized on this episode and framed it as a crisis of 'power shortages' due to the DPP's 'anti-nuclear ideology.' NMB quickly launched a campaign called 'Citizens' Self-help Association on Power Shortages' to dramatize nuclear energy as an indispensable source.

Secondly, thresholds for initiating and validating a referendum were lowered at the end of 2017, and the pro-nuclear camp sensed a chance to utilize the direct democracy channel. Though the idea was initially proposed by the old guard, and experts related to the National Nuclear Society provided some resources behind the scene (Interview, 19 October 2020), it was the NMB activists who worked as foot soldiers to collect citizen signatures for the ballot initiative. Huang Shih-hsiu and Liao Yan-peng were among the leading proposers and, when the application was rejected by electoral officials, they staged a hunger strike until a favourable court order intervened. NMB activists skilfully framed their stance as pro-environment with the catchy slogan 'using nuclear energy to nourish green energy' (*yi he yang lu*). They contended that renewable energy was

unreliable and premature, and in the transition period, nuclear power should expand to fill the gap. The 2018 referendum resulted in removing the nuclear phase-out deadline as had been previously stipulated, the first battle win for Taiwan's pro-nuclear countermovement.

The following sections will demonstrate how pro-nuclear activists exploited the relational weakness of their opponents.

A Disunited Environmentalism

In the late 1980s, the Taiwan Environmental Protection Union (TEPU) emerged as a leading voice for the anti-nuclear activism with branches spread across the nation. TEPU was led by university professors, adopted a pro-DPP stance, and preferred the referendum strategy to oppose nuclear energy. Before the DPP's debacle in halting the FNPP construction in 2001, TEPU served as the figurehead of Taiwan's anti-nuclear movement. However, post-Fukushima activism was more decentralized. The Green Citizens' Action Alliance (GCAA), originally a TEPU local chapter and led by younger activists, became an important player with a more neutral political stance. There existed a subtle rivalry for movement leadership between these two organisations with different orientations.

The lack of a unified voice for anti-nuclear movement was not a major problem as long as public opposition to nuclear energy remained high; however, it was indicative of the decentralized nature of Taiwan's environmental movement. While mainstream environmentalists were avowedly anti-nuclear, those who exclusively prioritized air pollution and habitat conservation became a prime target for pro-nuclear campaigning.

The Air Pollution Issue

Around 2011, environmental concern over air quality in Taiwan arose primarily because of emerging medical evidence of the harmful effects by atmospheric particulates. The movement against air pollution received an unexpected boost from the Chinese viral documentary *Under the Dome* in 2015, which dramatized the health and environmental damage wrought from coal burning. Many air pollution activists strategically targeted fossil fuel power stations and demanded their closure or conversion to cleaner fuel. This claim particularly found resonance in central and southern Taiwan where Taipower-owned fire power plants had become an imposing feature of the landscape. Air pollution activists strategically overlooked the fact that industrial sources and motorized vehicles contributed equally to the generation of fine particulate matter (PM2.5), 27.5%, respectively, in an Environmental Protection Administration study in 2019.[2] The tactical choice was understandable because blaming motorists was never going to be able to make the anti-air pollution cause popular, especially among Taiwan's prevalent scooter riders, whereas blaming it on a state-owned enterprise appeared politically convenient. The single-minded focus on air pollution caused by power generation unwittingly lent a hand to pro-nuclear activists, who framed the air pollution problem as a result of the DPP government's aversion to nuclear energy. The pro-nuclear camp maintained that the increased share of coal-based electricity under the DPP government was the root cause of

worsened air quality. Although such accusations were not based on evidence, it sounded experientially true to many who had accepted the messages of anti-air pollution movement.

While anti-air pollution leaders generally opposed nuclear energy, they found it difficult to refuse the unsolicited participation of NMB activists in their events (Interview, 12 July 2019). An anti-air pollution event was easily reported as a pro-nuclear one in the media. The movement against air pollution inadvertently added strength to the pro-nuclear camp because their alarmist campaigning lent itself to the claim that nuclear power is 'pollution-free.'

Bird Conservation

While Taiwan's birdwatchers have pioneered some conservation campaigns, they have tended to be on the moderate end of those under Taiwan's canopy of environmentalism. Reflecting their origins among American expats, Taiwan's birdwatchers tend to have a middle-class background and be more concerned with avian well-being than other environmental degradation (Keck, 2015). However, two policies initiated by the DPP government pushed Taiwan's bird communities toward the pro-nuclear side.

The DPP launched an ambitious program to raise the targeted share of renewable energy to 20% by 2025 with expansive installations of offshore wind turbines as well as ground-mounted and floating solar panels. For some wind power projects, the selected sites sat on birds' migratory routes. Some solar farms were planned on abandoned farmland or wetlands, which had become wildlife sanctuaries, while floating panels planned on ponds or lakes threatened waterfowl. Taiwan's bird lovers became increasingly sceptical of green energy. In the case of a 2017 large-scale solar farm project in Chiayi (102 hectares), developers and the local bird society reached a compromise to scale down the project and avoid ecologically sensitive areas, due to the intervention of environmentalists. In another 2018 case in Taitung (226 hectares), environmentalists and bird lovers joined hands in filing a lawsuit in opposition.

An interviewed leader reflected frustratingly, 'although we seemed to have built a model in Chiayi, it became useless when it came to Taitung.' According to him, none in the leadership circle of the national bird federation were pro-nuclear, but many were concerned about the rapid development of solar energy (Interview, 14 August 2020). Immediately before Election Day in 2018, the Taiwan Wild Bird Federation issued a carefully-worded statement to demand more cautious expansion of green energy and 'not to insist on the legal regulation to abolish nuclear energy by 2025.'[3] Thus, scepticism of renewable energy for environmental reasons ended up endorsing the pro-nuclear agenda.

The Wild Bird Society of Keelung helped NMB to collect referendum signatures and canvassed for votes. Its leader claimed to have been anti-nuclear in the past, but after reading more materials, he said that he had gained new perspectives. 'I am not pro-nuclear. I just do not oppose nuclear energy' (Interview, 28 June 2020). The Keelung bird-watchers were particularly affected by a new coal-fired power project (Shenao Power Plant) promoted by the DPP government in 2018. The project aimed to fill the gap in electricity demand in northern Taiwan, but it raised concerns about air pollution and bird protection. Although the DPP shelved the plan before the election, the damage had already been done.

A Vacated Civil Society

The 2016 regime change was consequential for Taiwan's anti-nuclear community in that their attention was diverted to different areas, and the civil space for protest mobilization was incidentally left wide open for new entrants. At the time, there was a prevailing understanding that the FNPP was already a settled issue. It was the time to move forward to the next stage of energy transition, including the promotion of green energy. An interviewed anti-nuclear participant said,

> Our goal is to propose practical solutions, not just to oppose something. When I was in involved in NGOs, we only raised our opposition without being able to offer practical suggestions. Our organisation has enterprise members and academics, and a different approach is needed (Interview, 7 March 2018).

Environmentalists obtained the opportunity to enter the government, either by assuming full-time positions or by joining ad-hoc committees or advisory panels. Once entering state institutions, they took a pragmatic problem-solving attitude, whereas previously they were more like advocates and organisers whose goal was to mobilize public attention and participation. Chan Shun-kuei, a veteran environmental lawyer, served as the EPA vice-administrator from 2016–2018. When asked whether there was a conflict between nuclear phase-out and air pollution reduction, Chan replied,

> As long as we can decide on the priority in Taiwan's energy transition, there should not be a conflict. Environmentalists are becoming broader in scope. Single-issue groups might have obtained support in the past, but I think their supporters are declining (Interview, 9 September 2020).

The irony was that while anti-nuclear activists were adopting the role of a constructive and responsible stakeholder, pro-nuclear activists launched their single-issue counter-protests. The anti-nuclear camp spent less effort in mobilizing their constituencies and broadcasting their message. The following table summarizes the development of post-Fukushima rallies and demonstrations Table 1.

Taiwan's anti-nuclear activism apparently peaked in 2013 and 2014. What happened after the power turnover in 2016 was a steady decline. Anti-nuclear leaders found it less urgent to mobilize supporters, and rank-and-file followers were less willing to join the events. Starting in 2017, the annual anti-nuclear protests included the demand to lower

Table 1. Taiwan's Anti-nuclear Rallies and Demonstrations (2011–2019).

Year	Number of Events	Number of Participants (in thousands)
2011	1	5
2012	3	50*
2013	8	200*
2014	9	130*
2015	4	50*
2016	5	7
2017	3	3
2018	1	2
2019	2	12*

Sources: *United Daily News* (https://bit.ly/3oWIKf0) and Environmental Information Center (https://bit.ly/3mAI5PQ), retrieved 8 December 2020.

Notes: Participant numbers were based on journalistic reports and their estimates, unless marked by asterisk signs which indicate the organisers' announcement.

carbon emissions as a friendly gesture toward those who were concerned about air pollution. Such a bridging effort was not successful when some air pollution activists chose to adopt a narrower focus.

At the same time when anti-nuclear activists were decamping from the space for civil protests, the pro-nuclear countermovement picked up the abandoned scripts. As mentioned above, 'Citizens' Self-help Association', a referendum, and hunger strikes were all first pioneered by the anti-nuclear camp, and later appropriated by its opponents. An interviewed anti-nuclear activist expressed his bewilderment upon knowing Huang Shih-hsiu made his appearance on some popular live streaming platforms (Interview, 13 June 2019). To my knowledge, none of Taiwan's anti-nuclear leaders even thought of utilizing this novel channel. As the anti-nuclear camp was drawn into institutional politics, advocating and protesting has increasingly become the powerful weapon for the countermovement. Before the referendum, there were two surveys (August 2017 and August 2018) indicating Taiwan's public opinion has undergone a reversal in that pro-nuclear sentiment gained the upper hand,[4] although it was not clear whether it was due to the decline of anti-nuclear activism, voter dissatisfaction with the ruling party on nuclear and other policy controversies, or simply the fading-away of the Fukushima memory.

Pro-nuclear Activists' Environment Offensives

Many interviewed pro-nuclear activists claimed to be bona-fide environmentalists because of their sustainable lifestyles, and they viewed the opposition to nuclear power as poorly informed or misguided. One interviewee took pride in living in a green building made of recycled materials, while another said he had pioneered waste sorting and recycling in the army when serving as an officer. They identified nuclear power as the ultimate green energy because of its zero carbon emission.

Some pro-nuclear activists served as staff in the Society of Wilderness (SOW), Taiwan's largest environmental group with more than 20,000 members. Huang Chi-chun was the self-styled inventor of the slogan 'using nuclear energy to nourish green energy.' Huang joined SOW before the Fukushima Incident; and when SOW participated the subsequent anti-nuclear campaigns, Huang and his like-minded associates became such loud dissidents that some media erroneously reported that SOW had changed its position. SOW was forced to issue a clarification on its energy stance. The statement acknowledged that all energy production carries environmental impacts, but insisted on the halt of FNPP and the scheduled decommissioning of the three existing power plants[5] – an indirect way of affirming its traditionally anti-nuclear stance.

Pro-nuclear activists with experiences in environmental groups knew the climate change issue was the Achilles' heel of Taiwan's anti-nuclear movement. Although Taiwan ranks high in per capita carbon emission, domestic attention to this has been scant because the country is prevented from joining international governance under the United Nations framework. The anti-air pollution movement also squeezed the space for climate advocacy because the reduction of combustion pollutants helped lower carbon emission too. The teenager-focused 'Fridays for Future' action took place from 2019, but failed to garner media attention. Without strong domestic action, pro-nuclear activists sought to pre-emptively corner the issue of climate change.

In 2017, NMB activists invited Michael Shellenberger, the famed American pro-nuclear activist, to visit Taiwan. The following year, when James Hansen, the 'father of climate change', came for an award-receiving ceremony, he paid a visit to Huang Shih-hsiu, who was then staging a hunger strike. Hansen made the following remark to encourage Taiwan's pro-nuclear activists, 'If seniors told you renewable energy can replace fossil fuel, you should be angry because seniors should not decide the future and the environment for young people.'[6]

What Hansen wanted to express was not entirely clear and probably does not make sense at face value, which implied his support for fossil fuel. His remarks actually upended what Taiwan's anti-nuclear activists had previously claimed: that the decision of seniors to use nuclear power left the younger generation with the intractable problems of nuclear waste. The endorsement of international celebrities apparently polished the pro-environment credentials of pro-nuclear activists.

The international connection helped Taiwan's pro-nuclear activists to modernize their action repertoire. In 2019, they began to hold 'nuclear pride' activities. The event was framed as environmental education outreach to increase the awareness of global warming, with the use of polar bear symbols to attract children's attention. As expected, the proffered environmental lessons ended with the message that nuclear power was the only viable energy for climate action (Interview, 19 October 2020). With insufficient attention paid to climate change on the part of mainstream environmentalists, pro-nuclear activists threatened to take over ownership of that issue.

Discussion

This article seeks to understand the phenomenal transformation of Taiwan's pro-nuclear activism from a private online chat group in 2013 to a victorious referendum campaign in 2018. The pro-nuclear countermovement emerged at the moment when opposition to nuclear energy surged and anti-nuclear activists were on the brink of realizing the goal they had held for more than three decades. Taiwan's pro-nuclear campaigners are notable in that they did not hail from the threatened old guards and battled against unfavourable conditions. True, they received support from the opposition party, but politicians' sponsorship was reactive to their rise, not antecedent to it.[7]

A relational perspective explains the apparent paradox: how a countermovement can gain ground when the opposing movement clearly enjoys the upper hand. On the surface, Taiwan's post-2016 anti-nuclear movement possessed formidable advantages. It was allied to a committed ruling party, branched out to different but related issues, and participated in decision-making channels. Yet, relationality means movement power is always relative. A movement can gain political power at the same time it loses social support. If a countermovement can find its opponents' weakness and concentrate their offensive accordingly, there is still a winning chance.

Taiwan's broad and decentralized environmentalism was a fatal vulnerability for anti-nuclear activism, as pro-nuclear proponents could poach support from those who prioritized concerns over air pollution and bird conservation. The institutional turn among anti-nuclear participants effectively evacuated the civil space of organising and advocacy. Protest, a traditional weapon of the weak, was usurped to preserve the

dominant interests. By investment in climate action, pro-nuclear activists threatened to monopolize the issue of global warming because Taiwan's environmentalists had not paid enough attention to it.

A POS perspective finds it difficult to understand the rise of Taiwan's pro-nuclear activism. Kuomintang politicians have abandoned the commitment to the ill-fated FNPP prior to their fall from power in 2016, and DPP successors have initiated the energy transition from nuclear power. POS is typically criticized as excessively structuralistic (Goodwin & Jasper, 2012) and fails to explain movements that successfully emerge without favourable opportunities or even change pre-existing conditions (Ho, 2016; Kurzman, 1996; Rucht, 1996). Take elite sponsorship, which is often seen as a central component of POS, as an example. Eric Chu, the Kuomintang standard-bearer groomed to succeed Ma Ying-jeou, opposed the FNPP in the 2016 presidential election, but made a 180-degree turn during the 2020 primary. Evidently, Chu's about-face is more a consequence of the surge of pro-nuclear activism than a contributing factor to it. As such, political elites tend to act more opportunistically than movement advocates.

A relational perspective is more suitable here for two reasons. First, the discussion about movement strength makes sense only insofar when it is compared with its opponents. An absolute measurement in amount of resources per se can be misleading. Relative comparison sensitizes us to the seemingly contradictory situation where a movement is making political progress and at the same time its social support is eroded by the opposing movement. Second, it places emphasis on the interaction between opposing movements. As Fligstein and McAdam (2012, p. 84) contends, the analytical focus is better placed on how contenders 'continuously modify their strategies and tactics in responses to the earlier moves of other actors in the field.'

The story of Taiwan's pro-nuclear activism echoes the finding of Alimi and Hirsch-Hoefler (2012, p. 332) in that the countermovement trajectory is less shaped by political opportunity structure, but by its relation with the opposing movement. Before the advent of countermovements, there exists a simple dyadic model comprising the state and social movements; afterwards, it generates a more complicated triadic one that makes possible countermovement-state and countermovement–movement interactions. If the governing politicians are perceived to be above the fray, countermovements typically target the preceding movements, rather than the authorities, since their primary concern is the maintenance of the status quo. They are more effective when assaulting their opponents' vulnerabilities, rather than seizing political opportunities. However, in the case when the government is aligned with the challenger movement goals, countermovements are likely to adjust their strategy by focusing more on politicians. The observation here echoes the need to be more specific about the question 'opportunity for whom' (Ramos, 2008), as the same POS set signifies differently to movements and countermovements. For instance, the change in the referendum regulations facilitated the pro-nuclear countermovement because nuclear phase-out became the official policy. Arguably, an easier referendum would have helped anti-nuclear activists if the governing incumbents were still committed to nuclear energy. This example shows that the actual political impact of an institutional change is relationally mediated, i.e., determined by the contentious transaction between movements and countermovements in the field.

This article echoes the theme of this special issue by throwing into sharp relief the power of 'organising without organisation' in contemporary contentious politics. NMB activists did not originate from the old privileges; neither were the NMB and related 'groups' concerning power shortages and climate change formally registered. By using social media, they rallied a group of nuclear enthusiasts who were previously scattered in different professions. They spread their tentacles to some territories that were traditionally seen as the turf of environmentalists (conservation and climate change), and thus were able to poach supporters from unexpected corners. This case highlights the fact agile and mobile networking has eclipsed the importance of pre-existing organisations in the contemporary East Asian movement politics.

Conclusion

Worldwide energy transition often involves a protracted process of social reengineering, rather than a one-shot technological fix, and policy reversals are common. The exemplary case of Germany suffices here. The historical red-green coalition in 1998 gave rise to the first deadline for nuclear exist, which was constantly challenged. After the 2009 election, leftwing parties were no longer in the ruling coalition, making possible for 'an exit from "the nuclear exist".' At the time, nuclear energy was framed as 'a bridging technology until the time when it can be reliably replaced by renewable energy' (Gründinger, 2017, p. 173). Immediately after Germany extended the life span of nuclear reactors, the Fukushima Incident happened and generated a new round of protest activism. As such, the German government quickly reversed its course and set a new deadline for nuclear phase-out.

Taiwan's countermovement to the nuclear phase-out proceeded under a similar claim, yet its opponents did not hail from the vested interests of nuclear power, but were rather composed of a ragtag army of 'nerds' who first met in an online chatroom. In a span of 5 years, the NMB evolved into an innovative countermovement that derailed the ruling party's phase-out policy via a popular vote. This article contends that Taiwan's anti-nuclear movement stumbled not because it was not strong enough, but their vulnerabilities were effectively identified and assaulted.

In retrospect, the result of the 2018 referendum only brought about a symbolic victory for the pro-nuclear camp. Scrapping the hard deadline for a nuclear phase-out in the Electricity Act via popular votes was certainly a political embarrassment for DPP politicians and their anti-nuclear allies, but the government is still legally allowed to retire existing nuclear reactors upon the permit expiration, if not earlier. Pro-nuclear activists certainly knew of the limited gains in their 2018 electoral win, and that was precisely the reason why they immediately launched a follow-up referendum campaign to reactivate the mothballed FNPP, which will be put to vote in December 2021. There are reasons to believe the pro-nuclear camp is facing a more difficult challenge in the second referendum drive and is not likely to replicate its 2018 experience. First, the first referendum is deliberately vague in its wording and implications, whereas the second one is specific and poses an immediate threat to the population in the FNPP's vicinity. Second, anti-nuclear activists have taken stock of the 2018 lesson and began their communication effort earlier.[8] If they can refresh the popular memory of the Fukushima Incident and its fallouts in Taiwan, voters are not likely to look away from

the FNPP's existing problems. Finally, the DPP largely dodged the challenge of the pro-nuclear referendum initiative in 2018 in order to minimize the harm upon its local election.[9] The ruling party decided to sideline the nuclear issue by not mobilizing its rank-and-file supporters, which inadvertently played into the hands of pro-nuclear activists. Facing the second nuclear referendum, the DPP is more likely to take a proactive strategy to publicize the nuclear hazards. Following Tsai's successful re-election in 2020, the DPP consistently enjoys a support rate advantage over its political rival. If the 2021 referendum turns out to be a partisan duel, the prospect for pro-nuclear activists is not that sanguine.

This article has been careful in avoiding the premature pronunciation of success or failure for several reasons. Scholars have already acknowledged the methodological difficulties to attribute policy change to social movement advocacy (Giugni, 1998). Moreover, the relational perspective insists that events, incidents, or 'milestones' in contentious politics should be contextualized and evaluated in relation with the opponents. The successful mobilization in the 2018 referendum on the part of pro-nuclear activists is certainly a major achievement because they realized a goal that was unthinkable few years earlier. Nevertheless, winning a battle is not necessarily synonymous with winning a war, and the final chapter of Taiwan's nuclear controversy remains to be written.

Notes

1. The original referendum day was set on 28 August 2021, but a COVID alert since mid-May led to the postponement to 18 December.
2. An EPA news release on 19 November 2019, https://bit.ly/3akDgXq, (retrieved 17 December 2020).
3. Taiwan Wild Bird Federation, 11 November 2018, https://bit.ly/3rbzci9, (retrieved 19 December 2020)
4. Formosa Newsletter, 25 August 2017, https://reurl.cc/6yn7Dk, (retrieved 30 April 2021); Global Vision Magazine, 14 August 2018, https://bit.ly/3y82DVH, (retrieved 30 April 2021).
5. Society of Wilderness' statement on 31August 2018, https://reurl.cc/ldx5Gj, (retrieved 19 December 2020).
6. Storm Media, 22 September 2018, https://bit.ly/2LLzH21, (retrieved 19 December 2020).
7. Some Koumintang candidates sponsored pro-nuclear activists' signature-collecting campaign for the referendum. Nevertheless, Liao Yen-peng maintained Koumintang politicians' endorsement was late and scant, and for most of the time, the opposition party concentrated on its own three referenda (interview, 28 June 2019).
8. After the 2018 defeat, some anti-nuclear groups maintained that they should take a more proactive approach by initiating a new referendum campaign. They proposed to outlaw new nuclear energy facilities before a final waste repository is decided (field note, 16 March 2019). This plan did not materialize in the end.
9. One indication of how the DPP government intentionally dodged the pro-nuclear offensive consisted in the lineup of five televised debates. The government only sent one official to defend its stance, while one New Power Party lawmaker and three anti-nuclear activists stood in for the rest four debates. See Central Election Commission, https://bit.ly/3uRgOwo (retrieved 7 November 2019). It is highly unusual that a ruling party delegated the task of policy communication to its political and civil-society allies.

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