Article

The Decision to Go Negative: Election Types, Candidate Characteristics, and Electoral Competition

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Abstract
This study examined the conditions that motivate candidates to go negative during a parliamentary election campaign. We argue that by-elections encourage candidates to engage in more negative campaigning. Three mechanisms might explain the alleged link: time pressure, media exposure, and voter turnout. Two main factors jointly determine which candidates rely heavily on negative campaigning during by-elections: candidate characteristics and electoral competition. New data collected from press coverage of Taiwanese legislative elections (2008–2022), covering 318 campaigns in single-member electoral districts, were analysed using the qualitative comparative analysis method. We modelled negative campaigning as a combination of a list of potential causal conditions. Thereafter, process-tracing methods were applied to analyse a typical case to demonstrate the internal causal mechanism. The qualitative comparative analysis results and the case study indicate that increased electoral competition causes parachute candidates to criticise political opponents during a by-election campaign, with less emphasis on their own policy proposals. These results suggest that researchers should pay close attention to important contextual factors that underlie candidates' strategic choices, particularly during by-elections.

Keywords
by-elections; candidate characteristics; competition; legislative; negative campaigning; qualitative comparative analysis; Taiwan

1. Introduction

Negative campaigning is defined as any criticism levelled by one candidate against another during a campaign (Geer, 2006, p. 23), in contrast to the use of messages intended to promote one's own policy positions and record. Despite considerable variability between countries, the phenomenon of negative campaigning is observed worldwide (Valli & Nai, 2020). These trends have stimulated political science efforts to understand the impact of attacks, as well as who uses them and under what conditions.

Recent research has identified factors associated with the use of negative campaigning, including micro-level factors, that is, gender (e.g., Herrnson & Lucas, 2006; Walter, 2013), personality traits (e.g., Nai, 2019; Nai & Maier, 2020), party affiliation and ideology (e.g., Elmelund-Præstekær, 2010; Nai & Sciarini, 2018), and incumbency status (e.g., Nai, 2020; Valli & Nai, 2020); and macro-level variables, that is, electoral competitiveness (Fowler et al., 2016; Nai & Sciarini, 2018), time pressure (Nai & Martinez i Coma, 2019; Nai & Sciarini, 2018), and campaign resources (Grossmann, 2009). Based on a recent study to understand the multiple levels of influence on candidates and their use of negativity during election campaigns, the political profile of candidates was the strongest predictor, followed by personality traits and perceived electoral competitiveness (Maier &

Nai, 2021). In general, members of governing parties (Maier & Nai, 2021) and incumbents (Nai, 2020) are less likely to attack, whereas candidates tend to attack ideologically distant rivals (Maier & Nai, 2021; Nai, 2020).

However, these studies had certain limitations. The use of campaign negativity depends not only on microsystems—candidate characteristics—or political, environmental factors. Other broader political conditions influence the structure and availability of microsystems and the manner in which they affect a candidate's decision to "go negative." Although recent research assesses how the context drives or moderates the influence of individual characteristics on candidates' use of negative campaigning (Nai, 2020), we know little about combinations of multiple factors in understanding what influences a candidate's decision to attack their political opponent. Furthermore, we should distinguish the effects of general elections and by-elections—the latter create distinct institutional environments where factors supposed to drive the use of negativity in general election campaigns may exert divergent effects on candidates' strategic considerations. Finally, existing studies focus on different sets of characteristics of the candidates, such as incumbency status, gender, and ideology; a vital feature—that is, candidates parachuted into a constituency—should be considered. Candidates' local ties are expected to drive their strategic calculations.

In this study, we identified possible combinations of causally relevant conditions that drive candidates to "go negative"; to the best of our knowledge, there is no study on this topic. We argue that by-elections encourage candidates to engage in more negative campaigning. Three mechanisms might explain the alleged link: *time pressure*, *media exposure*, and *voter turnout*. Tremendous time pressure and comprehensive media coverage cause candidates to use negative campaigning as a means to increase turnout among their base and attract undecided voters to win the by-election. Then the two main factors—candidate characteristics and electoral competition—jointly influence how the three mechanisms work and set up incentives to attack accordingly. We then modelled negative campaigning as a combination of a list of potential causal conditions, using new data collected from press coverage of Taiwanese legislative elections (2008–2022) and employing the qualitative comparative analysis (QCA) method and a case study. Analyses reveal that higher levels of electoral competition influence parachute candidates' decision to "go negative" during a by-election campaign.

This work builds upon several prior related studies in comparative politics. First, this study identifies possible combinations of conditions on the candidate and context level to understand what influences a candidate's decision to "go negative," thus contributing to existing research on the link between both levels and the use of negative campaigning (Nai, 2020; Valli & Nai, 2020). Second, this study contributes to a broader understanding of the strategic considerations of candidates in different types of elections. Finally, little is known about the consequences of parachuting candidates into party nominations, except for addressing their legislative behaviours (Koop & Bittner, 2011; Russo, 2012). This study is among the first to examine their effects on the use of negativity in election campaigns.

2. Theoretical Arguments

First, this study argues that for a better understanding of the occurrence of negative campaigning, we should focus on the combination of election types and two main factors: candidate characteristics and electoral competition. We differentiate between general elections and by-elections, arguing that political actors are more likely to decide to "go negative" during by-elections compared to general elections. Then, candidate characteristics and electoral competition jointly determine which candidates rely heavily on negative campaigning in by-elections.

Three mechanisms might explain the alleged link: time pressure, media exposure, and voter turnout. First, as the election draws near, political actors are more likely to "go negative" (Nai & Martinez i Coma, 2019; Nai & Sciarini, 2018). At the outset of a campaign, candidates tend to establish their personal brands by providing voters with information about who they are and proposing policies to respond to concerns that are salient for local residents. Then, attacks come towards the end of the campaign in order to draw a sharp contrast (Damore, 2002; Freedman & Goldstein, 2002; Ridout & Holland, 2010). Unlike general elections, where candidates may prepare for the election in advance and devote substantial time to constituency service, by-elections can create significant pressure because of the shorter time to election day. Given the time constraints, candidates are likely to resort to negative campaigning.

Second, negative advertisements make for particularly juicy morsels for the media. In the world of heightened media competition to capture the attention of the "news grazers," election news can be reduced to a conflict between candidates and between journalists and candidates who rail against false charges (Ansolabehere & Iyengar, 1995, p. 134), which appears to be a frequently used tactic to win ratings battles (Vliegenthart et al., 2011, p. 96). Furthermore, the media exaggerates its portrayal of the negativity of political campaigns (Geer, 2012; Hansen & Pedersen, 2008; Ridout & Smith, 2008) by providing extensive coverage of a few negative campaign messages, and, as a result, the general public is presented with a biased view of the political campaign (Hansen & Pedersen, 2008). Therefore, candidates may attract media attention and affect subsequent public opinion dynamics by engaging in negative campaigning. As by-elections are held for fewer seats compared to general elections, we can expect higher levels of negativity as media attention for each constituency increases during by-elections.

Third, competitors engage in negative campaigning to diminish positive feelings for their rivals and increase public favour for themselves (Nai & Walter, 2015; Skaperdas & Grofman, 1995; Walter, 2014). In addition, parties also resort to negative campaigning to mobilise core voters, as this can activate and reinforce party preferences and increase turnout among their base (Stuckelberger, 2021). By attacking another party, a party defines a conflict line that allows its core voters to identify themselves as part of an "us" versus "them" battle, thus creating a stronger party identification among its voters (Elmelund-Præstekær, 2010); as a consequence of the conflict line, parties can draw voters' attention and motivate them to vote (Lau et al., 2007). The effect is much more prevalent for by-elections, where turnout would generally be lower compared to general elections (Gallagher, 1996). This implies that candidates are likely to resort to negative campaigning to boost their base's voter turnout and attract such voters who dislike a candidate (Klein & Ahluwalia, 2005) or are particularly affected by a negative tone.

The presence of by-elections is not sufficient for the negative campaigning outcome. Another determinant is candidate characteristics. A parachute candidate has fewer roots in a given constituency he/she is running to represent and is more likely to "go negative" at by-elections compared to a local candidate who has spent years working for the constituency. Parachute candidates are under tremendous time pressure during by-elections, as they must quickly build connections to the constituency by advertising themselves as the person who identifies more with the community, is more attuned to their concerns and interests, and will promote them. Furthermore, they run the risk of preparing policy proposals that may provoke a backlash from the resident population, partly due to unfamiliarity with local political issues. In this sense, attacks should be more strident as huge media exposure at by-elections makes it more likely for negative advertising to reach a much larger electorate, and low voter turnout necessitates negative advertising to mobilise parties' base. Local candidates, by contrast, tend to emphasise their brokerage services to constituents and policies to respond to concerns most salient for local residents. Moreover, negative campaigning strategies will damage the positive brand image and reputation that they have built over many years.

Another determinant is electoral competition. Candidates with a small number of reliable votes are less motivated to attack their opponents, as attacks do not necessarily turn the tide and can backfire, hurting their own popularity (Kahn & Kenney, 2004; Lau et al., 2007). Specifically, if candidates decide to spend considerable time on constituency management for the next several years, attacking their opponents would damage their self-image. Similarly, candidates with considerable support, which is enough to assure victory, are not tempted to "go negative" as it may alienate potential

voters. The negativity of the campaign increases with the competitiveness of the race (Fowler et al., 2016), and we might expect a stronger effect for by-elections, especially when the candidates' base is identical in size. This encourages negative campaigning to boost their respective base's voter turnout and attract those who are specifically impacted by the negativity effect. It could be a key to electoral success under significantly lower turnout at by-elections. In sum, we argue that higher levels of electoral competition inform parachute candidates' decisions to level criticism against competitors during a by-election campaign.

In summary, due to the unfamiliarity with the constituency they are contesting, parachute candidates are less likely to emphasise policy proposals. Moreover, the by-election creates significant pressure because of the shorter time to election day. The by-election, however, offers these candidates the opportunity to attract considerable media attention. Furthermore, by-elections are characterised by low voter turnout, which increases the effectiveness of the strategy to secure the base. The effects, however, would be widespread if there were a high level of electoral competition. Therefore, we hypothesise that the presence of by-elections, combined with the presence of parachute candidates and with higher levels of electoral competition, leads to negative campaigning outcomes. In other words, *if* parachute candidates during a by-election campaign run to represent a given constituency with higher levels of electoral competition, *then* they decide to level criticism against competitors with less emphasis on their own policy proposals.

3. Data and Methods

New data collected from press coverage of Taiwanese legislative elections (2008–2022), covering 318 campaigns in single-member electoral districts, were analysed using the QCA method. The unit of analysis was the candidates in the Taiwanese legislative election. Taiwan's political structure is divided into two camps: the pan-green coalition, led by the Democratic Progressive Party (DPP), and the pan-blue coalition, led by the Kuomintang (KMT). This bipolar competition contributes to the strong trend towards one candidate per camp per district. All candidates running for the two camps, in which the overwhelming majority of candidates belong to the two major political parties, the DPP and the KMT, were analysed. There should have been a total of 636 candidates in the study. However, some candidates were running to represent a given constituency in several legislative elections; a list of 370 candidates was examined accordingly. We sourced the data on the candidate list from the Central Election Commission.

The QCA method was used in this study. It is a configurational method to explore the relationships between the combinations of "conditions" and "outcomes" (Ragin, 2008). Of three types of QCA—crisp-set QCA (csQCA), multi-value QCA (mvQCA), and fuzzy-set

QCA (fsQCA)—this study employs csQCA because all the conditions and outcome factors are bivalent, and their values should generate crisp sets (Thiem, 2014, p. 492). The csQCA method hinges on the logic of Boolean algebra. We must construct a dichotomous data table consisting of 0 or 1 attributed to conditions and outcomes. Then we develop a truth table in which a given outcome corresponds with the combination of conditions. After addressing possible contradictory configurations, the complex, intermediate to parsimonious formula can be produced by Boolean minimisation. Finally, we must interpret the three solution types.

This study included 636 cases—a negative campaign by a candidate (or a non-negative campaign) was considered a case. The outcome factor, NEGCAMP, captures whether candidates use negative campaigning. Candidates debate and defend their own positions and policies and most likely attack their opponents' programs and policy propositions on the hustings. The use of such attacks as a source of coding decisions is inappropriate. Candidates were identified as using negative campaigning if they criticised one of the following aspects of the target: record and accomplishments, controversial issues specific to the campaign, personal characteristics, and physical and socio-demographic attributes. We selected Taiwan's four main newspapers (online versions)—*Apple Daily*, *China Times*, *Liberty Times*, and *United Daily News*—which provided rich election coverage for the data collection. *China Times* is seen as the pan-blue media that highly publicises a smear campaign or a low blow made by the pan-green candidate against his pan-blue opponent, and vice versa for *Liberty Time*, which represents pan-green viewpoints. It is vital to include both newspapers to prevent selection bias. We used a combination of candidate names and negative campaigning-related search terms (e.g., attacks, smear, spread rumours, propaganda) and searched the online version of the four main newspapers. We also searched Google to prevent omitted reports and subsequently found very similar results in other electronic media, such as *ETtoday*, *Newtalk*, and *TVBS* (for a case, see Appendix A in the Supplementary File).

Record and accomplishments involve the candidate's past performance in terms of facilitating local economic development and increasing budgets for road construction and other local projects. For example, Tsai Shih-ying (蔡適應), who ran for a seat in Keelung City Constituency, attacked his opponent Hau Lung-pin (郝龍斌)—former Taipei mayor—saying that the construction bidding for the Taipei Twin Towers failed and the project was repeatedly delayed, and he negatively advertised Hau's second-to-last citizen satisfaction with local government performance; Chuang Suo-hang (莊碩漢), who ran for a seat in New Taipei City Constituency X, presented his competitor, Lu Chia-chen (盧嘉辰)—current legislator—as a legislator who performed poorly, based on the report of legislator evaluation conducted by the Citizen Congress Watch, and a liar who exaggerated his efforts to obtain over 170 billion NT dollars in local construction budget; Lee Chin-yung (李進勇), who ran for a seat in Yunlin County Constituency I, publicly blasted his rival Chang Chia-chun (張嘉郡) for doing nothing to increase the old-age farmer allowance and Yunlin county exclusive fishing right. Chang Chih-ming (張志明), who ran for a seat in Taitung County Constituency, roasted his competitor, Liu Chao-hao (劉櫂豪), saying that as a Taitung legislator for eight years, he was unable to tackle problems such as the construction of Provincial Highway 26, facilitating train ticket purchases for Taitung residents, water supply pervasion, the import of betel pepper, and the sale of public farmland.

Furthermore, record and accomplishments reflect the negative side of a candidate performance. There are some cases where candidates were attacked by their rivals because of potential scams and scandals. These included the Central Motion Picture Corporation case used by Hsu Kuo-yung (徐國勇) as propaganda against Tsai Cheng-yuan (蔡正元), who was suspected of embezzlement; illegal loans from public banks backed by cut-price land for which Lin Yi-shih (林益世) was a suspect and under widespread attacks by Chiu Chih-wei (邱志偉); and a sex scandal about which Ho Po-wen (何博文) made a big story to stigmatise Wu Yu-sheng (吳育昇).

Some controversial affairs arising from the election campaign may become the target, and whether that certainly happened or is fabricated is less important. Candidates filed bribery allegations against their opponents—defamatory forms of communication that involve reputational damage. For example, Chien Chao-tong (簡肇棟), who ran for a seat in Taichung County Constituency III, and Ho Min-hao (何敏豪), who ran for a seat in Taichung City Constituency III, accused his political opponents of voter buying. Candidates also filed illegal canvass allegations against their rivals. For example, Chang Kuo-hsin (張國鑫), who ran for a seat in Nantou County Constituency I, accused the KMT candidate Ma Wen-chun (馬文君) of more than 10 Japanese people openly backing her, on suspicion of violating the Civil Servants Election and Recall Act. Furthermore, Lin Yu-chang (林右昌), who ran for a seat in Keelung City Constituency, heavily criticised his rival Hsieh Kuo-Liang (謝國樑) for utilising Er Xin High School to mobilise and publicise, in which teachers and staff were politically bullied. Finally, some took aim at campaign staff. The DPP candidate Yao Wen-chih (姚文智) accused the KMT Legislator Huang Chao-shun's (黃昭順) assistant of involvement in the Huaxin Laundry arson case.

Personal characteristics imply non-physical qualities or features of candidates and make them recognisable. For example, Lin Chien-jung (林建榮) and Chen Ou-po (陳歐珀), who ran for a seat in Yilan County Constituency, mutually described each other as "political speculators." Furthermore, Su Chen-ching (蘇震清), who ran for a seat in Pingtung County Constituency I, disseminated information alleging that his competitor, Tsai Hau (蔡豪), was more outrageous than Zheng Taiji—former

Pingtung County Council Speaker closely associated with the criminal underworld. Sun Ta-chien (孫大千), who ran for a seat in Taoyuan City Constituency VI, accused Chao Cheng-yu (趙正宇) of withdrawing from the KMT and running for the election as a betrayer and being disloyal to his party.

Physical attributes refer to someone's physical or facial features, while socio-demographic attributes refer to a combination of social and demographic factors that define people in a specific group or population, including age, gender, ethnicity, education level, income, family ties, location, and so forth. For example, Ting Shou-chung (丁守中), who ran for a seat in Taipei City Constituency I, criticised his opponent Wu Szu-yao (吳思瑤) as "a woman aged 40 to 50 who called herself sister Szu-yao when she met a child." Lin Yu-fang (林郁方), who ran for a seat in Taipei City Constituency V, bombarded Lim Tshiong-tso (林昶佐) for being mentally abnormal and having longer hair than a woman. Lee Yung-ping (李永萍), who ran for a seat in New Taipei City Constituency XII, attacked Lai Pin-yu (賴品妤) for being too young to be a legislator. Hung Chun-yi (洪宗熠), who ran for a seat in Changhua County Constituency III, and his fans club hung a black banner reading "If Cheng Ru-fen (鄭汝芬) (family) does not fail, Changhua will never improve," to highlight the notorious Hsieh family who dominated southern Changhua over three generations.

We collected the data from press coverage instead of candidates' self-reports for the following reasons. First, as Maier and Nai (2021, p. 8) indicated: "Self-report assessments on the use of negative campaigning might suffer from validity issues. Because voters usually report their dislike of attacks, candidates might be motivated to downplay the level of negativity they may have employed in their campaigns." Second, media coverage is significantly higher for candidates who go negative (Maier & Nai, 2020) or rely on personal attacks (Gerstlé & Nai, 2019), and this provides a more reliable source of information for the analysis of the drivers of negative campaigning. Appendix B in the Supplementary File contains the list of negative campaigning and data source.

We have three bivalent conditions, of which BYELEC (by-election campaign) is already of a dichotomous nature, where 1 = *a by-election*, defined as an election held to fill a vacant electorate seat if a member of Parliament (MP) resigns or dies or becomes ineligible to continue in office, and 0 = *otherwise*. PARACHU (parachute candidates) delineates an election candidate who does not reside in and has little connection to the area they are running to represent. This included three types of candidates: a political neophyte, one who served as a member of the national parliament or government but has no connection to the constituency they wish to stand in, and party-list representatives. For example, in the 2012 legislative election, Chien Wei-chuan (錢薇娟)—a female basketball player—ran for a seat in New Taipei City Constituency II, representing

the KMT; Su Jun-bin (蘇俊賓)—the director general of the Department of Environmental Protection, Taoyuan County, and the director general of the Government Information Office, Executive Yuan—ran for a seat in Tainan City Constituency IV, representing the KMT; Chiu Yi-ying (邱議瑩)—a member of the national parliament from Pingtung County Constituency—ran for a seat in Kaohsiung City Constituency I, representing the DPP; and Cheng Li-wun (鄭麗文)—a party-list legislator—ran for a seat in Taichung City Constituency VII, representing the KMT. These candidates are considered to be parachuted into the MP post. The data on candidates' objective backgrounds were collected from election bulletins. Appendix C in the Supplementary File contains the list of parachute candidates.

ELECOMP (electoral competition) records the level of electoral competition. The study calculated the level of political competition in electoral regions, comparing the percentage of votes received by candidates formally nominated from the two major camps per legislative election between 2008 and 2022 per district. A narrow margin between two candidates shows a high level of political competition. We did not use the gap in the previous election as a measure of the level of electoral competition, as it cannot reflect the current electoral competitiveness. The level of electoral competition is determined by actual electoral data as a proxy for pre-election closeness. It is likely that negative campaigning influences actual votes. The level of electoral competition—the base variable is continuous—could be calibrated into a dichotomous variable to reduce the endogenous effect. There are, however, a few un-nominated aspirants. The study identified candidates who participated in elections without the DPP or KMT approval and merged their votes into the base of the two camps according to their political spectrum. ELECOMP is coded 1 when the difference between two candidates in the percentage of votes is less than 5%. The data were collected from the Central Election Commission.

The truth table shows that some configurations are associated with a contradictory outcome in which cases are coded 1 on the outcome of interest, and others are 0. There are three ways to handle this issue. It can be resolved using statistical methods that compare the distribution of outcomes for a given configuration and that of the outcomes for cases not captured by that configuration (Roscigno & Hodson, 2004, p. 25). Alternatively, it can also be achieved by assigning an outcome to the contradictory configuration according to the outcome value shown by the majority of cases (Skaaning, 2011, p. 402). A third option is the choice of a consistency threshold that separates the sufficient truth table rows from those designated as insufficient for the outcome. We applied a consistency criterion of 0.6. The three strategies were adopted in the study. Some logically possible configurations exist in which non-observable cases fit, and these are defined as logical remainders. Conventionally, this problem can be tackled using three

strategies. Of these three, a conservative approach is to treat all logical remainders as *false*. Meanwhile, another strategy involves treating these remainders as *do not care*, so as to generate the most parsimonious formula. Lastly, there is the third approach to finding a solution term of intermediate complexity, which is based on existing knowledge supporting the idea that the presence of conditions is linked to outcome 0 or 1 (Ragin & Sonnett, 2004). It is necessary to produce and report three formulae: complex, intermediate, and the most parsimonious, according to standards of good practice in QCA (Schneider & Wagemann, 2010).

To check robustness, one can use reduction, addition, or replacement of explanatory factors to test if similar results would emerge (Skaaning, 2011). Herrnson and Lucas (2006) show that male candidates are more likely to attack their political opponent(s) compared to female candidates, but Walter (2013) finds no difference. This study, therefore, added the other causal condition, GENDER, where 1 = *male candidates* and 0 = *otherwise*, which is supposed to drive the use of negative campaigning. Furthermore, it was found that negative campaigning has increased over time in the US (Fowler et al., 2016, p. 53), while the trend was less clear-cut for Europe (Walter, 2014). Therefore, this study used the other causal condition, YEAR, where 1 stands for the *years after 2020* and 0 *otherwise*, which is likely to influence the use of negative campaigning strategies. Moreover, there is evidence pointing out that challengers are less likely to run positive campaigns than incumbents due to a reduced likelihood of promoting their record and accomplishments (Nai, 2020; Nai & Walter, 2015). We, however, did not include this causal condition, given that all candidates were challengers at by-elections. Alternatively, robustness can also be checked by altering the calibration thresholds (Glaesser & Cooper, 2014; Skaaning, 2011). ELECOMP can be transformed into a condition consisting of multiple categories where we assign a value of 2 to cases if the difference between the two candidates in the percentage of votes is less than 5%, a value of 1 with a 5% to 10% difference, and a value of 0 with the difference of more than 10%. To deal with multi-value conditions, this study employs the mvQCA. Lastly, one can check robustness by altering the frequency thresholds (Skaaning, 2011). An analysis can be run where the frequency thresholds are raised to two cases, compared to the original analysis that used all configurations representing at least one case.

The next step of this study involved identifying cases to discern causal mechanisms. After reporting results obtained using csQCA, we followed Schneider and Rohlfing's (2013, 2016) proposal for selecting appropriate cases for in-depth studies. At least one case has to be chosen for each term of solution (the principle of diverse case selection). In terms of typical case selection, this study focused on cases that are members of just one term of the solution (the principle of unique membership; Schneider & Rohlfing, 2013, 2016).

4. Results

As shown in Table 1, when considering three conditions influencing candidates' use of negative campaigning, the analysis found that the combination of three conditions accounts for the use of negative campaigning (BYELEC * PARACHU * ELECOMP → NEGCAMP). Therefore, during a by-election campaign (BYELEC), higher levels of electoral competition (ELECOMP) lead to parachute candidates' (PARACHU) decisions to level criticism against competitors (NEGCAMP), with less emphasis on their own policy proposals.

There are other causal combinations of conditions that can account for the use of negative campaigning (e.g., byelec * parachu * ELECOMP * GENDER → NEGCAMP). However, these were not identified in all solution types. The same procedure was used to obtain the formula for [0: a non-negative campaign] configurations. We found at least one of the three conditions, that is, byelec, parachu, and elecomp, in large proportion of the complex, intermediate, and parsimonious formula. Compared to the path BYELEC * PARACHU * ELECOMP covering the observed [1: a negative campaign] outcome cases, we found that this type of path was not associated with the [0: a non-negative campaign] outcome (Appendix F in the Supplementary File).

Next, we chose appropriate cases for analysis of causal mechanisms. This study applied the principle of diverse case selection and the principle of unique membership for the choice of typical cases—that is, "Taichung City Constituency II, 2022 legislative by-election"—as the causal process of the term BYELEC * PARACHU * ELECOMP. In the case, we also presented that (a) parachute candidates were less likely to emphasise policy proposals, (b) the by-election created significant time pressure for parachute candidates, and (c) the by-election offered parachute candidates the opportunity to attract considerable media attention and use the strategy of securing the base during close races.

The 2022 legislative by-election was held on 9 January 2022. Its purpose was to elect one member of the Legislative Yuan who would serve the remaining term until 2024, as Chen Po-wei (陳柏惟), who in the 2020 legislative elections defeated the KMT incumbent Yen Kuan-heng (顏寬恆) in the Taichung City Constituency II, was recalled on 23 October 2021. The KMT fielded Yen Kuan-heng to contest the seat again, while the DPP put forward former party-list legislator Lin Ching-yi (林靜儀). Regarding the political careers of the two, in 2001, Yen helped run the first legislative campaign of his father, Yen Ching-piao (顏清標), and also worked as the elder Yen's legislative assistant. Yen Ching-piao was expelled from the Legislative Yuan as a result of his sentence, necessitating a by-election on 26 January 2013 that was won by Yen Kuan-heng. The Yens are the most famous factional family dominating Taichung's coastline and ruling the city district for almost two decades. KMT provided the Yens subsidies in the gravel and casino businesses while also

Table 1. The decision to go negative: QCA.

	Resolving Contradictory Configurations		
	Assigning an outcome to the contradictory configuration according to the outcome value shown by the majority of cases	A consistency threshold of 0.6 that separates the sufficient truth table rows from those designated as insufficient for the outcome	Ratios of configuration to non-configuration percentages
Original			
Condition: BYELEC, PARACHU, ELECOMP	C[1]: BYELEC * PARACHU * ELECOMP	C[1]: BYELEC * PARACHU * ELECOMP	C[1]: BYELEC * PARACHU * ELECOMP
	P[1]: BYELEC * PARACHU * ELECOMP	P[1]: BYELEC * PARACHU * ELECOMP	P[1]: BYELEC * PARACHU * ELECOMP
Robustness			
Addition of condition: GENDER	C[1]: BYELEC * PARACHU * ELECOMP + byelec * parachu * ELECOMP * GENDER	C[1]: BYELEC * PARACHU * ELECOMP	C[1]: BYELEC * PARACHU * ELECOMP + byelec * parachu * ELECOMP * GENDER
	P[1]: BYELEC * PARACHU * ELECOMP + byelec * parachu * ELECOMP * GENDER	P[1]: BYELEC * PARACHU * ELECOMP	P[1]: BYELEC * PARACHU * ELECOMP + byelec * parachu * ELECOMP * GENDER
Addition of condition: YEAR	C[1]: BYELEC * PARACHU * ELECOMP	C[1]: BYELEC * PARACHU * ELECOMP	C[1]: BYELEC * PARACHU * ELECOMP
	I[1]: BYELEC * PARACHU * ELECOMP	I[1]: BYELEC * PARACHU * ELECOMP	I[1]: BYELEC * PARACHU * ELECOMP
	P[1]: BYELEC * PARACHU * ELECOMP	P[1]: BYELEC * PARACHU * ELECOMP	P[1]: BYELEC * PARACHU * ELECOMP
Change the Calibration Thresholds: ELECOMP	C[1]: BYELEC{1} * PARACHU{1} * ELECOMP{2} + BYELEC{0} * PARACHU{0} * ELECOMP{1}	C[1]: BYELEC{1} * PARACHU{1} * ELECOMP{2}	C[1]: BYELEC{1} * PARACHU{1} * ELECOMP{2} + BYELEC{0} * PARACHU{0} * ELECOMP{1}
	P[1]: BYELEC{1} * PARACHU{1} * ELECOMP{2} + BYELEC{0} * PARACHU{0} * ELECOMP{1}	P[1]: BYELEC{1} * PARACHU{1} * ELECOMP{2}	P[1]: BYELEC{1} * PARACHU{1} * ELECOMP{2} + BYELEC{0} * PARACHU{0} * ELECOMP{1}
Change the Frequency Thresholds: Two Cases	C[1]: BYELEC * PARACHU * ELECOMP	C[1]: BYELEC * PARACHU * ELECOMP	C[1]: BYELEC * PARACHU * ELECOMP
	P[1]: BYELEC * PARACHU * ELECOMP	P[1]: BYELEC * PARACHU * ELECOMP	P[1]: BYELEC * PARACHU * ELECOMP

Notes: C[1]—complex formula for the positive [1] outcome, I—intermediate formula, P—parsimonious formula; to find the intermediate formula, this study applied a more rational assumption that the presence of the years after 2020, as "easy" counterfactual, is associated with candidates' decisions to go negative (YEAR{1} → O{1}); for csQCA, an uppercase letter represents that the condition is present, whereas a lowercase letter indicates the absence; for mvQCA, conditions are expressed in capital letters, their value is presented next to them in brackets; please see Appendix F in the Supplementary File for all analyses and the solutions for the negative outcomes [0].

offering them the opportunity to serve in public offices in exchange for their support to ensure the continued dominance of KMT. His sister, Yen Li-min (顏莉敏), is the current vice-speaker of the Taichung City Council.

Lin—a physician-turned-politician—has a reputation for being clean and idealistic, having previously been a party-list legislator and the head of several departments within the DPP, including departments of gender equality and international affairs. Lin, however, has little connection to the Taichung City Constituency II. The fact of being parachuted into the constituency made it less likely for her to claim a record and emphasise her policy proposals. It was not until 21 days before election day that Lin shared her vision for the people of the Taichung City Constituency II and outlined her policy priorities for the next four years. According to Yen, her competitor: "Over the last month or so, Lin did not put forward visions, goals, and long-term plans dealing with voters' needs. It was too late to propose it now" (S1: Data Source 1, Appendix E in the Supplementary File). Although Lin had posted a policy outline—the so-called 10 good recipes (十帖良方)—on Facebook (S2), she also admitted the small number of views, clicks, comments, likes, and shares on this post, implying people's disinterest in her policy outline (S3). Furthermore, her policy propositions deviated from the party script. She said: "After being elected, I am definitely sure that I am going to arrange the oral cancer screening for residents in Taichung's coastline. Betel nut chewing is seen everywhere that really broke me down" (S4). This criticism of the local residents sparked a harsh public reaction.

The by-election, however, offered Lin the opportunity to use the resources of the state and the ruling party to attack and smear Yen and his family. First, the by-election creates significant pressure because of a shorter time to election day, which contributes to the DPP's all-out mobilisation efforts in support of Lin's campaign (S5). Former Taichung mayor Lin Chia-lung (林佳龍) served promptly as chairman of the campaign office (S6). Ker Chien-ming (柯建銘), the majority leader of the Legislative Yuan, mobilised DPP legislators to campaign for Lin (S7), while President Tsai Ing-wen (蔡英文) and Vice President Lai Ching-te (賴清德) stumped for Lin ahead of elections several times (S8–10). It was a team that combined mobilisation, propaganda, and information warfare to launch an all-out attack against the Yen. As Lin indicated in her victory celebration: "The election campaign period is extremely short, and it is a very difficult constituency to contest. This victory represents the best unity of the DPP" (S11).

Second, it is the only national election and attracts considerable media attention. Given the heightened media competition to capture the attention of "news grazers," the focus remains on the negative aspects of the campaign: the attacks and dramatics of the opposing sides. By publicly criticising the Yen family through media addresses and public speeches, Lin depicted the family as a family of gangsters standing at the intersec-

tion of organised crime, electoral politics, and business tycoons (S12), which will affect subsequent public opinion dynamics. During the by-election, various political talk shows discussed Yen's background as the scion of a family of gangsters and his family's political connections; media coverage of Yen was generally unfavourable (S13–14). At a press conference on 13 December 2021, Yen released statistical data on the number of days he was attacked by shows, for example, Taiwan Front Line (台灣最前線, 37 days), Coco Hot News (辣新聞152, 30 days), and Taiwan Go for It (台灣向前行, 25 days; S15). Furthermore, for decades, the Yen family—through its connections and control over vote captains, loyalty networks, and information flows—has had considerable sway in Taichung and could always be relied upon to leverage its influence in the locality. However, considerable media coverage during the by-election caused the Yen family's control over information flows to slip, motivating Lin to attack them publicly, which contributed to the local electorate's disillusionment with the Yens (S16).

Third, by-elections are characterised by low voter turnout, which increases the effectiveness of the strategy of securing the base. The effects, however, would be widespread if there is a high level of electoral competition. The turnout in the 2013 legislative by-election held for Taichung City Constituency II was 48.89%, compared to the general elections in 2016 (70.80%) and 2020 (77.20%). Yen won by a narrow margin of 1% in 2013 and 3% in 2016, whereas Chen won a narrow victory by a 3% margin in 2020. In Taichung City Constituency II, which comprises Dadu (大肚), Longjing (龍井), Shalu (沙鹿), Wufeng (霧峰), and Wuri (烏日), the DPP advantage in Wuri is overwhelming; Dadu, Longjing, and Shalu are Yen family traditional strongholds; and Wufeng is a swing district, shifting from slightly blue to slightly green in recent years. Given the identical base size for both camps, the DPP launched an all-out attack against the Yen family from the beginning of the election campaign. There were allegations that the Yens' mansion was built illegally on national property (S17), that an MRT station was proposed near a property owned by the Yen family (S18–19), that the Dajia Jenn Lann Matsu Temple (大甲鎮瀾宮) run by the family had been filing the exact same tax returns for decades (S20), etc. This was done to boost their base's voter turnout and create an environment of hatred among young voters towards the Yen family (S21). It eventually stimulated young voters who dislike the KMT's black gold politics—which, in Taiwan, refers to the obtaining of money (the "gold") through an illegal method (hence the gold being "black")—to return home and vote.

Yen—a native of Shalu—emphasised the history of long-term local service and policies to respond to the most salient concerns of local residents to attract local sympathy votes. The Yen camp's strategy was to rely on traditional supporters' votes by exhorting them to vote (S21). In sum, the case study supports the contention that during a by-election campaign, increased

electoral competition causes parachute candidates to criticise political opponents.

5. Conclusions

What drives the use of negative campaigning? Using new data collected from press coverage of Taiwanese legislative elections (2008–2022)—and combining the QCA method and a case study—we find that higher levels of electoral competition cause parachute candidates to criticise political opponents during by-election campaigns.

The results suggest a more comprehensive approach to the study of the drivers of negativity. No single factor can determine whether a political actor will "go negative." Our approach is to identify two broader sets of factors—as Maier and Nai (2021) indicated—and list the potential causal conditions that explain the occasions when candidates opt to "go negative." We did not discuss the significant drivers of negative campaigning during general elections, which may have alternative explanations. Parachute candidates do not go significantly more negative than local candidates during general elections, as there is adequate time to self-advertise among voters and inadequate media coverage to launch a negative political campaign. Personality traits and ideology matter; research has demonstrated that negativity is linked to candidates' personalities and ideological positions (Elmelund-Præstekær, 2010; Nai, 2019; Nai & Maier, 2020; Nai & Sciarini, 2018). Detailed data on candidates' social profiles may enable the examination of causal combinations that can account for the decision to go negative in general elections.

These results also suggest that researchers should pay close attention to important contextual factors that underlie candidates' strategic choices, particularly during by-elections. At least two policy implications warrant consideration. First, research literature indicates that negative campaigning has detrimental effects on the overall political system as it tends to reduce citizens' sense of political efficacy and trust in government and adversely impacts the overall public mood (Lau et al., 2007). Thus, parties need to consider their decision to field parachute candidates during by-elections, as this is more likely to lead to attacks on political rivals. Second, as a consequence of the first rationale, the government should take appropriate actions to raise one's sense of political efficacy and restore public confidence in the government in an increasingly competitive political environment where parachute candidates contest by-elections.

This study has several limitations. First, it only considered the case of Taiwan, which may limit the results' generalisability. Second, we confirmed the arguments using objective data from press coverage. However, as Maier and Nai (2021, p. 7) indicated: "Candidate's perception might affect how he campaigns—even if his perception does not match reality." Future research should test the validity of the proposed arguments using subjective data from a comprehensive survey of candidates. Third, we did not consider a dynamic pattern of negative campaigning—candidates' campaigning against each other, which causes a certain dynamic—or control for time pressure based on the findings that negative campaigning increases as the voting day is close (Nai & Martinez i Coma, 2019; Nai & Sciarini, 2018). We will test the robustness when data become available. Fourth, we provided evidence that by-elections were characterised by the shorter time to election day, especially after candidates were nominated, and by a lower turnout (Appendix D in the Supplementary File). However, no data exist for unpacking the mechanisms underlying how the shorter time to election day would give candidates less time to prepare their campaign and get familiar with the constituency, which in turn might influence candidates' decision to go negative. Fifth, more cases were required to back the claim that the media would be more focused on these if there are only a few districts in which an election takes place. Sixth, there is enormous variation across negative campaigning. Some prefer criticising record and accomplishments of other candidates, while others prefer character attacks (Maier & Nai, 2021). Future research considering such issues would enrich our understanding of a combination of causally relevant conditions that generate the outcome.

Conflict of Interests

The author declares no conflict of interests.

Supplementary Material

Supplementary material for this article is available online in the format provided by the author (unedited).

References

Ansolabehere, S., & Iyengar, S. (1995). *Going negative: How political advertisements shrink and polarize the electorate*. The Free Press.

Damore, D. F. (2002). Candidate strategy and the decision to go negative. *Political Research Quarterly*, *55*(3), 669–685.

Elmelund-Præstekær, C. (2010). Beyond American negativity: Toward a general understanding of the determinants of negative campaigning. *European Political Science Review*, *2*(1), 137–156.

Fowler, E. F., Franz, M. M., & Ridout, T. N. (2016). *Political advertising in the United States*. Westview Press.

Freedman, P., & Goldstein, K. (2002). Lessons learned campaign advertising in the 2000 elections. *Political Communication*, *19*(1), 5–28.

Gallagher, M. (1996). By-elections to Dáil Éireann 1923–96: The anomaly that conforms. *Irish Political Studies*, *11*(1), 33–60.

Geer, J. G. (2006). *In defence of negativity: Attack ads in presidential campaigns*. University of Chicago Press.

Geer, J. G. (2012). The news media and the rise of negativity in presidential campaigns. *PS: Political Science & Politics*, *45*(3), 422–427.

Gerstlé, J., & Nai, A. (2019). Negativity, emotionality and populist rhetoric in election campaigns worldwide, and their effects on media attention and electoral success. *European Journal of Communication*, *34*(4), 410–444.

Glaesser, J., & Cooper, B. (2014). Exploring the consequences of a recalibration of causal conditions when assessing sufficiency with fuzzy set QCA. *International Journal of Social Research Methodology*, *17*(4), 387–401.

Grossmann, M. (2009). Going pro? Political campaign consulting and the professional model. *Journal of Political Marketing*, *8*(2), 81–104.

Hansen, K. M., & Pedersen, R. T. (2008). Negative campaigning in a multiparty system. *Scandinavian Political Studies*, *31*(4), 408–427.

Herrnson, P. S., & Lucas, J. C. (2006). The fairer sex? Gender and negative campaigning in U.S. elections. *American Politics Research*, *34*(1), 69–94.

Kahn, K. F., & Kenney, P. J. (2004). When do candidates go negative? In K. F. Kahn & P. J. Kenney (Eds.), *No holds barred: Negative campaigning in U.S. Senate campaigns* (pp. 19–37). Pearson.

Klein, J. G., & Ahluwalia, R. (2005). Negativity in the evaluation of political candidates. *Journal of Marketing*, *69*(1), 131–142.

Koop, R., & Bittner, A. (2011). Parachuted into parliament: Candidate nomination, appointed candidates, and legislative roles in Canada. *Journal of Elections, Public Opinion and Parties*, *21*(4), 431–452.

Lau, R. R., Sigelman, L., & Rovner, I. B. (2007). The effects of negative political campaigns: A meta-analytic reassessment. *Journal of Politics*, *69*(4), 1176–1209.

Maier, J., & Nai, A. (2020). Roaring candidates in the spotlight: Campaign negativity, emotions, and media coverage in 107 national elections. *The International Journal of Press/Politics*, *25*(4), 576–606.

Maier, J., & Nai, A. (2021). Mapping the drivers of negative campaigning: Insights from a candidate survey. *International Political Science Review*. Advance online publication. https://doi.org/10.1177/01925 12121994512

Nai, A. (2019). Disagreeable narcissists, extroverted psychopaths, and elections: A new dataset to measure the personality of candidates worldwide. *European Political Science*, *18*(2), 309–334.

Nai, A. (2020). Going negative, worldwide: Towards a general understanding of determinants and targets of negative campaigning. *Government & Opposition*, *55*(3), 430–455.

Nai, A., & Maier, J. (2020). Dark necessities? Candidates' aversive personality traits and negative campaigning in the 2018 American midterms. *Electoral Studies*, *68*, Article 102233.

Nai, A., & Martinez i Coma, F. (2019). Losing in the polls, time pressure, and the decision to go negative in referendum campaigns. *Politics & Governance*, *7*(2), 278–296.

Nai, A., & Sciarini, P. (2018). Why "going negative"? Strategic and situational determinants of personal attacks in Swiss direct democratic votes. *Journal of Political Marketing*, *17*(4), 382–417.

Nai, A., & Walter, A. S. (2015). *New perspectives on negative campaigning: Why attack politics matters*. ECPR Press.

Ragin, C. C. (2008). *Redesigning social inquiry: Set relations in social research*. University of Chicago Press.

Ragin, C. C., & Sonnett, J. (2004). Between complexity and parsimony: Limited diversity, counterfactual cases, and comparative analysis. In S. Kropp & M. Minkenberg (Eds.), *Vergleichen in der Politikwissenschaft* [Comparisons in political science] (pp. 180–197). Springer.

Ridout, T. N., & Holland, J. L. (2010). Candidate strategies in the presidential nomination campaign. *Presidential Studies Quarterly*, *40*(4), 611–630.

Ridout, T. N., & Smith, G. R. (2008). Free advertising: How the media amplify campaign messages. *Political Research Quarterly*, *61*(4), 598–608.

Roscigno, V. J., & Hodson, R. (2004). The organizational and social foundations of worker resistance. *American Sociological Review*, *69*(1), 14–39.

Russo, F. (2012). The constituency as a focus of representation: Studying the Italian case through the analysis of parliamentary questions. In S. Martin & O. Rozenberg (Eds.), *The roles and function of parliamentary questions* (pp. 32–43). Routledge.

Schneider, C. Q., & Rohlfing, I. (2013). Combining QCA and process tracing in set-theoretic multi-method research. *Sociological Methods & Research*, *42*(4), 559–597.

Schneider, C. Q., & Rohlfing, I. (2016). Case studies nested in fuzzy-set QCA on sufficiency formalizing case selection and causal inference. *Sociological Methods & Research*, *45*(3), 526–568.

Schneider, C. Q., & Wagemann, C. (2010). Standards of good practice in qualitative comparative analysis (QCA) and fuzzy-sets. *Comparative Sociology*, *9*(3), 397–418.

Skaaning, S. E. (2011). Assessing the robustness of crisp-set and fuzzy-set QCA results. *Sociological Methods & Research*, *40*(2), 391–408.

Skaperdas, S., & Grofman, B. (1995). Modeling negative campaigning. *American Political Science Review*, *89*(1), 49–61.

Stuckelberger, S. (2021). Mobilizing and chasing: The voter targeting of negative campaigning—Lessons from the Swiss case. *Party Politics*, *27*(2), 341–350.

Thiem, A. (2014). Navigating the complexities of qualitative comparative analysis: Case numbers, necessity relations and model ambiguities. *Evaluation Review*, *38*(6), 487–513.

Valli, C., & Nai, A. (2020). Attack politics from Albania to Zimbabwe. A large-scale comparative study on the drivers of negative campaigning. *International Political Science Review*. Advance online publication. https://doi.org/10.1177/0192512120946410

Vliegenthart, R., Boomgaarden, H. G., & Boumans, J. W. (2011). Changes in political news coverage: Personalization, conflict and negativity in British and Dutch newspapers. In K. Brants & K. Voltmer (Eds.), *Political communication in postmodern democracy* (pp. 92–110). Palgrave Macmillan. vWalter, A. S. (2013). Women on the battleground: Does gender condition the use of negative campaigning? *Journal of Elections, Public Opinion and Parties*, *23*(2), 154–176.

Walter, A. S. (2014). Choosing the enemy: Attack behaviour in a multiparty system. *Party Politics*, *20*(3), 311–323.

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