

## Living In/difference, or How to Imagine Ambi-valent Networks

**Authors**<sup>1</sup>: Carina Albrecht<sup>2</sup>, Wendy Hui Kyong Chun<sup>3</sup> and Laura Kurgan<sup>4</sup>

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<sup>1</sup> Authors in alphabetical order.

<sup>2</sup> PhD student at School of Communication at Simon Fraser University and researcher at the Digital Democracies Institute.

<sup>3</sup> **Corresponding author.** Canada 150 Research Chair in New Media at Simon Fraser University and Director at the Digital Democracies Institute.

<sup>4</sup> Professor of Architecture at the Graduate School of Architecture Planning and Preservation at Columbia University and Director at the Center for Spatial Research (CSR).

**Abstract**

In a 1954 essay, Paul Lazarsfeld and Robert K. Merton coined the term homophily to describe similarity-based friendship. They based their findings on friendship patterns among neighbors in a bi-racial housing project in the U.S., using a combined quantitative and qualitative, empirical and speculative analysis of social processes. Since then, homophily has become a guiding principle for network science: it is simply presumed that similarity breeds connection. The unpublished study by Merton, Patricia S. West and Marie Jahoda, which grounds Lazarsfeld and Merton's analysis, and the Merton archive, however, reveal a more complex picture. This paper engages with the data traces in the archive to re-imagine what enabled the residents of the studied housing project to live in-difference, as neighbors. The re-animation of this archive reveals the often counter-intuitive characteristic of our imagined networks: they are about removal, not addition. It also opens up new imagined possibilities for a digital future beyond the hatred of the different and online echo chambers.

**Keywords**

homophily, social media polarization, network science, history, critical data studies.

‘The network’ has become a defining concept of our epoch. From high-speed financial networks that erode national sovereignty to networking sites like *Facebook.com* that have transformed the meaning and function of the word “friend,” from *Twitter.com* feeds that foster new political alliances to unprecedented globe-spanning viral vectors that threaten world-wide catastrophe, networks allegedly capture everything that is new or different about our social institutions, global formations, and political, financial and military organizations. From Bruno Latour’s discussion of Actor Network Theory (ANT) to network science, from Jean François Lyotard’s evocative description of the postmodern self as a “nodal point”<sup>5</sup> to Tiziana Terranova’s analysis of global network culture,<sup>6</sup> “networks” are also central to theorizing networks.

Why? What is it about “networks” that makes it such a compelling and universal concept, deployed by disciplines from sociology to biology, media studies to economics? Why do we believe the network (however described) to encapsulate our “current social formation?”<sup>7</sup> How and why has ‘it’s a network’ become a valid answer: the end, rather than the beginning, of an explanation?

As one of us has argued extensively elsewhere, the power of networks stems from how they are imaged and what they are imagined to do.<sup>8</sup> Networks are both actually existing realities and theoretical abstractions. They are both diagrammatic planning tools and what results from these tools; further, they are both description and elucidation. They are descriptive, prescriptive and explanatory, all at once. Networks not only compromise the distinction between illustration and explanation, they also make porous the boundaries between the many disciplines that employ networks, from economics to media studies, from political science to biology. The study of

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<sup>5</sup> Lyotard, *The Postmodern Condition*, 15.

<sup>6</sup> Terranova, *Network Culture*.

<sup>7</sup> Galloway, *Protocol*, 11.

<sup>8</sup> Chun, *Updating to Remain the Same*.

networks thus oddly mirrors its subject: the examination of networks leads to the formation of networks, making it even more difficult to separate network analyses from networks themselves.

Even as networks expand, they contract. “Networks” render the seemingly complex and unmappable world of globalization trackable and comprehensible by transforming time-based interactions and intervals into spatial representations: they select and spatialize frequently repeated actions. They reduce the world to substitutable nodes and edges, agents and connections. *Not everything, however, becomes an edge.* As this paper explains, through its engagement with friendship as “ur-” connection, imaged and imagined connections are most often habits: things potentially or frequently repeated. That social networking sites are based on friendship is no accident, for homophily, the now axiomatic belief that similarity breeds connection, stems from mid-twentieth century inquiries into social engineering (i.e. habitual change). Delving into the data traces of the forever “forthcoming” report by Columbia University’s Bureau of Applied Social Research, *Patterns of Social Life*, written by Merton, Patricia Salter West and Marie Jahoda and in which the term “homophily” was first coined if not published, this article reveals the importance of this history, and, most importantly, how this—and thus so many networks—could have been reimagined around in/difference.

### **Homophily: Laundering “Our” Past**

At the heart of network science is the principle of homophily: the axiom that “similarity breeds connection.”<sup>9</sup> Homophily structures networks by creating clusters; by doing so, it also makes networks searchable.<sup>10</sup> Homophily grounds network growth and dynamics, by fostering and predicting the likelihood of ties. Homophily—now a “common sense” concept that slips

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<sup>9</sup> McPherson, Smith-Lovin, and Cook, “Birds of a Feather: Homophily in Social Networks.”

<sup>10</sup> Marsden, “Homogeneity in Confiding Relations.”; Jackson, “Average Distance, Diameter, and Clustering in Social Networks with Homophily.”

between effect and cause—assumes and creates segregation. It transforms individuals into “neighbors” who naturally want to live with people “like them;” it presumes consensus stems from similarity; it makes segregation the default. In valorizing “voluntary” actions, even as it troubles simple notions of “peer influence” and contagion, it erases historical contingencies, institutional discrimination, and economic realities.<sup>11</sup> At its worst, it serves as an alibi for the inequality it maps, by relabeling hate as love. When homophily (often allegedly of those discriminated against)—not racism, sexism, and inequality—becomes the source of inequality, injustice becomes “natural” or “ecological.” In addition, conflicting opinions, cross-racial relationships, ambivalence and heterosexuality become anomalies.

According to Miller McPherson, Lynn Smith-Lovin, and James Cook in their definitive review article on homophily, “the homophily principle structures network ties of every type, including marriage, friendship, work, advice, support, information transfer, exchange, co-membership, and other types of relationship.”<sup>12</sup> Rather than framing homophily as historically contingent, they portray it as natural and timeless: indeed, they start their review with quotations from Aristotle and Plato about how similarity determines friendship and love (which they admit in a footnote may be misleading, since Aristotle and Plato also claimed that opposites attract). Homophily, according to McPherson et al., is the result of and factor in “human ecology.” They list the following as causes of homophily: geography (“the most basic source of homophily is space”); family ties; organizational foci, occupational, family, and informal roles; cognitive processes; and selective tie dissolutions.<sup>13</sup> Although they note that race and ethnicity are the “biggest divide in social networks today in the United States,” they ascribe these divides to personal choices based on love, rather than personal or institutional racism and discrimination,

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<sup>11</sup> Kandel, “Homophily, Selection, and Socialization in Adolescent Friendships.”; Aral, Muchnik, and Sundararajan, “Engineering Social Contagions.”

<sup>12</sup> McPherson, Smith-Lovin, and Cook, “Birds of a Feather,” 415

<sup>13</sup> McPherson, Smith-Lovin, and Cook, “Birds of a Feather,” 429-35

economics and history. In the world of networks, love, not hate, drives segregation, even though “proof” of this love is repulsing others.

Given that the very notion of homophily emerges from studies of residential segregation, the “discovery” of race as the most divisive factor is hardly surprising. As examined in more detail later in this article, Lazarsfeld and Merton’s first published the term homophily in their 1954 “Friendship as Social Process: A Substantive and Methodological Analysis,” which analyzed friendship patterns within two housing projects: “Crafttown, a project of some seven hundred [white] families in New Jersey, and Hilltown, a bi-racial, low-rent project of about eight hundred families in western Pennsylvania.”<sup>14</sup> Merton and his research team studied these housing projects in the mid to late-40s and interviewed one member of almost every residence using a lengthy questionnaire. They reported that race and gender were almost 100% homophilic in both projects, but they argued that value homophily, friendship due to shared values, drove “status homophily,” friendship due to shared characteristics. Lazarsfeld and Merton based their findings on the existence of value homophily by tabulating the responses to three questions: “could you tell me who your three closest friends are (regardless of whether or not they live in Hilltown / Crafttown)?”; “Q25. Do you think black and white people should live together in housing projects?” and “Q26: On the whole, do you think that black and white residents in the Village get along pretty well, or not so well?” They only considered the responses of the white residents, whom they divided into three camps: liberals, who “believe that ‘colored’ and white people should live together in housing projects and who support this belief by saying that the two racial groups ‘get along pretty well’ in Hilltown”; illiberals, who “maintain that the races should be residentially segregated and who justify this view by claiming that, in Hilltown, where the two races do live in the same project, they fail to get along”; and ambivalents, who “believe that the

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<sup>14</sup> Lazarsfeld and Merton, “Friendship as Social Process,” 21

racism should not be allowed to live in the same project, even though it must be admitted that they have managed to get along in Hilltown.”<sup>15</sup>

They ignored the responses of black residents. They removed their answers from their analysis of value homophily because they argued there were “too few illiberal or ambivalent Negroes with friends in Hilltown.”<sup>16</sup> Notably, there was a similar small number of illiberal white friends who chose illiberals, yet this number grounded their analysis. Thus, at the core of value-homophily lies racial segregation and exclusion: an implicit assumption that values do not cross racial borders, or if they do, that this crossing is less significant than consensus or conflict within a race. Based on this exclusion, they claimed that: liberals over-select other liberals by 43%; illiberals over-select other illiberals by 30%; liberals under-select illiberals as close friends by 53% ; illiberals under-select liberals by 39%; and ambivalents do not over-select or under-select.

<sup>17</sup> Given the small numbers, the over-selection of illiberals for other illiberals was not, by their own admission, statistically significant. Further their analysis of the values of white residents to explain the lack of cross-racial friendships is odd. If anything, it would seem to reveal that status homophily occurs regardless of conflicting values.

Not only did they discard half their data, they also openly speculated. They wrote, “we cannot afford to be imprisoned in the framework of fact that happens to be at hand, even if breaking out of this narrow framework means leaving demonstrated fact for acknowledged conjecture.”<sup>18</sup> At the outset of sociometry and what would become the quantitative social sciences lies imagined scenarios—imagined connections that condense time into neat spatial representations. Specifically, Lazarsfeld and Merton were interested in friendship as dynamic social process, but, since their interviews were administered once, they imagined future and past

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<sup>15</sup> Lazarsfeld and Merton, “Friendship as Social Process,” 26; Kurgan et al., “Homophily.”

<sup>16</sup> Lazarsfeld and Merton, “Friendship as Social Process,” 27

<sup>17</sup> Lazarsfeld and Merton, “Friendship as Social Process,” 27-8; Kurgan et al., “Homophily.”

<sup>18</sup> Lazarsfeld and Merton, “Friendship as Social Process,” 29

states based on a reward-frustration model, in which “common values make social interaction a rewarding experience, and the gratifying experience promotes the formation of common values.”

<sup>19</sup> They presumed that homophily drove habitual change. They speculated racial liberals and illiberals make friends with those who hold the same opinion because they find their encounters to be “doubly rewarding”: they get to “express deep-seated feelings” and they also receive satisfaction from having “these opinions endorsed by others.”<sup>20</sup> In contrast, liberals and illiberals avoid each other because their values clash. Lazarsfeld viewed cross-value friendships as “unstable”: they were presumed to have been formed prior to the revelation of racial attitudes.

In these analyses, not only did the responses by black residents and the possibilities of cross-racial value solidarity disappear, so did the white ambivalents, who comprised the largest category of white residents. This hypothetical methodological section transformed the ambivalents into an unstable and temporary category. The ambivalents, Lazarsfeld assumed, must either become liberal or illiberal in order to maintain “equilibrium” or comfort.

The actual data supporting at least part of these analyses were promised but never published: their footnotes alluded to a forever forthcoming complete report, *Patterns of Social Life*, as well as their deletion of the black residents’ responses.<sup>21</sup> In general, their footnotes are fascinating, for they revealed deletions and hinted at possible alternative conclusions. Footnote 6 explains that they “did not adopt the familiar sociometric device of asking residents to designate *only* those intimate friends who happened to live in their own community” because, if they had, they would have “diluted” the category of most intimate friends—something of course now standard in studies of homophily.<sup>22</sup> Crucially, footnote 10 explains that homophily and heterophily are not based in the individual and “it refers, rather to an observed correlation,

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<sup>19</sup> Lazarsfeld and Merton, “Friendship as Social Process,” 36

<sup>20</sup> Lazarsfeld and Merton, “Friendship as Social Process,” 30

<sup>21</sup> Merton, West, and Jahoda, “Patterns of Social Life: Explorations in the Sociology of Housing.”

<sup>22</sup> Lazarsfeld and Merton, “Friendship as Social Process,” 21



positive in the one instance, negative in the other, between designated attributes of friends. In other words, homophily and heterophily are descriptive, not interpretative, concepts.”<sup>23</sup>

The qualifications and context published in “Friendship as Social Process” have been erased in the early twenty-first century form of network science. Homophily is no longer a problem or a question, but rather an axiomatic assumption—the ground from which networks emerge. In the move from “representation” to “model,” homophily is no longer something to be accounted for, but rather something that “naturally” accounts for and justifies persistence of inequality within facially equal systems.

Homophily as a starting point cooks the ending point it discovers: segregation is what is “recovered” and justified if homophily is assumed. One of the most important textbooks on network science, for example, states quite simply that “one of the most readily perceived effects of homophily is the formation of ethnically and racially homogeneous neighborhoods in cities.”<sup>24</sup> This naturalizes discrimination and erases systemic racism. It covers over the history of redlining and other government sanctioned programs that made it almost impossible for black citizens to buy homes, while helping white citizens to do so.<sup>25</sup> And again, homophily maps hate as love. How do you show you love of the same? By running away when others show up.

If this is so, what to do? As the next section argues, the answers lie in the past—in how it remains and haunts networks as spaces.

### **“Neighborhood Reservations”**

It is ironic that Lazarsfeld and Merton’s 1954 “Friendship as Social Process,” has become the citation for networked homophily, for this text describes the question “in friendships, do or do

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<sup>23</sup> Lazarsfeld and Merton, “Friendship as Social Process,” 23

<sup>24</sup> Easley and Kleinberg, *Networks, Crowds, and Markets*, 96.

<sup>25</sup> Rothstein, *The Color of Law*.

not birds of a feather flock together” as egregiously misleading. It repeats Aristotle’s doubts about the adequacy of this concept<sup>26</sup> and couples homophily with heterophily.<sup>27</sup> Further, it stresses that homophily was descriptive rather than explanatory, societal rather than an individual. Merton signed the 1952 Social Science Statement in the *Brown v. Board of Education* supporting desegregation, and *Patterns of Social Life* was used to call into question the “naturalness” and desirability of neighborhood segregation in the 1950s.<sup>28</sup> To understand homophily and its alternatives, we revisit the forever “forthcoming” report by Columbia University’s Bureau of Applied Social Research, *Patterns of Social Life*, written by Merton, Patricia Salter West and Marie Jahoda, as well as the data traces housed in Columbia University’s Merton archive. Engaging, rather than dismissing, this report, which was completed years *before* “Friendship as Social Process,” offers glimpses of a past, present and future that could have been. It brings to the fore neighbors who, following Ariella Aisha Azoulay’s reading of archives as the common, are still with us.<sup>29</sup>

Written post World War II, at a time of pressing housing shortages within the U.S. and of record income compression, this report exposed the challenges, possibilities and limitations facing a U.S. population that overwhelmingly (70%) supported low-income public housing through the rubric of [white] tenant morale.<sup>30</sup> Started in the early 1944, the Bureau’s housing project research intervened into heated and partisan debates over the best solution to the housing shortage: public versus private housing projects; private versus cooperatively owned housing.<sup>31</sup> The results and aftermath of this debate has been well-documented. As Rothstein and Ira

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<sup>26</sup> Lazarsfeld and Merton, “Friendship as Social Process,” 37

<sup>27</sup> Lazarsfeld and Merton, “Friendship as Social Process,” 22

<sup>28</sup> Clark, Chein, and Cook, “The Effects of Segregation and the Consequences of Desegregation A (September 1952) Social Science Statement in the *Brown v. Board of Education of Topeka Supreme Court Case.*”; Bauer, “Social Questions in Housing and Community Planning.”

<sup>29</sup> Azoulay, *Potential History*.

<sup>30</sup> Merton, West, and Jahoda, “Patterns of Social Life,” 14:4.

<sup>31</sup> Merton, “Memorandum”, 2.

Katznelson shown, the subsequent decisive move towards private mortgages for white Americans, insured by the U.S. government and driven in part by the “red scare,” solidified and augmented an ever widening income and wealth gap.<sup>32</sup>

Again, *Patterns of Social Life* analyzed two housing projects: Crafttown and Hilltown. As the archives reveal, Crafttown was the code name for Winfield New Jersey, a cooperatively-owned, all white housing project, (poorly) built during World War II under the Lanham Act. Hilltown was Addison Terrace, a public housing project with a proportionate rent scheme, built through a slum clearance program in the Hill district of Pittsburgh, Pennsylvania, and opened to tenants in 1940. Around the time Addison Terrace was constructed, Pittsburgh was a national hub for steel production in the U.S., and between the late nineteenth and early twentieth centuries, the city attracted a diverse population of internal migrants from declining rural areas in the U.S. south, as well as European immigrants.<sup>33</sup> In particular, black southerners largely migrated to the area due to employment opportunities in manufacturing, transportation and trade, higher wages, and labor recruitment efforts by Pittsburgh companies.<sup>34</sup>

The Hill District, where Addison Terrace was located, resulted from segregated housing zoning laws that made it virtually impossible for black Americans to buy or rent good houses elsewhere in the city.<sup>35</sup> It was a vibrant urban area fueled by churches of many different religions, fraternal orders, mutual benefit societies, social clubs and nightclubs, a professional baseball team,<sup>36</sup> and home of the black-owned newspaper *Pittsburgh Courier*.<sup>37</sup> Steel plant expansion projects in Pittsburgh during World War II displaced more than 10,000 people.<sup>38</sup>

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<sup>32</sup> Rothstein, *The Color of Law*; Katznelson, *When Affirmative Action Was White*

<sup>33</sup> Trotter and Day, *Race and Renaissance*, 9.

<sup>34</sup> Trotter and Day, *Race and Renaissance*, xviii.

<sup>35</sup> Trotter and Day, *Race and Renaissance*, 13.

<sup>36</sup> Trotter and Day, *Race and Renaissance*, 15.

<sup>37</sup> Trotter and Day, *Race and Renaissance*, 20.

<sup>38</sup> Trotter and Day, *Race and Renaissance*, 38.

Federally funded low-income housing projects sought to alleviate these displacements, and it is in this context that Addison Terrace was born. Although Federal Housing Authority Administration prohibited the financing of racially integrated housing until 1948, Addison Terrace housed both black and white families.<sup>39</sup> However, segregation by building was still maintained. Addison Terrace's population was evenly split between white and black residents, who were divided via a "checkerboard" plan: residents were racially segregated by terrace and building, with the exception of one building, in which they were separated by floor.<sup>40</sup>

For almost all residents, white or black, Addison Terrace represented a substantial physical upgrade. As the Director of Addison Terrace put it, "these people were moving into brand new homes and especially for the Negroes that was just fiction. Brand new homes."<sup>41</sup> The project was composed of groups of three-story apartment buildings, built on three terraces. Each apartment was equipped with "products of American culture," that most tenants had yet to experience: an indoor bathroom, hot water, gas stove, and electric refrigerator. Although the project was bi-racial, it was not integrated, and the researchers reported that there was a pervasive "embarrassment in many meetings to get races together," at least, that is, by the white residents.<sup>42</sup> White residents were also more temporary than their black neighbors, for residents had to move once their income exceeded a certain amount. Given discrimination in the workplace and the effective barring of black Americans from federally-insured mortgages, white residents cycled through Addison Terrace quickly, while black residents stayed put. As one well-educated black woman resident noted, "we want private homes but zoning laws keep us out of nice neighborhoods. This is the best we can do."<sup>43</sup>

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<sup>39</sup> Trotter and Day, *Race and Renaissance*, 38.

<sup>40</sup> Merton, West, and Jahoda, "Patterns of Social Life," 9:5.

<sup>41</sup> Clarence Stein, "Meeting of Clarence Stien and A.Z. Pittler at Addison Terrace," December 17, 1946, 2.

<sup>42</sup> Merton, West, and Jahoda, "Patterns of Social Life," Appendix:73.

<sup>43</sup> Merton, West, and Jahoda, "Patterns of Social Life," Appendix:13;

Crucially, Addison Terrace was chosen nine months after Winfield, almost solely because of its racial makeup. West, Jahoda and Merton focused on white residents' responses to mixed-race housing because they wanted to understand the effects of tenant morale on the success of "social engineering" projects. They argued that tenants had ambiguous attitudes towards public housing—even if they benefitted materially, because they felt they were living in conditions "at crossroads" with the general U.S. population. These projects grouped people by class; mixed races in the context of equality; put private activities under government control; offered an economic plan for cooperative living; and provided people with physical amenities they could not otherwise afford.<sup>44</sup> They thus generally disrupted the established status quo (although 'normal' neighborhoods also clearly group people by class). The question before each resident was: is this gain or loss in the eyes of the world? Was it a source of pride or stigma?<sup>45</sup>

For their report, West, Jahoda and their hired researchers asked a member of almost every residence 100+ questions, during four-hour interviews. As well as recording the residents' responses, they qualitatively assessed the cleanliness of the unit, the attitude of the residents towards the interview, etc. They also mapped the units, and foot and vehicle traffic between them, and members of the research teams lived in each project for a couple of months. The overriding concern with race in Addison Terrace structured the interviews and their reporting: the race of each interviewee was noted, and the interviewer asked to divide resident's attitudes towards "ethnic problems."

*Patterns of Social Life* greatly qualified the significance of the much-cited findings regarding value homophily in "Friendship as a Social Process." Merton, West and Jahoda admitted that a proper perspective towards the data would focus on the absolute numbers, rather than the percentages. Specifically, since there were so many more white liberals than illiberals in

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<sup>44</sup> Merton, West, and Jahoda, "Patterns of Social Life," 14:4.

<sup>45</sup> Merton, West, and Jahoda, "Patterns of Social Life," 1:1-2.

Hilltown, “the liberals in fact have a larger number of friendships with ambivalent residents than do illiberals.”<sup>46</sup> Further, commenting on the liberals-illiberals; illiberals-liberals, and illiberals-illiberals friendships, they disclosed: “the number of observed friendships are fewer than 15 and thus afford too slight a basis for reliable estimates of over-and under-selection.”<sup>47</sup> The difference in real numbers was extremely small—in the case of the “illiberal” over-selection of illiberals, there was a difference of 3 friendships: 12 actual friendships versus the 9 expected. The absolute numbers provided in figures 1 and 2 also reveal that the numbers used to disqualify the black population for further study were actually greater than those used to make claims regarding value homophily in the white population: there were 28 liberal-ambivalent friendships and 22 ambivalent-liberal friendships.

Question 25	Do you think that colored and white people should live together in housing projects?			
	<u>Column 45</u> <u>Single punch</u>	N	W	
	Yes..... 1	318	109	
	No..... 2	37	241	
	DN..... 3	1	1	
	NA..... 4	1	4	
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Question 26	On the whole, do you think that colored and white in the Village get along pretty well, or not so well?			
	<u>III Column 27</u>	N	W	
	Get along pretty well..... 0	96% (344)	79% (280)	
	Don't get along so well..... x	2% (9)	18% (66)	
	Don't know..... y	1% (2)	2% (6)	
	No answer..... reject	1% (2)	1% (5)	
		(357)	(357)	

Figure 1. Responses to Questions 25 and 26, redrawn from Merton, “Addison Terrace Code Book” (1947), Robert K. Merton papers, 1928 - 2003, Box 207, folders 10-11, Rare Books & Manuscript Library, Columbia University Library, New York, N.Y.

<sup>46</sup> Merton, West, and Jahoda, “Patterns of Social Life,” 8:11.

<sup>47</sup> Merton, West, and Jahoda, “Patterns of Social Life,” 8:9.

Table D-10. Attitude toward "Other Race" (Index)

(Respondent)	HILLTOWN NEGROES			HILLTOWN WHITES		
	Liberal	Ambivalent	Illiberal	Liberal	Ambivalent	Illiberal
<u>Friends:</u>						
Liberal	87% (190)	79% (22)	(1)	45% (37)	34% (37)	20% (10)
Ambivalent	13 (26)	21 (6)	-----	45 (37)	48 (52)	56 (28)
Illiberal	-----	-----	-----	10 (8)	18 (19)	24 (12)
Total Cases	(218)	(28)	(1)	(82)	(108)	(50)
% in Population	89%	10%	1%	31%	50%	19%

*Handwritten notes:* W.C. West, 31-70, 84, 49, 117, 119, 39

Figure 2. The “eureka” moment from “Table D-10. Attitude toward ‘Other Race’ (Index),” in PJS, “Outline Memo on Friendship - Section D: ‘Factors Influencing the Selection of Friends,’” 5, (July 1948), Robert K. Merton papers, 1928 - 2003, Box 209, folder 4, Rare Books & Manuscript Library, Columbia University Library, New York, N.Y.

All of these qualifications were lost in the published manuscript, which also erased the work of West and Jahoda, who, based on the documentation in the archive, led the fieldwork.

Intriguingly, this report emphasized not only the absolute number of liberals versus illiberals, but also the behavior of the ambivalents—a group that, as mentioned previously, disappeared in “Friendship as Social Process.” The Merton archive reveals that the population as a whole and the white subset were overwhelmingly ambivalent or liberal (figures 1 and 2). 280 out of 357—78%—of white residents believed that the races get along pretty well. Crucially, the archive reveals that the researchers did not analyze values cross-racially: there are no tables in the archive that group black and white residents together as liberals, illiberals or ambivalents. Indeed, the responses to most questions are divided into two columns: N and W. Data collection and analyses almost always presumed racial segregation.

Embedded within their report and within the archive are threads that pull at the narrative of complete racial and gendered homophily. Gender homophily was only absolute if family members and couples were invalidated as “close friends.” Further, as they acknowledged, their

choice of “three closest friends” regardless of where they lived went against the usual ways for accounting for friendship. Intriguingly, residents bristled at being asked who their three closest friends were—it was the part of the survey about which they had the most questions.<sup>48</sup>

### **Recovering the excluded connections**

The format of the housing questionnaire and editorial decisions severely limited the number and nature of friendships included in Lazarsfeld and Merton’s formulation of value homophily. Their analysis, again, depended on imagined connections. If Lazarsfeld and Merton could openly speculate, so can—and must—we. However, to open space for indifference and other possibilities, we start from a different perspective, one that engages and cuts through the data traces the archive has left behind.

As mentioned previously, the Columbia researchers used race to divide the data on Addison Terrace for almost every question they asked, including in the transcriptions of interviews where they described residents as either “X” (white) or “Y” (black).<sup>49</sup> This profoundly affected their analysis, results—even the very phenomena they observed. To further analyze the influence of these divisions in the data, we engage with Karen Barad’s agential realism by considering the housing questionnaire as an apparatus of scientific measurement and the divisions by race as “agential cuts.” According to Barad, measurement apparatuses are boundary-making practices that “enact agential cuts that produce determinate boundaries and properties of ‘entities’ within phenomena.”<sup>50</sup> That is, causality can be understood as an “entangled affair: it is a matter of cutting things together and apart (within and as part of phenomena).”<sup>51</sup> Cutting or “un-cutting” the data then reveals different phenomena.

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<sup>48</sup> PJS and JAM, “Report of Meeting of the Adult Program Committee of Addison Terrace,” 2.

<sup>49</sup> PLK, “Interview with Mrs. Scullion,” 5

<sup>50</sup> Barad, *Meeting the Universe Halfway*, 148.

<sup>51</sup> Barad, *Meeting the Universe Halfway*, 394.



After the racial cut that eliminated black residents' responses, the most significant cut enacted by Lazarsfeld and Merton's measurement apparatus was their definition of a "close friend," as it excluded resident's spouses.<sup>52</sup> This exclusion of intimate friendships with the other sex presumes that spouses could not be friends at the same time as lovers, and that spousal duties obfuscate any friendship ties. It eliminated any possibility of exploring these types of close relations that typically endure for a long time, even under diverse circumstances and conflicts of values. Together with the arbitrary limit of three close friends, it forced the inclusion and exclusion of many other relationships. While one resident could have considered a close friend a friend who knows all their intimate secrets, others reportedly named married couples as a sole entity of "close friends."<sup>53</sup> Furthermore, even though residents were asked to name three friends, regardless if they lived in the village or not, the only responses that could be compared regarding "liberal," "ambivalent," and "illiberal" values were the ones that were bi-directional.<sup>54</sup> Consequently, these boundaries to friendship enacted by the limits of the questionnaire (spouses, family and friends living outside the housing project) erased an entire web of potential relationships that could shed light on what kept this diverse community together. Again, networks depend on exclusions—these exclusions create gaps, and thus nodes and edges.

The traces of data left in the archive allows us to imagine the extent of this web of excluded relationships. Question 82 asked residents for their marital status at the time of the interview.<sup>55</sup> A total of 535 respondents (75%) declared they were married. Question 37 asked to name their close friends and whether they lived in the village or not. A total of 1,068 of the named friends (55%) did *not* live in the village, compared to 867 (45%) that lived in the village. If we include these close relationships, the web of close ties within Addison Terrace residents

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<sup>52</sup> Merton, West, and Jahoda, "Patterns of Social Life," 7:13; Merton, "Friendship"; Kurgan et al., "Homophily."

<sup>53</sup> Merton, West, and Jahoda, "Patterns of Social Life," 7:16

<sup>54</sup> Merton, West, and Jahoda, "Patterns of Social Life," 7:5

<sup>55</sup> Merton, "Addison Terrace Code Book."

looks much more abundant than the initial one, as Figures 3, 4 and 5 illustrate.<sup>56</sup> Looking at these network images, one must ask: what role did these excluded relations played in the community and what is the impact of their absence?

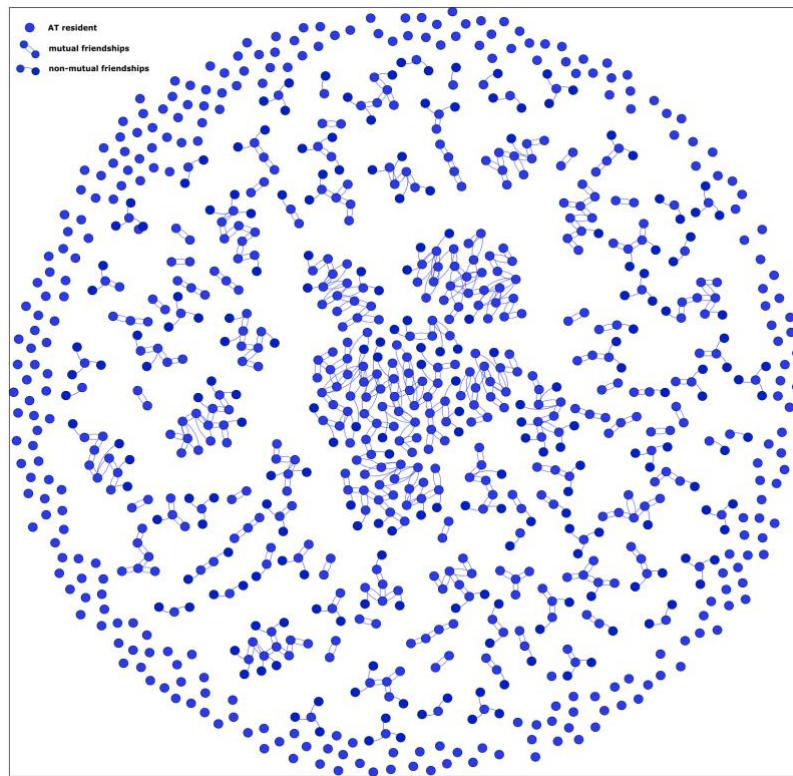


Figure 3. A representation of the network of close friendships, **excluding** resident's spouses and friends outside Addison Terrace: the network used for Merton's formulation of the homophily principle.

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<sup>56</sup> These social network representations were created by an algorithmic simulation using responses to the questionnaire and randomly assigning friendships to residents. The data on which resident was friends with which other resident was not found in the archive, hence the need for random friendship assignments.

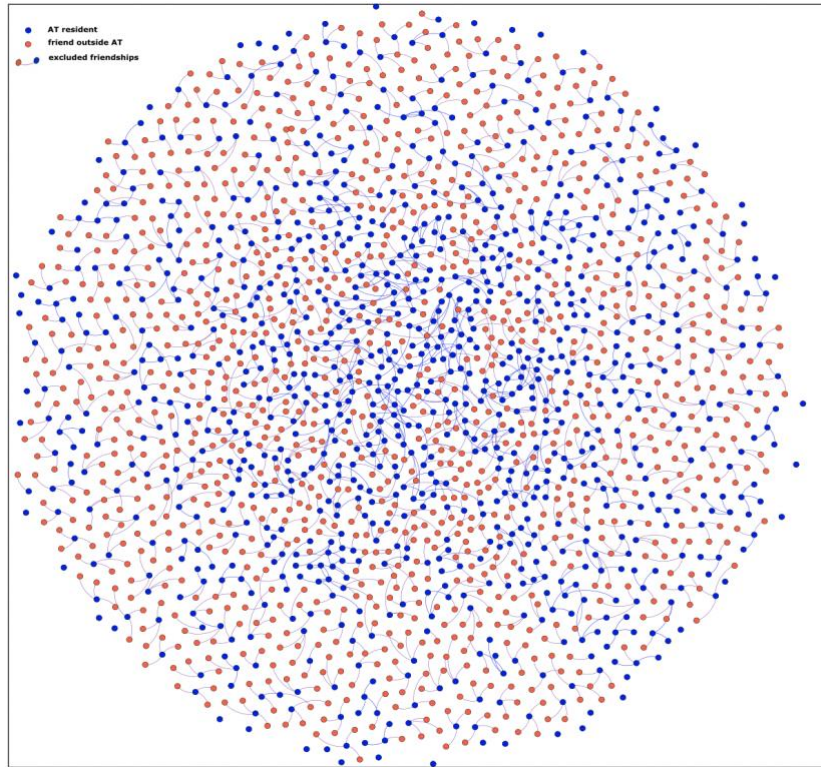


Figure 4. A representation of the network of close friendships **including** named friends who **lived outside** Addison Terrace. The red nodes were *excluded* from Merton's formulation of the homophily principle.

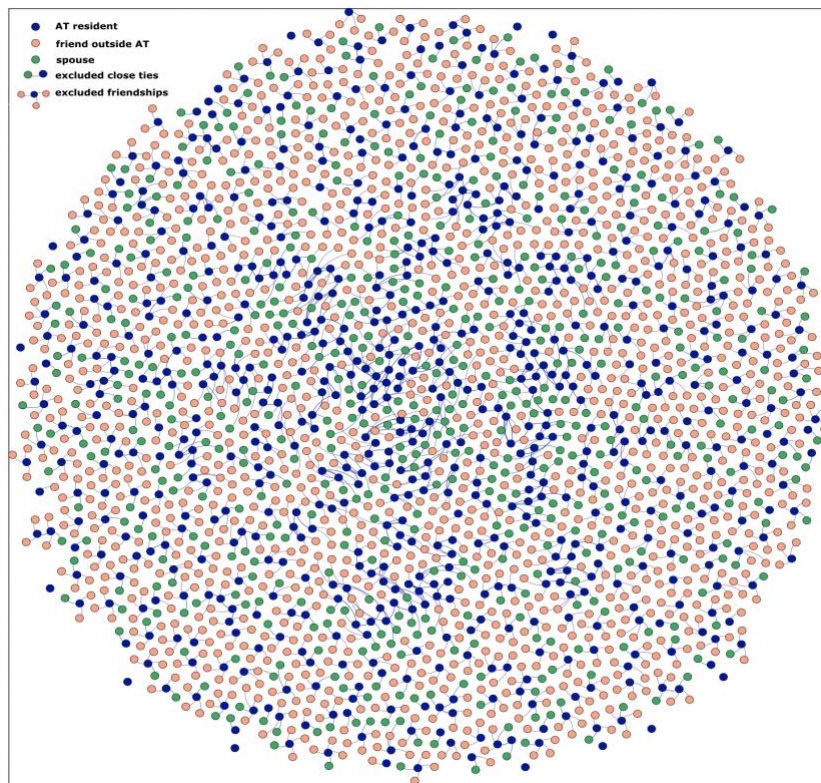


Figure 5. The network of close ties including **all** named friendships (living inside and outside the village) and spouses. The red and green nodes were *excluded* from Merton's formulation of the homophily principle.

As Figure 3 shows, the category “close friendships” erases possibilities by producing boundaries. Small, medium and sometimes big clusters of nodes and edges are surrounded mainly by other unconnected clusters. There are also a lot of lonely nodes floating and not relating to anyone. However, if we expand this network to include the friends who did not live in the Addison Terrace (Figure 4), we see less closure, less clustering, less lonely nodes, and more relations. If we expand this network even further to include the residents’ spouses (Figure 5), we can see more overlapping connections and less lonely nodes –the gaps themselves become almost imperceptible. However, even though the network looks more complex and heterogeneous in Figure 5, there are still gaps. We could keep engaging with more possibilities and keep expanding this network as we open these closures, filling gaps to the point that this network’s image could capture everything (and nothing).

Not incidentally, the network in Figure 3 is the one that resembles our social media networks today, with friends closed inside their clusters, almost enacting this past into its digital future. However, we need to keep in mind the danger of relying on the patterns that are perceptible to us from this data, as “what is perceptible [often] comes to stand in for what is perceived.”<sup>57</sup> If we were to escape from this past, we need to think of this network of friendships differently and ask questions about the nature and circumstances of this network that made only friendships perceptible. We also have to ask ourselves: how did a map of “close friendships” become that of “social media friends”?

Unfortunately, we do not know who was friends with whom—these cards are lost. Nevertheless, the “friendship tables” the researchers produced reveal many additional clues about the nature of friendships they analyzed.<sup>58</sup> This data suggests the researchers compared

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<sup>57</sup> Munster, *An Aesthesis of Networks*, 5.

<sup>58</sup> Lefkowitz, “Addison: Friendship tables.”

friend's responses in order to apprehend the diverse factors that might influence friendship formation. Some of these tables compared where friends met according to sex, race, age, organizational memberships, occupation, time of arrival at the village; where they lived before; religion; education; birthplace and so on. However, they mainly analyzed only 650 friendships (34%), which we assume were the ones where questions could be matched (that is, both friends were residents and responded to that particular question). Therefore, these tables also excluded the entire web of relationships illustrated in Figure 5.

The friendship tables do not recover the lost relationships but they do reveal an unintended and invisible cut that the instrument of the questionnaire helped to enact. For example, friendships among females were by far the bulk of their homophily sample. Females were overrepresented in their resident's sample, as a total of 60% of the respondents were women,<sup>59</sup> probably because they were the primary caretakers of the children and the home and more reachable by the interviewers to answer their questions. As figure 6 reveals, they were also the ones who named fellow villagers as close friends. In total, females made up 75% of friendships that were analyzed.

Females were not just over-represented in this sample, but in other key studies of this time. Katz and Lazarsfeld developed the concept of "two-step" communication—that is, a model of neighbour-to-neighbour influence—while analyzing the consumption choice of housewives in Decatur.<sup>60</sup> Previous studies of friendship and housing concentrated on housewives within MIT married housing.<sup>61</sup> Others focused on Native American reservations and inmates of Japanese

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<sup>59</sup> Lefkowitz, "Addison: Friendship tables."

<sup>60</sup> Katz and Lazarsfeld, *Personal Influence*.

<sup>61</sup> Festinger, Schachter, and Back, *Social Pressures in Informal Groups; a Study of Human Factors in Housing*

internment camps.<sup>62</sup> Tellingly, the Columbia researchers called the neighborhood a “reservation” for white working class women.<sup>63</sup>

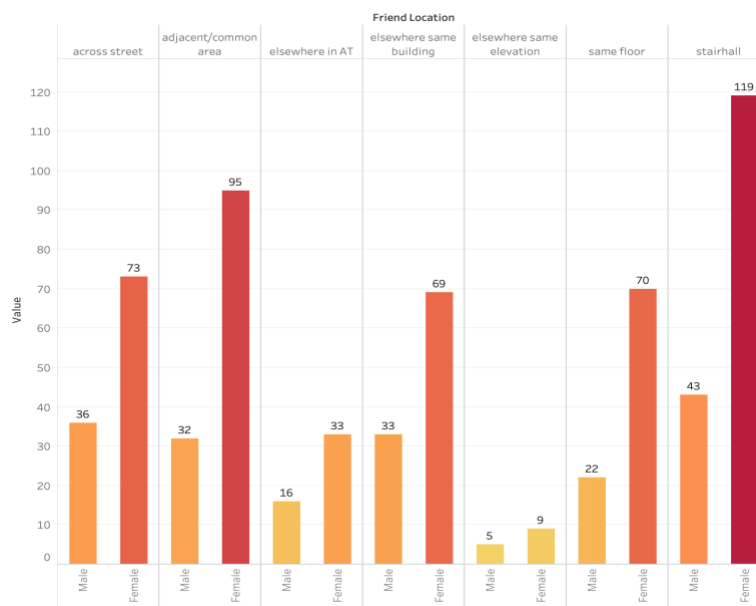


Figure 6. Females made up the majority of the friendship that were analyzed by the housing study, as they were the ones who named most friends that lived in the neighborhood.

The overrepresentation of women in the friendship sample makes us wonder what role these women played in keeping this community together through the relationships they had created with their neighbours. These women spent more time in the housing project, and, as figure 6 shows, made most of their named friendships within the building that they lived in, or in close proximity. These spaces from which friendship emerged were probably not a mere function of spatial propinquity, but also reflected the circumstances of these women’s lives in these housing projects. As Cherry notes in re-reading of Festinger’s study of friendships and propinquity in an MIT housing project, the circumstances of mothers at home taking care of children influenced the relationships they chose to build.<sup>64</sup> Data about children from questions 67

<sup>62</sup> Leighton, *The Governing of Men*.

<sup>63</sup> PJS, “Outline Memo on Friendship-Section C,” 1.

<sup>64</sup> Cherry, *Stubborn Particulars of Social Psychology*, 76.



and 69 reveals that 450 of the respondents to the questionnaire (63%) had children under 18 years old.<sup>65</sup> If we consider that women were most likely to be the primary caretakers of the children, they were then more likely to use common areas of the neighborhood. They were also more likely to keep close to their houses to watch their kids, and to rely on their neighbors to watch them, which would open more possibilities to create relationships with them.<sup>66</sup> Women were also expected to help in the buildings' shared cleaning duties, such as cleaning garbage cans and common areas (tasks which were a significant source of conflict).<sup>67</sup> The laundry was a place where women met their friends, more than in community affairs (figure 7).<sup>68</sup>

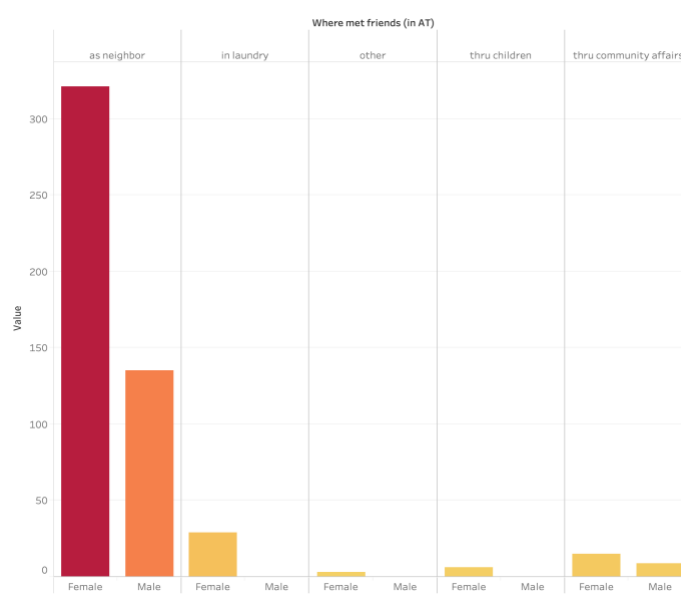


Figure 7. Women met most of their friends as neighbors, with the laundry as the second most frequent place they had met their friends.

At the same time that laundries were a space for forming friendships and for interracial interaction,<sup>69</sup> they were also a conflict space due to competition for the facility.<sup>70</sup> As figure 8 shows, six laundries were shared across bi-racial areas, except for two laundries at Areas IV and

<sup>65</sup> Merton, "Addison Terrace Code Book."

<sup>66</sup> PLK, "Interview with Mrs. Schaub."

<sup>67</sup> PLK, "Interview with Mrs. Barnett," 5-6; PJS, "Interview with Mrs. Maria Gaglias," 2

<sup>68</sup> Lefkowitz, "Addison: Friendship tables."; PLK, "Interview with Mrs. Barnett."

<sup>69</sup> PJS, "Interview with Mr. Watson," 2; PLK, "Interview with Mrs. Barnett," 6

<sup>70</sup> PJS. "Ethnic, Politics, Privacy, Management," 3; PJS, "Interview with Mrs. Maria Gaglias," 3.

V. These circumstances reveal the boundaries of what might have been possible for the women and mothers living in these buildings, hence, what might have been possible within the sample of friendships used for homophily to emerge. They also reveal how racial segregation by building or per floor might have influenced the finding of racial homophily and resident's perceptions of the other race.

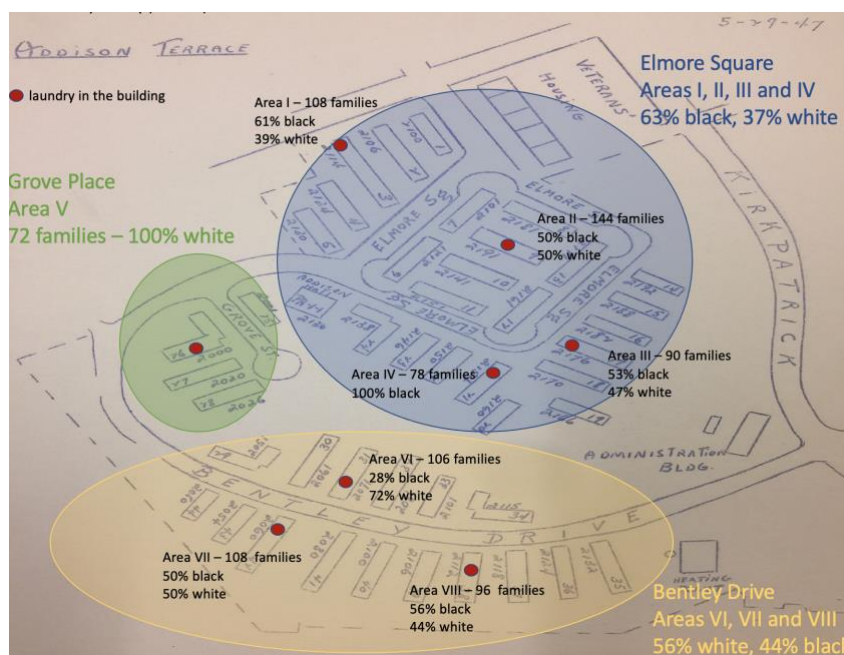


Figure 8. Map of Addison Terrace divided by areas and racial composition of each area. The areas were divided by the laundries (red dots). Reproduced from "Community facilities at Addison Terrace" and PJS, "The Effect of Racial Ecology on Attitudes toward and social contacts with other race," 1, 1947.

### Embracing the indifference

Other traces in the archive reveal the limits of racial homophily. The residents of Addison Terrace were asked a significant number of questions regarding their opinions towards the other race.<sup>71</sup> If liberal/illiberal values were assumed to be tied to attitudes around racial segregation, it is intriguing that only two questions about race were used to formulate homophily. For example, question 27 asked the residents if they thought black and white residents were getting along

<sup>71</sup> Merton, "Addison Terrace Code Book."



better or worse since they had moved into Addison Terrace. A total of 425 respondents (60%) said that race relations were “about the same” since they have moved in, while 213 of respondents (30%) said relations were getting better (figure 9). Also, when asked how living in the same community with people of the other race compared to what they had first expected, most people were indifferent on the subject. A combined 548 respondents (77%) felt they had accommodated to the situation; thought it was “tolerable;” could not determine their feelings; or had never thought about it (figure 10). When asked to guess how the management felt about there being black and white residents in the village, 355 residents (50%) said management were neutral or said they did not know (figure 11). One would expect worse relations and more charged responses if the residents were truly polarized via questions of race. Again, Lazarsfeld’s “value” hypothesis depended on a speculative “t+1,” during which ambivalents turned into liberals or illiberals. If we consider these responses, what different conclusions could we reach?

Q27. Do you feel that black and white residents are getting along better or worse now than when you first came here?

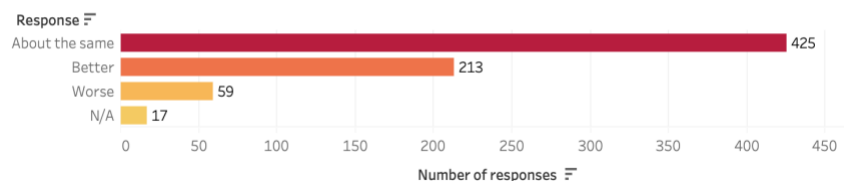


Figure 9. Most of respondents said that race relations were “about the same” since they have moved to Addison Terrace, while some of respondents said relations were getting better.

Q32. How does living in the same community with (other race) people compare with what you first expected?

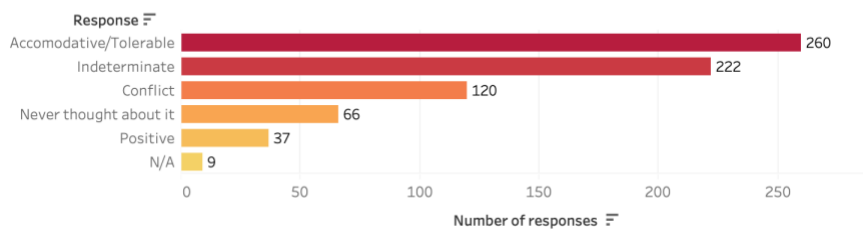


Figure 10. When asked how living in the same community with people of the other race compared to what they had first expected, most people felt indifferent on the subject.

Q61. How do you suppose the manager feels about there being black and white residents in the Village?

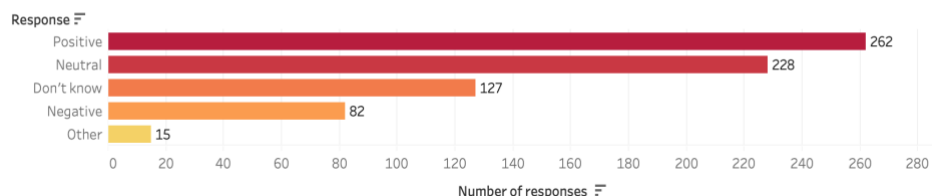


Figure 11. When asked to guess how the management felt about there being black and white residents in the village, the majority said they were neutral or simply said they did not know.

To answer this question, we conducted another simulation, which maps responses of ambivalence and indifference in the social network of residents. These occupy a lot of spaces in their close friendships (figure 12). From this perspective, it seems that the “polarizing” attitudes of the minorities could only mobilize the indifferent/ambivalent majority if, as Lazarsfeld speculated, their position was unstable. This seems unlikely though, mainly because the respondents did not appear really concerned about these feelings or contradictions. Unless there were hubs of influence deliberately seeking to polarize these spaces (a function that Lazarsfeld proposed close friendships could serve), the feelings of ambivalence and indifference that occupied these spaces in between enabled people to live in-difference, as neighbors.

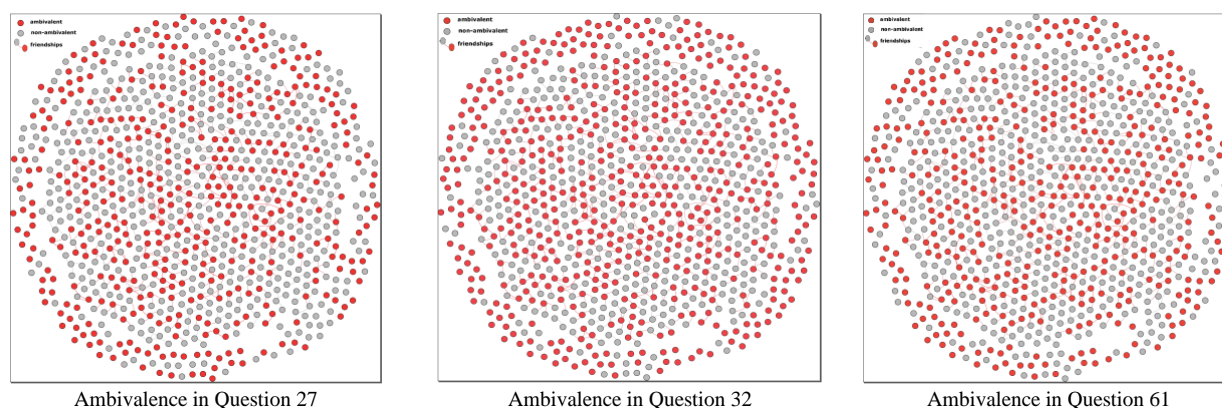


Figure 12. Three possible representations of the network used for Merton’s formulation of the homophily principle. The red dots map the distribution of ambivalence/indifference in this network, based on resident’s responses to question 27, 32 and 61.

Simultaneously, we do not refuse the idea that close relationships or different bubbles of value-homophily with competing beliefs could exist and perpetuate within this collective. As Terranova reminds us, affective relations compose and decompose over time in a network with various tendencies of convergence and divergence, and with several relations of compossibility that might exist and from where common grounds can emerge.<sup>72</sup> Of course, people participate in various collectives at the same time, such as their work, family or school, each one of them for different reasons that may trigger or be triggered by alienation or identification, and several different processes and purposes that creates people's close ties and are simply unmeasurable. These relations and compossibility are often not perceptible as they are not capturable as a "pattern" in social life. Crucially, indifference does not trigger change, so remains internalized and not perceptible.

Even if we consider friendships as polarizing, the choice of close friendships among residents as a measure of success for this community is questionable. A close friendship with a neighbor is hardly a necessary condition for co-existence with them. Neighbors are not innocuous—the term neighbor literally recalls "boors." They are nosy and noisy. They provoke hostility, resentment and ambivalence. They intrude, even—and especially—when they are inert. They offer, however, a way to reside in/difference and to engage relations that go beyond homophily<sup>73</sup>: not just heterophily (heterosexuality, electromagnetism and other opposites that attract), but also ambivalence and neutrality.

Friendship mattered so much in this and the studies that followed it, because it revealed the success—or not—of these housing projects as forms of social engineering. To justify their research, Merton referred not only to the pressing problems of U.S. housing, but also the need to

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<sup>72</sup> Terranova, *Network Culture*, 156.

<sup>73</sup> As Kenneth Reinhard, drawing from Hannah Arendt and Jacques Lacan, has argued, neighbors—who are neither friends nor enemies—are the space that enable the public and private to emerge.

understand and implement “good” social engineering.<sup>74</sup> In their subsequent report, Merton, West and Jahoda compared the “world laboratory of the sociologist” to that of “the more secluded laboratories of the physicist and chemist.”<sup>75</sup> Like ethnographers studying “primitive people”—hence the “borrowing” of homophily and heterophily from “savage Trobrianders”—they were keenly aware of the impact their observations could have on these communities and thus sought to minimize their influence.<sup>76</sup>

Housing projects were ideal spaces for experimentation and evaluation because they disrupted and enabled new habits. They begin their report by acknowledging that a change in environment calls into question the normal relationship between past, present and future. Moving house is particularly disruptive because it impacts the “the routine habits of everyday life: the new rooms differ from the old in shape and size, furniture must be shifted to unfamiliar positions, the journey to work is different as is the way to one’s friends and group activities... The neighbors might turn out to be crude or snobbish or just right, which probably means people like oneself. At such times, reluctance and hopeful anticipation mingle in varied degrees, according to personality and social circumstance.”<sup>77</sup> Moving into a housing project, they argue, was even more unsettling, since one was entering a new social world and gaining a new status. The acquisition of friends—or not—within these projects thus measured the extent to which these projects were succeeding in engineering new forms of community.

This valorization of disruption and neighborhoods, experimentation and the world as laboratory underscore the connections between these early studies of housing projects and the twenty-first century world of social media with its “new eugenics.”<sup>78</sup> It is no accident that pre-

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<sup>74</sup> Merton, “Memorandum.”

<sup>75</sup> Merton, West, and Jahoda, “Patterns of Social Life,” 1:30

<sup>76</sup> Merton, West, and Jahoda, “Patterns of Social Life,” Appendix:39.

<sup>77</sup> Merton, West, and Jahoda, “Patterns of Social Life,” 1:1.

<sup>78</sup> For more on this see Wendy Hui Kyong Chun, *Discriminating Data* (forthcoming 2020 MIT Press).

social studies of homophily focused on schools and that social media sites take college campus as their architectural and social model. That social networking sites are based on friendship is also no accident, for homophily, the now axiomatic belief that similarity breeds connection, stems from these mid-twentieth century inquiries into social engineering (i.e. habitual change), in relation to segregated public housing in the U.S. Friendship has been so important to the conceptual formation of social networks because imaged and imagined connections are most often habits: things potentially or frequently repeated. Habit is information: it forms and connects.<sup>79</sup> Habits are creative anticipations based on past repetitions that make network maps the historical future. The constant disruption of habit in order to create new friendships and accentuate differences—to render the politically inert or ambivalent into agitated divides—echoes Lazarsfeld and Merton’s description of housing projects. The move from the mass to the new depends on making the ambivalent unstable. This study, however, also reveals the extent to which other futures could have emerged and still can emerge, not through the suppression of indifference, but rather through its embrace. The normalization of homophily in the early twenty-first century is remarkable: as late as the mid-twentieth century, it was not a given. Echo chambers, segregation, and polarization may be the goal, not an accidental error, within networks based on homophily, but homophily does not need to be the only way networks are imagined.

### **Who speaks in this archive?**

We conclude this experiment of imagination by acknowledging the boundaries that the data traces of this archive impose on our own speculation about it. As Hartman points out, a critical reading of the archive can both allow us to “tell an impossible story or to amplify the impossibility of its telling.”<sup>80</sup> Although the alternative narrative of the archive presented here

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<sup>79</sup> For more on this see *Updating to Remain the Same*.

<sup>80</sup> Hartman, “Venus in Two Acts,” 1.

intends to tell the story of the many possibilities that could explain what living in/difference meant to Addison Terrace residents, these numbers in the archive cannot possibly represent these people's lives. We cannot. Lazarsfeld and Merton could not.

Interviews, responses, numbers, percentages, and all the archive holds are products of the questionnaire's instrument. How might the circumstances of the people being surveyed, the apparatus of the research and the archival procedure have affected which voices can speak from this archive, and which voices can we hear? One can only imagine the feelings of surveillance people in this housing project might have felt, particularly black Americans, who were always made visible since they were brought into slavery,<sup>81</sup> manifesting in this archive in the form of separate columns in the data tables. Were they comfortable or free to say what they really thought about race relations in this bi-racial neighborhood? How did they feel about being asked these intimate questions about their lives, closest friends, and children? Could the voices of those who made black lives visible throughout the process of collecting data from them, but then decided to remove their voices from their production of knowledge, be trusted with representing them? Could a gaze that made use of the female's availability to answer their questions, but did not acknowledge how these perspectives may yield results that are particular to their circumstances, be trusted? Tellingly, the researchers report that residents were suspicious—and especially resistant to naming their three closest friends.<sup>82</sup>

The archive can offer a glimpse of counterpossibilities,<sup>83</sup> and this study is the first of a series to develop the centrality of indifference to networks. Digital social worlds are modelled according to the stories we construct from data traces like this, and it matters if we choose to hear the voices of indifference, of ambivalence, rather than the voice of the intolerant. To trace

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<sup>81</sup> Browne, *Dark Matters*.

<sup>82</sup> PJS and JAM, "Report of Meeting of the Adult Program Meeting Committee of Addison Terrace," 2.

<sup>83</sup> Spivak, "Can the Subaltern Speak?" 83

alternative voices or gaps is to reimagine our living connections,<sup>84</sup> beyond homophily and online echo chambers. Networks are fundamentally about subtraction, not addition. The white spaces within these maps are not empty, but like the color white, contains “too much” to be seen.

### **Acknowledgements**

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<sup>84</sup> Hartman, “Venus in Two Acts,” 13

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