

His Master's Voice

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The first part of this talk is a rehash of several talks I've given before. It takes advantage of one of the (few) privileges of age in allowing one to feel that one is still the same somebody and that nobody in the audience has heard it before. Its subject is Paul Lazarsfeld, my master, and me. It is an effort to reiterate the credit Lazarsfeld deserves for restoring interpersonal influence to our understanding of collective behavior and the process of diffusion. It stakes a claim for his pioneering role in the current preoccupation with social networks.

Lest this seem obvious, let me refer to Duncan Watts's (2004) authoritative *Six Degrees*. As is well known, the book follows Watts to his chair at Columbia, situated next to Lazarsfeld's old office. It tells of Watts's (2003) attempt to cope with the social networks that make up *Small Worlds*. He gives a lot of credit to students of this tradition, including our own Ithiel Pool and Everett Rogers, but none to his (late) next door neighbor. Watts and I talked about this, and he was regretful.

So, yet again, let me restate my argument that Lazarsfeld may rightfully include the study of social networks on the roster of his achievements. To do so, I will remind us, in Part One, of Lazarsfeld's voting studies and their spinoffs. In Part Two, I will make a connection to the rediscovery of the voice of an academic grandfather, Gabriel Tarde, writing in Paris more than half a century earlier. Part Three is a surprise.

Part One: Lazarsfeld's Voice

Lazarsfeld became interested in the then-new medium of radio in 1930s Vienna (Jerábek, 2017) and then at the institutes he founded at Newark, Princeton and, ultimately, at Columbia. Along with his many other concerns, he was intrigued by the psychology of decision making, and saw an opportunity of combining his two interests—media and decisions—in a study of “how people make up their minds” in an American presidential election. By repeatedly interviewing the same sample of voters in an Ohio town, using the innovative panel method, Lazarsfeld, Berelson, and Gaudet (1944) were able to identify voters who changed their minds during the course of the election campaign. To the authors' surprise, these changes of mind (not so many) were attributed as often to the influence of “other people” as to radio or newspapers. The suspicion arose that these everyday “opinion leaders” were more informed consumers of political

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messages in the media than those whom they had influenced. This led to *his* hypothesis of the "two-step flow" for which the study is probably most remembered.

But while the hypothesis attracted considerable attention, commercial as well as academic, it was still a hypothesis, based on the testimony of responders who self-identified as influencees or influentials—that is, as people who considered themselves generally one or the other. There followed a series of subsequent studies where it became possible to reconstruct the flow of influence by reaching out to *pairs* of discussants—that is, to both influential and influencee. These included a second study of *Voting* by Berelson, Lazarsfeld, and McPhee (1954), Merton's (1957) study of different spheres of cosmopolitan and local influence, and the study of decisions by housewives in Decatur, Illinois, about foods, fashions, moviegoing and politics as reported in Katz and Lazarsfeld (1955). Thus, we learn, for example, that husbands influenced wives in matters of politics, that young women lead older women in fashion advice, that consumer advice was derived from local media, that those who were exposed to both sides of the campaign were less likely to vote. It is important to remember that in addition to strengthening the two-step hypothesis, these studies were based methodologically on the now outrageous assumption that the original sample of respondents could be asked to provide names and addresses of their conversational partners. Indeed, the field director of the Decatur study, C. Wright Mills, even tried to go beyond two discussants by approaching a third member of the network.

At this point, our group was gearing up for a next step. We were about to try a forced marriage between sociometry and survey research, to see where the network leads without losing representativeness. This is difficult, obviously, because survey research strives for a representative sample of respondents who are few and far between, while sociometry is based on personal ties among all members of a group. One idea, on which we were working, was to build a mini-network around each member of a representative sample—somewhat like constructing a molecule around one of its atoms. Another idea we had was to track the diffusion of a specific innovation and abandon Lazarsfeld's interest in change per se. He was interested equally in change from A to B as in change from B to A. We thought, rather, that it was time to study the diffusion of a specific innovation as it moved over time through a social structure.

At that moment, to our surprise, the Pfizer Company, in the person of Columbia alumnus Joseph Precker, invited us to conduct a study of how doctors make decisions to adopt new drugs. Here, we employed sociometry and personal interviews (Coleman, Katz, & Menzel, 1966). We contacted all of the relevant doctors and pharmacists in four Midwestern towns, some 50 in each (obviously, and unfortunately, there was no need for a sample survey). The respondents allowed us to interview them, to search the pharmacies for the date of the first prescription they had written for the new antibiotic we were tracking, and to name—yes, to name—their closest colleagues. From these data, we constructed sociometric maps of their relationships and were able to observe the progress of the new drug as it moved over time through each of the four communities of physicians.

As a result, we were able to add some new ideas to our armamentarium. First of all, we confirmed that the sociometrically "popular" doctors were also the earliest to adopt. However, some of them seemed to have fewer central "lieutenants" who acted as their advance scouts. We also learned that cliques were likely to adopt together—that is, the distance in dates of adoption between connected pairs was less than

chance. We found that different influences operate at different stages of the adoption process—the drug company representative brought first news, a journal article was used to confirm, colleagues shared opinions in between. Apropos two steps, early adopters were more active in hospitals. But most important, we found that the curve of diffusion for the integrated doctors—those who were named as friends by one or more of their colleagues—could be described by the classic curve for innovations that take off after reaching “a tipping point” (Gladwell, 2000), while the curve for the isolates did not. We later discovered that rural sociologists, who were studying the diffusion of new farm practices, had already reached almost the same conclusion (Ryan & Gross, 1943). We used this model again to study the diffusion of fluoridation, except that the respondents this time were not people but municipalities, connected regionally and in different clusters (Crain, Katz, & Rosenthal, 1969). In effect, we studied how cities speak to each other. (By the way, Tarde, who will soon join our conversation, asked this very question.)

The continuity underlying this series is a tribute to another of Lazarsfeld’s traits—his organizational genius—a subject much discussed elsewhere (Barton, 1979). Our task here, however, is to sum up the substantive inferences he was making. Most likely, these led him to believe that: (1) everybody finds a place in a network of conversation; (2) such networks are relatively stable; (3) change flows through these networks; (4) some members are more influential than others in initiating change; (5) these opinion leaders are more exposed to the media in their areas of influence; and (6) hearing the other side is not so conducive to political participation (Mutz, 2006). Along the way, we found that these inferences needed some repairing, or at least fine-tuning. For example, it became clear that: (1) the concept of opinion leaders is extra large, and needs downsizing; (2) not everybody belongs to a network; (3) the roles of influential and influencee are mostly interchangeable; (4) two steps are probably too few; (5) influentials and innovators may be different people; (6) influence tends to come from equals rather than superiors; and (7) decisions are made in stages and may have input from different media. From homework, we also have learned that most innovations do not take off so readily, and that influentials may also lead in *resistance* to change, not only in its advancement. So far, then, we have followed Lazarsfeld in person and by inspiration.

And now we come to a voice that reached us (and Lazarsfeld) from afar, that of Gabriel Tarde. We will see that what Tarde proposed *deductively*, in the era of newspapers, is closely akin to what Lazarsfeld and his teams concluded *inductively*.

Part Two: The Voice of Gabriel Tarde

Gabriel Tarde was once famous, then forgotten, and now revived. His (1903) writings on diffusion—especially his *Laws of Imitation*—attracted much attention in Paris at the end of the 19th century, and more so for his debates with Durkheim over whether a science of sociology could overlook the individual. He was never completely forgotten. *Laws of Imitation* was translated into English in 1903, but most of all, his name and flame were kept alive by some of his American students, especially Robert Park and others at the University of Chicago. They were particularly interested in his idea that newspapers heralded the creation of polities consisting of publics (people not in direct contact with each other) where once there were crowds.

Tarde’s interest in the political and cultural functions of casual conversation gradually made its way to Columbia. The authors of *Voting* note explicitly “that he was convinced that opinions are really formed

through the day to day exchange of comments and observations that go on among people" (Berelson et al., 1954, p. 300). They add, "When *The People's Choice* was written, this side of Tarde's ideas was not known to the authors" (Berelson et al., 1954, p. 300).

A key tipping point in the revival of Tarde was the publication in 1969 (reprinted lately) by Terry Clark at Chicago of an anthology of Tarde's writings. In his marvelous introduction, he notes Tarde's proposition that newspapers would be of no use if they weren't incorporated in day-to-day conversations among their readers. Clark (1969) adds, "Perhaps the simplest way to communicate Tarde's views in this area for the contemporary reader is to say that he offered a 19th-century French version of what has since become known as the 'two-step flow of communication'" (p. 57). He continues, "But Tarde, in contrast to Lazarsfeld, used the *mondain* Parisian conversationalists of Proustian salons as his principal empirical material rather than middle-class Ohio housewives" (Clark, 1969, pp. 57-58).

Lazarsfeld would have liked these cross-references and, even more, would have loved the analogy. They are a part of the legacy Lazarsfeld has left. He preached "how to read a book," which meant how to reformulate ideas expressed in prose so that they emerge as empirically testable propositions. He would have loved to do this while reading Tarde.

He didn't do it—but we did. Generations of my students have been mining and transposing Tarde's propositions, one by one, from his essay *Opinion and Conversation* (Tarde, 1898), restating them "operationally," speculating, for each, on "what we know better or different 100 years later." If you don't already own a copy, rush to buy *Echoes of Gabriel Tarde* by Katz, Ali, and Kim (2014).

During the years we spent on this Talmudic project, we actually took a further step. We decided to conduct a national survey to test a major set of propositions from Tarde's essay. We summarized them (rather too simplistically) as a process whereby the press stimulates conversation, conversation crystallizes opinion, and opinion leads to political participation, that is, Press-Conversation-Opinion-Action. This was Joohan Kim's dissertation at Annenberg, and you might have read its results in several publications, such as Kim, Wyatt, and Katz (1999). We found, of course, that reading newspapers (not watching TV) correlates highly with political talk. We found that participants in political talk hold a greater number of opinions and are more understanding of an interlocutor's counterarguments, but that their own opinions are not more ideologically consistent.² We found that types of participation resulting from news and talk factor into two types which we call "campaigning"—stuffing envelopes, for example—and "complaining" (i.e., protesting, etc.). I infer from the data that the former are members of more stable networks.

Part Three: New Voices

Will Tarde's voice become louder or softer in the era of the new media? To answer this question, let me sell you another book; this one is by Sandra González-Bailón, my (almost) colleague at Annenberg. Chapter three of her (2017) *Decoding the Social World* is all about Tarde. It guarantees him a long life. It's also about

² In his classic paper, Philip Converse (1964) noted that the public's opinions are ideologically inconsistent while professional politicians are consistent.

Katz et al. (2014), and other Tardeans like Clark (1969) and van Ginneken (1992; though we are somehow absent from the index). González-Bailón (2017) follows Lazarsfeld in showing how propositions formulated by Tarde more than one hundred years ago can be restated in terms of big data (or “data science,” as she prefers). In other words, referring to the computational potential of digital technology, she goes beyond Katz et al. (2014). We restated propositions in testable form, looking—as did Tarde—to the day they could be tested; González-Bailón (2017) says the day has come. “Digital technologies,” she writes, “have shifted attention again, from middle-class housewives to social media users” (p. 57).

The status of the two-step hypothesis in this new context is still unclear. Some say that the dominance of the traditional media has been overwhelmed by the so-called “fifth estate” (Dutton, 2009) who now rule the world. They claim not only the primacy of social networks but think that trends originate with bloggers, or celebrities, or even with randomly distributed opinion leaders. Every man is a medium.

Others claim that traditional media still hold the key to diffusion. Politics or fashion begins in the headlines, they say, and the attentive few then jump-start the process of relaying and sharing. Even populist leaders, who tweet directly to hordes of their followers, rely on journalists to echo their words (however critically). Thus, there is continuity here, even if Lazarsfeld assumed small and stable networks, while nowadays, these networks and their members are thought to be in constant flux.

Note the paradox. In the 1950s, the process of communication referred to mass media almost exclusively. People were merely targets. That was when Lazarsfeld proposed that people had a role in transmitting, not just receiving.³ Today, almost the opposite is the case. When we think of communication, we think of the social media and of networks. It is the mass media that are “lost.” And we are still looking.

In conclusion, let’s shift to the larger question that underlies this story, namely the formation and change in public opinion. González-Bailón (2017) illustrates, for example, how the character of public attention to social issues can be measured by the breadth and depth of the conversations they generate. Notice that in the language of big data, this is almost equivalent to the marriage of sociometry and survey research which we dreamed about 60 years ago. In other words, the number of different discussants of an issue, their representativeness, and the extent of interchange among them, can show us the difference between, say, normal politics and an incipient revolution. I say “almost” because the focus here is on topics (hashtags), not on the opinions themselves. I know that there is a network of European researchers—like Christian Baden, to whom I owe thanks—who are working on a computational approach to the content of opinions. These are major steps toward the reintegration of communication and opinion research that somehow became disconnected.

Taking another step beyond my competence, I am tempted to suggest that revolutions and protests—features of the politics of “complaining”—are a dominant concern of digital researchers. I have the impression, if I may, that events such as the mobilization and subsequent occupation of Tahrir Square, or of Wall Street, are almost irresistible to data scientists, much as Tiananmen, Wenceslas, and other media events were irresistible to researchers in the era of broadcasting. The difference, if I may venture further, is that students of media events focused on the broadcasts themselves rather more than their reception, because the audience

³ Pooley (2006) credits Edward Shils’ share in the development of this narrative.

was out of reach⁴ (whereas researchers today tell us about the parts played by the activists and the broadcast audience). As González-Bailón (2017) remarks, we finally have a method for studying that elusive phenomenon called collective behavior, especially that branch of the collectivity called social movements.

I think I have made my point. Lazarsfeld deserves a share of the credit for the cascade of studies of social networks, and their share in public opinion research, campaigning and complaining. Following in his footsteps, Katz and colleagues (2014) conducted research bearing on some of his hypotheses, and his instructions on how to read a book, which led the way forward to diffusion and back to Tarde. Collectively, we have dealt with three eras in which the two-step hypothesis has been examined: the era of newspapers at the end of the 19th century; the era of broadcasting in the 20th; and the era of the new media in the 21st. We ourselves took steps beyond Tarde's much-quoted

We shall never know and can never imagine to what degree newspapers have transformed, both enriched and leveled, unified in space and diversified in time, the conversation of individuals, even those who do not read papers, but who, talking to those who do, are forced to follow the groove of their borrowed thoughts. One pen suffices to set off a million tongues. (Clark, 1969, p. 304)

My apologies to those of you who have heard at least some of these things before. But buy the books.

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⁴ Lang and Lang (1953) did not actually observe real viewers.

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