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A Theoretical Examination of Homophily Beyond Focus Theory: Causes, Consequences, and New Directions

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Abstract

Scott Feld's focus theory stimulated one of the most important traditions in the study of the concept of homophily in connection to individual action and network behavior across sociology and organizational studies. This article uses Feld's focus theory as a starting point of reference to examine the major theoretical developments and empirical applications of homophily since his pioneering work. First, this article interrogates the causes of homophily by examining structured versus social psychological preference for similarity as two prominent explanatory mechanisms for homophily. Second, this article scopes out the consequences of homophily by examining the advantages and disadvantages of homophily for individual action and network behavior. Finally, building on the previous sections, this article proposes new areas for the study of homophily: deleterious psychosocial consequences of homophily, the role of multiplexity in causing homophily, and the disaggregation of homophily in general into different, nuanced (potentially interacting) types of homophily. This article thus contributes to the literature by offering a critical juncture to examine the key arguments that have guided the study of homophily since Feld's focus theory and an important launching point for future research on the concept of homophily and its applications.

Keywords

homophily, social networks, focus theory, network structure, decision science, social psychology

Homophily: Revisiting a Popular Concept

The concept of homophily has been an important lens into the study of social networks. As the condition that similar people connect at a disproportionately higher rate (M. McPherson et al., 2001), homophily has implications for social exchange patterns and rates (localization), different social mechanisms that determine characteristics of ties at smaller units of analysis, and the resultant transformations at larger units of analysis (groups, networks, etc.). Across these domains, homophily is an important litmus test of broader social patterns ongoing in networks, as much as it is a vehicle for social change itself, standing at the heart of social dynamics that organize interactions between different entities (M. McPherson et al., 2001).

One of the most important traditions in the examining homophily and social action, Feld's (1981, 1982) focus theory takes stock of how the mechanisms of homophily uncovered the workings of social networks in general. From his work, a wealth of research has flourished on the connection between two that has gone largely unscoped, which is now more relevant than ever as evidence, new and old, points to how homophily as a social process helps explain conflict and inequality at multiple levels, from micro level to macro level settings (Leszczensky & Pink, 2015; Pettigrew et al., 2011).

Homophily is paramount to understanding the large-scale problems that Western society faces today as an explanandum for the mechanisms that underpin such problems. Ethnic conflicts erupting from the mass exodus of refugees sweeping into Western nations from the decade-long destabilization in the Middle East, for instance, is a result of when homophily in one dimension (i.e., ethnicity) continues as a distinct force within a group (i.e., at a subgroup level) at the same time the heterogeneity of the larger group increases, meaning that intergroup contact increases under unequal conditions to

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create intergroup conflict (Adida et al., 2017; Pettigrew et al., 2011).

Thus, the social mechanisms that create homophily and its advantages and disadvantages are important to understand patterns of solidarity and conflict in social networks and different parts of social life itself. Taking this as point of departure, this article uses Feld's focus theory as a starting point of reference to examine the major theoretical developments and empirical applications of homophily since his pioneering work. The structure of this article follows an intuitive logic. First, the literature on conceptualizations of how homophily *operates* is examined. This section examines the two most prominent explanatory mechanisms for homophily: social structural preferences and social psychological preferences for similarity. On the one hand, network characteristics and structures, such as structural equivalence, closure, density, transitivity, help determine homophilous behaviors (Blau, 1977b; Bothner et al., 2010). Yet, the role of network structural conditions can actually be sustained by and counterbalanced with social psychological mechanisms that may arise out of these very structures, such as ease of communication, less perceived interactional uncertainty, inferences based on preferential beliefs, and tendency toward mutuality (Dabos & Rousseau, 2004; Rivera et al., 2010).

Next, the second section examines that which arises out of homophily, broadly categorized as its consequences for advantages and disadvantages for actors. Homophily can be advantageous for actors by generating more instrumental and expressive support that include emotional support and job information, as well as strengthening one's ties altogether. Simultaneously, homophily can also cost an actor novel information and bridging capital, establish boundaries that create inequality, or directly sap one's psychological resources.

Finally, reflecting on the examinations conducted in the first two sections on how homophily works and to what effect, the concluding section develops suggestions for future work. This article proposes three potential areas for future research as they bear upon homophily: the possible deleterious psychosocial consequences of homophily, the role of multiplexity, and the disaggregation of homophily in general into different, nuanced (potentially interacting) types of homophily. This article further draws on recent network experiments to suggest experimental research designs as an alternate, new research design with which to frame future research in these three areas. This article thus contributes to the literature by critically re-assessing the key arguments that have guided the study of homophily since Feld's focus theory and an important launching point for future research on the concept of homophily and its applications.

The Causes of Homophily: Two Explanatory Mechanisms

The Social Structuration of Behaviors in Embedded Networks

Homophily offers an important illustration of how the network structures that one is a part of influence the content of their behaviors, beliefs, and associations. Disentangling the tendency for homophily among actors as an outcome of social structure from widely held assumptions of humanity's innate psychological proclivity for similarity at the time, Feld (1981) offers a classic starting point for evaluating how homophily occurs by giving flesh to the concept of foci. In laying the foundation for focus theory, Feld (1981) posits that tie formation is determined by the social structure of a shared social setting (a focus), around which people associate and which ultimately color the content of their associations.

To demonstrate the explanatory power of focus theory for homophily, Feld (1982) highlights the prevalence and formation of age similar friendships in a variety of work (mostly factory) settings. He discovers that workers in factories (the focus) setting form more age similar friendships than in the general population, and that the tendency is even stronger at the work department level (subfocus), where workers form even more age similar friendships than those in the factory at large (Feld, 1982). Here, Feld is usefully recasting Blau's (1977a) macrosociological theory in *Inequality and Heterogeneity* on how social structure affects people's association, which posited that ingroup relations predominate and heterogeneity reverses ingroup tendencies, in terms of foci. The importance of the fact that foci breed homophily is because foci (as social contexts and organizations alike) are disproportionately homogeneous. Feld (1982) asserts, for instance, that people in the general population typically form around a host of foci, such as friendships, workplace, neighborhoods, and voluntary associations.

Indeed, the core argument that the social structuration of activity, underlain by foci, shapes the types of ties formed is echoed and advanced by another general line of inquiry in network scholarship devoted to understanding how network characteristics and structure shape behaviors independent of external factors like culture (Blau, 1977b; Breiger, 1974; Simmel, 1955). Erickson (1988), for instance, demonstrates that stronger ties, denser cliques, more structural equivalence in a block all engender more attitudinal similarities among actors. More recently, Bothner et al. (2010) have uncovered the strong presence of coupling in organizational fields like academia, where an alter's identity spills onto an ego, such that the prestige of an alter reflects onto the prestige of an ego, resonating with Lin's (2001a, p. 20)

observation of how an alter's positional resources can produce inferences about an ego's status cues or Podolny's (2001) classification of a dyadic tie between two firms as a tipoff for third-parties to determine their quality (p. 34; see also Podolny, 1993). These findings are in service of the proposition that the behaviors we observe are the result of tangible, and thus, measurable, constraints experienced by actors rather than as result of inner dispositions shaped by personality, socialization, or norms (Childress & Friedkin, 2012; Erickson, 1988; Freeman, 2004; Martin, 2009; Wellman & Berkowitz, 1988).

Furthermore, that behaviors, including tie-formation, are determined by local network structures reveals a cornerstone assumption of Feld's focus theory (1981): that the more restrictive the foci, the more segregated are the network structures that constrain or allow certain people (with some type(s) of shared characteristics) to interact. Thus, foci exert a powerful influence on the social structuration of activity, and by extension, the associations that evolve out of them among participating members. Implicated, in turn, are consequences for the structure of the resulting networks among members. Feld (1981) gives the particular examples of transitivity, bridging ties, and density: the more restrictive the foci, the more likely people are tied to each other (greater transitivity), the stronger the bridging ties across different groups, and so the denser the networks are (density).

Over the years, some important clarifications and developments have been made along these lines. Blockmodeling studies have produced useful evidence that homophily is generated by the same network conditions and social mechanisms that encourage transitivity (H. C. White et al., 1976). Peixoto (2022) recently disaggregates homophily from transitivity by using a modified version of blockmodeling to distinguish "true" from "apparent" homophily, when similarity in ties is due to "an actual preference of connection between nodes… rather than an iterated triadic closure process occurring" (p. 2).

Network structures in organizations, associations, and markets at large with any semblance of a hierarchy can typically be partitioned into blocks that mostly fall dichotomously between a smaller, concentrated core and a larger, more scattered periphery (Cattani & Ferriani, 2008). What bears emphasizing here is the degree of separation between the two sides, where we observe little initiative to participate in exchange across the core/periphery gulf from *either* side. Marsden and Friedkin (1993) would conceive of this insulation as an actual ingredient for improving exchange between dyads and within groups embedded in a network: closure increases group density as its members grow familiar with one another, which creates rapport to incentivize cooperation and disincentivize conflict (Au, 2019; Enns et al., 2008). The bounded networks in which such cohesive norms are embedded also motivate their members to more frequently interact with one another through social pressure (the need to maintain ties), cognitive balance (the demand to reciprocate), and cooperative norms that urge communication (Aral & Van Alstyne, 2011; Coleman, 1988; Granovetter, 1973, 1985, 1992).

At the same time, this closure as a social mechanism that explains the role of restrictive foci in predicting greater transitivity and density also facilitates more bonding ties between dyadic actors. Indeed, what Feld calls restriction in foci are perhaps best crystallized as some context with which to effect boundaries or closure in networks—groups, organizations, etc. However, as the next section illustrates, this network restriction or closure process is just as importantly maintained by individual choices that show the importance of agency.

Social Psychological Preference as an Assortative Sorting Mechanism

Where the first section reviews selection of similarity based on structural conditions, this section reviews selection of similarity based on social psychological preferences. Here, this article departs from Feld (1981, 1982), who too quickly dismisses selection of similarity based on preference. Refining his argument that similarity is necessarily structured, J. M. McPherson and Smith-Lovin (1987) argue that although induced homophily wins out more often than choice homophily, psychological selection and structuration of activity as determinants of homophily are closely linked (see also Rivera et al., 2010). Which shared social characteristic that actors choose to filter their networking choices with is determined by group opportunity structures in the organization, but their decisions ultimately fracture in ways that can often rely on cultural preferences. This is why, for example, subgroups exist within larger groups and cleave them along certain dimensions and not others. Homophily by race and ethnicity take precedence over homophily by age, evidenced by aggregate patterns of racial and ethnic segregation in familial and association networks (DiPrete et al., 2011). Consistent with Feld's (1982) study, although age is one category that demonstrates the baseline homophily in the general population (homophily caused by the demography of a potential tie that occurs by chance, which would suggest that the observed homophilous networking choices are determined by structure, M. McPherson et al., 2001), strong patterns of inbreeding homophily (homophily explicitly measured over and above an opportunity set, which suggests the observed homophily is determined more by personal preference and choice) exist in many other

important dimensions: religious, gender, racial, and ethnic subgroups (see also Ferrand et al., 1999). McFarland et al. (2014), for instance, find that organizational contexts defined by racial heterogeneity actually increase chances of clustering, hierarchy, and segregation. Taken together, what this means is if a black ego is made to work by their organization with an age-dissimilar, black alter and an age-similar, white alter, they are more likely to associate more closely with the former.

As M. McPherson et al. (2001) note, people also bond with similar others due to reduction in interactional uncertainty (see also Rivera et al., 2010). People make inferences, sometimes incorrect ones, about their networks that are colored by preferential beliefs, like "filling in" affiliations between alters where there are none (Freeman, 1992). Furthermore, the very network arrangements that structurally induce homophily can actually be sustained by agentic decisions to reinforce this homophily. For instance, Godart and Mears (2009) show how creative directors for high-fashion houses discursively frame their selection choices of fashion models in terms of finding a "look," but which goes undefined and without methodology and ultimately boils down to exchanging information "tips" with one another. Essentially, creative agents begin to reserve models publicly, which becomes an object of discussion by other producers. Eventually, selections of models funnel toward homogeneity (producers selecting the same models) when producers grow reluctant to deviate from the consensus of an influential core of the network and believing that doing so would diminish their own prestige and credentials (Lin, 2000, 2001a, p. 20, 2001b; see also Marsden & Friedkin, 1993; H. White, 2008). As Schilling (2005) observes, the immersion of core members in prevailing conventions produces a growing reluctance to forsake existing knowledge for new knowledge, where everyone longs to abide by what appears to be the same winning style—in this manner, the modeling market's network structure (and the symbolic meanings of inclusion and status) is reproduced when producers homogenize their opinions.

The social psychological tendency toward mutuality captured here is one social influence mechanism that helps to understand how homophily arises as a result of agentic, social psychological preferences (Centola & Macy, 2007; Deci et al., 2006; Marsden & Friedkin, 1993). Homophily appears in relationships developed within restricted foci because its members feel more trusting, less uncertain, more understood, and fashion a connection that reflects these qualities (J. M. McPherson & Smith-Lovin, 1987). It is why friendships and sexual relationships are more often formed amongst similar others in racial or class dimensions (Ferrand et al., 1999; M. McPherson et al., 2001). What is key is that although homophily does not occur across all categories, it stands that at least *some* type of homophily informs the criteria with which people decide whom to develop strong ties with, if not in status then in values (M. McPherson et al., 2001; Wellman & Wortley, 1990). It is why, as well, we observe that diffusion occurs at a higher bandwidth amongst strong ties: we are more likely to divest more valuable information and more frequently to people we trust, which we determine based on the measured security that homogeneous qualities offer above heterogeneous ones (Aral & Van Alstyne, 2011; Coleman, 1988, 1990), even at our own initiative when the information is not sought, for instrumental purposes to the benefit of our strong tie alters or for expressive purposes to our own benefit, discussed later (Granovetter, 1995; Kmec et al., 2010). Centola and van de Rijt (2015) have empirically demonstrated the causal power of homophily over social associations formed using an experiment of an online health community (a focus), where anonymous participants could choose peers based on any characteristic among other program members. Building on Lazarsfeld and Merton's (1954) classic assertion that similar demographic traits predict selective formation of ties and social influence between people, Centola and van de Rijt (2015) showed that active participants were actually indifferent to others' fitness and exercise profiles, selecting partners who are similar in age, BMI, and gender. In this respect, Sîrbu et al. (2019) also show that algorithms also play a role in shaping homophily among interlocutors by facilitating the polarization of opinions, after which people retreat into communities of like-minded people.

This social psychological drive to sustain mutuality per cooperative norms is also how homophily self-replicates as both cause and consequence of bonding with similar others in a shared context (a focus). Cooperative norms matter for sustaining the homophily of a group (Au, 2019; Enns et al., 2008; Lin & Dumin, 1986; Uehara, 1990). Actors abide by these norms for fear of offending others and so that they will receive social support from the group in the future when needed. Thus, those who are more deeply embedded in groups thrive better than those who are less so (Burt, 2005; McFarland et al., 2014). In their studies of autonomy support within close friendships, Deci et al. (2006) illustrate these principles by showing how, within a dyad, receiving autonomy support predicts the recipient's satisfaction with the relationship in terms of emotional reliance, sense of security, inclusion of friend in self, ultimately generating significant *mutuality* in autonomy support (see also Au & Chew, 2017). Rousseau's (2001; Dabos & Rousseau, 2004) studies of mutuality in organizations advance this line of inquiry by showing how, within organizational settings, workers honor their work obligations and enact

mutuality toward their managers, even when their psychological contracts go unfulfilled (i.e., when their employers do not provide adequate job satisfaction), per obligations to do so mandated by cultural norms for social harmony and cooperation within the workplace (see also Ang et al., 2000; Rousseau & Schalk, 2000).

The Consequences of Homophily: Advantages and Disadvantages for Individual Action and Network Behavior

Where the first two sections describe the mechanisms that create homophily, this section focuses on what its consequences are. How actors make homophilous networking choices and who someone turns to for help are important vistas into observing the need for and supply of resources as an impetus for social exchange and, through this emphasis, the advantages and disadvantages of homophily itself for network behaviors and individual action and well-being.

Lin's (2001a, 2001b) formalized theory of social capital offers one of the most famous characterizations of the formation and use of homogeneous ties vis-à-vis heterogeneous ones, framed as expressive and instrumental actions respectively. These are presently called *homogeneous* ties, rather than homophilous ties, because homophily and homogeneity in ties are not the same property: homogeneity in a tie means that the two people in a dyad are the same in some characteristic, whereas homophily is the condition in which similar people connect at a disproportionately high rate. Ties among others placed in similar or lower positions in the hierarchy that exists in a local organizational and the general social structure (homogeneous ties), Lin asserts, are most useful for expressive purposes (seeking emotional support from others, see Song et al., 2011). This attribution is bolstered by studies that demonstrate the added benefits of shared personal characteristics and roles to the quality and extent of emotional support exchanged, since people have more to talk about and share worldviews and norms that reduce conflict and augment solidarity (Coser, 1975; Gibbons & Olk, 2003; M. McPherson et al., 2001; Miller & Darlington, 2002; Plickert et al., 2007; Wellman & Gulia, 1999; Wellman & Wortley, 1990). Homogeneous characteristics augment the exchange further, like with gender, where women have been found to express and give more emotional support (Rollero et al., 2019).

Homogeneous ties are also useful for maintaining the existing resources that one has, a part of which is the strength of the relationships they have (Lin, 1999, 2001b). Indeed, another important virtue of emotional exchange and expressive action is the foundation they lay for instrumental action—when actors add to their repertoire of resources. Expressive action creates trust between interlocutors (Bourdieu, 1983), raising the likelihood of even obtaining *instrumental* support in the present and in the future (Coleman, 1990). Instrumental action means to seek help and resources for explicit material gains, like job information (Granovetter, 1973).

In this way, homophily can catalyze the strengthening of a tie. For instance, Ferrand et al. (1999) find that homophilous selections are more pronounced in new friendship ties and sexual relationships, whereupon greater quality and quantities of resources (i.e., information) flow at a faster rate between actors from the higher bandwidth that comes from strong ties (Aral & Van Alstyne, 2011; Lai & Wong, 2002; Uzzi & Spiro, 2005). This is also to the benefit of adopting innovative ideas and occupational attainment (Lai & Wong, 2002; Uzzi & Spiro, 2005). One of the clearest crystallizations of the benefit of high bandwidth ties (ties where information flows very quickly and easily between two actors) is the social mechanism of nonsearching it allows, by which actors in a network receive resources (i.e., information, referrals, etc.) without actively seeking them (Granovetter, 1995; Kmec et al., 2010); essentially, when social capital is mobilized on an ego's behalf by a friend or organization whom they know closely (Small, 2009). The utility of the link between expressive and instrumental action also extends beyond job searches. Rich exchanges of expressive action prefigure a sense of trust crucial for actors to exchange goods and services at a dyadic level (Wellman & Wortley, 1990) and at the community level (Morris, 2004; Putnam, 2000; Valente, 2007) for restricted and generalized exchanges alike (Uehara, 1990). Here, homophily across certain characteristics enhances exchange as well, such as proximity, where those closest to each other can provide the most aid (Plickert et al., 2007; Wellman, 1979).

Thus, homophily facilitates the social mechanisms of cooperative exchange that are absolutely crucial to disadvantaged communities with the most need for it, like enclaves of urban, black poor segregated from access to better institutions and social services and whom rely on exchange of material goods, money, child-rearing help, information, and emotional support with each other to thrive (Desmond, 2012; Fischer, 1982; Stack, 1974).

But for actors whom are not in such dire straits, instrumental action has much to glean from heterogeneous ties (Lin, 2001b). It is important to discuss the advantages of heterophily against the backdrop of homophily, given that one of the principle mechanisms by which homophily strengthens—closing off the boundaries of a network or narrowing down its foci—works to weaken heterophily. We can imagine, for instance, heterophily as bridging capital (links that bridge across boundaries of groups) and homophily as bonding capital (links strengthened within a group) (Burt, 2005; Frank &

Yasumoto, 1998; Granovetter, 1973; Kadushin, 2004). Although both forms of capital exist all the time in different dimensions of one's life (Kadushin, 2004), they can powerfully clash in the same dimension or context. For example, Enns et al. (2008) show how the number of voluntary activities or civic participations that individuals partake in outside a coastal community (gains in bridging capital) predicts more weak ties outside their community (further gains in bridging capital), as well as *fewer* weak ties inside their community (losses in bonding capital)—and vice versa. Another example of a potentially inverse relationship between homophily and heterophily is how smaller sized networks create less exclusion, whereas larger networks create more exclusion (McFarland et al., 2014). This means that larger networks with greater (racial) heterogeneity actually enable members the freedom and relative anonymity to organize themselves by personal preferences into more (racially) homophilous groups and vice versa (McFarland et al., 2014; see also Erickson, 2003).

Homophily thus anticipates three interrelated disadvantages: (i) the novelty gleaned from alternate perspectives that can only be obtained from interaction between actors in heterophilous network positions is lost. These losses are particularly felt in cultural industries for whom creative distinction is the name of the game. de Vaan et al. (2015), for instance, show how structural folding, the intersection between group memberships, is responsible for the best innovations. They go on to demonstrate how it is the combination of senior (core) *and* junior (periphery) producers on a team that generates the most distinctive, best received video game designs. The cognitive distance embodied in the different repertoires of knowledge that senior and junior producers possess allows these repertoires to complement one another and mingle to produce new, innovative ideas altogether. Cattani and Ferriani (2008) also observe how superior creative performances in Hollywood are traced to teams with members characterized by more intermediary positions or a mix of core (people who are connected with a large number of others in the network) and *periphery* members (people who are not connected with many others in the network). Core members bring the recognition inhered in their status, but periphery members bring novel information acquired from their greater exposure to different sources of stimulation by standing on the fringes of the network (also Perry-Smith & Shalley, 2003; Weimann, 1982).

(ii) The resources that relationships cutting across social categories can provide are lost (Blau & Schwartz, 1984). Beginning from Granovetter's (1973, 1983) classic characterization of the strength of weak ties, heterophily or bridging capital is paramount to gaining access to more diverse information and opportunities (see Burt, 1997, 1998, Burt, 2004, 2009[1992]). Much evidence has since repeatedly demonstrated the importance of network capital for social capital: having connections in a variety of social worlds expands the types of information, cultural resources, and social support (instrumental and expressive) that actors receive, which generate a marked advantage for upward mobility for individuals (DiMaggio & Garip, 2011; Enns et al., 2008; Erickson, 1996a, 1996b, 2003, 2004, 2009; Lin, 2001b; Lin & Erickson, 2008; Tindall & Cormier, 2008; Wellman & Frank, 2001) and greater profits for firms (Bothner et al., 2010; Eccles & Crane, 1988; Podolny, 1993, 1994; Rivera et al., 2010).

(iii) Homophily can be a seedbed for inequality by driving the creation of boundaries responsible for segregating networks (Burt, 2000; Granovetter, 1973; McFarland et al., 2014; Rivera et al., 2010). Network closure, an important network characteristic that helps sustain homophily, can also sustain inequality through facilitating exploitation by the already well-placed (in status and network structures) and barring upward mobility among the already disadvantaged (DiMaggio & Garip, 2012; Lin, 2001a, p. 57). Members of "a categorically bounded network," for instance, may "hoard opportunities" by monopolizing access to a valuable resource that recursively enhances their boundaries and so strengthens their grip on the monopoly (Diani, 2007; Tilly, 2005, p.74) or by exploiting outsiders to help increase returns to a resource whilst excluding them from the added value of their efforts (Tilly, 1984, pp. 58, 62–63, 1998, Ch. 4).

Homophily thus forms the social base of cumulative advantage and disadvantage across multiple dimensions. On the micro level, the excluded can remain excluded, such as when people whom are depressed initially withdraw from their networks for fear of burdening their ties, but whom are then actively marginalized by alters who avoid them and force them to restrictively network with fellow depressed, marginalized others (Schaefer et al., 2011). In organizations, upper echelons of management and higher income positions dominated by Anglo-white (and) men work to bar women (of color) from entry (Burt, 1998), which informs gender role expectations that escalate men into these better, male-dominated positions and siphon women into worse positions or worse job rewards (i.e., authority, income, etc.) when they do manage to penetrate the glass ceiling (Kmec et al., 2010). Thus, homophily empowers social exclusions in organizational networks when trust networks (networks whose members share pursuits of similar long-term activities) justify and sustain their own unequal advantage and actively prevent upward mobility on the grounds of status characteristics—race, ethnicity, gender, etc. In terms of race, income, and education, people whom are white,

have a higher socioeconomic status, and higher education have the most ties and have a comparatively smaller maintenance gap in preserving ties over time than racial and ethnic minorities (Lorenz et al., 2021; Mollenhorst et al., 2008; Schafer & Vargas, 2016; S. Smith et al., 2014). Little exchange across segregated group boundaries means that while the well-positioned maintain their positions by siphoning similar others, barring upward mobility from members of traditionally disadvantaged gender, classes, and races (Frank & Yasumoto, 1998; Godart & Mears, 2009; Lin, 2001b; S. Smith et al., 2014). These segregations can recursively spiral out to effect network closure at a macro level, giving rise to observations like DiPrete et al.'s (2011) that the strongest predictors of acquaintanceship degree in the general population are social characteristics, such as race, ethnicity, income, etc. or like Pettigrew et al.'s (2011) that problems with group integration can occur when different levels of groups experience different rates of homogeneity/heterogeneity. Subgroups experiencing homophily in a larger group experiencing heterogeneity, for instance, increases intergroup contact, but under unequal conditions and so increases conflict (see also Leszczensky & Pink, 2015). In this manner, (ethnic) homophily conjures conflicts at a macro level, like the integration problems resultant of the mass exodus of refugees sweeping into Western nations, displaced by the decade-long destabilization in the Middle East (Adida et al., 2017), as well as the micro level, when networks are segregated by ethnic lines to the effect of increasing exclusionism and aggression against minorities (Karimi et al., 2018; Scheepers et al., 2002; Windzio, 2018).

New Directions for Future Research on Homophily

Homophily lies at the heart of many social patterns—and problems—at different levels. Using Feld (1981, 1982) as a starting point of reference, this article has reviewed the literature on homophily insofar as social networks are concerned. The first section reviewed two prominent explanatory mechanisms for homophily: social structure and social psychological preference. On the one hand, network characteristics and structures, such as structural equivalence, closure, density, transitivity, play a role in determining homophilous behaviors, independent of external factors like culture (Blau, 1977b; Bothner et al., 2010; Erickson, 1988). On the other, the role of network structural conditions is sustained by and counterbalanced with social psychological mechanisms that may arise out of these very structures, such as ease of communication, less perceived interactional uncertainty, inferences based on preferential beliefs, and tendency toward mutuality (Dabos & Rousseau, 2004; M. McPherson et al., 2001; Rivera et al., 2010).

The second section reviewed that which arises out of homophily, broadly categorized as its advantages and disadvantages for actors. Homophily can be advantageous for actors by generating more instrumental and expressive support that include emotional support and job information, as well as strengthening one's ties altogether. Simultaneously, homophily can also cost an actor novel information and bridging capital, establish boundaries that create inequality, or directly sap one's psychological resources.

Having examined how homophily works and to what effect, this concluding section lays out suggestions for future research, focusing on psychosocial consequences of homophily, the role of multiplexity, and the disaggregation of homophily in general into different (potentially interacting) types of homophily, and in so doing, offers an important agenda for future research on homophily.

First, as discussed in the closing paragraphs of the second section, the direct psychosocial consequences homophily has for members' health based on the demands of their context or foci has largely eluded attention in social networks. This constitutes an area for future research to take up, particularly in the tradition of social psychology. How is homophily interpretively received by actors included and excluded from the foci within which it operates? More importantly, how, if at all, do network structures that are bound together by foci pattern health and mental health within its organizational context? We glean some inspiration for this idea from the concept of symbolic boundaries propounded by Michele Lamont (Lamont & Molnár, 2002; Lamont et al., 2014), which shows how values can originate social orders that have real consequences for how actors in a shared context interpretively and structurally position themselves (White (1993) also offers a classic discussion on how values create such an order).

Second, multiplexity is a relatively understudied network property, but holds much promise as a potential mechanism for homophily. Breiger (1974, p. 183) seminally described multiplexity as a reciprocal duality between individuals and groups: groups are connected to each other through individuals as members, and individuals are connected to each other through group memberships (see also Blau, 1977a). This depiction of groups and identities, as separate, yet mutually constitutive orders of social organization, also resonates with Simmel's (1955) conception of duality. At the core of this conception is a set of techniques meant to assist the empirical analysis of "the 'intersection' of persons within groups and of groups within the individual" (Breiger, 1974, p. 181). This is captured by multiplexity (Merolla et al., 2012), for as Simmel (1955, p. 141) classically observes, "[when] the modern

connector leaves his established position within one primary group, he comes to stand at a point at which many groups intersect." What this means is a modern individual's identity, "assert[ed]… energetically" (p. 142), relies on participation in different groups, which also heightens one's opportunities for connection. Every individual therefore makes numerous, diverse social connections to multiple, diverse contexts (multiplexity), which must be accounted for in any study of how people network based on identities. Simmel's insights have since been deepened in the work of prominent scholars, such as Blau (1977a) and Rainie and Wellman and Rainie (2012), who most recently asserted that individuals have "[more] partial memberships in multiple networks, rely[ing] less on permanent memberships in settled groups" (p. 1) and "have become increasingly networked *as* individuals, rather than embedded in groups" (p. 6).

Thus, multiplexity forms the heart of what might be called a "tie spillover," when similarities in one type of relationship lead to the formation of another. Correspondingly, there are three important characteristics to be considered. (a) The type of relationship to be formed: Feld (1981) recognizes the importance of multiplexity by characterizing the restriction of a focus as a process with incremental effects on the strength of ties formed amongst its members. Scarce, but important network studies have refined the argument to show how certain types of homogeneous relationships, such as work relationships, are especially conducive for fostering other types of relationships, like friendships (Liberman et al., 2021; Shalizi & Thomas, 2011). (b) There is the context or type of network to consider: multiplex ties are particularly essential for building inroads into secret societies participating in deviant or illicit activities, when members pick among strong ties with values homogeneous with their own (Erickson, 1981). (c) There are certain social characteristics whose influences on "tie spillover" can be parsed out, such as when ethnic homogeneous ties are more likely to usher fellow into organized networks (C. M. Smith & Papachristos, 2016).

Third, implied throughout this article, there are different types of homophily (status-based and value-based, see M. McPherson et al., 2001) whose convergences and divergences from each other in premeditations of networking decisions we know little about. From the social resources literature, we know that people make decisions about who to contact depending on what they need (Lin et al., 2001). Wellman and Wortley (1990) most systematically disaggregate these networking pathways into different contexts and different characteristics of people's relationships: for small services, people seek help from ties with similar jobs and ages; for emotional support, females seek out other females; and so on. Subsequent studies have taken up this approach to inform useful distinctions about homophily in other types of relationships, like racial homophily in sexual relationship selections (Ferrand et al., 1999; Laumann & Youm, 1999), and homophily (or symmetry) in the types of resources that are exchanged (Plickert et al., 2007).

But there is much room to explore another way of conceptualizing the homophily driving networking decisions: similarity in status versus values (M. McPherson et al., 2001). This distinction can help refine Feld's (1981) broad definition of foci into content-based foci (i.e., common interests, beliefs, etc.) and structure-based foci (common memberships in groups, associations, etc.). Furthermore, this distinction does not displace, but rather enriches the disaggregation of homophily in general into nuanced (potentially interacting) types of relationships and resources.

These three areas imply the need to examine causality, which correlational study designs are not prepared to provide. New research designs with which to frame future research and aid them in the study of these three areas could be an experimental research design using controlled testing and replication to generate causal effects, and triangulated with new forms of mathematical modeling allowed by advances in technology like algorithms (Centola & Macy, 2007; Centola & van de Rijt, 2015; Kossinets & Watts, 2009; Sîrbu et al., 2019). These designs could help determine the causal power that homophily wields for deleterious health behaviors and consequences; the direction, nature, formation, use, and intermingling of multiplex ties; and disaggregating homophily in general into different, nuanced types of homophily and how each potentially interacts with one another. Exemplar interacting forms of homophily could be how class homophily affects racial or gender homophily and what the consequences are for cooperation (Di Stefano et al., 2015; Peixoto, 2022). Experimental research designs also help us understand how homophily works in the rise of social networking sites that now transform the public sphere. Ultimately, the evolving economy of ideas and behaviors that we make up our increasingly interconnected world is shaped by our social networks (see also Rainie & Wellman, 2012). New changes should inspire urgent change in how we approach them.

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