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A Lay Theory of Homophily: Relational Information in First Impressions

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Abstract

A long history of social science research has established the homophily principle—contact between similar people occurs at a higher rate than between dissimilar people—yet the extent to which people draw on this principle when forming first impressions remains unclear. We argue and present evidence that people have a lay theory of homophily that they invoke when forming impressions of others. Perceivers anchor the impressions they form of a target on their knowledge of the people with whom the target associates. Rather than showing that the "people who know each other are similar" rule is used indiscriminately, study results indicate that its application is contingent on both the trait in consideration and the nature of the relationship between the target and his/her associates. The implications of these findings for social perception are discussed.

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"Tell me thy company, and I will tell thee what thou art."

Miguel de Cervanates Saavedra (1547–1616)

How affectionate is your new neighbor? How diligent is this job candidate? As a wealth of research attests, answers to such questions are commonly distorted by information that is external to the target individuals. Whereas much research has focused on the effect of stereotypes, group memberships, and individual behaviors in impression formation (Fiske & Neuberg, 1990; Macrae & Bodenhausen, 2001), an outstanding question concerns the biasing properties of targets' social networks in impression formation. What if you learn that your new neighbor and your dentist are friends? Or that this job candidate previously worked with your incompetent colleague? Would your knowledge of the target's relationships affect your impressions of him or her? In this article, we first establish that people harbor the belief that acquaintances share characteristics, and we then demonstrate that people anchor their initial impressions of a target on their knowledge of the people with whom the target associates.

Several streams of research provide evidence that converges on the possibility that individuals with social ties are assumed to share characteristics. Most notable is the long history of social science research suggesting the existence of homophily, or that contact between similar people *does* occur at higher rates than between dissimilar people (McPherson, Smith-Lovin, & Cook, 2001). People who are situated in the same social network——who know each other—tend to share demographic, cultural, and behavioral characteristics (Lazarsfeld & Merton, 1954). For better or worse, this belief that "birds of a feather flock together" is reinforced throughout the course of a lifetime. Homophily is evident in the social life of young children (Wellman, 1929), present in work, school, and religious contexts (Ibarra, 1995; Kalmijn, 1998; Marsden, 1987) and characteristic of myriad

relationships, from friendships to marriages (Fischer, 1977). Are people aware of this dynamic and do they use this knowledge in navigating their social world?

We present evidence that people believe there are homogeneities present across social ties and that they draw on this lay theory of homophily when forming first impressions. Our argument maintains that the same basic social-cognitive principles that govern the activation and use of other social constructs apply to lay homophily theory (e.g. Higgins, 1996; Srull & Wyer, 1989). If a perceiver has knowledge about someone with whom a target is connected and this relationship is made salient to the perceiver, they will tend to anchor their impression of the target on their impression of the target's social network associate.   Drawing on the notion that trait diffusion is more likely in groups that are perceived as having low variance of the trait in question (Hamilton & Sherman, 1996; Lickel, Hamilton, & Sherman, 2001), we contend that relational anchoring is prone to occur when the salient relationship (e.g., coworker) groups the target with someone who is assumed to have similar levels of the trait (e.g., competence, incompetence). That is, rather than apply lay homophily indiscriminately, perceivers use this theory when the salient relationship is assumed to make the associate a sufficient proxy for the target.

We first establish here that people have a lay theory of homophily (Studies 1a and 1b), then we provide preliminary evidence about how its application is bounded (Study 1b), and finally, we demonstrate this phenomenon in an impression-formation context (Study 2). We focus on perceptions of warmth and competence, which are widely considered the fundamental dimensions along which perceivers construe others (Fiske, Cuddy, Glick, & Xu, 2002; Fiske, Cuddy & Glick, 2007).

Study 1a

In Study 1a, by asking participants to estimate the likelihood that two acquaintances share traits, we directly assessed whether people have a lay theory of homophily.

Method

Participants. One hundred nine students from a Canadian university completed a survey online in exchange for course credit (mean age = 20.5; 68% female).

Procedures. For each trait, participants were first told, "*Person A knows Person B. Person A is a(n) ___ individual,*" and then were asked to indicate, "*How likely is it that Person B is ___?*" on a scale from 1 = "*very unlikely*" to 4 = "*very likely*" (see Supplementary Online Material [SOM] for trait list). Trait order was randomized across participants. At the end of the survey, participants indicated how close they assumed the relationship was between Person A and Person B on a scale from 1 = "*met previously*" to 6 = "*close friends.*"

Results

We created two summary scores of warmth ($M = 2.77$, $SD = .53$, $\alpha = .87$) and competence ($M = 2.66$, $SD = .58$, $\alpha = .91$) by averaging the two different types of traits. Consistent with the possibility that people have a lay theory of trait homophily, ratings of both warmth, $t(108) = 5.46$, $p < .001$, $\eta^2 = .21$, and competence, $t(108) = 3.01$, $p < .003$, $\eta^2 = .08$, were significantly greater than the scale's midpoint. Beliefs about shared warmth and competence were not uniform; rather, a simple mean test showed that warmth was assumed to be shared more than competence, $t(108) = 2.57$, $p < .012$, $\eta^2 = .112$, a finding that was confirmed by the results of Hierarchical Linear Modeling (HLM) analyses, $B = .10$, $S.E. = 0.04$, $t = 2.4$, $p < .02$, see SOM). Despite being told only that the target and social contact "know each other," participants tended to assume that Persons A and B were moderately close ($M = 4.14$ out of 6, $SD = 1.42$). Results of HLM analyses indicated that perceivers were more likely to apply lay homophily if they assumed that the targets were close ($B = 0.2$, $SE. = 0.04$, $t = 5.98$, $p < .001$; see SOM). This provides preliminary evidence that perceivers are more likely to apply this lay theory when the target and his/her associate are ascribed high entitativity (Lickel, Hamilton, & Sherman, 2001).

Study 1b

In Study 1b, we sought to replicate our initial findings with a more complete set of traits and directly test whether perceivers rely more heavily on lay homophily when they assume that those in the salient relationship have similar levels of the trait in question.

Method

Participants. One hundred forty-six individuals from an American university community participated in exchange for monetary compensation (mean age = 29.4; 62% female).

Procedures. Procedures were identical to Study 1a with two exceptions. First, the list of traits was modified to include both positive and negative trait characteristics (see SOM). Second, relationship type between the target and the associate was manipulated between participants. Half of participants were randomly told that Person A and Person B were "friends" and the other half, that they were "work colleagues."

Results

First, HLM analysis revealed a significant main effect of trait valence: Positive traits were significantly more likely to be assumed shared than were negative traits, $B = 0.31$, *S.E.* $= 0.02$, $t = 14.74$, $p < .001$. Neither trait dimension, nor the interaction of trait dimension and valence, was significant. People were also more likely to apply lay homophily when the target was depicted as a friend rather than a work colleague, $B = 0.17$, *S.E.* $= 0.06$, $t = 3.06$, $p < .003$, but this effect was qualified by a significant three-way cross-level interaction among relational type, trait type, and trait valence, $B = 0.09$, *S.E.* $= 0.03$, $t = 2.80$, $p < .006$.

To unpack this effect, we conducted a series of t-tests on the summary scores of the trait dimensions (see Table 1). Consistent with our prediction, when the targets were depicted as friends, perceivers assumed they shared warm traits more than the other traits ($t_s >$ 5.602, $p_s < .001$). Similarly, when the targets were depicted as work colleagues, perceivers assumed they shared competence traits more than the other traits ($t_s > 4.624$, $p_s < .01$).

As expected, participants provided with the friendship condition assumed that Persons A and B were significantly closer ($M = 4.82$; $sd. = .92$) than participants offered the colleague condition ($M = 3.56$; $sd. = 1.08$), $F = 61.32$, $p < .001$, $\eta^2 = .28$. While assumed closeness was associated with stronger homophily across warm, cold, competent, and incompetent traits ($p_s < .05$), it is important to note that this assumption did not mediate the effect of relational types on trait ratings.

Study 2

Studies 1a and 1b establish that people maintain a lay theory of homophily; the studies also provide preliminary evidence about the conditions under which it is applied. Whether participants rely on relational information in genuine social interactions, when a wealth of social-categorical and individuating data is at their disposal has yet to be established. Using an interview paradigm, we demonstrate that participants' impressions of a target were anchored on their previously formed impression of the target's friend or work colleague.

Method

Participants. Fifty-nine registered members of the subject pool for a central London behavioral lab participated for the study in exchange for £5 (mean age = 25.27, 55% female). *Procedures.* Upon arrival at the laboratory, participants were informed that their task was to "interview two applicants for a research assistant position," and that the lab could potentially hire both of them or neither of them for future work. Participants read a one-page description of the guidelines for conducting the interview and the job requirements (see SOM). They were then escorted to an interview room by the experimenter and provided with a list of four questions to ask the job candidate (see SOM). Unbeknownst to participants, both "candidates" were confederates who were blind to the purpose of the experiment and trained to respond to participants' interview questions in a scripted fashion. When participants

indicated that they were ready to begin, the experimenter escorted the first "candidate" into the room and left the participant alone with the individual. After responding to the participant's questions, the first "candidate" left the room, at which point the participant completed an evaluation form alone.

Once the first evaluation form was complete, the experimenter led the second "candidate" into the room. At this point, the critical manipulation was implemented. The experimenter introduced the candidate in one of three ways. In the control condition, the experimenter simply explained, "*Here is the second applicant.*" In the friendship condition, the experimenter said, "*Here is the second applicant. S/he is a friend of the first applicant.*" Finally, participants in the colleague condition were told, "*Here is the second applicant. S/he works with the first applicant.*"

Like the first confederate, the second confederate responded to the questions in a scripted fashion. Once the interview was complete, participants were left alone to evaluate the second candidate. After the experimenter collected the second evaluation form, participants were asked to provide demographic information and answer two questions about the relationship between the first and second applicants as a manipulation check. Subsequent analyses were limited to the 50 participants who provided correct responses to the manipulation-check questions.

Results

We first computed absolute difference score ratings participants gave the two candidates for each of the traits; we then created four summary scores by averaging the absolute difference scores of each trait dimension (warm, cold, competent, and incompetent). These scores were then submitted to a repeated-measures multivariate analysis of variance (MANOVA) with trait dimension (warmth, competence) and trait valence (positive, negative)

as within-subject variables and with relation type (control, friends, colleagues) as a random between-subject variable (see Table 2).

Consistent with the possibility that perceivers are more apt to apply lay homophily theory when the relational context implies consistency in the trait characteristic, results revealed a significant interaction between trait dimension and relation type, $F(2, 53) = 2.969$, $p < .006$, $\eta^2 = .178$, but an insignificant main effect of relational type on ratings, $F(2, 53) = 1.166$, $p > .319$. Specifically, ratings of warmth, coldness, and competence differed significantly across the three conditions, $F_{warm}(2, 53) = 3.139$, $p < .05$; $F_{cold}(2, 53) = 3.387$, $p < .042$; $F_{competence}(2, 53) = 3.398$, $p < .041$.

Post-hoc analyses using the Bonferroni post-hoc criterion showed that, compared to the control condition, candidates who were described as being friends were perceived as having similar levels of warmth ($p < .038$) and similar levels of coldness ($p < .02$). Such a difference was not observed when the candidates were described as being colleagues relative to the control condition ($p > .50$). Results also revealed that candidates who were depicted as colleagues were perceived as sharing similar levels of competence ($p < .018$) compared to applicants in the control condition, while candidates who were depicted as friends were not more likely than those in the control condition to be perceived as having equal levels of competence ($p > .2$).

General Discussion

The notion that relationships taint social perceptual processes is nearly as old as the discipline of social psychology itself (Heider, 1958), yet relatively little empirical work has explored how our view of others is affected by our knowledge of the company they keep. Results of the present investigation suggest that people generally share Saavedra's sentiment about the manner in which the social world is organized and, consequently, anchor their impressions of an individual on their knowledge of the people with whom the target

associates. Previous research suggests that even the slightest public endorsement—e.g., choosing to sit next to a stigmatized individual—leads perceivers to assume the target shares traits with his/her stigmatized neighbor (Hebl & Mannix, 2003). While this finding implies that people are liberal in their application of lay homophily, we predicted and demonstrated that perceivers are particularly inclined to use it when the target is paired with someone who, because of the nature of their relationship (e.g. colleagues), is assumed to have a similar level of the trait in question (e.g., incompetence; Crawford, Sherman, & Hamilton, 2002).

Of course when it comes to trait diffusion, the social connections maintained by the *target* are just part of the story. Previous research suggests that perceivers' impressions are anchored on *their own* significant relationships (Andersen & Chen, 2002). How these two forces jointly affect the person-perception process is an important question for future research.

This paper assessed participants' impressions after they had learned about a single relationship. An open question is how the larger network of relationships maintained by an individual might distort our understanding of him/her. It seems reasonable to expect some nonlinearity in the application of lay theory: The inferences drawn about someone with two untrustworthy friends may be five times as negative as those drawn about someone with a single deceitful companion (Skowronski & Carlston, 1989). Also, previous research suggests that while people retain their general impression of a target, they are prone to forget the specific behaviors on which their inferences were based (Carlston & Skowronski, 1994). Might impressions based on social network connections also persist beyond the existence of the relationship? It is our hope that future research will consider both the role of lay homophily in impression formation and the relevance of social networks in the study of social perception.

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Table 1: The Lay Homophily Theory as a Function of Trait Dimension and Relation Type (Study 1b) [a]

	Warm		Cold		Competent		Incompetent	
	M	SD	M	SD	M	SD	M	SD
Friendship[b]	**3.19**	**0.47**	2.52	0.61	3.05	0.44	2.56	0.61
Colleague[c]	2.97	0.38	2.40	0.57	**3.02**	**0.40**	2.25	0.63

a. *A higher score shows a stronger lay homophily effect.*
b. *Paired-wise t-tests within the Friendship condition showed the strongest effect for the Warm dimension.*
c. *Paired-wise t-tests within the Colleague condition showed the strongest effect for the Competent dimension.*

Table 2: The Lay Homophily Theory as a Function of Trait Dimension and Relation Type

(Study 2) [a]

	Warm[b]		Cold		Competent[c]		Incompetent	
	M	SD	M	SD	M	SD	M	SD
Control	1.33	.96	1.60	1.22	1.10	.72	.42	.46
Friendship	**.73**	**.70**	.78	.61	.78	.60	.57	.92
Colleague	1.22	.83	1.24	.91	**.59**	**.49**	.47	.53

a. *A lower score shows a stronger lay homophily effect.*
b. *Friendship condition showed the strongest homophily effect in predicting the Warm dimension.*
c. *Colleague condition showed the strongest homophily effect in predicting the Competent dimension.*