Political Donor Motivations and Social Media: A Time Series Analysis

The two predominant theories of political donor motivations are the access-oriented model and the consumption model. This paper combines political donation records and social media posts from politicians to test whether either behavior is observed. In the access-oriented model, individual political donors and political action committees (PACs) are assumed to contribute to campaigns in an effort to acquire access and influence politicians into supporting specific policy issues. In this study, the access-oriented model of donors predicts that donations from specific groups of donors will precede public support of certain policies. The consumption model of donors views political contributions as being an extension of voting along a participatory spectrum, and that donors support candidates who they already know support policy issues that the donors care about or are ideologically motivated. In this research, the consumption model predicts that donations from various groups of donors will lag in response to public support of certain policy issues. Historically, these two models have treated political donors as all having the same motivations. More recent studies in campaign finance have found that both motivational models can exist in different groups of donors. However, these studies categorize groups of donors in broad strokes, generally as either small-dollar donors and large-dollar donors as well as PACs. This paper statistically derives coalitions of similar donors and tests the competing models of political donor motivations on these more granular groups of donors who support similar candidates.

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Introduction

[Need some sort of bridge into specific models]

Access-Oriented Model

Access-oriented political donors are those that attempt to use their contributions to gain access to politicians. Most often, access-oriented donors are thought to be the motivation behind contributions from Political Action Committees (PACs) and donors with business interest. The theory goes that this access can then influence legislative behavior (Francia et al. 2003). Milbrath (1958) centers legislative influence as a communicative process where those seeking to influence legislators must be able to "communicate their power, as well as the facts and arguments supporting their position, when they confer with a legislator." Congress is operating in a "vacuum filled with noise." And political contributions can gain direct access that allows to to cut through all the noise of competing information that the legislator might be encountering (Milbrath 1958). In interviews, business groups themselves said that they seek "access" to either a member of congress or a member of their staff when they make a contribution. But these groups stated that their contribution only gains the access to make an argument and it is the merit of the argument that determines support for their cause or not (Herndon 1982). Empirical studies of financial documents backup this claim that donors seek access in order to influence policy (Fouirnaies and Hall 2015). Past research has suggested that political contributors are successful in their goals to gain access as measured by the amount of time that organized interest groups spend with members of congress (Langbein 1986).

However, measuring the direct access that political financiers gain from political con-

tributions is difficult to measure. Instead, researchers have treated the "access" component of contributor influence as an implicit assumption and instead look for evidence of "influence" of political contributors on politicians. Many political science papers do not use the explicit term "access-oriented donor" and instead refer to their work as examining the potential "influence" of political donors on politicians. This line of influence research implies a gain of access by political contributors. As Langbein (1986) states, "[Access] is a precondition for having influence over public policy. Contributions themselves have little meaning for a congressman, because they do not carry any 'message.' Only access, or some other form of direct or indirect communication, can translate money into influence."

Even though research has suggested there is a connection between political contributions and access. It is unclear if that access actually converts to *influence* in the political process. Despite confirmation that PACs attempt to influence the legislative process (Grenzke 1989), past research has found PAC contributions to have a limited effect on roll-call voting (Wright 1985). In rare instances, there is an apparent connection between PAC contributions and roll-call votes, but it that correlation is most likely due to broader support from larger interest groups (Grenzke 1989). These sparse correlations could be manifestation of the finding that legislators are responsive to changes to the opinions of the national individual donor class (Canes-Wrone and Gibson 2019). One article went so far as to conclude that "evidence in the article undermines belief in the military-industrial complex model" (Wayman 1985) when studying the effect of defense-related PACs on roll-call voting.

Other studies on the connection between campaign contributions and legislative voting does support that moneyed interests play a significant role in the legislative process, particularly organized business interests that are within a member's district (Hall and Wayman 1990), potentially similar to how members of congress prioritize public opinion of their district over national public opinion [butler2011]. Further, there appears to be a stronger influence as a result of contributions from individuals with business inter-

ests, opposed to PACs, which many other studies focus on (Fellowes and Wolf 2004). A meta-analysis found that model specification played a significant role in whether significant results were found when looking for a connection between donations and roll-calls votes, concluding that studies that controlled for "friendly giving by including a measure of legislators' ideology and that include more than one contributions variable are less likely to produce significant results" (Roscoe and Jenkins 2005). Despite this variability in model specification, the authors conclude that one-third of roll-call votes are impacted by campaign contributions (Roscoe and Jenkins 2005).

Potentially, the influence exerted by contributors when making a political contribution is so indirect that it doesn't always materialize in statistical patterns of legislative voting, but there is evidence of the influence as a result of the legislation. For example, one study found that future returns of firms is positively and significantly correlated with contributions in support for candidates, finding the strongest effect among firms that support candidates within the state that the firm is based (Cooper, Gulen, and Ovtchinnikov 2010). In addition to immediately-felt financial returns, donors may systematically contribute money to legislative agenda setters, such as chairs of financial committees, in an effort to set future legislative agendas (Fouirnaies 2018). Even campaign contribution from business executives are "best understood as purchases of 'good will' whose returns, while positive in expectation, are contingent and rare" (Gordon, Hafer, and Landa 2007).

Consumption Model

Online Fundraising

Rise of Small-Dollar Donors

Ideological Measurement Using Donor Data

Data

Data for this research comes from two primary sources: politicians' social media posts and political donation data. For social media posts, this paper used the Facebook (Barbera, Geisler, and Atteveldt 2017) and Twitter (Kearney 2019) APIs to collect social media posts from all candidates for the Wisconsin State Senate and Wisconsin State Assembly during the 2016 election cycle (n = 82,851). A subset of these posts were hand-coded into 27 topical categories. This subset was used to train a BERT deep learning transfer model that was used to predict the topic of the remainder of the posts (training dataset = 8,242, 10% of total posts; testing dataset = 4,122, 5% of total posts). Political donation data for all candidates to the Wisconsin State Legislature during the 2016 election cycle were collected from the Wisconsin Campaign Information System (CFIS) (n = 12,962). These donations were used to create a network of political donations with candidates and donors serving as nodes and donations between them as edges. This network was clustered into distinct communities so that donors in each community are most similar to one another based on which campaigns they contributed to. I theorize that these clusters of donors represent *latent coalitions* of donors who, whether they operate in an organized fashion or not, are working toward the goal of electing the same candidates. Studying political fundraisers as members of political coalitions has been studied in the past (Adams 2007; Heerwig 2016). This paper's statistically-driven definition of latent coalitions seeks to add to the coalition literature.

Methodology

These two datasets were analyzed against each other using the Granger causality time-series methodology. This methodology has been used by other researchers to study social media (Freelon, McIlwain, and Clark 2018; Lukito 2020). Similar to political donations, this methodology has been used to study the relationship between social media and non-social media events such as offline protests (Bastos, Mercea, and Charpentier 2015) and stock prices (Park, Leung, and Ma 2017). Granger causality detects whether movements in one time series precedes, lags, has a confounding variable, or is not related to another time series. Specifically, this paper compares time series of donations from clusters of political donors and time series of the number of social media posts by each topic that were made by campaigns that each donor cluster contributed to. For example, a time series of donations from a donor coalition was compared to the aggregate count of posts about a given topic made by candidates that the donor cluster contributed to.

Preliminary Results

Initial results suggest that it is more common to observe behavior consistent with the consumption model (31% of coalitions, 4/13) than the access-oriented model. However, the access-oriented model is still observed in 15% of coalitions (2/13). Under a strict interpretation of either model, we would expect to find behavior that fits only with that model. These results that find both the models present in the data is in line with some other research in suggesting that there are a "diversity of roles individual contributors play in the campaign finance system" (Heerwig 2016). Specific results of the Granger causality model are in Figure 1 below.

One theoretical next step for this paper is to flesh out the implications of observing behavior that fits under both the consumption and access-oriented model of political donors. Most often, the literature assumes that political donors have monolithic a mono-

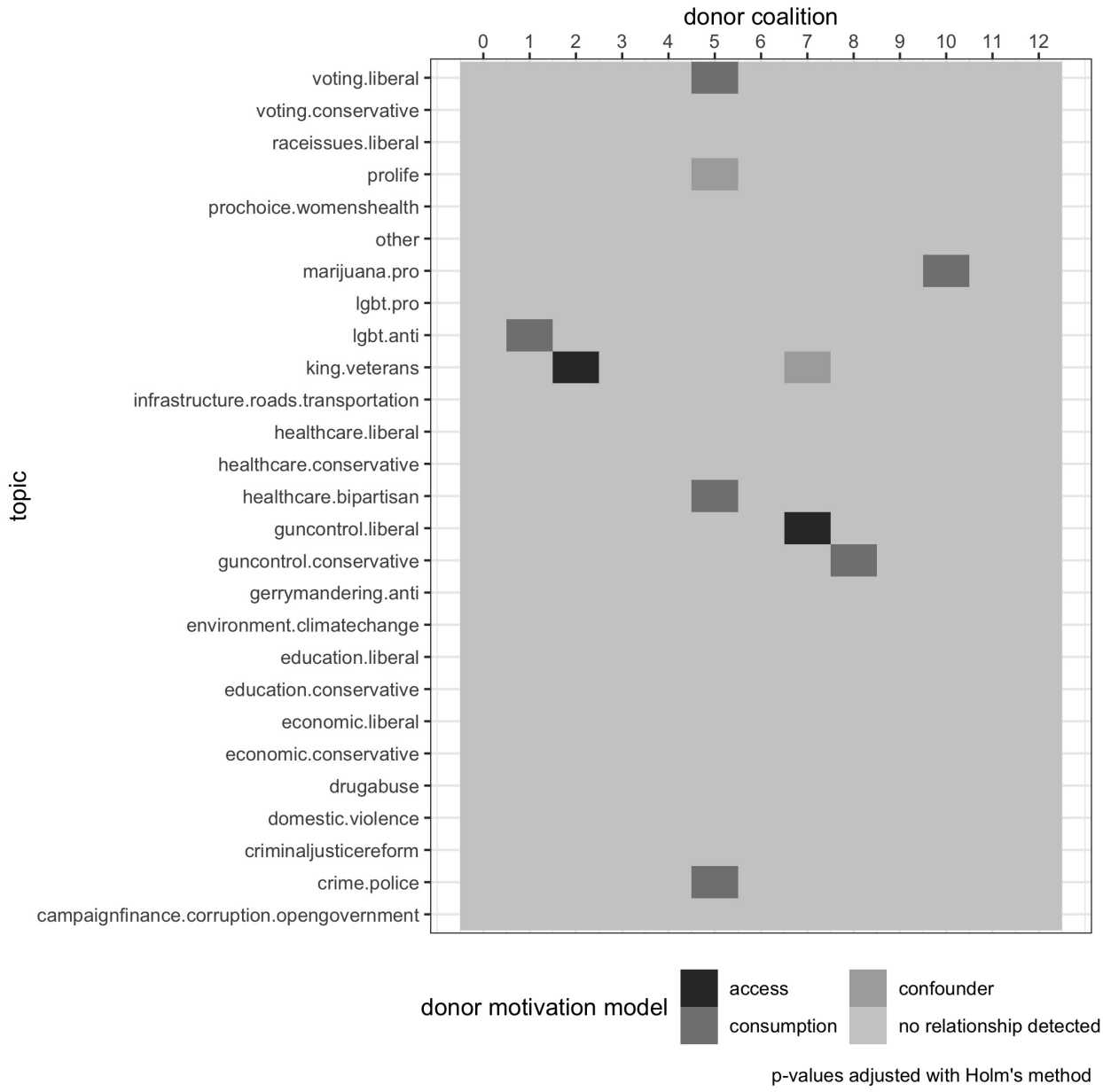

Figure 1: Donor Motivation Models

lithic psychological process that motivate them. However, the clear breakdown of different coalitions exhibiting behavior that falls into different models, and distinct behavior in relation to unique policy issues, suggests that latent coalitions of political donors are strategic actors with unique motivations. One empirical next step is to quantify potential confounders for donor clusters that don't fit under either model, such as geographic proximity or competitiveness of the races contributed to.

References

Adams, Brian E. 2007. "Fundraising Coalitions in Open Seat Mayoral Elections." *Journal of Urban Affairs* 29 (5): 481–99. https://doi.org/10.1111/j.1467-9906.2007.00361.x.

Barbera, Pablo, Andrew Geisler, and Wouter van Atteveldt. 2017. *Rfacebook*. https://cran.r-project.org/web/packages/Rfacebook/Rfacebook.pdf.

Bastos, Marco T., Dan Mercea, and Arthur Charpentier. 2015. "Tents, Tweets, and Events: The Interplay Between Ongoing Protests and Social Media." *Journal of Communication* 65 (2): 320–50. https://doi.org/10.1111/jcom.12145.

Canes-Wrone, Brandice, and Nathan Gibson. 2019. "Does Money Buy Congressional Love? Individual Donors and Legislative Voting." *Congress & the Presidency* 46 (1): 1–27. https://doi.org/10.1080/07343469.2018.1518965.

Cooper, Michael J., Huseyin Gulen, and Alexei V. Ovtchinnikov. 2010. "Corporate Political Contributions and Stock Returns." *The Journal of Finance* 65 (2): 687–724. https://doi.org/https://doi.org/10.1111/j.1540-6261.2009.01548.x.

Fellowes, Matthew C., and Patrick J. Wolf. 2004. "Funding Mechanisms and Policy Instruments: How Business Campaign Contributions Influence Congressional Votes." *Political Research Quarterly* 57 (2): 315–24.

Fouirnaies, Alexander. 2018. "When Are Agenda Setters Valuable?" *American Journal of Political Science* 62 (1): 176–91. https://doi.org/https://doi.org/10.1111/ajps.12316.

Fouirnaies, Alexander, and Andrew Hall. 2015. "The Exposure Theory of Access:

Why Some Firms Seek More Access to Incumbents Than Others." *SSRN Electronic Journal*, January. https://doi.org/10.2139/ssrn.2652361.

Francia, Peter L., John C. Green, Paul S. Herrnson, Lynda W. Powell, and and Clyde Wilcox. 2003. *The Financiers of Congressional Elections*. New York, NY: Columbia University Press.

Freelon, D, C McIlwain, and M Clark. 2018. "Quantifying the Power and Consequences of Social Media Protest." *New Media & Society* 20 (3): 990–1011. https://doi.org/10.1177/1461444816676646.

Gordon, Sanford C., Catherine Hafer, and Dimitri Landa. 2007. "Consumption or Investment? On Motivations for Political Giving." *The Journal of Politics* 69 (4): 1057–72.

Grenzke, Janet M. 1989. "PACs and the Congressional Supermarket: The Currency Is Complex." *American Journal of Political Science* 33 (1): 1–24. http://www.jstor.org/stable/2111251.

Hall, Richard L., and Frank W. Wayman. 1990. "Buying Time: Moneyed Interests and the Mobilization of Bias in Congressional Committees." *American Political Science Review* 84 (3): 797–820. https://doi.org/10.2307/1962767.

Heerwig, Jennifer A. 2016. "Donations and Dependence: Individual Contributor Strategies in House Elections." *Social Science Research* 60: 181–98. https://doi.org/https://doi.org/10.1016/j.ssresearch.2016.06.001.

Herndon, James F. 1982. "Access, Record, and Competition as Influences on Interest Group Contributions to Congressional Campaigns." *The Journal of Politics* 44 (4): 996–1019.

Kearney, Michael W. 2019. "Rtweet: Collecting and Analyzing Twitter Data." *Journal of Open Source Software* 4 (42): 1829. https://doi.org/10.21105/joss.01829.

Langbein, Laura I. 1986. "Money and Access: Some Empirical Evidence." *The Journal of Politics* 40 (4): 1052–62.

Lukito, Josephine. 2020. "Coordinating a Multi-Platform Disinformation Campaign:

Internet Research Agency Activity on Three U.s. Social Media Platforms, 2015 to 2017." *Political Communication* 37 (2): 238–55. https://doi.org/10.1080/10584609.2019.1661889.

Milbrath, Lester W. 1958. "The Political Party Activity of Washington Lobbyists." *The Journal of Politics* 20 (2): 339–52.

Park, J., H. Leung, and K. Ma. 2017. "Information Fusion of Stock Prices and Sentiment in Social Media Using Granger Causality." In *2017 Ieee International Conference on Multisensor Fusion and Integration for Intelligent Systems (Mfi)*, 614–19. https://doi.org/10.1109/MFI.2017.8170390.

Roscoe, Douglas D., and Shannon Jenkins. 2005. "A Meta-Analysis of Campaign Contributions' Impact on Roll Call Voting*." *Social Science Quarterly* 86 (1): 52–68. https://doi.org/https://doi.org/10.1111/j.0038-4941.2005.00290.x.

Wayman, Frank Whelon. 1985. "Arms Control and Strategic Arms Voting in the U.s. Senate: Patterns of Change, 1967-1983." *The Journal of Conflict Resolution* 29 (2): 225–51. http://www.jstor.org/stable/174100.

Wright, John R. 1985. "PACs, Contributions, and Roll Calls: An Organizational Perspective." *American Political Science Review* 79 (2): 400–414. https://doi.org/10.2307/1956656.