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Rule Ambiguity, Institutional Clashes, and Population Loss: How Wikipedia Became the Last Good Place on the Internet

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Scholars usually portray institutions as stable, inviting a status quo bias in their theories. Change, when it is theorized, is frequently attributed to exogenous factors. This paper, by contrast, proposes that institutional change can occur endogenously through population loss, as institutional losers become demotivated and leave, whereas institutional winners remain. This paper provides a detailed demonstration of how this form of endogenous change occurred on the English Wikipedia. A qualitative content analysis shows that Wikipedia transformed from a dubious source of information in its early years to an increasingly reliable one over time. Process tracing shows that early outcomes of disputes over rule interpretations in different corners of the encyclopedia demobilized certain types of editors (while mobilizing others) and strengthened certain understandings of Wikipedia's ambiguous rules (while weakening others). Over time, Wikipedians who supported fringe content departed or were ousted. Thus, population loss led to highly consequential institutional change.

INTRODUCTION

nstitutions theorists seek to explain institutional stability and change. However, most accounts have a status quo bias, as institutions are portrayed as stable. When change is observed, it is typically through alterations of the formal rules of the institution. These changes are frequently attributed to easily observable exogenous factors, such as external crises, influxes of new ideas, or alterations in actors' power. However, endogenous processes may also create change and their neglect biases our accounts of institutions.

This paper advances a theory of endogenous institutional change whereby members of an institution react differently to the outcomes of disputes within institutions. Losers (or those who disagree with the outcomes of the disputes) may become demotivated and disempowered, whereas the winners (or those who agree with the outcomes of the disputes) may become galvanized and empowered. If the winners and losers belong to coherent camps with divergent interests and ideas about the institution, disproportionate exits by the losers can cause drastic institutional changes over time. The contribution of this paper is to show theoretically and empirically that consequential change *can occur solely endogenously* and that population loss can be the mechanism behind such change.¹

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The paper provides a detailed demonstration of this occurring on the English Wikipedia. Beneath the hood of this popular website exists a large community of volunteers (Wikipedia editors) who collaboratively write all Wikipedia content. This population of volunteers comes together in deliberative and democratic for awhere they adjudicate what kind of content belongs on the encyclopedia. This paper shows that the English Wikipedia transformed its content over time through a gradual reinterpretation of its ambiguous Neutral Point of View (NPOV) guideline, the core rule regarding content on Wikipedia. This had meaningful consequences, turning an organization that used to lend credence and false balance to pseudoscience, conspiracy theories, and extremism into a proactive debunker, fact-checker and identifier of fringe discourse. There are several steps to the transformation. First, Wikipedians disputed how to apply the NPOV rule in specific instances in various corners of the encyclopedia. Second, the earliest contentious disputes were resolved against Wikipedians who were more supportive of or lenient toward conspiracy theories, pseudoscience, and conservatism, and in favor of Wikipedians whose understandings of the NPOV guideline were decisively anti-fringe. Third, the resolutions of these disputes enhanced the institutional power of the latter Wikipedians, whereas it led to the demobilization and exit of the pro-fringe Wikipedians. A power imbalance early on deepened over time due to disproportionate exits of demotivated, unsuccessful pro-fringe Wikipedia editors. Fourth, this meant that the remaining Wikipedia editor population, freed from pushback, increasingly interpreted and implemented the NPOV guideline in an anti-fringe manner. This endogenous

institutional change: the losers do not stick around to fight another day (as they do in Conran and Thelen 2016) but exit the institution, leaving it in the hands of the winners.

¹ Mahoney and Thelen (2009), Streeck and Thelen (2005), and Thelen (2004) have made important contributions to our understanding of endogenous institutional change. This paper builds on these contributions and adds a new mechanism behind endogenous

process led to a gradual but highly consequential reinterpretation of the NPOV guideline throughout the encyclopedia.

The paper demonstrates these processes through qualitative content analysis, archival research, and process tracing. First, to document a transformation in Wikipedia's content, a qualitative content analysis was conducted on a sample of 63 representative articles. Content on the pages was analyzed across time with a predetermined coding scheme (see Boreus and Bergström 2017; Elkins, Spitzer, and Tallberg 2021; Herrera and Braumoeller 2004). The analysis shows that the content changed over time from lending credence to fringe views to delegitimizing the fringe views. Second, to explain why these content changes occurred, the paper uses process tracing on Wikipedia's archives, analyzing article talk page discussions about rule interpretations, related discussions on general noticeboards, arbitration rulings, and editor sanctions proceedings, as well as the histories of individual Wikipedia editors. Analyses of debates regarding individual articles lend strong support for the theory of endogenous institutional change. Article-by-article evidence is supplemented by an analysis of a sample of referenda where editors are asked to express their views about the NPOV rule's application to fringe topics. The analysis shows that the disproportionate population loss is systematic across the encyclopedia, as editors who hold the pro-fringe view exit Wikipedia at a higher rate than anti-fringe editors.

These changes occurred despite structural biases in favor of stability. Even though the rules and content on Wikipedia are constantly subject to change, the organization's decision-making procedures are biased to a conservative status quo. All changes on Wikipedia must be approved through consensus and editors who act contrary to consensus are punished. Furthermore, the transformation was neither an inevitability nor likely outcome of the original design of the institution. A comparison to other versions of Wikipedia demonstrates the contingent nature of the English Wikipedia's trajectory. For example, even though the Croatian and English Wikipedia share the same core rules, content on the two versions of Wikipedia looks drastically different, as the Croatian Wikipedia lends credence to anti-LGBT rhetoric and pseudohistory (Sampson 2013). These outcomes were not intended by Wikipedia's founders, as shown by their own delineation of the rules in the early years, and in the case of Wikipedia's co-founder, a complete disavowal of Wikipedia's transformation.

This paper uses the understudied politics of Wikipedia as a lens through which to examine institutional theories of change. It has two major contributions. One is theoretical, demonstrating how population loss can be an endogenous mechanism of institutional change. Losses in institutional clashes can be demoralizing and inhibiting for the losers, leading them to abandon the institution and leaving the institution in the hands of their adversaries. The winners subsequently have freer rein to push for changes in the institution. This form of change may potentially have

explanatory value regarding the trajectories of bureaucracies, political movements, political parties, and professions, as discontented losers within those institutions opt to leave their institution rather than fight an uphill battle against empowered and emboldened winners.

The other contribution is empirical, as the paper provides a comprehensive study of the politics of Wikipedia, a highly consequential organization in the online political information ecosystem. The paper documents a heretofore undocumented transformation in Wikipedia's content over its life span. While scholars and commentators have remarked in recent years on Wikipedia's status as a beacon of information in an online space plagued by misinformation, there is no comprehensive analysis of a transformation over Wikipedia's life span.²

INSTITUTIONS AND ENDOGENOUS CHANGE

Most scholarly works on institutions have a status quo bias, as the focus is on accounting for the persistence of institutional arrangements over time. To explain change, scholars tend to look for exogenous factors. For rational choice institutionalists, institutions reflect equilibrium solutions to problems of cooperation between different actors.3 In most rationalist accounts of institutions, these equilibria do not become unstable unless the external circumstances change (e.g., through alterations in power), and the appearance of new problems that require new solutions. For sociological institutionalists, institutions reflect shared norms and understandings.⁴ Actors that compose the membership of an institution exist in a social environment where institutional practices become taken for granted. Individual actors have limited agency to alter the existing institutional arrangements. These shared norms do not get altered unless by powerful external sources or through the appearance of norm entrepreneurs. For historical institutionalists, institutions reflect decisionmaking made at critical junctures, temporal sequencing, and path dependency. Past decision-making has a persistent impact on institutions, contributing to stability over time, even if the existing arrangements are suboptimal. The sources of change tend to be external crises or changes in the broader environment that alter the functions and purpose of institutions.⁵

² There are historical and ethnographic works about Wikipedia (Jemielniak 2014; Reagle 2010; Tkacz 2015), but no systematic analyses of the encyclopedia's content.

³ See Voeten (2020) for overviews of strands of rationalist choice institutionalism.

⁴ See Jepperson and Meyer (2021) for an overview of sociological institutionalism.

⁵ Other approaches to organizational study, such as organizational ecology and evolutionary theories of organizations, emphasize how the environment selects out organizations that are optimally suited for the environment or how organizations adapt to their environment (e.g., Hannan and Freeman 1977; Levinthal 2021). In these frameworks, exogenous factors remain key components in explanations of institutional change.