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Facebook in Context: Theorizing Interaction on Twenty-First-Century Social Media

Asserting the novelty of the consequences of people's use of an emerging technology risks overlooking analogous effects of the technology's forerunners used in earlier eras. The study of the effects of social media interactions seems especially ripe for this shortsightedness. As Robert Darnton writes in the introduction to *Poetry and the Police*:

> Now that most people spend most of their time exchanging information – whether texting, twittering, uploading, downloading, encoding, decoding, or simply talking on the telephone – communication has become the most important activity of modern life ... The marvels of communication technology in the present have produced a false consciousness about the past – even a sense that communication has no history, or had nothing of importance to consider before the days of television and the Internet.
>
> Darnton 2011, p. 1.

Tom Standage's book *Writing on the Wall: Social Media – The First Two Thousand Years* makes this point even more explicitly. He explores the idea that the era of broadcast media is actually the historical anomaly among the long trajectory of eras featuring media forms with characteristics that resemble aspects of digital social media. Similarly unfounded in its novelty is the idea that the polarized, fractured state of today's media environment is historically unprecedented. American newspapers in the eighteenth and nineteenth centuries were incredibly partisan and vitriolic (McGerr 1986; Schudson 1998; Hamilton 2004; Starr 2005).

Our myopia is not only oriented toward the past. In a similar way, our failure of imagination to envision the near constant evolution of the technological environment means that any study too rooted in the particular idiosyncrasies of a single media platform risks irrelevance as new platforms and ways of engaging become "the next big thing." While historians urge us to keep one eye on the past, media technology scholars implore us to keep one eye on the

future. Facebook is the predominant forum for online social networking in America at this moment in time, but there is no reason to assume that it always will be. Before the rise of Facebook, SixDegrees.com, Friendster, and MySpace all rose and fell as the primary sites for networked online interaction. Nor is Facebook currently the largest social networking site in every country across the globe: hundreds of millions of people in China use microblogging sites such as Sina Weibo or social networking sites such as QZone, for example.

The limitation of a book studying the effects of interaction on Facebook that does not deeply consider the generalizability of the features of the site is premature obsolescence. The value of a study of the consequences of engaging on a particular social media platform is derived from understanding what features and functions of the site cause the effects we observe. In what ways are contemporary forms of social media similar to the social communication of eras past? What essential components of online social networks transcend platform specificity and are likely to cause similar effects in technologies we can't yet imagine?

Before proceeding with the story line unpacking the relationship between Facebook use and psychological polarization, in this chapter I take a step back and consider the impact of social media on American society more broadly and within the context of historical communication technologies that were equally innovative or disruptive in eras past. In broadening our focus, albeit temporarily, we can explore the way in which Facebook has affected other forms of social behavior to appreciate why we might expect certain consequences on political behavior. Facebook is an interesting and rich case study because of the effects of its unique convergence of affordances and norms on human interaction. A detailed description of how people engage with one another on Facebook is crucial context for building a theory to understand the consequence of the political and politicized forms of these interactions.

SOCIAL MEDIA CULTURE IN THE EARLY TWENTY-FIRST CENTURY

Standage notes that "the desire to be connected to one's distant friends, using whatever technology is available, is timeless" (2013, p. 246). It is not the underlying concept of social media that is novel. As Standage clearly demonstrates, humans have a long and variegated history with many of the features that we consider hallmarks of the digital media age: the bidirectional creation of what qualifies as news; the fusion of objective news information with social commentary; the concepts of webs or networks of social communication; and the use of media technology to coordinate opinion and reveal consensus. Social media in the twenty-first century has parallels to social media in other eras of history, but what is unique is its reach and penetration: people spend enormous amounts of time on platforms that connect more than a billion people to each

other in real time. The ideas below only scratch the surface of the possible themes that could be explored, but they are pertinent ones for studying interpersonal political communication in the United States – the scope of this book.

Social Media Is Interwoven into Our Lives

In its first quarter report to stockholders in May 2016, Facebook CEO Mark Zuckerberg reported that on average across the world, users spend 50 minutes a day on the Facebook, Instagram, and Messenger platforms combined.[1] ComScore finds that among American users, one out of every five minutes spent online is on a social networking site, with Facebook far outpacing all other platforms. While the average American user spends slightly less time – only 35 minutes a day according to statistics generated by comScore – because most of the site's users engage every day, the average user spends over 900 minutes a month on the site.[2] As pointed out in a *New York Times* column, time spent on Facebook equates to one-sixteenth of the average user's waking hours in a day.[3]

Time spent on Facebook exceeds time spent on any other leisure activity except watching television, according to the Bureau of Labor Statistics time use surveys.[4] In fact, "checking Facebook" is an activity that has become so pervasive in our daily routines that it has sparked a self-help culture advocating for decreased usage of the site. A Google search of "Facebook detox" reveals literally thousands of articles and recommendations about how and why one should unplug. Scholars have even studied how "problematic Facebook use" can interfere with other aspects of a person's life (Koc and Gulyagci 2013; Lee-Won, Herzog, and Park 2015).

Physiologically, it appears that using Facebook induces a "core flow state" characterized by high positive valence and high arousal (Mauri *et al.* 2011).[5] What is it that people find so engaging on social media? How, in the span of just barely a decade, has social media engagement become such a prominent

[1] Facebook acquired Instagram in April 2012 for 1 billion dollars. Messenger is a free instant messaging service that integrates with the Facebook platform. It was originally part of the Facebook platform, but was spun off into a separate application in 2014. The company typically reports combined usage statistics for these three facets of its platform.

[2] Younger users – those aged 18 to 34 – actually spend over 1,000 minutes a month on the site. Users over the age of 35 spend over 900 minutes on average. See Andrew Hutchinson, "New comScore Traffic Report Underlines the Strength of Facebook, Rise of Snapchat." Social Media Today (March 31, 2016).

[3] James Stewart, "Facebook Has 50 Minutes of Your Time Each Day. It Wants More." *The New York Times* (May 5, 2016).

[4] ibid.

[5] Mauri *et al.* (2011) attempt to use physiological measurement to capture Csikszentmihalyi's (1975) concept of "flow," distinguished by intense enjoyment and engagement and present when "the challenge provided by the activity is high enough but the skills of the person can still cope with the situation" (p. 724).

part of the average American's daily life? What features of the technology – affordances, in the parlance of communication scholars (Gibson 1977; Norman 1999; Sundar and Limperos 2013) – make the site so compelling?

Standage points to the fact that humans are social in nature: the benefits of the ability to process social information appear linked to the growth of primate brains. The maintenance of social groups and the management of social status within them is built on the exchange of information about other people. Media technology – beginning with the emergence of writing and most recently with the emergence of online social networking sites – "enables literate humans to extend this exchange of information across time and space to include people who are not physically present" (Standage 2013, p. 8). Thus, the gratification we receive from connecting with others using social networking sites can be considered as part of a long evolution of our social brain.

Whether or not an evolutionary psychology story can be applied to our modern usage of social media is somewhat beside the point for most people who have thought deeply about the role of social media in contemporary culture. Dozens of books have been published chronicling the growing role of social media in every facet of our lives. Even narrowing the scope to focus just on the effects of social networking sites on our sense of self or our relationships with others, the literature is voluminous. Social psychologists have considered the role of narcissism and other personality traits on social media behavior and have debated technology's effects on social exclusion, conformity, and self-concept. Clinical psychologists express concern over cyber-bullying and harassment. Sociologists have grappled with the notion of "selfie culture." Millennials are certainly not the first generation to worry about having regrets, but perhaps they are the first to have an acronym to describe it: FOMO, or "fear of missing out." As part of the larger development of "on demand culture," social media may shorten people's attention spans and reduce incentives for meaningful social connection.

This last point is the subject of much deliberation. Some scholars argue that social media has undermined the foundations of face-to-face interpersonal communication (Powers 2010; Turkle 2011). Others retort that despite serious concerns about the role of social media in society more generally, it has actually deepened the way in which we connect with our family, our friends, and our communities (Tufecki 2012), facilitated certain forms of social capital (Hampton 2011), and lowered the costs of cooperation and collective action (Shirky 2008). These debates remain unresolved and only time will reveal the widest-reaching implications of the integration of social media into our lives.

Social Media and the Information Environment

In addition to the changes that social media has rendered to the expression of our self-identities and the maintenance of our interpersonal relationships, there is a large and growing literature evaluating the effects of Internet technologies broadly and social media sites specifically in disrupting the way we acquire and

distribute information. Henry Jenkins argues that media convergence, or "the flow of content across multiple media platforms, the cooperation between multiple media industries, and the migratory behavior of media audiences who will go almost anywhere in search of the kinds of entertainment experiences they want" (2006, p. 2) is not a technological process, but rather "... a cultural shift as consumers are encouraged to seek out new information and make connections among dispersed media content" (2006, p. 3).

Standage (2013) contends, however, that we should be more circumspect in our assessment. Discussing the distinction drawn between digital technologies ("new media") and old technologies ("mass media"), he argues that the era of broadcast media in the late nineteenth and twentieth centuries was the aberration to the norm. He continues:

> Look back before 1833 to the centuries before the era of old media began, however – to what could be termed the era of "really old" media – and the media environment, based on distribution of information from person to person social networks, has many similarities with today's world. In many respects twenty-first-century Internet media has more in common with seventeenth-century pamphlets or eighteenth-century coffeehouses than with nineteenth-century newspapers or twentieth-century radio and television. Standage (2013), p. 240.

Even conceding Standage's point, today's information environment represents a radical departure from the environment that preceded it before the rise of the Internet.

The social consumption of information, a point I elaborate on in the next chapter, has reshaped the production and distribution of content on old media. Disruption is certainly part of the story. Print newspaper circulation has dropped markedly. Magazine subscriptions have declined as blogs, Pinterest, and Facebook have displaced monthly or weekly publications as sources for entertainment news, celebrity gossip, and home-decorating advice.

Norm change is another important piece of the puzzle. The clearest example of this may be the rise of "clickbait," writing headlines intentionally designed to catch viewers' attention, even if not entirely accurate about the content of the story.[6] The functionalities that several social media sites provide to third-party websites to allow users to distribute content in some instances directly violates particular journalistic norms. Even subtle changes in affordances affect the way in which information is produced: in the early era in which Facebook was promoting a "like" button compared to a "share" button on third-party websites, the feature favored the inclusion of emotion in news stories, inducing discomfort for many traditional news producers.[7]

[6] Bryan Gardiner, "You'll Be Outraged at How Easy It Was to Get You to Click on This Headline." *Wired* (December 18, 2015).

[7] Joshua Benton, "'Like,' 'Share,' and 'Recommend': How the Warring Verbs of Social Media Will Influence the News' Future." NiemanLab (February 28, 2011).

Social media has changed not only content, but also how people are encouraged to consume traditional media. Television producers now encourage multitasking, the use of Twitter on a "second screen" such as a mobile phone, for example. Incorporating a hashtag into a show or its marketing increases mentions of the show by 20 percent,[8] and marketing research suggests that using Twitter while watching a show is associated with higher recall of advertising.[9]

A Convergence of Affordances

The term "social media" does not necessarily imply that a platform is built upon a networked group of users, and the definition incorporates a wide variety of web-based applications in which users can interact without establishing formalized connections to one another. Although colloquially people refer to Facebook and Twitter as "social media," scholars often distinguish these platforms as "social network sites" (or SNS for short). While both social media and SNS facilitate asynchronous and geographically unbound interactions, what differentiates social networking sites from social media more broadly is that SNS "allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system" (Boyd and Ellison 2007, p. 211).[10] On top of these base components, each site develops additional affordances designed to facilitate the unique niche the site fills. For example, Facebook and Twitter incorporate "microblogging," the ability to easily communicate small bits of text or visual content.

Each site can be thought of as the result of its affordances paired with the culture that arises around the way in which users employ those affordances. In the chapters that follow, I describe why the convergence of affordances on Facebook make it particularly well suited to foster psychological polarization. Here, I focus on the concepts underpinning the key affordances of Facebook to better understand how they structure the interactions between users on the site more generally.

[8] Mathew Ingram, "TV Engagement Secrets from Twitter, Everyone's Favorite Second Screen." *Fortune* (September 21, 2015).

[9] Heather O'Shea, "New Research: TV Viewers Who Engage on Twitter Have Higher Rates of Ad Recall." Twitter (March 18, 2016).

[10] Users interested in the history and development of social network sites are encouraged to consult Boyd and Ellison's foundational, very accessible introduction to the concept. In this book, I will use the term "social media," because as I discuss in Chapter 9, some of the affordances driving psychological polarization also tend to appear on social media platforms that would not be considered social networking sites by a strict definition.

Profiles and the Depiction of Self

For as long as humans have had technologies to record themselves, we have sought to document the details of our lives, trivial and monumental alike. People have always scrapbooked, sometimes collectively, as in the example of the "commonplace books" of sixteenth-century England (Standage 2013, ch. 4). Kodak's introduction of personal cameras in the late nineteenth century was revolutionary, in part because of the social construction of the act of taking a photograph (Bourdieu 1965) and the impacts the technology had on our sense of self and our social relationships (Gye 2007). The desire to share these memories with others who were absent at their creation is not a new phenomenon either. In an earlier era, friends and families were subject to slide shows and VHS home videos of family vacations projected in the living room. The introduction of digital cameras further altered our behavior,[11] and digital photography led to the rise of quasi-professionally produced photobooks as well as websites designed specifically for sharing photos.

Because of the capabilities of mobile devices that take increasingly higher quality pictures and videos, social media takes the written, visual, and auditory record of our lives to an entirely different level.[12] But on some sites, the presentation of self takes a backseat to other goals. For instance, very little information is required to create a Twitter account, and a user's profile on Twitter has considerably fewer options for personalization. A person's identity on Twitter is much less important than the content they disseminate. Likewise, Pinterest is a social media platform driven almost entirely by shared appreciation for content with little functionality built in to develop a profile highlighting one's self identity, apart from the content one has helped disseminate.

Facebook seeks to be a network where people connect their authentic selves to others, unlike other sites that permit users to adopt pseudonyms or screen names to conceal their true identities. It is actually a violation of Facebook's terms of service for an individual to have more than one account, and the site states that "we ask everyone to use the same name on Facebook that they use in everyday life."[13] When people attach content to their profiles, they do so with the intention of communicating about their actual lives.

Facebook is almost unparalleled in its ability to facilitate people in crafting a record of their lives: pictures of themselves, witticisms about the minutiae of their day, inspirational quotes that have meaning to them, videos of funny things their pets do, or important milestones their children reach, just to name a handful of examples. The Facebook medium is in large part optimized to facilitate this "digital commonplace book." The company regularly promotes

[11] Tom de Castella, "Five Ways the Digital Camera Changed Us." BBC News (February 28, 2012).
[12] Many different platforms are entirely built on the capability to communicate in non-written forms, such as Instagram, Vine, SnapChat, and other sites, and as technology evolves, we can expect social media to maximize the latest available features.
[13] "Names on Facebook," available at www.facebook.com/help/95894854083035 2.

new features designed to help people relive these moments, showing users a post on the anniversary of the date they originally created it, and creating "year in review" videos to string together the moments people shared on the site. Popular trends include "Wayback Wednesdays" and "Throwback Thursdays" (signified by the hashtags #wbw and #tbt respectively) where people will post older photos or content as reminders of past events.

Such high-resolution documentation of our lives in real time speaks directly to how we manage our presentation of self. Erving Goffman, the eminent sociologist, emphasized the extent to which we attempt to influence the impressions others make of us by scripting our performance in interpersonal interactions to fit the social conventions demanded by the nature of a situation, our ascribed role in it, and the audience with whom we're interacting (1959). Different contexts call for different presentations of self. However, technology has radically altered our ability to keep our separate roles distinct: "by bringing many different types of people to the same 'place,' electronic media have fostered a blurring of many formerly distinct social roles" (Meyrowitz 1986, p. 6). Meyrowitz actually wrote this in reference to the emergence of television and radio, but his words seem even more apt to a description of social media. In fact, one of the areas of SNS scholarship that has grown most rapidly relates to the way in which individuals construct and manage their self-identities (Carpenter 2012; Bareket-Bojmel *et al.* 2016; Halpern *et al.* 2016; Shin *et al.* 2017).

The Meaning of Connection

On LinkedIn and Instagram, we "connect." On Twitter and Pinterest, we "follow." On SnapChat, we "add." Each of these sites uses a unique parlance, but the general principle is the same: users formalize connections to other users of the site, either in a unidirectional way – where the connection is formed based solely on the initiation by one user, such as on Twitter – or in a bidirectional way – such as on LinkedIn, where users must acknowledge and accept the connection request. Each platform has different norms about who initiates these connections, what sort of offline relationship is necessary, if any, to merit a connection, and what the unspoken rules are for accepting connection requests.

On Facebook, we "friend," a bidirectional action requiring a "friend request" by one user and a "confirmation" by the second. What does it mean to establish a connection with another user on the Facebook site? At the core of Facebook, and the feature for which it was originally developed, is the idea of accelerating social connection between individuals. In a small study conducted by Pew in conjunction with Facebook, they found that as of 2012, Facebook users averaged seven new friends a month, and 80 percent of friend requests that were made were accepted (Hampton *et al.* 2012). Most of the time, but not always, we connect to people whom we've met face-to-face or to whom we have some connection outside of the site.

Dunbar's social brain hypothesis, also known as "Dunbar's Number" (1998), suggests that there is a limit of 150 people with whom a person can maintain a stable social relationship, based on the cognitive capacity needed to recognize and remember others. But half of Facebook users have more than 200 friends in their network (Smith 2014b), and younger users often have considerably more than that. Thus, what can we say about the notion of Facebook "friendship"? A single label applies to all of our connections on the site, whether we are connecting with a parent, a significant other, a best friend, a long-lost friend from high school, a colleague from work, or someone we casually met at a party.

In the world of Facebook, all friends are equal, but some Facebook friends are more equal than others.[14] The average Facebook user clearly cannot maintain meaningful social relationships with the entirety of their network on the site, even in the absence of the time restrictions that would make the upkeep of that many face-to-face relationships impossible. Dunbar himself argues that people identify a core network on Facebook that is about the same size as their face-to-face network (Dunbar 2016), and studies show that we are more likely to communicate on a regular basis with the people to whom we are closely connected in the offline world (Jones *et al.* 2013). Most people make a distinction between their "strong ties" and their "weak ties," even though there is no way to formally designate the ties in this manner.[15]

Our strong ties and weak ties don't function in the same way, and our weak ties neither provide the social support that our strong ties do nor influence us in the same way (Bond *et al.* 2012). But these relationships matter in the aggregate (Gee *et al.* 2017). Gladwell argues:

> The platforms of social media are built around weak ties. Twitter is a way of following (or being followed by) people you may never have met. Facebook is a tool for efficiently managing your acquaintances, for keeping up with the people you would not otherwise be able to stay in touch with. That's why you can have a thousand "friends" on Facebook, as you never could in real life. This is in many ways a wonderful thing. There is strength in weak ties, as the sociologist Mark Granovetter has observed. Our acquaintances – not our friends – are our greatest source of new ideas and information. The Internet lets us exploit the power of these kinds of distant connections with marvelous efficiency.[16]

[14] The word "equal" here could be replaced by any number of others: influential, important, supportive.

[15] There is a functionality to identify contacts as members of one's family, although it is not a particularly prominent feature and is only visible to another user if they navigate through to a submenu on the profile page. Facebook automatically creates "Close Friends" and "Acquaintances" lists which users can populate, but these distinctions are not visible to others. A user can create other designations for lists of friends, but these categorizations are not accessible to others.

[16] Malcolm Gladwell, "Small Change: Why the Revolution Will Not Be Tweeted." *The New Yorker* (October 4, 2010).

However, Gladwell goes on to note that many evangelists for the potential of social media to revolutionize social change don't understand the distinction between the nature of friendship, online and off. We shouldn't expect identical influences from the hundreds of weak ties we have compared to the dozen or so close friends that most people have on the site (Dunbar 2016).

A Digital Soapbox

Various social media technologies in the past have served to connect people who are only weakly connected to one another. The coffee houses of seventeenth-century London were designed to be open to all in an effort to help cross class and privilege boundaries; in other work, Standage elaborates on the network between operators who passed messages up and down telegraph lines, building friendships even in the absence of having ever met in person (Standage 1998).

What is different in our contemporary era is the sheer number of people that a social media user can reach. Social media facilitates the phenomenon of nearly universal authorship (Pelli and Bigelow 2009), defined as the ability of a person to publish text that can be read by 100 or more people. Book authorship grew tenfold each century between 1400 and 2000, but since then, if including new media platforms, authorship has grown nearly tenfold every *year*. Moreover, the audience on social media is densely interconnected. While there are historical examples of large weak-tie networks, it is unprecedented in human history to have one-sixth of all humans on earth able to connect with one another via the click of a button. Facebook data scientists report that on average there are only three and a half "degrees of separation" between any two users on Facebook anywhere in the world.[17]

The Quantification of Our Lives

Social media sites develop affordances based on the balance between the importance of relatively static user content versus dynamic interaction between users. On sites where information about the user's identity is most important, such as LinkedIn, most of the functionality of the site is built around the profile, and there are fewer features for users to interact with one another in a way visible to others. Conversely, where the emphasis is on dynamic interaction or constantly changing information, such as Twitter, more features are designed for users to interact, both privately and publicly.

Facebook sits somewhere in the middle of this spectrum, and, as a result of highly cultivated digital identities plus an emphasis on social connection, the company has designed dozens of affordances for the interaction between the two. Many of these affordances are concentrated on the News Feed and are constantly evolving to further facilitate the balance between identity

[17] See https://research.fb.com/three-and-a-half-degrees-of-separation/.

maintenance and user interaction. Apart from the features that have been added over the years for commercialization purposes, the vast majority of the new features of the site are aimed at optimizing the way in which users give feedback on the content posted by other people. This feedback is then quantified – in the form of counts of the number of reactions, comments, and shares – and incorporated instantly and seamlessly into the display of the original content in all other users' feeds.

As a consequence, many Facebook users only post content they expect will elicit social feedback from others, and keep track of how "popular" particular posts are. Work in sociology and social psychology suggests that the desire to manage one's presentation of self and seek feedback from others is a powerful force. While there is ample academic work on this topic, it also has permeated the public consciousness. For example, Thomas Goetz, executive editor of *Wired Magazine*, writes a fascinating article about the extent to which "feedback loops," created when people are given information about their actions in real time, can actually change a wide variety of human behaviors. This is perhaps best exemplified by artist Benjamin Grosser's Facebook Demetricator, a web browser extension that removes all metrics from the Facebook interface.[18] Although he does not explicitly test the effect of removing all signs of quantification, he thoughtfully reasons through the implications of a dozen different details on the site that serve to fulfill our "desire for more."[19]

Our ability to quantify the amount of support for our expressions of identity has some positive impact, such as the ability to increase our levels of social capital (Lee *et al.* 2014), but entails significant mental health concerns as well. Of particular worry is the effect this reinforcing cycle of identity management and quantified feedback has on teenagers, who have developed their own norms that are not always visible to adults (Boyd 2014). A report from the Centers for Disease Control documenting the uptick in suicide rates among young teenagers led some to speculate that the pervasiveness of social media in the lives of children may be a contributing factor.[20]

Trending, Virality, and a Platform for Building Consensus

Martin Luther's *95 Theses* went viral, as did Thomas Payne's *Common Sense*. As a primitive way of measuring public opinion, Louis XV consulted with the chief of the Paris police, the comte de Maurepas, who had compiled volumes of satirical songs and poems about palace intrigue that were being circulated

[18] More information is available at http://bengrosser.com/projects/facebook-demetricator/.

[19] Interestingly, but somewhat tangentially, is the commercialization aspects of quantification: individual social media users aren't the only ones interested in the record of their lives. In the aggregate, the data we produce is exceptionally valuable to companies looking to profit from strategic marketing.

[20] Sabrina Tavernise, "Young Adolescents as Likely to Die from Suicide as from Traffic Accidents." *The New York Times* (November 3, 2016).

among the public. People have always used social media to try to assess what others believe and to reveal consensus opinion. There are even historical analogues to the notion that knowing something is popular begets further interest in the topic. In the eighteenth century, British subjects living in the American colonies, finding a pamphlet sold out at the news-stand, would infer that the idea had wide acceptance, increasing the likelihood that they themselves would ascribe to the ideas espoused in the pamphlet. These and many other examples from Standage's book (2013) make clear that people don't need the Internet to rapidly spread ideas and assess what other people think.

However, the penetration of social media sites generally puts these processes on steroids. Almost every platform has its own version – retweets on Twitter, upvotes on Reddit – but Facebook appears to be the site on which quantification and network interconnectedness have been fully maximized to accelerate contagion. Many different things go viral on Facebook: online quizzes, scientific findings and quack medicine, news about celebrity births and deaths, and mobile device video recordings of all manner of things. Computer scientists seek to understand how the underlying network structure facilitates the diffusion of particular ideas or trends, while marketers care more about finding the "secret sauce" that attracts people to particular kinds of content in the first place.

Facebook further facilitates the idea of virality in its "Trending Topics" feature, a box alongside the News Feed featuring a collection of stories circulating on the site that are drawing the most attention from users at any given point in time. Facebook states that "trending helps you discover interesting and relevant topics being discussed on Facebook that may not appear in your News Feed."[21] But the process through which "interesting and relevant" are identified and curated has been one of the most controversial features on the site, and the company has rebooted this tool several times. Initially, the chief criticism was that the editors in charge of the feature suppressed or enhanced certain topics because of political motives. Perhaps as a result of this criticism, in late August 2016, Facebook laid off the editorial team that had previously monitored the feature and replaced them with engineers whose instructions were to be more metric-based.[22] However, this change contributed to the charge that the feature further spread factually incorrect information, "fake news" about the candidates in the 2016 presidential election.[23] Continued changes to this feature are likely.

[21] "What is Trending?" available at www.facebook.com/help/140671260054622.

[22] Caitlin Dewey, "Facebook Has Repeatedly Trended Fake News Since Firing Its Human Editors." *Washington Post* (October 12, 2016).

[23] While Facebook acknowledged the problem of fake news on the site, the company believes the problem has been overstated. See Scott Stump, "Sheryl Sandberg on Facebook and Fake News: 'We Don't Think It Swayed the Election,'" NBC Today Show (December 8, 2016).

THE NEWS FEED ECOSYSTEM

Social media has clearly been integrated into the daily lives of most Americans, and Facebook reigns supreme above all of its competitors in terms of market share and user engagement. The combination of the features described above – an emphasis on presenting and quantifying interactions between users based on their expressions of self – fosters particular communication patterns. In the first chapter of the book, we addressed the origins of the site and its rapid growth in its first decade. Here, I describe the user experience on the site, with the goal of providing the terminology and concepts needed to make the argument about the consequence of Facebook communication on our attitudes toward each other.

Every social media site is intentionally designed with a format to facilitate the behaviors its creators seek to cultivate. In its early days, Facebook desired to make the site more interactive to encourage users to communicate with one another within the site's interface instead of using it in ways analogous to its predecessors, like MySpace or Friendster. The affordance designed to accomplish this aim, and the most prominent feature of the Facebook site between 2006 and the time of publication of this book, is the News Feed.[24] Introduced in September 2006, the News Feed dramatically changed the way in which people used the site. In a Facebook post he made on the tenth anniversary of the feature's introduction, Mark Zuckerberg wrote:

> At the beginning of Facebook, there was no News Feed. For more than two years, Facebook was just a collection of profiles. You could visit a friend's page to look up some basic details about them, but there was no way to see updates from all your friends or be sure they saw yours. With News Feed, all of a sudden you could share with all your friends at once. And you could see what was happening with all your friends in one place. News Feed was the first real social feed. It was such a fundamental idea that now, 10 years later, every major social app has its own equivalent of News Feed . . . News Feed has been one of the big bets we've made in the past 10 years that has shaped our community and the whole Internet the most.[25]

Prior to its introduction, when a user logged into the site, they would land on their own profile page. To see content posted by others, a user had to manually

[24] It appears that several companies have converged on the idea of a scrolling feature of new content on the main landing page of the site; Twitter's stream and Facebook's News Feed are the most prominent examples, although even some news sites have taken to the format. Much of this convergence appears to be driven by the fact that users spend more time on a site when information is presented in this fashion. For example, *Slate* reports that in randomized controlled testing in advance of its switch from a traditional home page to a scrolling landing page, the average visitor spent 9 percent more time on the site. If this format is more engaging to people, it may also drive site growth. The number of unique visitors to Facebook's site was essentially flat in the months leading up the introduction of the News Feed, but in the month following the introduction, page views increased 40 percent over the preceding month (Baron 2008, p. 86).

[25] Mark Zuckerberg (September 5, 2016), available at www.facebook.com/zuck/posts/10103084921703971.

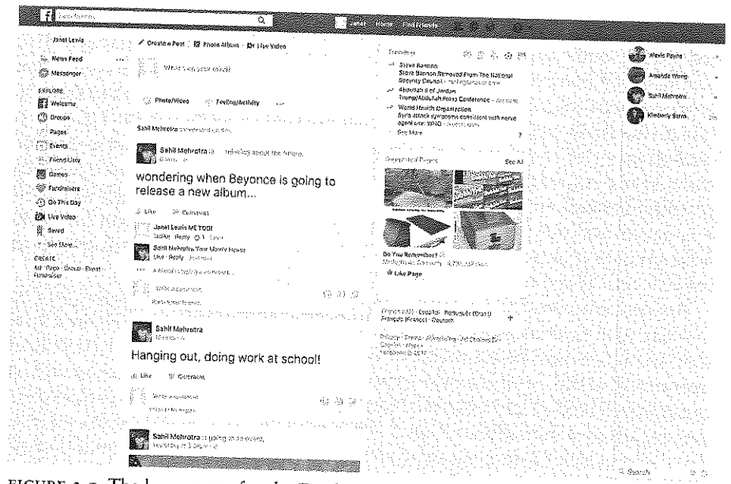

FIGURE 2.1 The home page for the Facebook website

navigate to their profile pages. Content creation on Facebook was largely limited to "writing" on one's own "wall" or writing on the "wall" of a friend, and to share pictures, users had to create "albums." In practice, although uploading pictures became quite popular, most people did not write on their own wall. Interactions between users took a backseat to the cultivation of online identity.

This shift – from profile management to user interaction about the content they generate – defines the experience of using Facebook.[26] The affordance incentivizes interaction, moving away from a home page featuring relatively static profile information to a dynamic and fully personalized page of the content posted by a user's friends. Now, the first thing users see when they log in is the content their friends have generated, not what they themselves have posted. To balance this shift, the News Feed was introduced simultaneously to the "status update," an input box that permanently appears at the top of the News Feed inviting users to post their own content to share with friends (see Figure 2.1). Thus, from the moment of logging in, a user encounters both an invitation to create content and to engage with the content posted by her friends. The addition of the "like" button in February 2009 and the ability to

[26] This could change at any point in time, and it likely will! Future readers will thus be tasked with applying the characterization depicted here to the study of whatever affordances are currently available on whichever social networking site is most popular at the time (Dickey 2013; Olson 2013).

comment on other users' posts shifted the focus away from merely cultivating one's own online persona to providing feedback to other users on theirs.[27]

The News Feed centralizes the public and semi-public forms of interaction between users, and the confluence of the site's features and the behaviors and norms developed around them create what I label the News Feed *ecosystem*. Analogous to the biological definition of the term, each user's personalized News Feed is a community of interacting people and the environment in which they find themselves. The ecosystem is bounded by a user's connections on the site, and in practice is highly permeable to the entry of information based on what content is introduced by a user's friends and the pages and groups to which a user is connected.

Readers who are Facebook users at the time this book is published will be familiar with the ecosystem I describe and probably will have interacted with the News Feed in the past 24 hours. But a detailed description of how it operates is of value for everyone else. I begin by describing the content that comprises it before I describe what we know about the algorithm structuring the operation of the News Feed. I then describe the way in which content circulates in the News Feed ecosystem in order to build the foundation on which my framework of social media communication is built.

Characterizing News Feed Content

There are very specific behaviors defining how people engage with material on the News Feed. Users *generate* News Feed content when they post, react, share, or comment on content that can, as a result of their engagement, appear in the News Feeds of their social connections. Users *consume* this content when they scroll through their own News Feed and are exposed to the content produced by others. Importantly, they do not need to click on this content in order to see it and therefore potentially be influenced by it.

The volume of material generated by the processes described above is staggering. In a recent quarterly report, the company stated that it had 1.23 billion daily active users in December 2016.[28] That's over a billion people a day who can post, share, comment, or like content, suggesting that the total volume of material circulating should be counted in the billions, at minimum.

What does this content look like? It includes: links to web pages and blogs about every topic imaginable; articles from a wide variety of media sources,

[27] In late February 2016, Facebook introduced the concept of "reactions" to expand upon the "like" button it introduced in 2009. The goal was to allow for a more nuanced set of sentiments to be expressed. For more information on the process used to develop this feature, see Liz Stinson, "Facebook Reactions, the Totally Redesigned Like Button, Is Here." *Wired* (February 24, 2016).

[28] See https://investor.fb.com/investor-news/press-release-details/2017/Facebook-Reports-Fourth-

ranging from traditional news outlets to sites created solely to produce viral content; visual content such as pictures, memes, or cartoons; videos; status updates; profile pictures; and the likes, shares, and comments on any of this original content.[29] The common element is the communication of information in a social context that invites response from other individuals in the social network. There is very little visual distinction between different types of content, and at least through 2017, no distinction indicating the quality of a third-party source that produced content. For readers completely unfamiliar with the Facebook News Feed environment, online Appendix A contains several examples of the kind of content that circulates.

An Algorithmic Distillation of Our Social Reality

Quick mental calculation will demonstrate that the News Feed cannot feasibly show every piece of content that every single friend of a user posts. The process by which Facebook decides which content to show users is incredibly opaque and results from a proprietary algorithm that is constantly evolving. As one journalist writes:

> Every time you open Facebook, one of the world's most influential, controversial, and misunderstood algorithms springs into action. It scans and collects everything posted in the past week by each of your friends, everyone you follow, each group you belong to, and every Facebook page you've liked. For the average Facebook user, that's more than 1,500 posts. If you have several hundred friends, it could be as many as 10,000. Then, according to a closely guarded and constantly shifting formula, Facebook's News Feed algorithm ranks them all, in what it believes to be the precise order of how likely you are to find each post worthwhile. Most users will only ever see the top few hundred. No one outside Facebook knows for sure how it does this, and no one inside the company will tell you.[30]

The News Feed algorithm is one of the most controversial aspects of the site. Some have gone so far as to label it one of the twenty-first century's "weapons of math destruction" (O'Neil 2016). Perusing exposés that have attempted to open the lid on the process gives hints as to what drives the algorithm, but provides few confirmable details.[31] Reports are that the engineers at Facebook responsible for the News Feed algorithm incorporate more than 100,000 highly

[29] The News Feed also contains a considerable amount of sponsored content, advertisements that are formatted to look the same as content generated by a person's friends on the site. I do not include the consequences of engaging with this content posted by third parties with which users have not established a direct connection, but this is obviously an area ripe for future study.

[30] Will Oremus, "Who Controls Your Facebook Feed?" *Slate* (January 3, 2016).

[31] In the same post where Zuckerberg celebrated the News Feed's anniversary, he wrote, "Technically, News Feed is one of the most advanced systems we've built. For more than 1 billion people every day, it considers everything your friends are posting and all of the media content you might be interested in, it considers how much you might care about updates from each person or interest, and then it tries to show you what you'll find most important. Nothing like it has ever been built before."

personalized factors[32] when deciding what content to display to a user, all combined to create a "relevancy score." This score focuses on the nature of the relationship between the content creator and the user, the performance of the content among other users, the user's past revealed preference for post type, and the recency of the post. The more "popular" a piece of content in a user's network – in other words, the most people who have liked, commented on, or shared something – the more likely it will make its way into a user's News Feed. Likewise, the users and pages that a person interacts with most frequently are more likely to appear in the feed. The algorithm is responsive to the ways in which a user has engaged in the past and also gives the user a handful of explicit options to shape the kind of content that does or does not appear.

If a user scrolls to the bottom of the News Feed, the algorithm will keep revealing new content, digging deeper into the barrel of possible stories to reveal material with lower and lower relevancy scores. Because of the proprietary nature of the algorithm, no academic studies exist demonstrating the proportion of the universe of content generated by one's contacts to which the average user is exposed on the feed. However, a journalist seeking to answer this question reports that after spending 6 hours on the site in an effort to see everything posted by his friends, he saw less than a third of the content. By his extrapolation, a user spending the average amount of daily time on the site would see much less, perhaps as low as 4 to 5 percent of everything posted.[33]

Part of what makes Facebook so compelling is that every user's News Feed is uniquely tailored to them, based on what the user has chosen to engage with in the past and based on what other users find engaging in the moment. What a particular user sees is then further influenced by the frequency with which she scrolls through her News Feed. But this very feature makes precise measurements of News Feed exposure difficult to collect and study.

First, the algorithm renders the notion of quantifying and characterizing *universal* aspects of News Feed content conceptually and technically difficult. By definition, each user is exposed to a customized feed, unlike traditional forms of mass media or even web pages where everyone can access the same pool of content. Second, users are not in complete control of the content to which they are exposed, which has important implications for our theories of media selectivity. Conversely but simultaneously, the optimization process means that people are served more of what they have consumed in the past, leading to a "rich getting richer" phenomenon that heightens the selection effects into exposure. As long as the algorithm is continually changing and remains proprietary, it will be impossible for scientists unaffiliated with Facebook to systematically and precisely study the outcomes of these competing influences on News Feed exposure.

[32] Josh Constine, "How Facebook News Feed Works." TechCrunch (September 6, 2016).
[33] Tim Harford, "What Facebook Doesn't Show You," *Washington Post* (August 18, 2014).

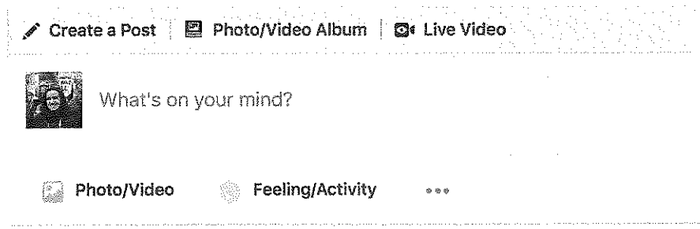

FIGURE 2.2 The status update box
The box in which users can type in a status update or post other content to Facebook appears at the very top of the News Feed.

Articulating the Flow of the News Feed

Now that we have a comprehensive sense of the operation of the News Feed, let's consider the trajectory of a single piece of content introduced by a user. Facebook is constantly developing its interface and features are regularly added or deleted from the user experience. Furthermore, there are many permutations of the way that content can be originally brought into the ecosystem of the News Feed, and each permutation creates slight differences in the information signaled on a particular post. The features outlined here will evolve as Facebook implements changes, but the basic social logic holds regardless of the variation in presentation.[34]

The Generation Phase

The simplest form of communication is a *status update* about a person's opinions, thoughts, or actions. At the top of the home screen of the site when a person is logged in to Facebook is a box in which a user can type a message (Figure 2.2), as well as add photo or video content, which then is circulated to the audience that person selects. Most people choose to have their status updates circulated to all of their friends on the site.

A second option for generating content (text, image, or video) is to visit a third-party website and direct material from that site onto Facebook. Most news sites and many other types of websites include functionalities that allow users to post directly to Facebook, either posting something to their own Timeline,[35] to another user's Timeline, or within a group. All of these ways of introducing content will generate a story that appears in other users' News

[34] For an interesting visual retrospective of the evolution of Facebook's design, see www.forbes.com/pictures/edee45edklh/the-evolution-of-facebook-4/#88e9366456dc.
[35] The Timeline is the facet of a user's profile on the site that displays information in reverse chronological order as opposed to other sections that contain personal details, lists of friends, or photos. Facebook defines the Timeline as "where you can see your posts or posts you've been

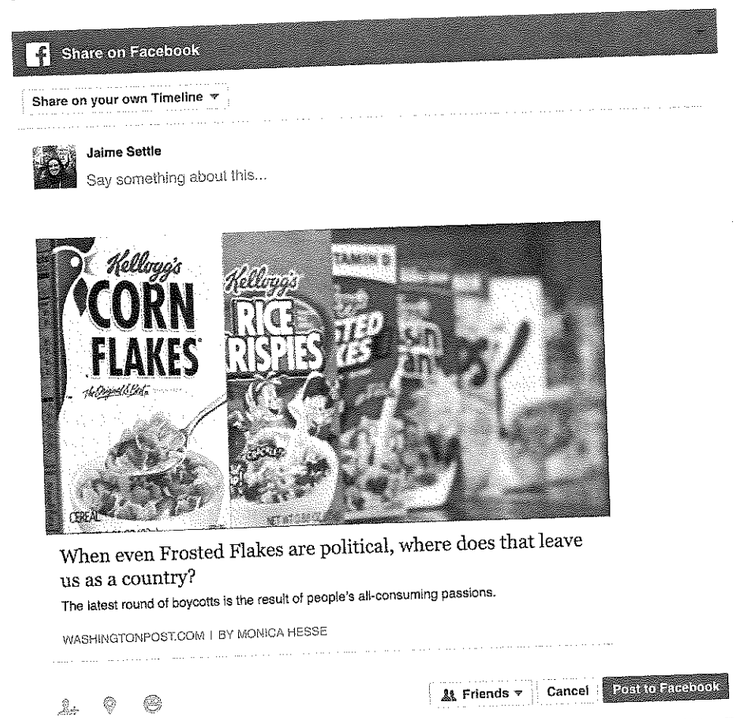

FIGURE 2.3 Content from a third-party source
The appearance of content posted by a third-party organization, such as a media source.

Feeds, indicating the original source of the content as well as the person who brought it into the Facebook environment. Users can post the story without commentary or add their own thoughts and opinions above the image containing the visual link, what I call a *visual lede*, to the original content (see Figure 2.3).

Another option for introducing content into one's network is by following a page or group within the Facebook site. By liking the page of an organization or public figure that creates content – such as a business, a brand, a media

tagged in displayed by date. Your Timeline is also part of your profile. You can post to your Timeline either from the top of your Timeline or from News Feed."

FIGURE 2.4 Mechanisms for social feedback
The buttons featured on the bottom of content posted to the News Feed where users can interact with each other.

organization, or an elected official – content will appear in a user's News Feed directly from that source.[36] A user can then disseminate the content by sharing it with her social connections and adding on commentary if she wants. This spreads the content far beyond those users who follow the original organization that posted it.

The last major way that content gets introduced into circulation is when a user changes something on his or her profile. Not all profile changes will result in a story circulating on a user's friends' News Feeds featuring the change as the "story," but certain alterations do: changing a profile picture or indicating a major life event such as an engagement or marriage.

Content can originate on the News Feed in a variety of different ways. Unlike face-to-face communication, content is not typically directed at a particular individual or individuals and instead is communicated to the social network widely. Everyone is implicitly invited to engage. The consequences of this will be explored in more depth later in the book.

The Social Engagement Phase

This phase, and the consumption phase described below, happen concurrently. Users are presented with the opportunity to engage with content as they are scrolling through their feed. For illustrative purposes, I will begin with the way in which other users can add additional information onto the original content introduced into circulation.

Once a user has introduced content into Facebook, or shared content posted by a group or page already within the site, the content then circulates to his or her friends. Automatically appended to the bottom of almost every type of content that circulates on the feed is an area designed for other users to interact with the content (see Figure 2.4).

Most of the time, friends consume others' posts in a very passive manner: they encounter the posts in the News Feed, but rarely click on the content or engage with it. However, when a friend does want to engage, she has a variety of options. She can "react" to a post, in which case other people reading the post will see that reaction. The original, and most prevalent, "reaction" is to

[36] A user can like up to 5,000 pages.

"like" something.[37] Reacting to a post does not permanently attach the post to the friend's profile; only the friend is able to go back on her "Activity Log" to see which posts inspired her to react. A friend also can "share" a post, a behavior that is both visible to the people looking at the original post, but then also becomes a permanent part of the friend's profile. Finally, a friend can "comment" on the original post, which appears as part of the comment thread underneath the post, but is not permanently attached to the friend's profile. A comment can include both a friend's own words, but also any links that they want to include. The user who originally posted the content can join in the interaction among their friends at any stage.

All three behaviors – liking, sharing, and commenting – contribute to the aggregation of social information about the original post that sends potentially important signals to people skimming it in the News Feed. And all three behaviors serve as meaningful responses, even if the response does not necessarily include words.

The Consumption Phase

Depending on the way in which people have configured their privacy settings, the generated content with the addition of social feedback can appear on the News Feeds of the original poster's friends as well as the friends of any of the people who interacted with the original post. In other words, social engagement considerably amplifies the reach of a piece of content. Remember that these two stages happen simultaneously: as friends add social engagement, the content is updated instantaneously to reflect their contribution so that future consumption of the content by other users includes the most updated quantification of social feedback. Furthermore, the more engagement the post gets, the more likely it is to appear in the News Feed of additional users.

Figure 2.5 below shows a stylized schematic of what results from the social engagement process described above. The example includes content that is politically informative – a news story published from a think tank's blog. But any content a user posts directly from third-party sites will look similar. The figure highlights the fact that the core content is only one of several potentially informative components of the post. Others have explored some of these features, such as the importance of media source cues (Iyengar and Hahn 2009) or social cues (Messing and Westwood 2014; Anspach 2017), but have focused primarily on understanding what predicts the content on which a user

[37] Most of the time, people still "like" things, even though there are now other emotional reactions available. The expansion from the "like" button to the "react" feature occurred in the middle of data collection for this book. To be consistent, even since the introduction of the expanded react feature, I refer to "liking" content in both the survey and the experiments I've conducted. The Facebook interface displays all reactions together in an aggregated fashion, and the parlance of "liking" something is widely recognized by users. Certainly, a more rigorous analysis differentiating the reactions to political content is warranted.

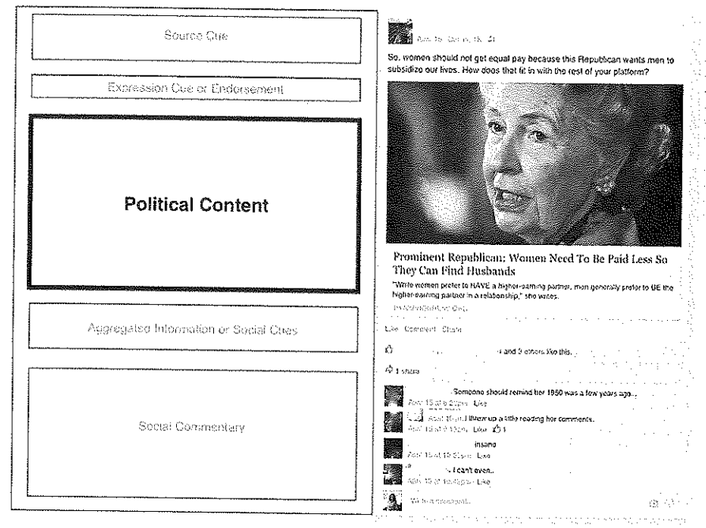

FIGURE 2.5 Schematic of a Facebook post

clicks. Conversely, the focus in this book is on the consequences of what people *see*. Even without clicking on any content, a user still can be exposed to one or more *signaling mechanisms* simply by scrolling through the News Feed.

When a user scrolls through her News Feed and encounters the most basic form of content, a status update, she has received a straightforward *expression cue* about the opinion, feeling, or behavior of her friend on some topic.

For content other than status updates, the first bit of information a user can consume is the *source cue*, or the media source or origin of the original content. This signal appears whether a friend posted the content directly from the source's web page or whether the friend followed the source on the site.

In addition to the source cue, stories posted directly from news sources, or notifications that a user's friend has liked a story, will carry *aggregated information*: the total number of Facebook users across the whole site who have liked, shared, or commented on that article, without any reference to the user's social network (Figure 2.6).

If a user's friend has posted the story, the content will not contain any aggregated information, but will contain significant social information (Figure 2.6). The first of these I call *endorsements*. The weakest form of endorsement is the implicit endorsement that is created when a person's friend posts an article, which asserts both that the article is worth reading and also

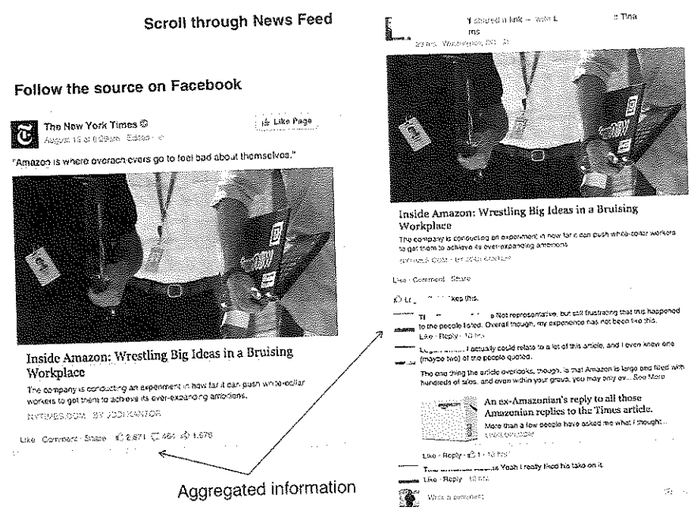

FIGURE 2.6 Comparison of the appearances of aggregated information versus social feedback
If a user follows a third-party source on the Facebook site and shares that with her network, the aggregated information about the total number of users who have engaged with the content is shown. If a user posts a story from a third-party web page, social feedback from the user's network – in the form of social cues and commentary – appears instead.

that the poster implicitly agrees with the content. As we will see in Chapter 6, people do make the connection between the view espoused in a headline and the opinions of the person who posted it, even in the absence of words confirming that endorsement. This endorsement can be made more explicit with the addition of a poster's original words to elaborate on their viewpoints.[38]

Other types of social information can be found on both status updates and posted content. Beyond implicit or explicit endorsement, a post also contains enumerated *social cues*, the number of likes or shares a post has garnered or the length of the comment thread it engenders. Social cues are similar to the aggregated information cue described above, but are distinct because they are quantifiable measures of support from within a person's own social network,

[38] Of course, the signals from a user's words and the source cue may conflict, a situation that I test in Chapter 6. However, because of selective exposure to ideologically concordant news, opinion leaders tend to post from sources that align with their beliefs.

either their friends and possibly the friends of their friends, depending on the user's privacy settings. Social cues are quickly consumed metrics of the amount of support or interest a post has generated among the people to whom the user is connected on the site. Finally, a typical post on Facebook contains *social commentary*, or the content of the comments that accompany a post. From the News Feed, only a handful of these comments are visible, but the full commentary can be seen by expanding the post.

Some combination of all six of these signals – expression cues, source cues, aggregated information, endorsements, social cues, and social commentary – are available to users without clicking on content in their News Feed, and the content with the greatest volume of cues is probably more likely to appear based on the algorithm Facebook uses to place stories in the feed. To varying degrees, previous research has investigated how these factors affect information selection, but this book focuses on information *exposure*. In the second half of the book, I show that these signals can be informative about the political views of the user who posted the content to which the signals are attached, even if the content itself is not about politics.

Frequency of Scrolling the News Feed

We've now considered the big picture of the operation of the News Feed and the trajectory of the creation, dissemination, and consumption of a single piece of content in the News Feed. The missing piece in the middle is the volume of content to which a person is exposed. This estimate varies wildly, depending on a number of factors: the platform on which a user accesses the site; a person's scrolling habits and frequency of adding social engagement to the content they see; and the duration that they spend on the site at any one point in time as well as cumulatively over the course of a day or a week. Anecdotally, and based on internal pilot studies,[39] it seems that when a person logs on to Facebook and scrolls through their News Feed, they encounter dozens to hundreds of pieces of content at one time.

It is difficult to quantify the total volume of content that people actually create or consume on Facebook. However, we can measure how frequently they report using the site. Consistent with previous work, in the End Framework Survey fielded in April 2016, more than 80 percent of respondents indicate they use Facebook most or every day. Among those users, over 95 percent say they scroll through their News Feeds, with almost 70 percent indicating that they do so more than once a day (Table 2.1). Any consequences of this scrolling behavior then could potentially affect a broad swath of the American public.

[39] My extensive and highly scientific method for making this estimate was to time myself scrolling the News Feed on a desktop computer and calculate how many pieces of content I saw in 60 seconds. Without stopping to engage with anything, I saw twenty-six distinct items.

TABLE 2.1 *Frequency of Facebook Usage*

	Percent of Sample
Log-in Frequency	
A few times a year	2.58%
About once or twice a month	3.97%
About once or twice a week	9.23%
Most days	11.90%
Every day, but only once a day	9.03%
Every day, a few times a day	40.87%
Every day, too many times to count	22.42%
Scrolling Frequency	
I don't scroll through my News Feed	4.83%
Once a day	26.74%
2–4 times a day	39.81%
5 or more times a day	28.62%

The first question assessed users' response to the question, "How frequently do you spend time on Facebook?" The denominator is the 1,008 respondents who answered the question. All users who answered that they logged in to Facebook most days or more frequently (n=849) were asked, "On a typical day when you use Facebook, how many times a day do you scroll through your News Feed, either on a mobile device (like a phone or tablet) or a computer?"

POLITICAL CONTENT ON THE NEWS FEED

The depiction above is intentionally general because most users log on to Facebook for entertainment purposes or to glean information about their social contacts, not to engage in political behavior. This background context is absolutely essential for any analysis of exposure to political material on the site: for most people, the cycle of News Feed consumption and engagement involves *encountering political information while seeking social information.*

How often do users inadvertently encounter content they think is political? On average, users report they see this kind of content about half of the time when they scroll through the News Feed, but aren't looking for it. A slim majority of users, 51.88 percent, report they see political content more than half the time.

Given that most users encounter political content a majority of the time they scroll through their News Feed, what kind of content do they see? Ideally, we could directly assess all the content that a person creates and all the content that circulates through his or her News Feed to get a sense of the political content to which they are exposed, but this is not feasible for a number of reasons.[40]

[40] Facebook data scientists do have the access and capability to do this anonymously in the aggregate (Bakshy *et al.* 2015). However, Facebook has restricted its policies over time for

The next best thing is to ask respondents what they generate and what they see most frequently. This self-report measure is almost certainly tainted by recall bias – people are more likely to remember certain kinds of content – but it is likely that what users are able to remember and report is the material that has the most potential impact on them.

Several things apparent in Table 2.2 can be put into context. First, it is clear that while many users generate political content, it is not the most prevalent type of content with which they engage. As a point of comparison, Pew has found that 44 percent of Facebook users like content posted by their friends at least once a day, and 31 percent comment on other people's photos on a daily basis (Smith 2014b), so the incidence rate for these behaviors on political content in a six-month time span is much lower. In fact, approximately 30 percent of subjects report that they haven't posted, shared, or commented on any explicitly political content at all in the preceding six months. Notably, people are much more likely to engage by "liking" political content as opposed to more intense forms of interaction such as posting, sharing, or commenting, but a similar proportion of respondents (27 percent) haven't liked any content.

There is not a one-to-one correspondence between the prevalence of content people post and the prevalence of content that appears in other users' News Feeds because of the role of user engagement in the Facebook algorithm. More than twice as many people report that they post and share news articles than memes or parody videos, but the ratio is attenuated when comparing the rates of seeing news articles versus seeing political images, memes, and videos. This is likely because of the comparatively high rates of user engagement with these other forms of content, which favor their circulation in people's feeds.

But even the political content that is most prevalent is still not encountered as frequently as non-political content. If we assume that users see non-political content 100 percent of the time they scroll through their feeds, then even the most ubiquitous form of political content (news articles, as shown in Table 2.2) is seen only half as frequently. Furthermore, the quantity is considerably less. Although the numbers have increased considerably over time – from 6 percent in 2012 to 25 percent in 2016 who say that much of what they see on Facebook

collaborations with academic researchers, and few social scientists have had access to Facebook's data to test their own research questions. While this data could be obtained directly by accessing Facebook users' accounts with their permission, institutional review boards (IRB) express serious concerns about the fact that a user's friends cannot grant informed consent for their content to be studied. Facebook does have an application program interface (API) that allows programmers to access users' data if they consent to using the application, but the data available to scrape is quite limited. Therefore, it would be nearly impossible to gather content from an individual's News Feed without collecting the very information that many IRBs deem to be off-limits.

TABLE 2.2 *Reported Incidence of Engagement with Political Content*

	Generating Political Content				Consuming Political Content	
	Posted	*Commented*	*Shared*	*Liked*	*Seen*	*Clicked*
News article about the election, campaign, or politics in general	20.69%	21.78%	29.50%	47.23%	51.29%	31.49%
Status update	17.13%	17.62%	16.04%	32.87%	38.51%	25.05%
Humorous or parody videos dealing with political issues	10.79%	16.93%	27.23%	43.07%	45.84%	34.95%
Political image	9.41%	15.54%	19.21%	35.15%	46.44%	25.15%
Video of a candidate speech, press conference, or debate	9.01%	13.76%	16.14%	33.76%	38.32%	26.83%
Petition	9.01%	13.56%	20.69%	32.18%	20.59%	19.11%
Political meme	8.32%	14.06%	22.38%	37.72%	45.34%	29.31%
Video news reports about the election, campaign, or politics in general	8.22%	13.76%	19.60%	35.54%	40.39%	28.51%
Informational videos that explain a political issue	7.92%	14.65%	18.32%	33.76%	29.10%	28.51%
Political infographic	7.03%	12.38%	14.26%	30.40%	29.31%	23.07%
Campaign advertisement	6.93%	11.58%	15.05%	34.46%	36.43%	20.40%

The percentages for generating content are all those users who report they have engaged in the behavior in the previous 6 months. The percentages for "seen" and "click" reflect those who reported that they frequently or almost always see this kind of content when they have scrolled through their News Feed in the previous 6 months. The denominator for all columns is all 1,010 respondents in the survey. For full information on the question wording used to generate these statistics, see the online appendices.

is about politics[41] – for most people, political content comprises only a portion of the content that appears in their feed.

POLITICAL INTERACTION ON THE NEWS FEED: A FUSION BEHAVIOR

Assume for a moment that people don't process political content differently than they would any other content they encounter on the feed. Users have the same motivations for evaluating political content that they would for anything else: looking for interesting or humorous material, providing social feedback on the content their friends post, and learning about the lives of their contacts on the site.

Is this assumption valid? Do people engage with political content just as they engage with any other sort of content on the feed? Should we expect the motivations people have for generating and consuming political content to be the same as for other kinds of content they generate and consume? Should we expect the consequences to be the same?

Political scientists have generally assumed that political behaviors are distinct from other social behaviors because of the features of the domain in which they occur: the inherent contestation of politics, the embedded power dynamic in a given society, and at least in democracies, the overarching importance of questions pertaining to representation. The stakes are simply higher for political behaviors both in terms of the costs accrued and the benefits acquired. In a representative democracy, our attitudes and actions are supposed to have consequences, and the day-to-day ways in which people engage within their political system are theorized to have downstream influences at the ballot box.

If we think political content should be differentiated from other News Feed content, just as we differentiate political behavior from other social behaviors, can we adequately characterize interactions with political content into frameworks we've previously used to study political interactions that precede voting decisions?

Assessing what has been written about political interaction on Facebook reveals a lack of theoretical consensus about how to characterize these behaviors. Most research has selectively focused on a single action of interest without contextualizing that action, and many scholars have left vague their ideas about what precisely people are doing when they generate politically relevant content on these sites. When data extracted from social media is used to make claims

[41] The response options on the two Pew surveys differed slightly. In 2012, users could report "all/almost all," "most," "some," "just a little," or "none at all" (Rainie and Smith 2012). In 2016, they could report "a lot," "some," "a little," or "none" (Duggan and Smith 2016). Perhaps more striking is that in 2012, 63 percent of social networking site users said that none of what they saw was related to politics. That percentage had dropped to 6 percent for Facebook users in 2016.

about aggregate opinions or behaviors of the public, researchers have implicitly assumed that people are engaging in political expression. Others classify interactions on social media as a form of political discussion, noting the conversational-like qualities of comment threads in Facebook groups.

But more commonly, social media behavior has been studied within the framework of mass communications. The origin of much of the political content with which people engage can be traced to political elites and the media, such as campaign materials or news stories. Consequently, media scholars often assume that Facebook is simply a novel platform for traditional producers of political content to distribute it (Gainous and Wagner 2013). A small but growing body of research picks up where these scholars leave off, identifying the factors that make people more likely to follow elites on Facebook, examining the processes through which politically engaged Facebook users receive elite and media messages, or exploring the forces that shape which news stories people are most likely to click. These researchers thus characterize political interaction on Facebook as a form of information seeking, the Web 2.0 version of using the Internet to learn about news and politics. However, there is hardly any previous research focusing on mere exposure to content on the News Feed, when users see it, but don't click on it.

News Feed interactions aren't clear-cut and often fuse together behaviors that are considered distinct in an offline context. Although it is not typically people's primary aim for using the Facebook site, people do report that they engage in a variety of explicitly political ways: liking a candidate's Facebook page, documenting themselves doing silly things to raise money for charity,[42] circulating petitions for particular political causes, or changing their profile picture to show support for a candidate or issue.[43] The list continues to expand as the technology evolves.

The work I have done with my colleagues reveals some of the ambiguities inherent in these kinds of behaviors. For example, on the day of an election, is clicking a button on the top of the News Feed that says "I voted" best thought of as a self-report measure of voting, a measure of political expression, or an attempt to mobilize one's contacts (Bond *et al.* 2017)? Does writing a political status update imply anything about a person's level of political interest (Settle

[42] The most classic example of this is the "Ice Bucket Challenge" that went viral during the summer of 2014. According to Facebook's newsroom, between June and August, more than 17 million videos were shared of people pouring ice water on themselves in order to raise money for organizations that do research on the disease ALS (Facebook Press Team 2014). Almost half a billion people worldwide watched these videos for a total of 10 billion views. More information is available at http://newsroom.fb.com/news/2014/08/the-ice-bucket-challenge-on-facebook/.

[43] In response to the Supreme Court's decision in *Obergefell v. Hodges*, more than 26 million people changed their profile picture to one that was overlaid with a rainbow flag to indicate their support for the decision to legalize gay marriage (Dewey 2015). See Robert Barnes, "Supreme Court Rules Gay Couples Nationwide Have a Right to Marry." *Washington Post* (June 26, 2015).

et al. 2016)? Conceptually, does one have to click on a news article in the feed to be engaged in "news-seeking" behavior? What offline behavior is most analogous to "liking" a political meme, to "posting" a news story, to "sharing" a parody video? More fundamentally, given the presence of novel and unconventional content on the site such as political memes, do people even agree on what constitutes "political" content on the News Feed? Previous research suggests that most likely, they don't (Fitzgerald 2013). And what about content that is not explicitly about politics, but is informative of the views of the person who posted it? If people use the site to learn about the lives of their family and friends, might they be inclined to make inferences about the political views of their contacts?

These queries matter because they influence the sorts of effects we should expect to find when people engage on the News Feed. Trying to fit consumption and generation behaviors into the neat boxes established by previous research risks missing the forest through the trees. Until we answer these foundational questions, we will be hard-pressed to articulate theoretically motivated, testable hypotheses about the consequences of engaging with explicitly political or politically informative content. In short, we must better theorize what it is we are measuring so we can look for the kinds of effects that are most likely to result.

In the next chapter, I dive deeply into the characterization of those social media interactions where people *express* their political identities, engage with political *news*, and *discuss* their opinions. I bring together these three conceptually distinct facets of online behavior to propose the *END Framework* of social media interaction from which we can derive novel expectations about the consequences of creating or being exposed to politically informative material on the News Feed.

I argue that generating and consuming politically informative content are distinct political behaviors, albeit ones that fuse together characteristics of more recognizable political behaviors. The way in which people engage with content on Facebook certainly has similarities to the way in which they express their political identities, seek political information, and discuss politics with others. But differences in the content itself, the context in which the behaviors occur, and the constitution of the people who interact with each other are sufficiently divergent as to suggest that we look beyond traditional outcomes – such as agenda-setting, learning, or issue attitude change – and focus instead on how these interactions affect our evaluations of our fellow citizens.

3

The END Framework of Political Interaction on Social Media

Before the development of social media, political behavior scholars could more or less easily classify different forms of political engagement. Political discussion involved two or more people talking about "important issues of the day." News consumption meant that a person sought out access to news, while inadvertent exposure meant that they encountered political information without intending to do so. People expressed themselves politically when they put out a yard sign, affixed a bumper sticker, or wore a campaign button.

Social media upended this neat typology of different forms of political engagement. We express our political identity in a very social and interactive process of consuming information. The affordances on the sites are in many ways designed to blur the lines that differentiate distinct offline political behaviors. As we saw in the previous chapter, people see, post, share, scroll, like, click, and comment in one seamless interface, intermixing their interaction with political content among their interaction with all other sorts of content. Most content that circulates on the News Feed is not about politics. But as alluded to in the previous chapter, the signals attached to Facebook content create the possibility that a considerably larger amount might be informative about the political views of the person who generated it. I will use the phrase "politically informative" to refer to this content to emphasize the idea that people communicate information about their political beliefs – and make inferences about the beliefs of others – even when they are interacting about non-explicitly political topics.

This chapter articulates the *END Framework* of social media interaction. END refers to the characteristics of a subset of content that circulates in a social media ecosystem: a personalized, quantified blend of politically informative *expression*, *news*, and *discussion* seamlessly interwoven into a wider variety of socially informative content. Facebook is a very rich case study in which to explore the effects of END interactions in a social media environment characterized by a particular set of features and norms. It is these affordances of the

TABLE 3.1 *The END Framework: Distinguishing Characteristics of Politica Interaction in the News Feed Ecosystem*

Expression	News	Discussion
Highly visible, durable platform	Unintentional exposure to fused social and political information	Multi-person conversations with weak ties
Proliferation of signals	Enhanced information environment	Public forum
Social feedback	Entertainment	Absence of moderati social norms
Catering to an audience	Altered relationship between producers and consumers	Evidentiary support inflammatory cont
	Increased power of opinion leaders	
	Social quantification and curation	

site that facilitate the consequences explored in this book, and the typology should be generalizable to the extent that other platforms fea affordances similar to those of the News Feed.[1]

The behaviors in the framework are identical to the way in which pe engage on the News Feed generally, as noted in Chapter 2. Users *gen* content by posting, sharing, commenting on, or liking content that is politi informative. Users *consume* content when they scroll through their News and encounter content that is politically informative. Importantly, they do need to click on it; mere exposure is sufficient.

In the previous chapter, we focused on contemporary social media beha and situated engagement with politically informative content within our un standing of people's experience on Facebook more broadly. In this cha I characterize generating and consuming politically informative content broader assessment of analogous political behaviors. Engaging with conte the END Framework resembles three offline political behaviors: publicly exp ing political views, seeking or encountering political news, and discussing poli

The approach here is to think about how generating and consuming pol ally informative content are conceptually similar to and different from behaviors they most resemble in the offline world, in order to theorize w distinct outcomes might result from the way in which people express t political views and interact with each other about politics in an informat rich environment. There are important differentiations between the traditi behaviors of political expression, information seeking, and political discus and the comparable facets of those behaviors involving politically informa content on the News Feed. These are depicted in Table 3.1. Despite theore

[1] The range of ways in which people can engage politically on social media is huge, and a s typology is inadequate to capture the nuances of what people are doing on different platforms obvious future extension of this work would be to test these hypotheses on another social m platform.

similarities, these notable differences should inform our study of the consequences of engaging with politically informative content on the News Feed.

POLITICAL EXPRESSION ASPECTS OF NEWS FEED INTERACTIONS

Social media serves to connect people with one another while simultaneously providing a platform on which people can cultivate their online identities. Extended to the political realm, the generation of political content allows a person to define and maintain an online political identity, while consumption of it facilitates inferences about the political identities of others. The ability to create a public, political persona – the political expression feature of News Feed interaction – is perhaps its most novel feature.

What Does Political Expression Look Like Offline?

Political expression occurs when a person makes public some aspect of their political identity or political views. This broad definition could include many things. For example, it could encompass such things as attending and holding a sign at a gathering of people. It could incorporate the behavior of signing a document containing a political demand or statement of views that is being publicly circulated. However, we typically would characterize these behaviors as "protesting" and "signing a petition" respectively, moving them into the realm of political action, not pure political expression. A more narrow understanding of political expression is therefore restricted to behaviors that are relatively passive and done independently: displaying a yard sign, ordering a specialty license plate, affixing a bumper sticker, or wearing an article of clothing or other identity marker such as a sticker or button. While these behaviors may be more ubiquitous in other parts of the world, in the American context, few people engage in them regularly.

What do we know about why, how, and when people choose to publicly express their political identities, and what kinds of people are most likely to do so? Pure political expression almost always has been considered as one part of a broader participatory index of behaviors (Huckfeldt and Sprague 1992; Mutz 2002), and we know relatively little about pure expression in and of itself. In the United States, the most ubiquitous political identity is one's party affiliation. Green, Palmquist, and Schickler (2002) demonstrate that people hold the kinds of identities amenable to expression, but they don't assess the visible or durable signals of identity. Apart from partisan identity, the next most common signal to express would be an ideological identity, a candidate preference, or a position on a particular political issue. Unsurprisingly, based on data from the American National Election Study, the people with the strongest political opinions, or strongest partisan identities, are the most likely to engage in

expressive behaviors. The small literature on bumper stickers and yard s has typically focused on understanding which kinds of people in which kinc situations (Laband *et al.* 2009; Makse and Sokhey 2014) are most likel display visible signals, finding that yard sign display is driven not only political sophistication, but also by a genuine desire to publicly express o views or a belief that the display can be influential.

What Does Expression Look Like on the News Feed?

Never before have people been able to so visibly and permanently att specific political content to their identities for their broader social network see and engage with. Political expression can take many forms on Facebo and there are several durable and informative markers of a user's political vi built into the functionality of the site, such as the ability to like or foll political candidates or groups or to self-identify political views on the pro page. These behaviors only contribute to the News Feed ecosystem, however the extent that they are visible when people *interact* with each other. Therefo the political expression components of END behavior focus on the most visi ways in which people's political identities can be broadcast through th networks.

Written Expression: Status Updates

First, the most direct form of political expression is the written content gen ated by users: as stand-alone politically relevant status updates or as t accompanying a link that they post. These are generally the most unambiguo signals of political identity. While written commentary has the potential spark political discussions, before anyone replies, it is simply a statement o person's political views. Posting a political status update is a less comm behavior than posting or sharing content generated by another user or orga ization, as we saw in Table 2.2 in the preceding chapter. Table 3.2 shows frequency of status update posting in the END Framework Survey, reveali estimates very much in line with previous work.[2] Despite being less freque posting a political status update is a powerful signal to other users about on political beliefs; nearly two-thirds of respondents who reported that they h learned someone's political views on Facebook indicated that they had done based on a user's own words, a point further explored in Chapter 5.

[2] Pew has found that 34 percent of people report that they have used social media to "post your o thoughts or comments on political or social issues." Relatedly, 31 percent have "encourage other people to take action on a political or social issue that is important to you" and 35 perc have "encourage[d] other people to vote" (Smith 2013). Using data from Facebook collected 2008–2009, Settle *et al.* (2016) found that over a quarter of users posted a political sta update, a proportion that has likely increased in the last decade due to changing norms the site.

TABLE 3.2 *Incidence of Political Status Update Posting*

Users posted a status update ...	
... containing political views or opinions, written in your own words	39.21%
... containing direct support of a particular political candidate or official, in your own words	29.70%
... containing a direct encouragement to vote, in your own words	34.16%
... requesting others to get politically involved, in ways other than voting, in your own words	29.01%
Combined	
At least one political status update	51.19%

Proportions of the nationally representative sample who report generating various kinds of expressive political content on the News Feed within the last six months. The denominator is all 1,010 respondents in the study.

What are the distinguishing characteristics of these political status updates? It is conceptually difficult to think of appropriate texts with which one could compare the language of status updates. Very few people write newspaper opinion editorials, and even if they did, the style of a long-form editorial would be very different than the short format of the status update. There is no easily accessible written record of the comments people make during informal conversations about politics with family, friends, or acquaintances. Text generated in the comments section of online newspaper articles or blogs are written for a very different audience by a very distinct subset of those people who communicate about politics online.

In the absence of an obvious set of comparison texts, I conducted a study on Amazon's Mechanical Turk[3] service to generate a set of texts to which I could compare political status updates. The premise of the study was to compare the linguistic characteristics of text written to sound like a status update to the characteristics of text motivated by other goals: to be informative, accurate, persuasive, or to elicit engagement from readers. I do not make any assumption about what precisely people are trying to accomplish when they write in the style of a status update. Instead, the linguistic similarity and difference between status updates and other short texts facilitate inferences about the style and tone of political status updates. The details of the study can be found in online Appendix B.

What were the results? Status messages share linguistic similarity with writing that is intended to solicit feedback from readers, and political status updates are even more negatively emotional than are other types of status updates. Self-referential, emotional language is the norm for status updates, but this is not necessarily how people write when they are aiming to be

[3] See Appendix A for a description of Mechanical Turk.

accurate, informative, or persuasive. Even though Facebook users repo they are trying to inform or persuade their friends when they generate p content, it appears that the language they use is more similar to languag to encourage other people to respond.

Non-Written Expression: Profile Pictures, Source Cues, and Other Functionalities

People can change their profile pictures to signal political beliefs. Thu profile pictures accompany the information that people post and, most time, these pictures are not politically informative, but instead simple hea or group shots that include the user. However, from time to time, there adoption of a "profile picture" meme, where large numbers of users all form their pictures in the same way or all post the same profile picture (2016). These become very visible and recognizable political signals that a pany a user's posts until she again changes back to a more standard picture. Recent examples include the response to the 2012 election of Obama, to the Supreme Court's decision to protect the constitutiona same-sex marriage, or to attacks on Planned Parenthood. Over 20 per users in the END Framework Survey report that they changed their picture "to support or oppose a political issue or candidate" in the pre six months.[4]

People also can signal their political viewpoints by the choice of news from which they post political content. Social media has come of age in the most polarized eras of American politics, and the media environme fragmented in a way that potentially furthers this polarization. Media s seek to develop a brand as an informative signal of the kind of coverag post and the niche audience they are trying to reach. As a result, the ideo composition of the people who use particular sources has become more geneous, and the public has polarized along ideological lines as to sources are trustworthy. For example, *Fox News*, the *Drudge Report*, *bart*, and *The Blaze* have more consistently conservative audiences a more likely to be trusted by conservatives; the opposite is true for th *Yorker*, *Slate*, *Mother Jones*, and *Think Progress* (Pew Research Center 2 Later in the book, we will see that even ideologically moderate people p biases in these sources and that a majority of Facebook users impute p slant to a wide variety of media sources.

[4] The survey was fielded in April, approximately six months after the viral adoption of a f users could place over their profile pictures to show solidarity with France after the attack in Paris in November 2015 (Feeney 2015). It is unclear if users would consid change to "support or oppose a political issue." The frequency of viral profile photo a suggests that this particular instance should not bias upwards people's recollection behavior. Pew reports that 18 percent of US social media users have changed their profil "to draw attention to an issue or event" (Gottfried *et al.* 2016).

Social media users are constantly evolving new norms and adapting the site's features for the purposes of political expression. For example, in the fall of 2016, more than 1 million people "checked in" to the Facebook page maintained by the Standing Rock Indian Reservation, although the number of protestors physically there was considerably less. Due to a rumor circulated that the local police were trying to track activists protesting about the Dakota Access pipeline, users supportive of the protest's cause were indicating their presence at the site to stymie any attempts by law enforcement to do so.[5] As this incident shows, any attempt to systematically catalogue the way in which users signal their political views will be outdated almost immediately, but our conceptualization should be sufficiently flexible to encompass as-yet-undeveloped modes of expression that serve the same purpose as those discussed here.

Unintentional Expression

Finally, as described in Chapter 2, the affordances of Facebook are designed to help users cultivate their public identities. To the extent that non-political aspects of our identity may correlate with our political views, users can post a variety of different types of content – ranging from non-political news stories to cartoons to memes to photos – from which other users could impute political views. In Chapters 5 and 6, we will explore the role of politically sorted and implicitly political content further, but it is possible that users are unaware that they are signaling their political identities when they display this kind of content.

What Distinctions Matter for Our Theorization of the Effects of END Interactions?

Are the aspects of News Feed interaction related to political expression – political commentary, profile pictures, media source selection, and politicized content – simply the social media equivalent of bumper stickers and campaign pins? There are many shared elements. Some of our hypotheses from the offline world should neatly transfer to the social media context. For example, we expect the most partisan people to display these expressions and we would expect an increase in political expression at politically salient times, like election seasons (Settle *et al.* 2016). However, the incredible expansion of the possibilities to express one's political identity, and the distinct features of this public expression, raise the potential of heightened consequences of expressing one's identity or being exposed to the expression of others.

[5] Merrit Kennedy, "More than 1 Million 'Check in' on Facebook to Support the Standing Rock Sioux." NPR (November 1, 2016).

What Counts as "Political Expression" and How Often Does It Occur?

The variety of observable signals available to indicate identity on Faceboo
much larger than it is in the offline world. During campaign periods, candid
typically make all sorts of tangible goods (such as stickers and signs) for use
display to signal their identities. But at most other points in time, there
many fewer options available, although interest groups and advocacy organ
tions often solicit donations by offering free goods. Conversely, on Faceb
there is always an abundance of content that a user can link to her pu
political identity,[6] and there are organizations whose sole purpose is to cr
politically informative content for users to circulate.

Importantly, it appears that even non-political content can send sig
about political beliefs. A few examples may highlight this point. A pictu
user posts where she is proudly displaying a hunting rifle could tri
reasoning about what her attitude on gun control might be. An article th
user shares about composting could signal a strong commitment to recycl
and by extension, a concern for climate change. A user's "checking in" we
at her evangelical church could be interpreted as an expression of religio
permitting guesses as to her political views that could be validated via a "li
she posted in response to another's political post.

In studies presented later in the book, Facebook users achieve remark
high levels of consensus about the political views of anonymous users
post content, even content that is judged to be *apolitical*. Perhaps becaus
the documented differences in social preferences between liberals and con
vatives or because of the social stereotypes people have come to hold ab
other Americans, it appears that people will draw inferences about the pa
sanship and ideology of other Facebook users based on a wide range
content.[7]

As a result, we must have a much more expansive understanding
online "political expression" than we have had for its offline counterpa
Even users who don't intend to express their political identities may
that they are signaling their views just by using the site for social purpo
If we only consider the ways in which people explicitly signal their polit
identities or views, we will miss the wider scope of signals that are *pol
ally informative*.

Who Is the Audience and How Can They React?

In addition to the wider range and increased volume of tangible sig
available, political expression on the News Feed has a much more exten
reach. Although users do have the option of controlling what content

[6] Dallas Lawrence, "How Political Activists Are Making the Most of Social Media." *Fo*
(July 15, 2010).

[7] Whether people are aware of the full extent of the signal they send when they post content th
not an explicit statement of their political views is a question that merits future exploration

shared with which portion of their social network, the default settings on Facebook share content with all of a person's friends on the site. Information that gets shared to the News Feed can then be shared by any of a person's friends. Pew has estimated that the average user can reach 156,569 other individuals through their social network at two degrees of separation: the friends of their friends (Hampton *et al.* 2012).[8]

While the average user probably doesn't realize this, they are very aware of the fact that what they do on Facebook is highly visible and becomes a quasi-permanent part of their online identity. That is, in fact, one of the key reasons for using the site. Thus, political expression on Facebook happens with the full knowledge that it can reach a large audience and that it is durable, not fleeting. Statements of political belief made face-to-face only are recorded for perpetuity by the extent to which the participants or observers remember what was said. Yard signs and bumper stickers are highly visible, but only to the portions of one's network who regularly see a person's home or car. Conversely, the News Feed is expressly designed to circulate people's expression to a wide audience, and the content remains accessible until the user chooses to remove the information.

The audience for political expression on Facebook matters not just because of its scope, but because there is room for public feedback of one's beliefs on the News Feed, unlike in most forms of offline political expression. When a person changes her profile picture or posts content, her contacts have the ability to interact directly with that content, in most cases signaling endorsement via "liking" or "sharing" the content. The incentive to solicit feedback from one's network likely changes how people express themselves as they seek to validate their opinions or assess the level of support for their opinion in their network.

Finally, the audience matters because they can be affected by the political expression they observe to a much larger degree than they have been in the past. Unlike a political discussion, political expression on Facebook is not necessarily seeking to persuade others or provoke a meaningful exchange of ideas. The relatively sparse opportunities for visible or durable signaling of political identity in the offline world has resulted in a dearth of research on the consequence of exposure to the political expressions of others.[9] Given that social psychologists have uncovered profound effects of consuming expressions of identity in other domains, this is a fertile area for investigation.

[8] This estimate is skewed by the small number of users who have many friends themselves. The maximum number of friends-of-friends reached was 7,821,772 other people. However, even considering the median reach, the potential impact is large: 31,170 people.

[9] The only study to date focusing on the consequence of public expressions of political identity shows that after being primed with a stimulus evoking partisan disagreement, subjects rate neighborhoods with political yard signs as less attractive places to live (Klar and Krupnikov 2016, ch. 4).

NEWS EXPOSURE ASPECTS OF NEWS FEED INTERACTIONS

A growing proportion of Americans report Facebook is an important part the way in which they keep up with the news. Users can introduce news into t News Feed ecosystem from third-party websites, help circulate posts from t Facebook pages of third-party sources, or simply encounter news when th scroll through their feeds.

What Does News Exposure Look Like Offline?

The two-step flow of information theory (Lazarsfeld *et al.* 1944) has shaped t way in which scholars of both mass media and interpersonal communicati (Katz and Lazarsfeld 1955) understand how the mass public is exposed political information. Opinion leaders figure prominently in this theory, infl encing both what information gets transmitted, as well as interpreting i meaning and significance. We've long known that in addition to elite opini leaders – politicians and "talking heads" – a small portion of the citizenry actively engaged in persuading and informing others about political issu (Berelson *et al.* 1954; Katz and Lazarsfeld 1955; Katz 1957; Zaller 199 Huckfeldt and Sprague 1995; Ahn *et al.* 2010).

Exposure to political information always has occurred intentionally ar unintentionally. As a legacy of the golden era of broadcast news – when mo Americans had only three television channels from which to select – much the early theorizing about information seeking assumed that many people we exposed to news not by choice, but because they were a captive audience (Bau and Kernell 1999; Prior 2007). However, in an information-rich environmen our theories changed and the notions of choice – including the decision to pa attention to news in the first place (Mutz 2006a) – became more central in t literature. Some people deliberately and intentionally sought out the new subscribing to newspapers, watching news programs on television, listenir to the radio, or surfing the Internet. Many more encountered the news as a b product of seeking out entertainment, through "soft news" programming f example, with mixed evidence about whether this inadvertent exposu contributed to increased political knowledge (Baum 2003; Prior 2007).

Simultaneously, the era of choice opened the door for theories of motivation the differentiation between de facto selectivity and selective exposure (Sears ar Friedman 1967) and the process of motivated reasoning (Kunda 1990) – to tal hold, explaining the behavior of those people actively consuming political info mation. The politically interested, when it is available, seek out news that concordant with their political views (Stroud 2008; Iyengar and Hahn 200 Stroud 2010; Arceneaux *et al.* 2012; Knobloch-Westerwick 2012; Garrett 201 Garrett *et al.* 2013; Mummolo 2016) and evaluate political information biased ways (Meffert *et al.* 2006; Taber and Lodge 2006; Gaines *et al.* 200 Taber *et al.* 2009; Nyhan and Reifler 2010; Slothuus and De Vreese 2010).

What Does "News Exposure" Look Like on the News Feed?

For the 48 percent of Internet-enabled Americans who report that they go directly to Facebook for political news in a given week (Mitchell *et al.* 2014), information seeking on the News Feed functions largely like the home page of a newspaper's website, where people consume the information readily available (the headline, a short description, and perhaps a photo), clicking on the news that is most interesting to them. The key differences between the feed and the news website – factors that all have important implications for how people process political information – are the intermixture of social and personally relevant information alongside political news, the social signals attached to the political news, and the diversity of news source quality.

For most people, however, information seeking happens when they log in to Facebook for non-political reasons. Most people access Facebook to share information with or glean information from their social contacts. This is the primary motive for the social engagement and consumption phases of the News Feed cycle described in the previous chapter. More often, people scroll quickly through the News Feed, stopping to read the available portions of a post that strike their interest and clicking on a post only if it crosses some threshold of curiosity that justifies the investment of time to read the full post or link.

This "exchange" of information is the core function of the News Feed, although two factors differentiate this exchange in the political realm compared to the way in which people exchange non-political information. First, political communication is heavily imbalanced: many more people consume political information than generate it, and the people engaged in these two distinct behaviors have different characteristics. Second, non-political content is very self-referential and often includes photos or videos of the user and his friends and family. However, almost by definition, political content is more likely to contain content generated by a third party – a news story, a meme, etc. – because the subject matter involves elite actors instead of direct, personal connections.

What Distinctions Matter for Our Theorization of the Effects of END Interactions?

Are the aspects of News Feed interactions related to information dissemination and exposure – elite-generated content, the motivations for opinion leadership, and the psychological processes structuring consumption of political news – simply the social media analogue to the two-step flow of information? There are many shared elements, including the fundamental structure of the information flow from elites to opinion leaders to the uninterested mass public. Many of our hypotheses about the effects of traditional media should neatly transfer to the social media context. However, as Delli Carpini notes in reference to the Internet more broadly, "We cannot gauge the positive or negative

consequences of the new information environment on citizens' attitudes a actions without first being able to accurately gauge what information (in broad sense of the word) people encounter" (2009, p. 55). Not only is content of "news" qualitatively different on Facebook, but there are seve distinct features of news exposure via the News Feed that create the poten for heightened effects on subsequent political attitudes.

Who Controls the Production and Dissemination of Content, and What Are Their Incentives?

Some emphasize the degree to which social media is a tool for elites to cont the flow of political information and communicate more directly with the m public (Gainous and Wagner 2013),[10] while others argue that social media lowered the cost of news production, empowering a larger and more dive set of actors to help set the agenda. Scholars have noted the uni "bidirectionality" of the medium for communication between elites and mass public (Graber and Holyk 2011; Jacobs and Shapiro 2011; Just 20 Gainous and Wager 2013), and the ways in which the media has increased reliance on public demand for what is considered news. All of these charac izations are likely accurate.

For news producers, the norms and affordances of social media have alte considerations about what kind of content to produce. When we focus media and elite-originated content on the News Feed, we must consider incentives these actors faced when designing it and deciding what to circul The primary goal is to elicit as much engagement (i.e. likes, shares, and cli as possible among the target audience: most often, a group of like-min opinion leaders. This has two effects with the potential for fostering psyc logical polarization: enhancing the role of opinion leaders and creating a for social curation.

Opinion leaders have never had more tools in their arsenal. As mentio previously but worthy of repetition, the average Facebook user can reach 150,000 people through her friends and her friends of friends (Hampton *e* 2012). Harnessing the power of one's social network in a highly visible p form greatly increases the possibility for the politically savvy to inform persuade others. The medium itself is highly conducive for this influe Beyond the ability to reach large numbers of people, opinion leaders have m more compelling and signal-rich information to transmit. Paired with increased power of opinion leaders is the concept of social curation: in mation becomes "newsworthy" when the public endorses it through lik

[10] The conceptualization of social media as a tool of the elites and the media may be facilitat methodological path dependency: the earliest research in the field focused on analyzing the s media content generated by political elites, favoring a top-down model of political inform dissemination on social media. It also may reflect the research design difficulties in meas politically relevant exchanges by ordinary people on Facebook or Twitter.

sharing, or commenting on it. Media sources use this information to get a sense for public demand and interest, and Facebook's algorithm prioritizes the display of these stories, creating reinforcing cycles for the kind of information that gets widely distributed on the News Feed.

This process stands in stark contrast to the editorial curation of the past. Newspapers and news shows required strict professional gatekeeping, and the decisions of editors and producers about what was considered news – and how to present it – inspired the study of agenda-setting, framing, and priming (Just 2011). This gatekeeping role persisted even into the Internet age, as long as the gateway for people seeking news was the website of a preferred news source. This has shifted, however, in the age of social media. Today, many people go directly to social media and access the news from there. The consequence is that the curation of news has moved from professionals in the newsroom to a form of individually customized crowdsourcing based on the people and news organizations a person is connected to on Facebook.

Has the Democratization of News Production Affected the Quality of the News That Circulates?

There are thousands of media sources and organizations that produce content for the Facebook News Feed. An exact census of these sources would be impossible to conduct. Some of the sources built their reputations in traditional domains, such as cable news shows or newspapers, and others have developed for the ecosystem of the Internet and social media specifically.

Media content always has been a reflection of the incentives and structure of the system in which it is produced (Hamilton 2004), systems sensitive to the effects of the confluence of technology, political institutions, and culture in a given era (Starr 2005). While the need for advertising revenue continues to drive much of the strategic decision-making of what gets covered when, the kind of content that "sells" online is categorically different. Media producers long have known that people prefer human interest stories and scandals to meaty journalistic pieces, and in the era of social media, these preferences are amplified by the demand for visually compelling and interactive news. Organizations that circulate content via Facebook keep a close eye on the metrics monitoring their posts in order to optimize user engagement. Likes, shares, and comments are the currency in the marketplace of political ideas on Facebook. The factors that tend to drive engagement, visual imagery and attention-grabbing headlines, are prevalent. Thus, even the highest-quality media sources grapple with the balance between entertainment and journalism.

Moving down the quality hierarchy is one of the most prevalent types of political content: political humor. Political humor is not a modern invention, although the Internet has led to an explosion of it, perfected by the cartoons, memes, and parody videos circulated on social media. To date, there is little academic research on the novel forms of content that have been created for the

Facebook environment, but we can draw on past research about politi
humor. Political theorists have explored the virtue of humor in political c
logue, dating to ancient times (Lombardini 2013), and political cartoons h
been a staple of the way in which Americans communicate about politics si
the printing of the first newspapers. A small literature, rooted in the traditior
the debate over "soft news" (Baum 2003; Prior 2003), has explored the eff
of televised humor, primarily in the form of late-night comedy shows,
political learning (Baumgartner and Morris 2006; Young 2006; Esralew a
Young 2012; LaMarre *et al.* 2014). Most directly applicable is the finding t
humor can make people feel as if they better understand politics because t
"get" the jokes (Baumgartner 2008).

Facebook users report that humorous content circulates widely on the s
and that one of users' primary motivations for disseminating political conter
because they think that it will make their friends laugh. Presumably, laugh
makes people more likely to comment on, like, or share content. In tu
Facebook's algorithm favors content that draws the most user engagem
Since the generators of political content seek to maximize the circulatior
their material, they are motivated to learn by trial and error what kinc
content receives the most feedback. Over time, this has led to the prolifera
of political material designed to be humorous, not necessarily accurate
balanced.

At the bottom of the hierarchy of news quality is "fake news," false in
mation that masquerades as legitimate news. Although this is likely to cha
moving forward, for many years the Facebook interface has not differenti
content that is produced by reputable news sources from content tha
produced by disreputable sources, including single individuals who intent
ally circulate factually incorrect information on social media.[11] Concern
become widespread about the implications of the spread of fake news, e
cially in the aftermath of its prevalence in the 2016 election. A quantita
albeit journalistic, analysis found that the top-performing fake news st
related to the 2016 presidential campaign received more shares, reactions,
comments than the top-performing news stories from reputable publishe
The formal study of the spread of political misinformation on social media
its infancy (del Vicario *et al.* 2016), but the empirical findings uncovere
Brendan Nyhan about the difficulties in correcting misinformation (2
suggest that people may be quite susceptible to biased reasoning after cons
ing it, especially if the narrative of the false news report comports with
prior political beliefs and opinions.

[11] Scott Shane, "From Headline to Photograph, a Fake News Masterpiece." *The New York*
(January 18, 2017).

[12] Craig Silverman, "This Analysis Shows How Viral Fake Election News Stories Outperf
Real News on Facebook." BuzzFeed (November 16, 2016).

How Prevalent Is Inadvertent Exposure to Political Information, with What Consequence?

It is for politically uninterested individuals that changing technologies have had the largest impact on our assessment about the consequences of information exposure. In an era of media choice, many people "opted out" of watching the news, and we were forced to consider how, or even whether, the politically disengaged were exposed to political news. The advent of social media is not the first technological change to challenge the assumption of intentionality of exposure; the rise of cable television and the Internet did, too. Given that the uninterested simply can opt out of exposing themselves to political information (Arceneaux and Johnson 2013), both the "soft news" (Baum 2003; Prior 2003, 2007) and "by-product learning" literatures (Popkin 1991) sought to identify the extent to which people were exposed to political information incidentally and what the consequence of that was for their political knowledge and attitudes.

The News Feed platform combines the "captive audience" feature of the golden era of broadcast news with the entertainment aspects of soft news with the unintentionality of by-product learning. In other words, political information is presented in a social, entertaining format, but people cannot opt out of exposure to hard news on the site easily, because there are not separate "channels" for hard and soft news on the News Feed. Critically, people now encounter their news when they are seeking entertainment and encounter political information when they are seeking social information. This has not gone unnoticed by the producers of political content, and they have responded accordingly, in many cases, trying to make political information as entertaining as possible in order to compete for people's attention.

If we want to understand the effect of truly inadvertent exposure on the News Feed, we should consider what users encounter when they scroll through their feeds, but don't actively engage with content. It remains a pertinent question whether this incidental exposure affects perceptions of issue salience, political interest, and political knowledge if people do not click on the content and other research has endeavored to find out (Feezell 2018). Importantly, END content contains something that older forms of soft media don't have: social endorsement and feedback from people in a user's social network. These facets of the content are not only more prominently displayed than the pertinent details of the actual news, but are visible even if users don't click, suggesting they are potentially influential for the least engaged users (Anspach 2016).

POLITICAL DISCUSSION ASPECTS OF NEWS FEED INTERACTIONS

The political expression and information exposure aspects of News Feed interactions form the basis on which its third dimension, political discussion, is built. Compared to other political behaviors people report on Facebook, relatively

few report engaging in conversations on the site on a regular basis, and as a consequence, most scholars have not studied Facebook interactions through this theoretical lens. But interactions between people are at the core of the site's functionality.

What Does Political Discussion Look Like Offline?

Political discussion has typically been characterized as conversation about politics or public affairs between two or more people who have a social relationship with one another. What do we know about the patterns and consequences of political discussion after decades of study and dozens of publications? Most people don't talk about politics all that frequently. When they do, they tend to talk about politics with people with whom they have close relationships, such as their family and friends (Conover *et al.* 2002). Most people have fairly homogeneous political discussion networks, talking most frequently with those who agree with their presidential candidate choice (Huckfeldt and Sprague 1995; Huckfeldt *et al.* 2004) or share their partisan identity (Huckfeldt and Mendez 2008), but disagreement does persist in discussion networks to varying degrees depending on how it is measured (Huckfeldt and Sprague 1995; Huckfeldt *et al.* 2004; Mutz 2006b). People who engage in political discussion are more likely to be politically engaged in other ways as well. Typically, people who talk about politics more frequently are more informed about politics, and there is some evidence that engaging in political discussion actually can increase political participation (Lake and Huckfeldt 1998). However, the results are mixed as to whether exposure to cross-cutting viewpoints is beneficial or detrimental to downstream political behaviors (McLeod *et al.* 1999; Mutz 2002).

These findings are robust and have been replicated in many different samples in many different settings. However, stemming largely from limitations in our measurement strategies, the scope of inquiry on political discussion has a narrow aperture. While our theories of face-to-face political discussion do not preclude discussions that involve more than two people, in practice, our measurement strategies have typically focused on measuring dyadic discussion between people. The emphasis on two-person conversations between close ties is mostly an artifact of the way in which we can reliably measure political discussion. But this measurement artifact has led to a dearth of theorizing about the kinds of casual political interactions people have face-to-face that may better resemble the discussion aspects of political communication on Facebook.

Measurement constraints on assessing the breadth of a person's "discussion network" often force that network to assume a "starburst" shape, where the respondent is the center of a series of dyadic conversations. We know that this is not necessarily an accurate depiction – that a respondent's discussants may talk with each other, and that a respondent may have a conversation about politics with more than one person at a time – but best practices in survey

assessment have dictated that we only capture the kind of political discussion that we can most precisely and uniformly measure.

While scholars recognize that face-to-face political discussion can occur between people who might not identify each other as "discussion partners," the focus of research has been on people who report talking to each other regularly. There is much evidence that the majority of face-to-face conversation does happen between strong ties. Yet the findings that our political discussion partners overlap considerably with our discussion partners for other important topics may partially be a product of first asking about the people, and then asking about the content. This focus on regular discussants means we know more about conversation between close social ties than conversation between more casual acquaintances.

What Does Discussion Look Like on the News Feed?

Research in social psychology and communication shows that a key motivation driving people to post non-political content on Facebook is to solicit feedback from their social network, in the form of likes, shares, or comments. Similarly, one of the biggest incentives to generate expressive or informative *political* content on the News Feed is to spark a reaction from others. While likes and shares on a post create the social cues and social endorsement features of News Feed content, comments on a post are the foundation for the political discussion aspects of News Feed communication.

Although there are very marked differences between face-to-face conversations and the interactions that appear in comment threads on the News Feed, both capture the same fundamental construct: people exchanging ideas and opinions about politics with the hopes of validating their own political views or informing or persuading others about their opinions. One study found that 20 percent of registered voters had sent messages to other users on a social networking site or Twitter "encouraging them to vote for one of the candidates," and that 31 percent have "encouraged others to take action on political/social issues that are important" to them (Smith 2013). These behaviors move from expression to discussion once one or more users reply.

The results from the END Framework Survey validate the idea that Facebook serves as a forum for influence, persuasion, and discussion of political ideas. When asked why they have posted, shared, or commented on political content, 43.72 percent of the sample said they wanted to inform others about political issues, and 34.14 percent report hoping to persuade others to share their opinions. Other frequent responses included the 30.04 percent of the sample who reported that they generate content to see if other people agree with their opinions and the 27.93 percent who want to correct false information that someone else has posted. Although less frequent, about one-sixth of Facebook users reported that they like to provoke agreeable or disagreeable discussions with other users.

Political discussion appears in several places on the Facebook site. Outside the context of the News Feed, a user can comment on the pages of politicians, candidates, and other public figures as well as the pages of major media sources. These comments become relevant when and if they appear on the News Feed of the users' friends who also like that page. When users generate content, their friends have the option of commenting directly on those posts. There can be multiple conversations within a single thread: users can choose to reply directly to the original post or reply to one of the comments that have already been made. Furthermore, users can tag other users in their posts, which is frequently done in multi-person conversations to address comments directly back to a particular speaker earlier in the thread. Beyond commentary, users can share other forms of content – links to news articles, videos, memes, etc. – directly within these conversation threads.

To the extent that our online social network interactions mirror our "rea world" connections (Jones *et al.* 2013), it is likely that we are interacting mos frequently with strong ties on social media. However, users are connected t hundreds of others on the site and thus are exposed to the discussions that these weak ties have with their own networks. A person who posts a political news article on Facebook with commentary might provoke a conversation thread that is not limited to just the friends of hers who are friends with one another Social media facilitates political interaction for a user's ties even if those people would not ordinarily talk about politics with each other or might not ever know each other. Similarly, conversations that take place in one part of a user' social network, say his friends from high school, are visible to people in a totally separate part of the network, say his work colleagues, if the use contributes to the conversation.

What Distinctions Matter for Our Theorization of the Effects of END Interactions?

Is the political discussion component of the News Feed – the comment thread that form in response to political expression and other forms of politica content – sufficiently conceptually similar to face-to-face conversation that w should expect the patterns from the offline world to apply in the social medi context? Although political discussion is one of the most fundamental and wel studied behaviors in the political behavior literature, scholars have taken fo granted certain implicit assumptions about the concept. Those assumptior have to be revisited in the realm of online communication, and reconcilin previous literature suggests that we should expect online political interaction t have several distinct effects on subsequent political attitudes.

Must People Participate in a Discussion to Be Affected by It?

Sharing an opinion about politics with another person always has opened u the possibility for knowledge of those views to be revealed to others, a

conversations can be overheard by third parties not involved in the discussion. We've all sat through Thanksgiving dinner conversations with an insufferable relative or family friend; while the irascible guest may not make our list of regular political discussants, we are certainly affected by the heated conversation that ensues. It's possible to overhear political comments people make in off-handed ways, while waiting in line at a store or in making small talk with strangers. Acknowledging that this happens more frequently to political scientists, most people have had the experience of a seatmate on the bus, train, or plane making a comment about politics that may make us uncomfortable.

However, all of these examples of fleeting instances of interpersonal political communication in the offline world have been understudied. Measurement challenges have kept us from systematically exploring the effects of exposure to the political exchange of ideas that happen between strangers or weak ties. In our conceptualization of traditional political discussion, the possibility of "overhearing" a political conversation – the ability to listen without needing to contribute to the discussion – is incidental. On Facebook, this aspect is foundational to the behavior itself and is much more common. Opinions are expressed and information is exchanged in full awareness – and frequently with full intention – that the interaction is observed by others, and that others may join in without being explicitly invited to do so. Relatedly, most of the political interactions that constitute discussion on the News Feed involve more than two people. The topics, norms, and conventions of political conversation may vary considerably with the size and composition of the group, a topic that is essentially unexplored in face-to-face conversations. We don't have expectations from prior literature on political discussion about how these differences should affect the kind of content that gets exchanged or the characteristics of the people who contribute to the conversation. But even absent participation in it, exposure to this form of interaction could be influential.

What Is the Mechanism through Which Exposure to Disagreement Affects Subsequent Political Attitudes and Behavior?

The definition of "political disagreement" is integrally important to our measurement of how frequently it occurs and what the consequences of exposure to it are. The literature on disagreement in face-to-face discussion networks reveals that the extent of exposure to cross-cutting ties depends in large part on what defines cross-cutting exposure in the first place: disagreement in party affiliation, disagreement in presidential vote choice, or simply self-reported disagreement (Klofstad *et al.* 2013). Most of our theoretical expectations about the effects of this disagreement stem from exposure to points of views with which one does not agree, whether that causes ambivalence and therefore disengagement from the political sphere (Mutz 2002) or encourages them to reconsider their justification for their views (Huckfeldt *et al.* 2004).

If we think the operative mechanism is exposure to points of view that are different than our own, then a person does not necessarily need to

participate in the conversation to be affected by encountering those perspec tives. To understand the effects of exposure to information with which w disagree on the News Feed, we should focus on the distribution of opinior within a person's network. Because the context of social media opens up th possibility of engagement between weak ties in a way not feasible in face-to-fac interactions, and we are more likely to disagree with our weak ties, we shoul expect that people encounter a higher volume of cross-cutting information tha they would in their face-to-face discussions. Additionally, information abou the distribution of opinions in a person's Facebook network should be mo visible to them than is the distribution of opinions in their offline network. A we saw in the previous chapter, the affordances of Facebook are designed t help make transparent what is popular and "trending" among one's networl Therefore, not only is there more cross-cutting information available to a us on Facebook, but they are better able to characterize the distribution of thos opinions.

There is a slightly different literature that addresses the consequence encountering disagreement, suggesting that some individuals, based on the conflict avoidance (Ulbig and Funk 1999) or their introversion (Mondak 201 Mondak *et al.* 2010; Hibbing *et al.* 2011; Gerber *et al.* 2012), may ha aversive reactions to encountering people who behave in conflictual ways. exposure to conflict and incivility is a mechanism that we think affects dow stream political attitudes and behaviors, then the differential norms and co versational flows of discussion on the News Feed also should matter (Gerva 2015). Data from Pew released in advance of the 2016 presidential electic suggest that political interactions on Facebook can be quite contentious ar disagreeable. Compared to other forums in which people might discuss politic 53 percent of users found social media discussions to be less respectful, 51 perce said they are less likely to come to resolution, and 49 percent said they are le civil (Duggan and Smith 2016).

Is Political Discussion on Facebook Deliberative?

If Facebook users were exposed to high levels of contention and disagreemer but those conversations were of a high enough quality to be considered deli erative, our expectations of the consequences of participating or observi END interactions could be optimistic. A deliberative public forum on Facebo would be one in which citizens were able to engage their disagreement in a w that facilitated or prepared them for collective decision-making (Fishkin a Luskin 2005; Thompson 2008). Facebook interactions also would be co sidered deliberative if citizens take part in a process that creates or reinforc the legitimacy of collective decisions (Thompson 2008). Deliberative foru typically are characterized by public-spiritedness, respectful reasoning, acco modation, and equal participation (Thompson 2008). Successful deliberatior thought to rely upon accurate information, civility, and reflection (Mutz 200 If successful deliberation were to occur, theorists suggest a plethora of positi

outcomes: increased political tolerance, perceptions of the legitimacy of the opposition's viewpoints, and willingness to compromise, to name a few (Mutz 2008).

What we typically define as "political discussion" does not meet the qualifications for democratic deliberation as articulated by political theorists (Delli Carpini *et al.* 2004). Similarly, END interactions are not deliberative for a number of reasons. First, as we will see in Chapter 5, not all citizens are equally likely to contribute to the conversation; the most partisan and ideologically extreme are the most vocal. Second, the expression of political views via the News Feed is more truncated than it would be in face-to-face communication, perhaps due to the increased cognitive task of writing as opposed to speaking. Short expressions of opinion are likely less nuanced than more elaborated explanations, making it difficult to be reflective, let alone identify points of consensus and overlap. Third, the prerequisites for respectful deliberation are rarely met based on the way in which people actually generate political content. Political discussion on social media is ironically less social at its moment of generation; despite the public nature of the interaction, people primarily interact with these sites in geographic and temporal isolation from other users of the site. One of the fundamental problems studied in the field of human-computer interaction is that this depersonalization of communication can adversely affect its quality. There are fewer moderating norms in the social media environment that act to keep interactions civil.

Social media users themselves report outcomes suggesting that their interactions are not deliberative. In addition to the statistics cited above about the quality of Facebook interactions, Pew's report found that 59 percent of social media users find disagreeable political interactions to be stressful and frustrating, and 64 percent find that they have less in common politically than they thought they did (Duggan and Smith 2016). These outcomes are the exact opposite of what should occur if END interactions served as deliberative forums where social media users were able to identify points of consensus and respectful understanding.

CONCEPTUALIZING END INTERACTIONS

Generating and consuming politically informative content on social media are behaviors that share conceptual overlap with the offline behaviors of political expression, news exposure, and discussion and can speak to many of the core debates in the scholarly literature. But the elaboration above reveals that a straightforward application of previous theory is more complex than it may initially appear.

Previous political science research typically has isolated one facet of a behavior on social media and studied it within the framework of the behavior it most resembles offline. Yes, status updates are a form of political expression that should be responsive to the level of competition in the political

environment (Settle *et al.* 2016). Yes, the stories that appear on the News Fee do have agenda-setting potential on what issues people consider to be impor ant (Feezell 2018). Yes, clicking on a story in the News Feed can be a measu of selective exposure, and we should care about when that behavior happe and what the effects are on learning and persuasion (Messing and Westwoc 2014; Anspach 2018).

Yet focusing only on those facets of behavior that have the clearest an logues to more traditional political behaviors, without respect to the broad context in which the behaviors occur, means we may overlook factors th could be consequential about the use of social media, but that don't fit neat into our previous typologies. The most novel parts of social media behavio are those for which there is no clear equivalent offline behavior – such as tl quantification of social feedback on our political expression – or those whe there is, but the rate of incidence varies markedly between social media ar face-to-face interactions – such as the opportunity to be a "fly on the wall" ar overhear the political conversations of those people with whom we disagree.

Conceptualizing the END Framework of communication – and its constit ent interactions – is an attempt to highlight these potentially consequential ar novel facets of social media behavior in order to derive theoretically inform expectations about their consequence on our downstream political attitud and behavior. END interactions are thus those behaviors in which a pers generates or consumes politically informative content in an interactive conte where social and political communication is intermixed, and where the inte actions are made visible and quantifiable to become part of the informati environment itself. In this book, the focus will be on these interactions in tl Facebook News Feed ecosystem, but the argument about the consequences END interactions should apply to any platform that supports this kind interpersonal interaction.

The Hallmarks of END Interaction

Synthesizing the distinctions between END interactions and their offli cousins reveals three key factors important for understanding the consequenc of these behaviors as they appear on the News Feed. These ideas are preview here and elaborated on in the next chapter, where I analyze why these chang facilitate the processes underpinning psychological polarization.

The Context of END Interactions Is Social Communication and Inference

Facebook is a social site: people communicate with one another for soc reasons and scroll through their News Feeds to learn about the social lives their acquaintances, friends, and family. Most users thus encounter politica informative content as an unintentional by-product of their broader search f social information about their contacts. They do not intend to beco

informed about the news of the day necessarily; rather, they are seeking information about other people's lives. Users are thus primed to make social inferences and to connect the information they encounter to the person who posted it.

Increasingly, many users do rely on the site to seek out or disseminate political news. For those who seek news, their choice of Facebook rather than another news-aggregating site or the web page of a news source is telling: they intentionally choose the social curation of news infused with social cues. Other people desire to use the Facebook site to share political information with their contacts. This form of engagement with political content also is highly intentional. It is important to remember that they are choosing the platform of social media over other ways in which they could disseminate political information. When these users communicate about politics, their motivations extend beyond the traditional goals of informing and persuading others. Many of them desire to make visible their political identities and communicate with like-minded others. If people engage with others to socially validate their own or their friends' viewpoints, political content is a special category of social information and we should derive expectations accordingly.

The Content of END Interactions Can Be Subtly Politicized or Unmistakably Polarizing

On the one hand, as we will see in Chapter 5, a wide variety of content has the potential to be politically informative. This may take the form of *politicized issues*, content that reveals disagreements between Democrats and Republicans that have nothing to do with policy. This content also can be *politically sorted*, such as non-political attitudes or behaviors that are strongly correlated with political views. A user who posts this implicitly political content may or may not intend to "be political," and may not even realize the potential of their content to signal something about their political views. While this kind of content may be more prevalent on the News Feed than explicit content, the political signal it sends may be weak or noisy.

Simultaneously, the creators of explicitly political content are driven by motivations that result in signal-rich and highly polarizing content. The incentives facing content producers on social media are different from those traditionally facing news producers, and the need to chase user engagement has resulted in content that is optimized to catch users' attention. In the domain of political content, this results in political "clickbait" news stories or short, potentially inflammatory statements about political views that are not conducive to the communication of nuance or moderation.

The Constitution of END Interactions Disproportionately Involves Our Weak Ties

Users on social media have hundreds of connections, and the meaning of the connection varies from site to site. Even on a site such as Facebook where we

primarily interact with people we actually know, we are connected to doze hundreds of individuals that we don't know particularly well. Political scie consistently have found that our weaker ties are more likely to disagree w politically (Mutz 2002; Huckfeldt *et al.* 2004), and we are therefore conn to a larger number of people on Facebook with whom we potentially dis than we likely encounter in our face-to-face interactions with people. Face users do in fact report that the political content they encounter includes a n beliefs, not just viewpoints similar to their own (Duggan and Smith 2016

Consuming politically informative content facilitates an unpreced degree of knowledge about the political views of social contacts for who topic might never come up in our offline interactions. We also have the c to observe interactions between people who agree with each other, but views are different than our own, something that is quite rare in face-t interactions. What's more is that these encounters are quantified, m more visible information about the patterns of political similarity and di larity within people's social networks and those of the people with whon disagree. Our weak ties – and the friends of our weak ties – occupy a theoretically important place in our conceptualizations of who our po opponents are and what they believe.

Measuring END Interaction

The studies in this book will take a variety of approaches to elucida processes that result from these hallmark characteristics of END interac Some of the studies are designed as a "proof of concept" to test as to w there *are* effects of consuming or generating politically informative co Given the dearth of research on the psychological processes of engagin this kind of content, one main goal is to demonstrate what types of evalu could occur.

However, as elaborated on in the next chapter, the book's central arg is that high rates of engagement with END content should lead to highe of psychological polarization. The key then is to accurately and r measure variation between individuals on the extent to which they co and generate politically informative content. The difficulty is that we people cannot always remember or precisely report on the behaviors th mundane or habitual parts of their day-to-day lives. How many times d yawn yesterday? Check your email inbox? Take a sip of water? Coul generalize those behaviors in a survey question that asked you about a ical" week or month? Accurate and reliable self-reports become even difficult when we try to measure something subtle. For example, how have you seen a person wear an article of clothing or jewelry that si their religious or political views? For behaviors that are fleeting or pass our conscious awareness, people may not be able to precisely repor experiences.

While there have been best-practice approaches developed to measure these kinds of behaviors (Juster *et al.* 2003; Csikszentmihalyi and Larson 2014), they are not all suitable for inclusion in the experimental and survey studies used in this book, and I have adjusted accordingly.[13] As I describe below, the measurements are not without flaw and are rather blunt for capturing the dynamic of END interactions. But they are a start. Although the methodological approach varies in each study where the relationship with some facet of psychological polarization is tested, the measurement of END interactions stays largely consistent.

Active Engagement with Political Content

Political scientists have focused much of their attention on active engagement, assessing the extent to which people have clicked on the political content on social media or posted political content themselves. There are more templates for measurement available in this domain.

The emphasis on measurement for active engagement is the frequency with which someone generates political content and the breadth of content with which they engaged. The first construct is measured using a modified version of question that the Pew Internet and American Life Project has used in its previous studies: "Think about all the content you interact with on Facebook when you post material yourself, or share, like, or comment on material posted by others. Of all that content, how much of the content that you interact with do you consider to be political?" Users are given six response options ranging from "none" to "all."

On the END Framework Survey, I included a second measurement approach designed to assess more fully the range of different types of political content with which a user might engage. Building on the various types of content assessed by Pew in its studies, users answered a grid-style question to assess whether they had posted, shared, liked, or commented on each of eleven different types of content in the previous six months.

To assess active consumption of political content, I also used two approaches. The first focuses on the information that users seek out, designed to get a continuous measure of the frequency with which a person uses the Facebook site for news-gathering purposes. The question reads, "Think about all the times you access Facebook on your mobile device or computer and scroll through your News Feed. What percent of those times do you scroll through the News Feed looking specifically for political news and information?" Subjects were provided a sliding scale from 0 to 100. The second mirrors the breadth measure for content generation: users were asked how frequently they had clicked on the same eleven types of content, ranging from "rarely/never" to "almost always."

[13] The lack of standardized questions that have been widely used to measure END interactions means that many of these measures are new. But when available, measurement strategies from previous work have been adopted.

As we will see in Chapter 5, these active behaviors are driven largely by t factors that drive other political behaviors: political interest and partisansh strength. While these behaviors will be assessed in relation to measures psychological polarization, the people most likely to actively engage w content are those most likely to be polarized at the outset. Most of the attenti in the book will be on those users who do *not* regularly actively gener political content.

Inadvertent Consumption of Political Content

One of the most prevalent themes in this chapter highlighted the extent which interaction with politically informative content on the News Feed occ unintentionally and as a by-product of engagement with other types of conte It is therefore important to assess the extent to which users are exposed, not j their active choice to engage with it.

Pew has previously asked a question that pertains to content exposu focusing on what proportion of the content posted by a user's friends is ab politics. The problem with this question is that it assesses volume, not f quency. A user who sees a handful of political posts every time she scrolls News Feed will likely report that she doesn't see much political content. But t measure does not assess the regularity of dosage. If this regularity matters much as the overall volume, then Pew's measure will underestimate the ext to which an individual is exposed.

Instead, in the studies in this book, exposure is measured with a quest parallel to that for the active seeking measure: "Think about all the times y access Facebook on your mobile device or computer and scroll through y News Feed. What percent of those times have you seen political news a information, even when you weren't seeking it out?"

On the END Framework Survey, I also assessed the breadth and freque of what users report that they had encountered on the site. Users were asl how frequently they had seen the same eleven types of content noted abo ranging from "rarely/never" to "almost always." As we will see in Chapte to a certain extent, politics is in the eye of the beholder. Some people are sim more inclined to identify more types of content as political; the broade person's definition of what counts as "political" content, the more freque they will report that they encounter it. However, controlling for the factors t may contribute to this breadth of definition – namely, political sophisticatio will allow us to isolate the effect of frequency of exposure from the breadth person's definition.

Facebook Usage Frequency and News Feed Scrolling

Above all else, the depiction of interaction on Facebook in this and the previ chapter indicates the extent to which END interactions are a regular, integra component of many people's daily lives. Thus, the most comprehensive meas is to capture the frequency with which someone uses the Facebook site and t

their potential for exposure to the full array of politically informative content that circulates on their feed. A self-report measure of exposure to implicitly political content would likely be very unreliable. The next best thing is to capture their overall level of exposure to the content that circulates on Facebook.

As shown in Table 2.1, subjects were first asked, "How frequently do you spend time on Facebook?" and given a seven-point response set ranging from "a few times a year" to "every day, too many times to count." Users who indicated that they used the site "most days" or more frequently were then asked, "On a typical day when you use Facebook, how many times a day do you scroll through your News Feed, either on a mobile device (like a phone or tablet) or a computer?" with a four-point response set ranging from "I don't scroll through my News Feed" to "five or more times a day." The two measures are highly correlated with one another, but using both helps differentiate high-intensity users. Given that the vast majority of the nationally representative sample reported using the site at least once a day, it is important to capture "dosage intensity" at the high end of the scale.

Establishing a relationship between site usage frequency and psychological polarization is the hardest test, but also the most consequential. This test is the most stringent because frequent Facebook usage is not a behavior into which the politically engaged disproportionately select, nor is its measurement subject to a person's determination of what is considered "political" content – two factors that could affect the conclusions we draw about an observed relationship between psychological polarization and active or inadvertent exposure to political content. Therefore, detecting a relationship between usage frequency and polarization suggests a far-reaching effect of exposure to Facebook, one to which many users are susceptible on a regular basis. A correlation between these measures in the END Framework Survey cannot pinpoint precisely which facet of regular usage could be driving a relationship with psychological polarization, but I rely on the inference and experimental studies to unpack the processes that occur.

CONCLUSION

The growth of social media extends many of the scholarly debates about the political behaviors of expression, news exposure, and discussion. Yet the unique features of the interactions in this domain suggest that we should ask different types of questions about the consequences of this behavior. The END Framework of political interaction on social media shifts our focus beyond traditional dependent variables such as political knowledge, attitude extremity, or voter turnout. Consideration of the hallmark differences of political behavior on the News Feed implies that we should also look at the way in which Americans evaluate each other.

The goal of this book is to analyze the effect of engaging with politici social information or socially infused political information within the rich c study of the Facebook News Feed. Framing these interactions through th social motivations and gratifications implies turning toward research in soc psychology to understand the consequences of inter- and intragroup commu cation and affiliation. What the literature in that area reveals is that psychological processes underpinning these interactions are especially con cive to facilitating negative judgment and affective polarization.

4

How Do END Interactions on the News Feed Psychologically Polarize Users?

The evidence is irrefutable about the extent to which political elites have become more extreme in their policy preferences and the extent to which the media environment has fragmented to cater to niche audiences with different ideological preferences. The evidence is more mixed with regard to how polarized the American public has become in its policy views. While most scholars believe that the public has better sorted its ideology and partisanship, there is more disagreement about whether people actually hold more extreme viewpoints or just behave as if they do. The preponderance of evidence suggests some real change, but there remain signs that the public may simply be responding to the choices put forward to them.

Polarization on actual policy preferences is only part of the story. Increasing attention has been channeled toward a change in our affective attitudes and perceptions of our opponents. Iyengar, Sood, and Lelkes (2012) identify this as *affective polarization*, or partisans' increasingly negative feelings and negative trait attribution toward identifiers of the opposing party. Other work characterizes this phenomenon as *social polarization* (Mason 2018), *in-party favoritism* (Iyengar and Westwood 2015), or even *partisan hostility* (Miller and Conover 2015). Conceptually distinct, but related, is the concept of *false polarization* (Levendusky and Malhotra 2016a), alternatively called *perceptual polarization* (Lelkes 2016), where people perceive greater policy or social distinctions between the parties than exist in reality. I group all of these concepts together under the label *psychological polarization*, a term that captures the extent to which Americans think that they are polarized and harbor negative evaluations of the people with whom they disagree.

The early evidence of psychological polarization focused on Americans' increasingly negative views of the symbols in the political system representing the out-group: the political parties, candidates, and politicians themselves. But more disturbing are recent findings about Americans' attitudes toward each

other. Partisans discriminate against out-partisans for scholarships (Iyeng and Westwood 2015) and job interviews (Gift and Gift 2015). Americans c not want their children to marry people who identify with a different par (Iyengar *et al.* 2012), nor do they want to live in neighborhoods with partisa (Klar and Krupnikov 2016), especially out-partisans (Pew Research Cent 2014a). Partisans evaluate people as being less attractive if they support dissimilar candidate (Nicholson *et al.* 2016).

How have Americans formed such strong attitudes about individuals wh happen to have different political preferences? As the findings above demo strate, people have *transferred* their antipathy from abstractions of the ou group (e.g. "parties") toward their fellow citizens (e.g. "my crazy neighbor' Regardless of whether Americans actually hold more extreme poli preferences, they have responded to a polarized political climate by adoptin stronger negative attitudes about each other.

The consequence of END interactions could be an important part of th story about why, and in this chapter we'll explore how engaging with th politically informative content found on the News Feed facilitates the process underpinning psychological polarization. The argument is built on an asses ment of the key differentiating features of END communication. In conjuncti with one another in the ecosystem of the News Feed, these features provide a optimal environment for the mechanisms we know lead to pejorative judgmen of and social distancing from our political out-group: the activation of soci identity, interaction in largely homogeneous social networks, and exposure polarizing and inflammatory political content.

First, using Facebook strengthens people's recognition of political identit The users generating END content are the most partisan and likely ha polarized attitudes at the outset; their motivation to express their identiti while informing and persuading other people in their networks only serves reinforce these already strong identities. The people who consume END conte are also influenced, albeit in a different way. Exposure to politically informati content on Facebook provides concrete information about the political vie points of a person's weakest social connections and documentation about th symbolic social differences between the left and the right in America. It allov users to make connections between political views and social identities, provi ing information that crystallizes the differences between people who share the views and those who do not.

Second, encountering END communication biases upwards the amount perceived difference between the parties and the amount of support for one own political views. When a user posts content and receives social feedback on this further cements in-group identity and pride. But the user who posted th content is not the only person affected by this social feedback. In the aggregate, provides a window into the distribution of viewpoints among a person's soci contacts. This explicit quantification of the amount of support for particul political opinions facilitates the process of the false consensus bias, where peop

come to believe that their opinion is shared by a majority of others. Furthermore, exposure to END communication facilitates susceptibility to the out-group homogeneity and extremity effects, which biases users to think that out-partisans are more similar to one another and more extreme in their viewpoints.

Finally, END communication fosters instance-based stereotype formation in which people overgeneralize from the characteristics of an individual to a group as a whole. People are exposed to fewer members of the out-group, so those they are exposed to carry disproportionate weight in their evaluations. Simultaneously, Facebook facilitates abstraction-based stereotyping. The process of motivated social consumption of polarizing content encourages people to apply their affective evaluations of the parties and politicians in the abstract to the weak ties in their networks who are members of the out-party. As a way to entrench these negative evaluations, the affordances of the site allow users to socially distance themselves from the people with whom they disagree.

I begin by reviewing the affective origins of American political identities, the social divisions that are known to map onto political identities, the prevalence of psychological polarization, and the structural forces and social psychological explanations that have encouraged its development. I then elaborate on the mechanisms linking END communication and psychological polarization, establishing the expectations and hypotheses that will be tested in the chapters to come.

THE ETIOLOGY OF PSYCHOLOGICAL POLARIZATION

Americans didn't just wake up one morning and decide to loathe their political opponents. The rise of psychological polarization can be attributed to a cascading series of interconnected factors, initiated by structural realignment of political elites in the middle of the twentieth century. This was furthered by strategic decisions of politicians and political operatives at all levels of government and compounded by a media environment that found it profitable to highlight the differences between the parties instead of emphasizing the consensus between them.

"Us" and "Them"

A cultural anthropologist investigating Americans' attitudes about their fellow citizens in the opening years of the twenty-first century would find a nation relying on a series of competing narratives to justify their strong opinions about the political group with which they do not identify. Liberal Democrats would tell her that conservative Republicans are either white, gun-toting, unemployed bigots or elitist, greedy members of the 1 percent, groups who both voted a presidential candidate motivated by xenophobia and misogyny into the highest office of the land. Conservative Republicans would counter that liberal Democrats are out-of-touch, urban snobs, overly sensitive to the least hint of political incorrectness, and willing to run up the national debt to provide government

benefits to undeserving people. Each group reports full awareness of the stereo types the other side holds, although they categorically reject the depiction the opponents have drawn and insist that the vision their side has for America be comports with the values on which the country was founded.

Unsurprisingly, upon systematic investigation of available data to test th veracity of these caricatures, our fictional cultural anthropologist would dis cover some trends in demographic, social, and geographic factors differentia ing the two groups. However, she would likely conclude that while there wer members of each group that fit the other side's stereotype, the vast majority di not. How did we reach such a pervasive characterization of who "they" ar compared to who "we" are?

Southern Realignment, Sorting, and Deeply Seated Differences

Beginning during the 1970s, elites sorted their ideology and partisanshi leading to the consolidation of conservatives in the Republican Party an liberals in the Democratic Party (Bond and Fleisher 2000; Hetheringto 2001; Poole and Rosenthal 2001; Stonecash *et al.* 2003; Jacobson 200 McCarty *et al.* 2006). As a consequence, partisans, and perhaps even broade swaths of the population than the "engaged public," have aligned their partisa identification, ideology, and issue preferences (Jacobson 2006; Abramowit and Saunders 2008; Bafumi and Shapiro 2009; Abramowitz 2010; Garne and Palmer 2011), in part based on cues provided by elites (Levendusky 2010

Partisan sorting concentrated liberals in the Democratic Party and conserva tives in the Republican Party, based on their shared attitude toward the role o government and policy preferences. But ideological sorting may have resulted i sorting on more deeply seated traits such as philosophical outlook, threat per ception, and personality. Political ideology also can be thought of as a reflectio of broader psychological dispositions. Thus, sorting created the possibility tha the parties now comprise people with different underlying orientations an world views. Ideological differences may reflect different emphases on the mora foundations people use to determine "right" and "wrong" (Graham, Haidt, an Nosek 2009). It can also be thought of as motivated social cognition (Jost *et a* 2003): political conservatism stresses resistance to change and justifications fo inequality that manage uncertainty and threat (Jost *et al.* 2009). The parties may in fact, have sorted based on attitudes related to authoritarianism (Hetherington and Weiler 2009), which could be related to the fact that liberals are thought t score more highly on openness (McCrae 1996; Jost *et al.* 2003; Mondak an Halperin 2008; Gerber *et al.* 2010; Mondak *et al.* 2010), while conservatives ar thought to score more highly on conscientiousness (Jost 2006; Carney *et a* 2008; Gerber *et al.* 2010).[1]

[1] These differences may be self-reinforcing. Ludeke and Deyoung (2014) find that "people wit differing views on social and political issues may not be as different in personality as previousl thought" (p. 132), but that in self-reports, people tend to over-report the traits they deem to b

Layered on top of partisan sorting is the process of "social sorting," a concept coined by Mason (2018) demonstrating the political consequences of having multiple, reinforcing social identities that align with one's political identity. As the parties have become increasingly socially homogeneous on religious, racial, and ideological divides, there are fewer citizens with cross-cutting identities. Mason labels the result as "mega-parties," where each party has come to represent not only a set of policy preferences, but also a set of people aligned on one side of a variety of social cleavages.

Certain patterns of social and demographic difference between the parties are empirical fact. Younger people, minorities, and unmarried women are more likely to support Democratic candidates. Religious Americans, most particularly evangelical Christians, and people living in rural areas are more likely to vote for the Republicans. The sorting among Americans on a variety of educational, occupational, and regional lines has increased in the past forty years (Mason 2018). But we know very little about whether the sorting extends beyond frequently measured ascriptive or demographic characteristics.

The speculation that partisan sorting has led to observable differences in social behaviors between the parties is circumstantial, supported by piecemeal evidence in a variety of domains. Innate differences between liberals and conservatives supposedly manifest in a variety of ways in day-to-day life, such as dating preferences (Klofstad *et al.* 2012), art preferences (Wilson *et al.* 1973), and even preferences over things such as food (Epstein 2014), product brands (Khan *et al.* 2013), and bedroom décor (Carney *et al.* 2008). Market researchers have discovered differences between members of each political party on their preferred television shows and books (Carter 2012; Facebook Data Science Blog 2014; Katz 2016; Shi *et al.* 2017). There is even evidence that liberals and conservatives use different practices and phonemes when selecting names for their children (Oliver *et al.* 2016).

Red and Blue: Media Depictions of Difference

The pattern between the types of people who identify as Republicans compared to the types of people who identify as Democrats, labeled by political scientists as "sorting," has been dubbed a "culture war" by journalists and pundits (Hunter 1991; Bishop 2008).[2] Political scientists have largely

desirable. To the extent that there are differences in which traits people with underlying differences in socio-political attitudes (such as right-wing authoritarianism and social dominance orientation) deem to be desirable, they may provide self-reports that exaggerate their adherence to those traits.

[2] Similar to the idea of the "culture war," some argue that geographic sorting also is a factor driving Americans apart. But dividing the country into "blue" and "red" states is a gross oversimplification of any geographic polarization that corresponds to political sorting. While dismissing the notion of "red" and "blue," Andrew Gelman's findings reveal nuanced interactions between geography and income at the individual and aggregate level that help explain the perception of the "red vs. blue" divide. Others have also sought to unpack the geographic divides

discredited the notion of a culture war as a driving force for the polarization o
political opinions, but some reincarnation of the metaphor appears at eve
election cycle as commentators attempt to understand the social forces contril
uting to political beliefs.

The narrative changes over time, and rarely is there agreement in any give
election about the exact terms or state of the "war."[3] While pundits an
journalists seek to describe the patterns of difference between American
campaigns have been exploiting them actively in an effort to identify and targ
potential voters for persuasion and get-out-the-vote efforts. The popular med
has fixated on the predictive power of matching consumer and political data t
understand pockets of voter identities. The media's coverage of campaig
outreach to voters often gets reduced to discussions of "Soccer Moms" an
"NASCAR Dads," the "wired workers" and the "Joe Six Packs."[4] These labe
serve to link social, economic, and political characteristics into overly simplifie
caricatures. The culture war narrative and the popularization of socio-politic
consumer patterns highlight differences between our political groups. Howeve
these differences are only impactful if coverage of these techniques have cry
tallized perceptions in people's minds about how Democrats and Republica
differ on non-political behavior. And it turns out that people not only recogni
the existence of differences between partisan groups, but that they overestima
those differences.

Perceived Differences

Setting aside the debate about whether or not partisans actually do hold stark
divergent policy preferences, Americans now *perceive* large differences betwe
the political parties. Lelkes (2016) calls this *perceptual polarization* and Leve
dusky and Malhotra (2016a) label it as *perceived polarization*, borrowing fro
social psychologists' study of the phenomena more broadly.

in more disaggregated ways. The Patchwork Nation project uses Census and survey data
identify types of communities at the county level across the country, arguing that the local cult
and economy in sub-state geographic units matter for understanding Americans' political pref
ences.

[3] In 2008, we were told that evangelicals need to call it off and liberals need to stop pronouncing
over (Berlet and Clarkson 2008), but that we may never be able to escape it (The Econom
2008). In 2012, we were told that the "culture war" returned in 2012 (Younge 2012), but th
Republicans have lost it (Bennett 2012). In 2016, we were told simultaneously that "the cult
wars are alive and well in America, and in this year's campaigns" (Milligan 2016) and that "
decades-long 'culture war' between religious conservatives and secular liberals is largely ove
(Lind 2016).

[4] While journalists often note the oversimplification in which they engage when they character
campaigning in this way, they do it anyway. From the 2004 election: "From NASCAR Dad
Soccer Mom, Campaigns Drawn to Political Labels" (Armas 2004). From the 2008 electio
"One-Armed Vegetarian Live-In Boyfriends: The Quest for This Year's Sexy Swing Dem
graphic" (Beam 2008). From the 2016 election: "Forget Soccer Moms and NASCAR Dads,
2016 It's about ALICE" (Cherny 2013) and "The Soccer Moms of 2016" (Samuelsohn 2016

Americans perceive that there are more differences between the parties than they have perceived in the past (Hetherington 2001; Prior 2013; Westfall *et al.* 2015), consistent with cross-national evidence that individuals in more polarized systems recognize political parties as being more polarized (Lupu 2015). In fact, they perceive that there are greater differences – in both policy preferences and group composition – than there actually are. In a nationally representative sample, Levendusky and Malhotra (2016a) find that the mass parties are perceived to be about 20 percent farther apart on the average of a broad set of issues than they are in reality. People perceive both their co-partisans to be more extreme than they actually are, but opposing partisans even more so.

The vast majority of work to date focuses on politically relevant differences, not the multitude of social differences outlined in the preceding section. But, beyond overestimating the policy differences between the parties, Americans also overestimate the share of party-stereotypical groups comprising the parties. For example, most African Americans do identify as Democrats. However, people overestimate the percentage of all Democrats who are African American. When asked to estimate the percentage of Democrats who are black, respondents estimated that closer to 40 percent of Democrats were, when in reality, only 23.9 percent are. On average, respondents overestimated the size of these groups by 342 percent. For six of eight group-party linkages,[5] more than 70 percent of respondents overestimated (Ahler and Sood 2018). This bias affects estimation of group-party linkages for both the in-party and out-party, but out-party overestimation was much larger. In the only work to date examining whether people also perceive purely social differences, there is suggestive evidence that Americans can recognize partisan differences in preferences that have nothing to do with politics – for Internet browsers, restaurants, and art, for example (Hetherington and Weiler 2018).

From Political Identities to Affective Evaluations

The characterization above is built on the notion that partisanship is a meaningful and salient identity. Political scientists have long known that attitudes about politics are in some way connected to how people evaluate others in the political system. Our interpretation of partisan identification moved toward more instrumental explanations in the 1970s and 1980s, perhaps reflecting real shifts in society in response to the dealignment of the political parties in the preceding decades. But our contemporary theories about the origins and function of partisanship now reflect a consensus about the importance of its social identity component.

[5] The linkages explored for the Democratic Party were "black," "union member," "gay, lesbian, and bisexual," and "atheist/agnostic." The linkage explored for the Republican Party were "earn over $250,000," "evangelical," "southerner," and "age 65+."

Partisan and Ideological Identities

Both of the seminal works in American political behavior incorporate the ide that people arrive at their primary political identification – partisanship through social evaluations. Berelson *et al.* (1954) adopt a sociologica approach, finding that a person's primary group identities structure how h identifies in the political realm, while Campbell *et al.* (1960) focus on the socia psychological foundations of partisan identification. But each notion funda mentally revolves around the idea that people adopt political identities with a eye both toward "people like me" and "people not like me," leading to relatively stable and long-term psychological attachment to a party (Gree *et al.* 2002).

The interpretation of ideological identification is somewhat more comple although increasingly it, too, is seen as a social identity (Devine 2015; Maso 2018). Most Americans do not have coherent policy-based foundations fo their self-reported ideology (Converse 1964). Americans prefer to call them selves "conservative" even when that label does not match the content of the policy preferences. This has been called the "symbolic-operational paradox (Ellis and Stimson 2012). Self-identified political ideology may be a result o people's evaluation of symbolic reference points in the political environmen (Conover and Feldman 1981; Zschirnt 2011) leading to an ideological sel conception that is rooted in identity, not in policy preferences.

Affective Evaluations and Partisanship Stereotyping

Perhaps it is not surprising that Americans have developed stronger affectiv orientations toward symbolic representations of their political in- and ou groups. Our ideological, partisan, and social identities have come to overla each other in ways they did not in the middle of the twentieth century Americans believe that we are more polarized than we actually are. And a this has happened in the context and as a result of a fractious political lanc scape and a fractured media landscape.

People feel more attached to their political party than they have in the pa (Abramowitz 2010). Fewer individuals are indifferent about politics than the were thirty years ago and a larger proportion of the public is "opinionated about the parties, able to provide at least one positive or negative statemen about the political parties when given the opportunity to do so (Thornto 2013). The clearest empirical demonstration of this derives from trends in th American National Election Study (ANES) feeling thermometer data over tim While positive feelings toward one's own party have stayed consistently hig feelings toward the opposition party have become considerably more negativ in the last thirty years (Iyengar *et al.* 2012). In 2012, almost half of partisar reported being afraid and almost two-thirds reported being angry at the pres dential candidate of the opposition party (Kimball *et al.* 2014). People wit both the strongest partisan identities and the most aligned political identiti demonstrate the most bias and anger toward the out-group (Mason 2015), bu

this process has affected a broad swath of the population. Miller and Conover (2015) find that 76.97 percent of the sample in their study agree with the statement that the opposition party is "destroying American democracy."

In addition to increased animosity and negative emotion aimed at the political out-party, Americans are more likely to perceive the other party's candidate as being extreme, but not their own (Hetherington *et al.* 2016). The perception that the parties have polarized may actually further drive the sorting process, especially for the most politically interested, thus providing a feedback-loop element between the perceptions and reality of the differences between partisan groups (Davis and Dunaway 2016). The greater the perceived difference between the parties, the stronger the attachment that people feel to their in-group (Turner 1999; Hogg *et al.* 2004; Lupu 2013, 2015) and the greater the negative affect toward the out-party (Ahler and Sood 2018; Rogowski and Sutherland 2016).

Most of the measures of affective polarization focus on attitudes toward the abstract notion of the political out-group, namely the "Republican Party" or "Democratic Party," or feelings toward the symbolic face of those groups, the presidential candidates. However, it appears that many Americans have transferred these affectively charged opinions to their fellow citizens and have become more negative about each other.

Shanto Iyengar and colleagues have led the way in exploring this notion. In addition to exploring the drop in feeling thermometer ratings for the out-party over the last several decades, they find that approximately 50 percent of Republicans and 30 percent of Democrats report that they would be "upset, displeased, or unhappy if their progeny married someone from another party" (Iyengar *et al.* 2012). Miller and Conover (2015) find that fewer than 15 percent of their sample views the out-party – including both candidates and voters – as possessing core moral traits. People hold negatively valenced stereotypes about members of the other political party in domains related to personality traits, occupations, and even just the general words that "typically describe" people who support the opposing party (Busby *et al.* 2017). As I show later in this book, large majorities of the respondents in my survey agreed with very inflammatory statements about the way in which out-partisans form their political opinions, judging them as being ignorant and dogmatic.

These attitudes spill over into behavior as well. In a series of experiments utilizing behavioral economics games and other tasks, Iyengar and Westwood (2015) show that out-partisans will actually discriminate against each other. Partisans trust their co-partisans more than they do out-partisans (Carlin and Love 2013; Hetherington and Rudolph 2015) and people are prejudiced against those with different ideological beliefs (Chambers *et al.* 2013). Even more worrisome is the evidence that partisan identity affects evaluations that have nothing to do with politics, such as physical attractiveness (Klar and Krupnikov 2016; Nicholson *et al.* 2016), the worthiness of academic scholarships (Iyengar and Westwood 2015), and job interview callbacks (Gift and Gift

2015). There does not appear to be any social desirability encouraging peop to underreport their levels of partisan bias either, as explicit measures work ju as effectively and sometimes better than implicit measures in capturing ou party prejudice and stereotyping (Lelkes 2016).

THE PUZZLE: WHAT CAUSED PSYCHOLOGICAL POLARIZATION?

How did this happen? How did people translate their negative attitudes abo the abstract symbols of the political world (parties and elites) to concre feelings about their fellow citizens who identify with the out-party? It seem plausible that *something* has changed.[6] The scholars working in this area ha rightfully zeroed in on trying to understand the social and psychological pr cesses that could explain this phenomenon. They point to three main facto the psychological processes embedded within social identity theory; the co position of our social networks; and changes in the broader information env onment rendered by elites and the partisan media. I evaluate these explanatio in turn, identifying the current gaps in each explanation.

Social Identity Theory

It is possible to imagine a counterfactual world where political and soc identities increasingly reinforce one another, but without a concomita increase in negative affect for the out-group. However, decades of research social identity theory (SIT) suggest that this counterfactual world is high improbable.

The root of the explanation for the rise of psychological polarization rests SIT, drawing on the work of Tajfel and the social psychologists within th paradigm. Briefly, at the core of this theory is the idea that people categori themselves and others into in-groups and out-groups based on shared chara teristics or attributes. These do not need to be enduring traits. Experiments ha shown that in-group preferences can be developed for arbitrary identiti (Sherif *et al.* 1961; Tajfel 1970) as well as in situations when people kno

[6] We can't clearly establish a change in affective evaluations of the out-party over time on all these measures. Iyengar *et al.* (2012) is the only study that looks at over-time change in a sur question that directly addresses the question of whether Americans feel differently about ea other than they have in the past, and finds evidence on the limited number of measures for wh we do have historical data. We simply do not have the right kind of data to fully test mechanisms that we think are at play. It is possible that partisans have always harbored th kinds of stereotypic, negative trait evaluations toward each other. However, it seems unlikely t people would simultaneously give the out-party relatively high thermometer ratings – what observed in the middle of the twentieth century – at the same time they judged them harshly their moral character.

groups have been randomly assigned (Goette *et al.* 2012).[7] Individuals quickly come to evaluate members of their own group positively, while developing negative affect and evaluations of the out-group, even going so far as discriminating against them.

The theory applied to political identity generally goes like this. In the middle of the twentieth century, a much larger proportion of Americans had cross-cutting identities, where their political views were not aligned with their religious, racial, or geographic identities. This prevented political identity from being particularly salient or indicative of other facets of a person's self. Over time, Americans sorted non-political dimensions of their identities to align with their political views, driven in large part by racial sorting[8] in response to the shift in the parties' policy stances, as well as the alignment of conservative Christianity with the Republican Party during the 1980s and 1990s (Mason 2018).[9]

This multi-faceted sorting process enhances the notion of "comparative fit" (Turner 1999; Hogg *et al.* 2004), where people distance themselves from the out-group and come to see themselves as more closely resembling the prototype of their in-group. They develop expressive identities (Huddy *et al.* 2015) that make them more susceptible to strong emotional reactions in the face of electoral competition. As people's social and political identities came to reinforce one another, people became more vested in the success of their in-group and became more threatened by the idea of the out-group winning (Huddy *et al.* 2015; Mason 2015, 2018).

Social identity theory is a solid foundation for the psychological polarization phenomenon, but is contingent on people being made aware of the boundaries between the in- and out-groups. In the experimental paradigms used in social psychology, especially in the minimal group paradigm, the group identity is often bestowed upon the subjects. But in the real world, how are these differentiations communicated and made salient to Americans? For that, scholars have pointed to the influences of our social networks and our exposure to elite and media communication.

The Role of Social Networks

Consistent with the literature on partisan sorting (Bishop 2008), social sorting (Mason 2018), and the overlay of partisan distributions and economic

[7] This line of research is called the "minimal group paradigm" and seeks to understand whether a conflict of interest is a necessary condition to create discrimination between groups.

[8] In brief, the Republican Party's response to the Civil Rights Movement led to the racialization of many political issues and the realignment of the electorate along racial lines (Carmines and Stimson 1982; Sundquist 1983; Stanley *et al.* 1986; Gilens 1999).

[9] A single paragraph cannot do justice to the thorough treatment of this phenomenon in Mason (2018). The reader is encouraged to reference Mason's work for an elaboration of the origins and consequences of social sorting.

inequalities (Gelman 2009), some scholars have turned to study how these broader contextual influences may reinforce the microenvironments in which people find themselves. The context shapes the distribution of opinions within our social networks (Huckfeldt 1983; McClurg 2006), and growing homogeneity could conceivably lead to growing homogeneity in discussion networks, even absent intentional selection by citizens.

Parsons (2015) argues that peer network homogeneity, cohesiveness, sophistication, and density are associated with increased saliency of partisan identity and more polarized intergroup biases. His results about the relationship between partisan social identity and affective polarization are unsurprising: those with more homogeneous networks have stronger partisan identities, and those with stronger partisan identities are more polarized in their affective attitudes toward the parties.

However, the association between the social network composition and level of polarization holds strong, even controlling for the strength of the person's partisan social identity. He argues that the robust association between network homogeneity and attitudinal – and affective – polarization supports the idea that partisan group identity can be reinforced by one's peer group. Even if this simply reflects homophily (that the most affectively polarized individuals gravitate toward one another), this finding establishes a link between a person's perceptions of the attitudes of her discussants and her evaluation of the "political other."

Any argument about negative affect and stereotyping must account for how people reconcile their evaluations of the people they know with their evaluations of the public at large. It is fully possible that our discussion networks are more homogeneous now than they have been in the past, amplifying the process Parsons demonstrates. The problem is that most people do not talk about politics very frequently, and the rates of political talk have not increased over time. When people do talk about politics, they are more likely to do so with like-minded others they consider their close ties; people therefore have exposure to their in-group, but they are less likely to be exposed to many opportunities to observe members of the out-group interacting with another. Our window into "the other side," as Mutz (1998) calls it, must come from influences outside our closest social connections. Historically, our weaker social connections in our workplaces and places of worship have provided these cross-cutting perspectives, although social sorting suggests that opportunities for these sort of interactions may be decreasing (Mason 2018). The mass media – in large part transmitting the opinions of elites – has traditionally been considered the most effective conduit for helping people make sense of the broader political terrain.

Elite and Media Cues

As political and social sorting proliferated, elites and the media were able to send more coherent signals differentiating Democrats from Republicans on

wider variety of preferences. In a more partisan, polarized political climate, there is evidence that people respond more strongly to elite cues (Druckman *et al.* 2013), perhaps especially out-party cues (Nicholson 2012). Framing effects[10] may be stronger in a polarized climate because motivated reasoning suggests a change to the perception of the relative strength of the in-party's frame compared to the out-party's frame (Druckman *et al.* 2013).

Extant research has linked these sorts of cues with affective polarization. Political campaigning polarizes both favorability and trait ratings of the candidates, leading to a 25-percentage-point growth in the gap over the campaign season. This is driven largely by a drop in affect for the out-party candidate as opposed to an increase in affect for the in-party candidate (Iyengar *et al.* 2012). These effects are larger in battleground states and for people exposed to negative advertising, a finding derived from both observational and experimental data. It appears that these findings are not driven by learning, but more likely by projection (voters imputing greater ideological difference between themselves and the out-party candidate) or strengthened partisan identity.

The media also has played its part. The fractured media environment facilitated the re-emergence of a partisan media, which has strong profit incentives to cue people with the party line. Unsurprisingly, partisan news outlets depict more polarized political views (Padgett 2014). Exposure to partisan media can strengthen partisan attachment (Knobloch-Westerwick and Kleinman 2012) and salience (Horwitz and Nir 2015). Pro-party news exposure is associated with more polarized favorability ratings of candidates and party members, as well as increased social distance measures, including higher levels of objection to inter-party marriage (Garrett *et al.* 2014).

Extending these findings to the consumption of news on the Internet largely confirms the patterns detected in the consumption of news on the television. Access to broadband Internet increases partisans' consumption of partisan media, which in turn drives partisan hostility (Lelkes *et al.* 2017). A study of the effects of news use on perceived polarization found that online news consumption was related to perceived polarization in ten countries (Yang *et al.* 2016). Among regular consumers of online news, those who consume news through social media are more ideologically segregated in their consumption of opinion journalism than are regular users who consume news by directly visiting news web pages (Flaxman *et al.* 2016).

The problem with explanations relating to elite cueing and news consumption is that given the opportunity to do so, most Americans opt out of these exposures. The overall impact of exposure to partisan media is relatively weak. Because the average Republican or Democrat does not report much exposure to

[10] Framing is "the process by which people develop a particular conceptualization of an issue or reorient their thinking about an issue" and framing effects occur when "(often small) changes in the presentation of an issue or an event produce (sometimes large) changes of opinion" (Chong and Druckman 2007, p. 104).

partisan media (Kimball *et al.* 2014), cable news has a limited effect since "preaching to the choir" (Arceneaux and Johnson 2013). Levendusky (20 ch. 9) argues that partisan media can affect not only which stories mainstre media eventually cover, but the framing used to cover those stories. While line of reasoning could extend the impact of partisan media to people bey regular viewers of cable news, it still does not fully account for the polarizat of politically disinterested individuals who do not regularly seek out news any kind. The "opt-out phenomenon" is likely weaker in the Internet cont but it still exists. Furthermore, elite and media cues are insufficient to expl how the people who receive these cues transfer judgments to out-partisans t personally know. The media excels at vilifying political candidates, but we missing the connection between how someone goes from loathing Hill Clinton to loathing his neighbor with the Clinton yard sign.

The existing explanations therefore do not adequately explain why Am cans with the least interest and engagement in politics also have beco psychologically polarized toward each other. To be sure, it is partisans a political sophisticates who are most likely to have deeply negative evaluati of the out-party and its adherents. But there are signs that even the disenga public hold strong negative evaluations of the out-party. Remember t three-quarters of Americans agree that the out-party, including its voters, destroying American democracy (Miller and Conover 2015). In experime demonstrating the willingness of people to discriminate against out-partisa even those with the weakest partisan attachments *did* discriminate, ever they were less likely to do so (Iyengar and Westwood 2015). We lack explanation for the phenomena of psychological polarization among th people who do not care about politics and actively avoid exposure to media and elite cues.

THE FACEBOOK NEWS FEED ECOSYSTEM: THE PERFECT STORM

The explanations above are not incorrect, but they are incomplete. Insuffici attention has been paid to a phenomenon that brings all of these factors togeth into one ecosystem in which the average American engages every single day: t Facebook News Feed. As are all scholars studying the "how" of psychologi polarization, I am limited in my inferential ability to argue that the mechanis I explore have caused a *change*, over time, in people's attitudes. I must rely sol on the fact that they have explanatory capacity in our contemporary cont and reason how that might have looked different in the past. It is not only t amount of time people spend on Facebook as the extension of the argument a findings in Lelkes, Sood, and Iyengar (2017) imply. The News Feed has distin ive characteristics that are uniquely suited to social inference about politi fostering mechanisms that reinforce social identity and amplify the polarizi effects of exposure to our social networks, elite cues, and partisan media.

The Prerequisites of Intergroup Interaction Manifest on the News Feed

The starting place for the exploration of the consequences of END interaction on our evaluations of each other is to assess the Facebook ecosystem on its capacity to activate our political identities.[11] What is it about scrolling the News Feed that makes someone more aware of her partisan identity? The majority of Americans do have a social psychological attachment with one of the two major political parties. Even those Americans who do not feel strongly attached to a political party often hold negative views about the party with which they have no attachment. How are these identities made salient in the Facebook context?

Interactions on the News Feed activate many of our social identities. In the process of crafting their online personae, people make deliberate decisions about how to portray themselves to their friends on the site. Likewise, they habitually draw conclusions about other people's various social identities based on the content they post. This general identity-activation process extends to the realm of politics and is further amplified in that the Facebook News Feed weaves together the social influence of interpersonal communication (Katz and Lazarsfeld 1955) with the information about mass collectives typically only derived from impersonal communication (Mutz 1998).

Traditionally, the mass media has served as the key conduit connecting the broader political climate to the average person. Twenty years ago, Diana Mutz made the point, "what media, and national media in particular, do best is to supply us with information about those beyond our personal experiences and contacts, in other words, with impressions of the state of mass collectives" (1998, p. xvi). Ahler and Sood (2018, p. 4) build on her insight to explain how people develop such inaccurate mappings of the social groups comprising the political parties, writing that "political parties cannot be experienced first-hand – we cannot literally meet the party."

The Facebook News Feed has flipped these insights on their head. The line differentiating impersonal from interpersonal influences is blurred. For the first time, interpersonal communication does facilitate inference about mass collectives. We can directly access information about political parties – from the head of the ticket to the man on the street – from both our social connections and the mass media in one fused environment. The News Feed allows us to feel as if we have first-hand knowledge about what broad swaths of the in-party and out-party believe and how they act, helping us recognize where we belong. Facebook users find it hard to *avoid* being reminded about politics (Duggan and Smith 2016).

[11] Here, I focus on partisan identities, but the same mechanisms should also apply to our ideological identities. Over time, people have become increasing psychologically attached to their ideological group (Mason 2018), and self-identified ideological attachment likely serves a similar role as partisan attachment.

What is the function of forming this social political identity? Correll a Park (2005) argue that group membership can provide a benefit, even in t absence of a defined out-group, because membership can offer people "a sen of strength, belonging, or merit and so contribute to a sense of person integrity or worth" (p. 341). In their thoughtful integration of a number theories explaining the relationship between an individual and her in-group, t authors note that all the theories assume there is a personal advantage to gro membership, likely related to self-worth or self-esteem. Furthermore, almost definition in the political sphere, one's identification with a party implies t existence of an out-group, most especially in a two-party system. Thus, person's attachment to a political party is best understood as being nest within the system of conflict, which further incentivizes the reinforcement group identity.

However, not all social interactions between members of different grou can be automatically classified as "inter*group* interactions." Tajfel argues th there is a continuum of social interaction spanning from the interpersonal to t intergroup. At the interpersonal end of the spectrum, the interaction betwe two or more people is mostly determined by their own characteristics and t nature of their personal relationship (Tajfel 1982, p. 13). At the intergro extreme, the interactions between individuals are determined mostly by gro membership. Intergroup interactions are characterized by (1) the uniformity the behavior and attitudes displayed by people in the in-group toward the o group, as well as (2) uniformity in the in-group's perceptions of the charact istics and behavior of the out-group. The processes facilitating depersonaliz tion, dehumanization, a lack of differentiation, and social stereotyping tend increase when relations between the two groups deteriorate (Tajfel 1982).

Can interactions on the News Feed be thought of as intergroup behavio Yes. Although not all interactions between individuals on the Facebook s would fall into the domain of "intergroup activations," those in which politi identity is made salient do qualify. Generating and consuming END cont activates those identities. Remember the description of political expressi aspects of News Feed interactions: the language in political status upda was found to use more personal pronouns and emotional words than sh bits of text generated for other motivations. The use of words referring to group or out-group status has been shown to facilitate intergroup bia (Perdue *et al.* 1990). The fact that political information on Facebook is infus with social information and group-oriented language suggests that politi interactions on the News Feed can be identified as a form of intergro interaction even if much of the non-political interaction may be better identif as interpersonal behavior.

When an individual identifies with a group, they have internalized t identity as part of their self-concept. They are aware of their membership wit the group, assign values to group characteristics, and may emotionally ident with the group (Tajfel 1981). Furthermore, although not required for

connection between group identification and intergroup behavior, one mechanism for developing intergroup interactions is in situations of conflict and competition, which aligns very well with our theories of politics. Intergroup conflict can overshadow previous intergroup attachments between individuals (Sherif and Sherif 1953; Sherif *et al.* 1961; Turner 1981).

If END interactions can activate intergroup relations, then our expectations for the effects of those interactions can be guided by previous work on intergroup behavior that focuses on the role of activated identities (Tajfel 1969). First, people categorize, dividing others into discrete groups. Second, they differentiate the groups, and in the process assimilate to learn and internalize the group norms that accompany intergroup attitudes. Finally, they search for coherence, and to explain change in their environment, they attempt to make causal attributions that maintain their own self-concept at the expense of negative evaluations of the out-group.

Here, I preview the argument I will advance in each of the next four chapters in the book, unpacking one part of the process linking Facebook usage with psychological polarization. Each step reflects the integration of what was identified in the previous chapter as the three hallmark distinctions of END communication: the context of by-product exposure and social inference, the signal-rich content, and the disproportionate influence of weak ties in the constitution of the interactions.

The Categorization Phase, Part I: Increased Exposure to Politically Informative Content

The END Framework of communication implies that the more frequently people use Facebook, the more likely they are to encounter content that is informative about the political views of their contacts.

First, unlike other conduits for consuming news, people can't easily opt out of exposure on the News Feed. The politically disinterested simply don't watch cable news (Arceneaux and Johnson 2013), but the vast majority of Facebook users are potentially "dosed" with polarizing and informative content when they log in to the Facebook site for other reasons. Therefore, we should expect exposure to political information on the News Feed to have effects on a much larger segment of the population, including those people who aren't interested or knowledgeable about politics.

Second, this exposure is likely to lead to learning others' views because people are connected on the site to a set of social contacts to whose views they have not typically been privy absent social media. Facebook permits unprecedented access to learning about the weak ties in one's social network. Online discussion facilitates an unparalleled degree of knowing the political views of social contacts for whom the topic might never come up in our offline interactions (e.g. "I had no idea that my child's piano teacher was such a raging liberal!").

Third, exposure to politically informative content disproportionately lea to learning about the views of people with whom we disagree. Although mo people share political views with their close family and friends, their broad social networks are not homogeneous. The wider the net drawn around t bounds of the social network, the more likely it is to include people with diver viewpoints. Although the way in which most people use Facebook reduces t amount of counter-attitudinal information they encounter (Bakshy *et al.* 201 Messing (2013) finds that people who use Facebook more frequently have mo heterogeneous networks.

Finally, heightened exposure to politically informative content widens t scope of what people consider to be about politics. People who use Facebo more frequently should, over time, be exposed to more types of cont that have the potential to signal the poster's political views. In essence, usi Facebook for learning about others' views becomes a self-reinforcing cyc furthering a person's awareness of the kind of content that can informative.

The Categorization Phase, Part II: Increased Recognition of Partisan Identity

The END Framework of communication implies that the more frequent people use Facebook, the more practice they get drawing inferences abo partisan identity from content that is potentially informative about the vie of the person who posted it.

Explicitly political communication on Facebook constitutes a signal-rich s of content: not only words, but news articles, videos, and imagery. In additi to being partisan, political content is visually compelling. It is likely to intentionally humorous, controversial, or inflammatory; these characteristi are known to be attention-grabbing. This is especially the case for no traditional political organizations and groups who create content specifica for an audience on Facebook.

Facebook opinion leaders – who as we will see in the next chapter tend to more partisan, less conflict avoidant, and less likely to censor themselves select from this pool of content when they disseminate information to the social networks. This third-party-created content often sends a clear and una biguous signal about the partisan identity of the poster who circulated it. T expression cues, source cues, and endorsements described in Chapter 2 a contribute to transparent signaling of the political views of the person w posts the content, as well as those who choose to engage with it via like comments, or shares. In addition to circulating polarizing information, f those who want one, Facebook is a soapbox in a digital town square. In context with fewer norms of civility and respect, the power to reach so ma listeners at once may encourage these users to be bombastic, expressing the viewpoints in emotional ways without nuance.

Regardless of whether a user is motivated to click on content one of their friends has generated, they are filing away the political signal as a socially pertinent detail about their friend. People tend to be fairly accurate in estimating the opinions of their social connections. While they tend to slightly overestimate the extent to which people agree with them in face-to-face conversations, the more informative signals of Facebook content make it harder to misperceive others' viewpoints.

Inference about implicitly political content works slightly differently. In an era of high levels of political polarization, politics has pervaded even seemingly non-political topics. Consumer and pop culture often become politicized. Posting about something through which politics has been infused (e.g. "checking in" at a restaurant that has been boycotted for its political advocacy), or posting about something that is closely aligned with political views (e.g. environmental conservation or guns) may signal political identity, even if nothing about the post is political.

The more frequently someone uses Facebook, the more likely they are to catalogue bits of social and political information about their contacts and file that information away together. This facilitates the association between the abstract notion of "what the other side believes" and "who those people are." The political component of content is often sandwiched between social signals that create this association. But even when the political signal and social signal aren't conveyed simultaneously, users can make the connection. Once a user has recognized a friend's political identity, through either the explicit or implicit political content with which the person has engaged, the user can then map other social information they post to those political views.

The Accentuation Phase: Increased Biased Processing

The END model of communication implies that the more frequently people use Facebook, and the more frequently they say they encounter political content, the more likely they are to engage in biased reasoning about the viewpoints of Facebook users.

Tajfel (1969) argues that categorization is necessary for perception and that stereotyping results as a part of this process. In other words, inherent to the process of social categorization are three stereotype effects: the potential for intergroup differentiation, in-group favoritism, and differential accuracy in group characterization (DiDonato *et al.* 2011). As DiDonato and colleagues write:

> The biases implicit in the three classic stereotype effects are the price paid for social perception being both relatively easy and reasonably accurate. If categories were removed from perception, judgments of individual instances or individuals would be more difficult, less reliable, and less accurate overall. DiDonato *et al.* 2011, p. 66.

When given a task to sort items into categories, people will accentuate the similarities between items if they assign them to the same group and accentuate

the differences if they assign them to different categories. In effect, once peo have identified different social groups, they are more likely to emphas within-group similarities and between-group differences. This is exacerba if there are value differentials associated with assignment to different catego (Tajfel 1982, pp. 20–23).

What does this look like on Facebook? People impute ideological cohere to a person based on their inference about the poster's partisan ident They've come to recognize which bundle of issue opinions tend to h together. When a person signals their partisanship, users impute to them ov consistent ideological viewpoints on a broad set of issues, a form of the group homogeneity effect. Second, the distribution of content circulatin the News Feed is not an accurate representation of the distribution of belief the network, but people attribute the extreme viewpoints of those who p content to the out-group as a whole. This contributes to the perception polarization.

Biased reasoning affects not only people's assessments of the out-group, also the estimation of the amount of support in their networks for the opini that they hold. Facebook reinforces the tendency to believe that most o people agree with us, called the false consensus effect, because Facebook u encounter that reality in their own networks. Users who post political con can expect that the social feedback they receive on their posts will be dis portionately supportive of the viewpoints expressed, compared to the distri tion of beliefs in their network as a whole. Affordances on the Facebook make this transparent. Aggregated, numeric details have the potential to in ence people's beliefs about the popularity of their viewpoints. These cues are evolution of information such as opinion polls or primary results that co "information about the attitudes, beliefs or experiences of collectives outsid an individual's personal life space" (Mutz 1998, p. 4).

The Judgment Phase: Increased Out-Group Derision and In-Group Favoritism

The END model of communication implies that the more frequently people Facebook, and the more frequently they say they encounter political cont the more likely they are to be negatively judgmental about the out-party an evaluate positively members of their in-group.

Social identity theory suggests that the result of group categorization differentiation is to negatively characterize the out-group and a desir "preserve or achieve 'positive group distinctiveness' which in turn serve protect, enhance, preserve, or achieve a positive social identity for member the group" (Tajfel 1982, p. 24). Tajfel concludes, "The behavior of ce individuals often becomes relevant to the stereotype of their group because are representatives of a category which has a preexisting social signific enmeshed with preexisting value connotations" (p. 7).

Most people don't post much political content on Facebook. Those who do become "representatives" of the political party which they endorse. The evaluations of consistency and extremity people make of their weaker ties, as well as the friends of their friends, are integral to understanding how people have transferred their attitudes from elites to the masses. This group of people represents an important intermediary, people we don't know well or don't know personally, but whose behavior we can readily observe. We have enough information to draw conclusions about "people like them." Weak ties and friends of friends on Facebook put a literal face on the "other side" (Mutz 1998).

What is the pertinent domain in which Facebook users judge members of their out-group? The facet of citizenship that we can easily see on Facebook relates to the quality of the way in which citizens acquire and process information in order to arrive at and express their opinions. Absent a genuine interpersonal relationship with these weak ties and their friends, we don't have any of the kinds of interactions that tend to moderate prejudice and stereotype formation. We can be critical of their levels of political knowledge and the quality of the sources they use to inform themselves, differentiating our in-group by our superiority in using facts to process information and form opinions.

While judgments about the way in which people arrive at their opinions are most directly connected to what we observe of others' behavior on Facebook, social identity theory suggests that we also will become more disparaging about the qualities writ large of the out-group. Consequently, we should expect that Facebook users also see growing social distance between the parties, to the point where they perceive that the parties comprise different kinds of people. The outgrowth of this idea is that we may intentionally structure our social networks to avoid contact with the out-group, preferentially selecting co-partisans as friends and severing communication with out-party members.

CONCLUSION

Some scholars have argued that the perception of partisan disagreement and polarization is greater than its actual existence in our society. Many scholars, most vocally Morris Fiorina, argue that Americans are still largely moderates in their actual policy views. On certain issues, this certainly appears to be the case. However, perceptions matter more than empirical reality for understanding how Americans feel about members of the opposing political party.

A growing body of evidence indisputably demonstrates that many Americans have processed the polarizing messages from political elites and the media in a way that alters their evaluations of their fellow citizens. Regardless of actual levels of divergence in values or policy preferences, Americans believe that there are marked differences between those on the left and those on the

TABLE 4.1 *Central Argument, Demonstrable Mechanism, and Testable Implications of the END Framework of Social Media Interaction.*

Chapter 5: Exposure	Chapter 6: Recognition	Chapter 7: Inference	Chapter 8: Judgment
Central Argument			
People don't report that they post much political content, but users are exposed to a broad range of implicitly and explicitly political content. They are bystanders to the interactions of disagreeable weak ties, providing perspectives and interactions they otherwise would not see.	A potentially large volume of News Feed content is informative about the political views of the person who posts it. Users attribute partisan identity based on both political and non-political content, with high rates of consensus.	END content generators carry disproportionate weight in our instance-based characterizations of the out-group, facilitating the out-group homogeneity effect and perceived polarization. Aggregated social feedback fosters the false consensus effect.	Users make judgments about political competence, based on their observation of how other users engage in END interactions. Facebook use facilitates social categorization and social distancing behaviors.
Demonstrable Mechanism			
Users report that they learn the political views of others on the site.	A wide variety of content on the feed will be informative to Facebook users about the political views of the person who posted it.	Users make biased inferences based on the content that other users post.	Users make negative judgments of their out-party based on the content that other users post.
Users are most likely to learn the views of their weak and disagreeable social contacts.		Users judge their weak disagreeable ties as being more ideologically extreme than their close disagreeable ties.	In the construction of their social networks, users prefer ties with agreeable contacts and sever ties with disagreeable contacts.

(continued)

TABLE 4.1 (*continued*)

Chapter 5: Exposure	Chapter 6: Recognition	Chapter 7: Inference	Chapter 8: Judgment
Testable Implications			
People who use Facebook more frequently should . . .			
People who more frequently engage with END content should . . .			
. . . have more heterogeneous networks. . . . be more likely to report learning the political views of other users, especially their weak and disagreeable ties. . . . have a broader definition of what is considered "political."	. . . be more likely to attribute partisan identity. . . . be more confident in their ability to accurately identify a person's partisan identity.	. . . be more likely to attribute ideological extremity. . . . be more confident in their ability to accurately identify a person's ideological views. . . . characterize a larger portion of the out-group as holding extreme views.	. . . be more likely to attribute low knowledge judgments to out-group members. . . . be more confident in their ability to accurately identify a person's knowledge level. . . . perceive greater social distance between partisan groups.

right. They judge people who are different from them as being less trustworthy, less likable, less employable, less intelligent, and less attractive.

Psychological polarization is a complex phenomenon, and no one factor is to blame for its development or growth. It has occurred as part of a much broader phenomenon of polarization within our political institutions and dramatic changes to the media environment. Social media is certainly not the sole driving force behind the rise in antipathy toward our political opponents; there are millions of Americans who do not use Facebook who detest their opposition and millions of Facebook users who do not.

Yet the fundamental aspects of the way in which people communicate on Facebook – and likely other platforms that incorporate similar features and dynamics – is especially conducive to fostering categorization, differentiation, and negative evaluation of the out-group. The Facebook News Feed environment brings together, in one place, many of the influences that have been shown to drive psychological aspects of polarization. The majority of Americans scroll through their News Feeds on a regular basis, and those who do can't escape being exposed to politically informative content. Therefore, influences from the News Feed have the potential to reach Americans who might opt out of other avenues in which they could be exposed to polarizing forces.

In the chapters that come, we will test these claims about how News Feed interactions facilitate psychological polarization. Table 4.1 outlines the central argument and testable implications. Each chapter will expand the argument about why END communication fosters a part of the sequence forecasted by social identity theory. First, we will test the plausibility of the mechanism to see if the psychological process can result from exposure to prototypical END content. To do this, we will use a set of experimental classification tasks dubbed the inference studies, introduced in the next chapter and elaborated on in Appendix A and online Appendix B. We will then assess whether the mechanism is more generalizable, using self-report data from the END Framework Survey. At each step, we will test to see whether the measures of END interaction defined at the end of Chapter 3 are associated with an increased propensity to engage in the proposed mechanism. Readers who want a preview of the findings can compare Table 4.1 with Table 8.2 in Chapter 8, where an overview of the results is provided.

We begin our exploration of the consequences of END interactions by elaborating on the concept of politically informative content on the News Feed. This concept is at the core of the generation and consumption behaviors of the END Framework and, before we can proceed to test the effects of interacting with this kind of content, we must have a better idea of what it is.