

# Less Is More: The Lure of Ambiguity, or Why Familiarity Breeds Contempt

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The present research shows that although people believe that learning more about others leads to greater liking, more information about others leads, on average, to less liking. Thus, ambiguity—lacking information about another—leads to liking, whereas familiarity—acquiring more information—can breed contempt. This “less is more” effect is due to the cascading nature of dissimilarity: Once evidence of dissimilarity is encountered, subsequent information is more likely to be interpreted as further evidence of dissimilarity, leading to decreased liking. The authors document the negative relationship between knowledge and liking in laboratory studies and with pre- and postdate data from online daters, while showing the mediating role of dissimilarity.

*Keywords:* impression formation, close relationships, ambiguity, negativity

Blair’s like a very sweet pudding. The first mouthful is nice, but then it becomes nauseating.

—A Tory member of Parliament’s description of British Prime Minister Tony Blair

Everything looks perfect from far away.

—Lyrics from *Such Great Heights* by Ben Gibbard and James Tamborello

Familiarity leads to liking; familiarity breeds contempt. The first proposition is supported by decades of research in psychology, whereas the second is supported by everyday experience: the disintegration of friendships, the demise of business relationships, and the prevalence of divorce. It is certainly the case that the more that is known about others, the more they are liked, on average. On countless occasions, individuals decide someone is not preferred after only minimal interaction, curtailing the acquisition of further information through subsequent interaction; if someone is preferred, on the other hand, this liking leads to acquisition of more information over repeated interactions. This selection process creates a positive correlation between knowledge and liking across the set of one’s acquaintances, but it may also lead individuals to believe that more knowledge causes greater liking within any given acquaintanceship. We propose that the relationship between

knowledge and liking within individuals is in fact negative: that more information about any one person leads, on average, to less liking for that person. We further suggest that this relationship is due to the lure of ambiguity. At first acquaintance, individuals read into others what they wish and find evidence of similarity, leading to liking. Over time, however, as evidence of dissimilarity is uncovered, liking decreases. In short, the present investigation shows that “less is more” in interpersonal affinity.

## The Lure of Ambiguity

Why would ambiguity, a state of no or minimal acquaintance, lead to greater liking? Indeed, much research suggests that uncertainty—a state in which people find themselves whenever meeting a stranger—is an aversive state that people seek to resolve (Berger, 1979). Festinger’s (1957) theory of cognitive dissonance, for example, suggests that uncertainty about one’s attitudes is an aversive state that must be rectified, and one of the underlying principles in research on decision making is that decisions are difficult because outcomes are uncertain (e.g., Kahneman & Tversky, 1979). At the same time, however, ambiguity has benefits, particularly when viewed retrospectively. For example, although one may be unbearably anxious when preparing to meet a blind date, this state may still be preferable to one’s mood when the date ends disastrously. Indeed, given that negative outcomes psychologically outweigh equivalent positive outcomes, resolution of uncertainty may lead on average to worse states. Ambiguity may occupy a middle ground that certainty may merely diminish (see Wilson, Centerbar, Kermer, & Gilbert, 2005).

Ambiguity has other benefits as well, allowing for more self-serving estimates of the prevalence of one’s opinions (Gilovich, 1990) and more positive views of one’s personality traits (Dunning, Meyerowitz, & Holzberg, 1989), while also licensing biased views of others (e.g., Darley & Gross, 1983; Norton, Vandello, &

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Darley, 2004; Yzerbyt, Schadron, Leyens, & Rocher, 1994). The well-documented “person positivity” bias confirms that the ambiguity of no or minimal acquaintance biases individuals to view others optimistically when given little information (Sears, 1983; see Anderson, 1974, 1981). In addition, the excitement of anticipating a first encounter can further heighten positive expectations (e.g., Darley & Berscheid, 1967; Goodwin, Fiske, Rosen, & Rosenthal, 2002). Initial impressions change over time, of course, and can be diluted by subsequent information (Nisbett, Zukier, & Lemley, 1981). We suggest that as individuals glean more knowledge about others, their overly optimistic impressions can be tempered, leading to decreased liking.<sup>1</sup>

### Ambiguity Breeds Similarity; Familiarity Breeds Dissimilarity

What mechanism might underlie positive impressions becoming more negative over time? We propose that initial impressions are overly positive in part because of erroneous perceptions of similarity to ambiguous targets. With the acquisition of more information, ambiguity is resolved and dissimilarity reveals itself, causing a decrease in liking. We place such a heavy role on similarity as our proposed mechanism for two reasons. First, similarity to the self—from shared personality traits and values (e.g., Byrne, 1971; Byrne, Clore, & Smeaton, 1986) to trivial factors such as shared birthdays (Miller, Downs, & Prentice, 1998)—has been shown repeatedly to be highly diagnostic of liking. Second, as with liking, perceptions of similarity are relatively high early in the acquaintanceship process, both because people (falsely) assume similarity with others in the absence of other information (e.g., Krueger & Clement, 1997; Levinger & Breedlove, 1966; Rosenbaum, 1986; Ross, Greene, & House, 1977) and because people tend to emphasize or exaggerate their similarities with others when preparing to meet (Rowatt, Cunningham, & Druen, 1998, 1999).

For dissimilarity to mediate the negative impact of information acquisition on liking, however, perceptions of dissimilarity must increase—or cascade—over time. Previous research has shown that expectancy-disconfirming information is highly diagnostic in forming impressions (Hastie & Kumar, 1979), particularly when negative information follows positive information (Aronson & Linder, 1965; Norton & Goethals, 2004), and that such diagnostic information alters the meaning of subsequently encountered information (Asch, 1946; Hamilton & Zanna, 1974; Hoyle, 1993; Kelley, 1950; Nisbett & Wilson, 1977). Because individuals expect to find similarity, encountering evidence of dissimilarity is unexpected and therefore impactful; this initial dissimilarity then causes subsequent information to be interpreted as further evidence of dissimilarity. In short, we propose the existence of dissimilarity cascades: One instance of dissimilarity causes subsequent information to be interpreted as further evidence of dissimilarity, leading to relatively greater perceptions of dissimilarity over the course of impression formation.

### Overview

The studies presented below show that more information about others leads to less liking because of the tendency for dissimilarity to cascade over the course of information acquisition. We first show that although people are correct in intuiting the real-world

positive relationship between familiarity and liking across their set of acquaintances (Study 1A), they mistakenly believe that learning more about any one individual will lead to greater liking (Study 1B). In Study 2, we show the negative relationship between information and liking by providing participants with varying amounts of random information about targets and assessing their liking for these targets. In Study 3, we use ecologically valid descriptions of real individuals to explore a mediating role for dissimilarity in the relationship between information and liking, whereas in Study 4, we illustrate the cascading nature of dissimilarity. Finally, Study 5 shows that less is more in the real world, with evidence that online daters perceive each other as more dissimilar and like each other less after dates than they did before dates.

### Study 1A: Familiarity and Liking Across Individuals

#### Method

Participants ( $N = 294$ ) completed the survey by following a link on an online dating Web site.<sup>2</sup> Participants were asked to choose which of two target individuals they would like better, one about whom they knew less information or one about whom they knew more information. We did not provide actual information but simply assessed people’s intuitions about information independent of content. Thus one version of the task read, “Whom do you think you would like more, someone about whom you knew 3 traits or someone about whom you knew 6 traits?” We created five versions of the task (1 vs. 2 traits, 2 vs. 4 traits, 3 vs. 6 traits, 4 vs. 8 traits, and 5 vs. 10 traits).

#### Results

Across all versions, participants expressed the clear belief that they would like the person about whom they knew more, because 81% (238/294) chose the target about whom they had more information,  $\chi^2(1, N = 294) = 112.67, p < .001$ , an effect that was consistent across all versions (all  $ps < .001$ ).

### Study 1B: Familiarity and Liking Within Individuals

Study 1A showed that people correctly predict the relationship across individuals between information and liking: Given two individuals, people have more affection for the one whom they know better. In Study 1B, we show that people believe this relationship to be true for a given individual, that is, that the more they learn about any one person, the more they will like that person.

#### Method

Participants ( $N = 49$ ; 25 women, 24 men; age  $M = 19.7$  years,  $SD = 2.5$ ) were Massachusetts Institute of Technology (MIT) undergraduates who were approached in the campus student center. Participants were asked to choose whether when they met an individual for the first time,

<sup>1</sup> The lure of ambiguity may extend to other domains as well; Berger (1972) suggested that art becomes more compelling as it becomes more ambiguous in form.

<sup>2</sup> The online dating Web site used in several of these studies was a commercial entity. Participants clicked on a banner advertisement placed on the Web site’s home page to access our studies.

they tended to like that person more the more they got to know about him or her or to like that person less the more they got to know about him or her.

## Results

As with intuitions across individuals, participants held the strong belief that more information would lead to more liking for a given individual: The vast majority (88%) indicated that they liked an individual more the more they learned about that person,  $\chi^2(1, N = 49) = 27.94, p < .001$ .

### Study 2: More Knowledge Leads to Less Liking

If participants' intuitions in Study 1B are correct, then we should observe a positive—and causal—relationship between amount of knowledge about an individual and liking for that individual. In Study 2, however, we demonstrate that people's intuitions are incorrect and that more information leads to less liking.

#### Trait Generation

We created a list of 28 traits, drawn from Asch (1946), Edwards and Weary (1993), and Pavelchak (1989).<sup>3</sup> Pretest participants ( $N = 121$ ) rated a randomly drawn subset of 10 of these traits (thus each trait was rated approximately 40 times) on a 10-point scale (1 = *wouldn't like at all*, 10 = *would like very much*) for how much they would like someone described with that trait. Means ranged from 2.16 to 9.08, suggesting that the traits encompassed both positive and negative attributes; in addition, the set of traits was rated positively overall ( $M = 6.91, SD = 2.43$ ), suggesting that results showing greater dislike after participants saw more of the traits were unlikely to be due to an overly negative set of traits.

#### Method

Participants ( $N = 76$ ; 30 men, 44 women, 2 people who did not report gender; age  $M = 24.1$  years,  $SD = 10.3$ ) completed the survey after being approached on the MIT campus or as part of a class exercise. Participants were told that we had asked other people to list traits that described themselves and that we were randomly drawing from one person's list for them to see. Whereas previous studies have carefully controlled the placement and spacing of traits (e.g., Anderson, 1965; Bird, 1987; Hodges, 1974), we used a methodology that allowed us to more closely simulate how information about others is encountered in the real world—randomly and in varying amounts. Participants saw either 4, 6, 8, or 10 traits that had been randomly drawn from the set of 28 and then rated how much they thought they would like the individual described by these traits on a 10-point scale (1 = *wouldn't like at all*, 10 = *would like very much*).

## Results

As predicted, and in contrast to participants' intuitions in Study 1B, we observed a significant negative correlation between the number of traits known and liking,  $r(76) = -.23, p = .05$ . Because traits were selected randomly for each participant, this effect cannot be attributed to systematic biases on trait selection. Holding the average valence of traits and the traits themselves constant, participants simply liked target individuals less when they had more information about them.

### Study 3: Dissimilarity Mediates the Relationship Between Knowledge and Liking

In Study 3, we had two main goals. First, as outlined in the introduction, we suggest that the negative relationship between information and liking is caused by the fact that dissimilarity cascades as the amount of information increases. Because similarity is related to liking, more information and, thus, more dissimilarity lead to less liking. In Study 3, we tested the mediating role of dissimilarity. Second, Study 2 relied on a limited set of traits gleaned from existing sources; in Study 3, we used a more ecologically valid set of traits by gathering traits that people spontaneously offered to describe themselves. This method constituted a strong test of our hypothesis because individuals would be expected to create lists of positively valenced traits when describing themselves, which would have worked against our finding average negativity.

#### Trait Generation

We surveyed 120 participants (52 men, 68 women; age  $M = 34.4$  years,  $SD = 12.2$ ) who followed a link on an online dating Web site. Participants were simply asked to list traits that described themselves. The number of traits listed ranged from 2 to 21. We compiled all traits from these lists and eliminated duplicate traits, leaving us with a master list of 218 different traits. We created randomly selected lists of varying lengths from this master list; because traits were equally likely to appear at any position in these lists, traits that appeared earlier and later were equally likely to be dissimilar.

#### Method

Participants ( $N = 304$ ; 161 men, 143 women; age  $M = 34.5$  years,  $SD = 11.2$ ) completed the survey by following a link on an online dating Web site. Participants read between 1 and 10 traits from the set of 218; rated their liking for the target (1 = *wouldn't like at all*, 10 = *would like very much*); and indicated the number of traits in that list that they would also use to describe themselves.

## Results and Discussion

As in Study 2, less was more: More information led to less liking,  $r(304) = -.12, p < .05$ . However, the most important element of the present study was that it allowed us to explore the mediating role of dissimilarity. First, replicating findings of previous research (e.g., Byrne, 1971), we found that the number of shared traits was related to liking,  $r(304) = .16, p < .01$ . Not surprisingly, the number of shared traits was also positively related to the number of total traits,  $r(304) = .77, p < .001$ ; there is, of course, a larger absolute number of shared traits in a larger array. This *positive* relationship between the number of traits and the number of shared traits does little to explain the *negative* correlation between the number of traits and liking. If people were simply

<sup>3</sup> The traits were *ambitious, boring, bright, critical, cultured, deliberate, dependable, emotional, enthusiastic, idealistic, imaginative, impulsive, individualistic, industrious, intelligent, level-headed, methodical, observant, open-minded, opinionated, polite, reliable, resourceful, self-disciplined, sensitive, stubborn, studious, and talkative*.

counting shared traits and if more information leads to more shared traits, we would expect a positive correlation between the number of traits and liking. However, if initial encounters with dissimilar information increase the likelihood that later information is interpreted as further evidence of dissimilarity, then although the absolute number of shared traits may rise as more information is encountered, perceived similarity—or the percentage of shared traits—should decrease. As our proposed dissimilarity cascade predicted, the percentage of shared traits was negatively related to the number of traits,  $r(304) = -.17, p < .005$ , but remained positively related to liking,  $r(304) = .37, p < .001$ . Thus, as predicted, more information led to cascading dissimilarity accompanied by decreases in liking.

To show that dissimilarity drives the negative relationship between information and liking, we conducted mediational analyses following the procedures outlined by Baron and Kenny (1986). First, the number of traits was related to liking,  $\beta = -.12, p < .05$ . In addition, the number of traits was significantly related to the mediator, the percentage of shared traits,  $\beta = -.17, p < .01$ . Finally, the percentage of shared traits was related to liking when the number of traits was included in the regression equation,  $\beta = .36, p < .001$ , and the relationship between the number of traits and liking dropped to nonsignificance,  $\beta = -.07, p = .21$ . The Sobel test indicating mediation was significant,  $Z = 2.73, p < .01$  (see Figure 1). As expected, despite the fact that traits were randomly assigned (i.e., the same trait was equally likely to appear earlier or later), participants perceived less similarity with targets as they encountered more traits, and this increased dissimilarity mediated the relationship between knowledge and liking.

We conducted two follow-up studies to further establish the role of dissimilarity. First, we replicated the mediational results from Study 3 using a different method, providing participants ( $N = 113$ ) with the actual unedited lists generated in pretesting. The number of traits was related both to liking,  $\beta = -.21, p < .02$ , and to the percentage of shared traits,  $\beta = -.24, p < .02$ . The percentage of shared traits was related to liking when the number of traits was included in the regression equation,  $\beta = .62, p < .001$ , and the relationship between the number of traits and liking again dropped to nonsignificance,  $\beta = -.08, p = .31, Z = 2.28, p < .03$ . Second, an alternative account for these results is that similarity appears to be a mediator because participants reported their level of liking and then simply inferred similarity from those reports. Therefore, we explored the relationship between information and similarity in the absence of explicit judgments of liking. Participants ( $N = 131$ ) randomly received a list of between 1 and 10 traits (from the set of 218) as a description of target person and rated how much they thought the other person was like them on a 10-point scale (1 =

not at all, 10 = very). As we expected, even in the absence of a question asking participants to assess their liking of the target person, we observed a relationship between information and similarity: The more traits people saw, the less similar they thought they were to the target,  $r(131) = -.18, p < .05$ .

#### Study 4: Evidence for Dissimilarity Cascades

Study 3 and the two follow-up studies showed that more information led to increased perceptions of dissimilarity, and this increased dissimilarity mediated the relationship between information and liking. In Study 4, we attempted to further document the role of dissimilarity by exploring more directly the cascading nature of dissimilarity, showing that encountering one instance of dissimilarity causes subsequent information to be interpreted as further evidence of dissimilarity.

Our account suggests that it is not simply that initial information dilutes the impact of subsequent information (e.g., Nisbett et al, 1981) or that initial information causes later information to be seen as nondiagnostic and therefore is ignored (e.g., Yzerbyt & Leyens, 1991), but rather that initial information actually changes the meaning of subsequently encountered information: Once evidence of dissimilarity to an individual has been encountered, subsequent information will be interpreted in light of that dissimilarity (see Asch, 1946). In Study 4, we randomly assigned 10 traits that purportedly described another individual to participants, but this time as these traits were presented, we asked participants whether each trait was also a trait that they would use to describe themselves. We expected those participants who encountered dissimilarity early in the list of 10 traits to be more likely to rate subsequent traits as dissimilar than would those participants who did not encounter dissimilarity early in the list. Most important, we expected that the level of dissimilarity of earlier traits would be a better predictor of the level of dissimilarity of later traits than the reverse (level of dissimilarity of later traits predicting level of dissimilarity of earlier traits), thus showing the unidirectional cascading nature of dissimilarity.

#### Method

Participants ( $N = 190$ ; 68 men, 122 women; age  $M = 31.4$  years,  $SD = 11.9$ ) were MIT and Yale students who completed the Web-based survey in a series of unrelated experiments or as part of a classroom exercise.

Participants were randomly assigned traits from the set of 28 used in Study 2. Unlike in previous studies, all participants were presented with 10 traits, but they were shown these traits one at a time. After seeing the 1st trait, participants were asked to indicate whether that trait also described themselves and then were shown the 2nd trait and asked the same question; this process continued until participants had seen and rated all 10 traits. After all 10 traits had been presented, participants were asked whether they liked the person described (*Yes* or *No*).

#### Results and Discussion

We predicted that those participants who indicated that they did not share the 1st trait with the target would find more dissimilarities in the 2nd through 10th traits than would participants who shared the 1st trait with the target. Results supported this prediction: Participants who believed that Trait 1 of the target was dissimilar found fewer similarities between themselves and the

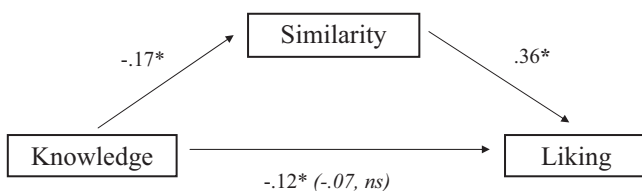


Figure 1. Similarity mediates the relationship between knowledge and liking (Study 3). The coefficient in parentheses is the direct relationship between knowledge and liking when similarity is controlled. \* $p < .05$ .

target in Traits 2–10 ( $M = 4.18$ ,  $SD = 2.15$ ) than did those who believed that the 1st trait was similar ( $M = 5.45$ ,  $SD = 1.61$ ),  $t(188) = 4.56$ ,  $p < .001$ . Although all traits were randomly selected—meaning that there should have been, on average, the same number of similarities in Traits 2–10, regardless of whether the 1st trait was a match—encountering a dissimilar trait early in the list led participants to be more likely to interpret subsequent traits as evidence of further dissimilarity to the target.

One possibility is that these results simply reflect the fact that some participants were dispositionally more likely to perceive dissimilarity than were other participants: Those who rated the 1st trait as dissimilar were also likely to rate subsequent traits as dissimilar. This account would also suggest, however, that individuals who rated the 10th trait as dissimilar would have been equally likely to rate preceding traits as dissimilar. Our account, on the other hand, suggests that dissimilarity should cascade unidirectionally, such that the dissimilarity of traits presented early should have been a better predictor of dissimilarity of traits presented later than vice versa. As predicted, the dissimilarity of the 1st trait was a better predictor of the dissimilarity of the 9 traits following it,  $r(190) = .32$ ,  $p < .001$ , than the dissimilarity of the 10th trait was a predictor of the dissimilarity of the 9 traits preceding it,  $r(190) = .12$ ,  $p = .10$ , and this difference was significant ( $Z = 1.99$ ,  $p < .05$ ). These results showed that dissimilarity cascades in one direction, with early dissimilarity coloring subsequently encountered information but not the reverse.

Finally, as in the previous studies, these differences in perceived dissimilarity had consequences: Similarity again was related to liking,  $r(190) = .21$ ,  $p < .01$ .

### Study 5: Knowledge, Similarity, and Liking on Online Dates

All of the studies presented thus far required participants to evaluate others in a controlled experiment removed from the ways in which people actually interact with and acquire information about each other. In Study 5, we explored whether our account also held in a real-life setting: meeting for a first date. We asked users of an online dating Web site questions about someone with whom they were about to go on a date and asked other users questions about someone with whom they had recently been on a date. In keeping with results from the previous studies, we predicted that while the amount of information people reported knowing about their partner would increase from pre- to postdate, both liking and similarity would decrease.

#### Method

Participants ( $N = 118$ ; 52 men, 66 women, age  $M = 35.8$  years,  $SD = 11.8$ ) completed the survey by following a link on an online dating Web site.

Participants who completed the predate survey were asked to think about someone with whom they were about to go on a date and then were asked two questions designed to assess their expectations about that date: “How excited are you about the person you are going to go on a date with?” (1 = *not at all*, 10 = *very*) and “How would you characterize your expectations about this date?” (1 = *low*, 10 = *high*); we created a composite measure of liking from these two items (Cronbach’s  $\alpha = .79$ ). Participants were then asked to rate on a 10-point scale (1 = *not at all*, 10 = *very*) how similar to themselves they thought their date was and then were asked four

questions assessing knowledge (as measured on 10-point scales, 1 = *nothing at all*, 10 = *a lot*) about the other person: “How much do you know about your date’s (a) hobbies and interests, (b) family, (c) occupation, and (d) social life?” We created a composite measure of knowledge from these four items (Cronbach’s  $\alpha = .78$ ).

Participants who completed the postdate survey were asked to think of someone with whom they had recently gone on a date and answered the same seven questions, with changes in tense as needed (e.g., “How would you characterize your expectations about future dates with this person?”).

#### Results and Discussion

**Knowledge.** As expected, we found that respondents reported knowing more about their partner postdate ( $M = 5.87$ ,  $SD = 1.83$ ) than predate ( $M = 5.10$ ,  $SD = 1.78$ ),  $F(1, 114) = 6.14$ ,  $p < .02$ ; there was no effect of gender of respondent and no interaction ( $F_s < 1$ ).

**Liking.** These increases in knowledge were accompanied by decreases in liking: the high ratings people gave to their dates before meeting them ( $M = 7.08$ ,  $SD = 1.46$ ) were significantly lower than those given after dates had occurred ( $M = 5.13$ ,  $SD = 2.81$ ),  $F(1, 114) = 17.60$ ,  $p < .001$ . We also observed a main effect for gender such that men provided higher overall ratings ( $M = 6.74$ ,  $SD = 1.78$ ) than did women ( $M = 5.57$ ,  $SD = 2.77$ ),  $F(1, 114) = 4.91$ ,  $p < .03$ , and these two main effects were qualified by a marginally significant interaction such that men’s ratings showed less of a drop from pre- to postdate ( $M_s = 7.13$  and  $6.20$ ,  $SD_s = 1.32$  and  $2.19$ , respectively) than did women’s, ( $M_s = 7.02$  and  $4.50$ ,  $SD_s = 1.62$  and  $2.96$ , respectively),  $F(1, 114) = 3.74$ ,  $p = .056$ .

**Similarity.** In addition to being associated with decreases in liking, more information also led to decreased perceptions of similarity. The amount of similarity that participants perceived between themselves and their potential mates before dates ( $M = 6.22$ ,  $SD = 1.80$ ) dropped significantly after those dates had occurred ( $M = 5.23$ ,  $SD = 2.40$ ),  $F(1, 114) = 5.17$ ,  $p < .03$ ; there was no main effect for the gender of the respondent,  $F < 1$ , but we did observe an interaction,  $F(1, 114) = 5.25$ ,  $p < .03$ . Mirroring results for liking, women’s ratings of similarity showed a larger decrease ( $M_s = 6.71$  and  $4.92$ ,  $SD_s = 1.76$  and  $2.44$ ) than did men’s ratings ( $M_s = 5.77$  and  $5.77$ ,  $SD_s = 1.74$  and  $2.27$ , respectively).

In sum, the increases in knowledge that occur after meeting someone are accompanied, on average, by decreases in liking for and perceived similarity to that individual (see Figure 2).

An alternative explanation for the decrease in liking is that individuals who had successful dates simply left the Web site because they found their match, thereby removing highly positive ratings from our sample and skewing postdate ratings unfairly to the negative. Challenging this interpretation, however, is the fact that we actually found more highly positive ratings (i.e., 10 on a 10-point scale) postdate (six ratings) than predate (four ratings), which suggests that the reduction in liking thus did not originate from a gap in very positive ratings but rather from a redistribution of liking across the whole range of ratings (see Figure 3). In short, although some ratings become more positive, a relatively greater percentage of ratings become more negative. Mean liking may decrease from pre- to postdate; however, it is not that each and every relationship must decline but rather that, on average, this is the case.

General Discussion

The present investigation shows that, on average, less is more: Learning more about specific others leads to less liking for these individuals; these results were consistent across laboratory studies and real first dates. As more information about a particular individual is revealed, one’s perceived similarity to that person decreases because of the cascading nature of dissimilarity, mediating the relationship between knowledge and liking. The negative correlation between knowledge and liking is particularly compelling in light of people’s strong intuition that the opposite is true, because they make the error of believing that the positive correlation between liking and information across individuals holds within any given individual. There are, of course, many cases in which people look and find sufficient similarity—as with their partners and close friends—and we propose that it is precisely these cases that drive the real-world positive correlation between knowledge and exposure across individuals. In the studies above, however, we have shown that, given one person at random, the more knowledge one acquires about that person, the less one will like that person, offering a process model for why familiarity breeds contempt.<sup>4</sup>

*Isn’t More, More?*

The hypothesis that individuals come to like a given person less the more they know that person seems to conflict with research showing that increased exposure to a given stimulus leads to increased liking for that stimulus (Zajonc, 1968). Indeed, Moreland and Beach’s (1992) study of “mere exposure” specifically showed that increased exposure to an individual led to greater liking for that person. However, mere exposure paradigms rely on repeated exposure without new information; the target individuals in Moreland and Beach’s (1992) study were confederates attending a lecture who were instructed not to interact with other students. Though people’s faces may remain much the same over repeated exposures, nearly every real-world interaction with a new person leads to acquisition of new knowledge, especially given the variability in people’s behaviors across time and social roles (e.g.,

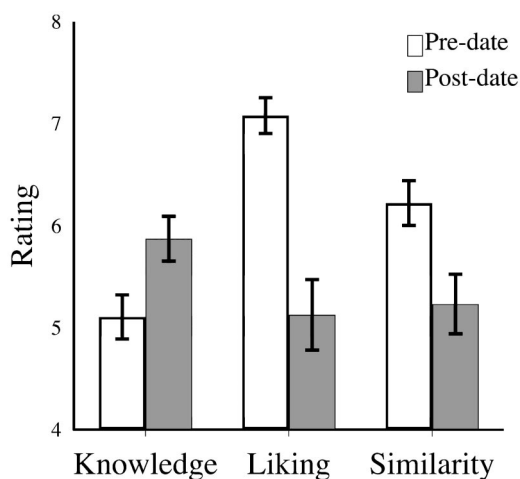


Figure 2. Pre- and postdate ratings: Knowledge increases while liking and similarity decrease (Study 5). Error bars = standard deviations.

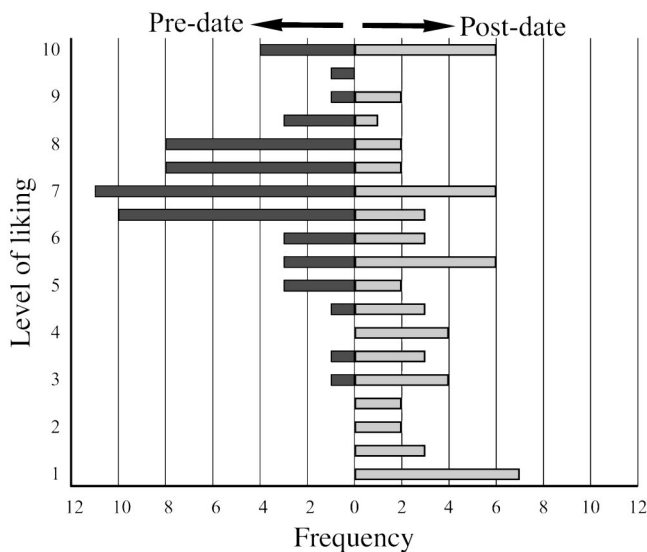


Figure 3. Pre- and postdate distributions of liking (Study 5). Bars indicate the number of daters who provided that rating of liking for their partner.

Markus & Nurius, 1986). Although increased mere exposure to a target person can lead to increased liking, we propose that acquiring additional information about that person is more likely to lead to less liking.<sup>5</sup> Two contradictory studies on the well-known effect of propinquity in liking are illustrative. In a study by Festinger, Schachter, and Back (1950), the simple factor of how near people lived to each other predicted the frequency of friendships, but Ebbesen, Kjos, and Konecni (1976) showed that although propinquity does predict the emergence of friendships, it does an even better job of predicting the emergence of enemies, offering further support for the notion that the more that is learned about someone, the less that person is liked, on average (see also Baum & Valins, 1979).<sup>6</sup>

Our hypothesis that more information leads to greater dislike also seems in conflict with research suggesting that many people

<sup>4</sup> These effects may not be limited to humans. Over and above other characteristics associated with reproductive capacity, for example, male guppies prefer novel females to those with whom they are or have been familiar (Kelley, Graves, & Magurran, 1999).

<sup>5</sup> Even within the domain of mere exposure, increased exposure does not always lead to greater liking: In Swap’s (1977) study, repeated exposure to a source associated with punishment reversed the effect. In fact, increased exposure to stimuli has been shown to cause habituation—or less liking over time—in domains ranging from tastes for food (Groves & Thompson, 1970) to tastes for consumer goods (Wathieu, 2004).

<sup>6</sup> Forcing individuals to interact with strongly disliked others in laboratory studies has been shown to increase liking (Tyler & Sears, 1977). Relationships that start at the lowest point might be expected to improve merely as a result of regression to the mean, but in the real world, such strongly disliked others simply may be avoided, making rebound effects less likely. One exception to this might be the case of arranged marriage, and although some data have suggested that such marriages can be more satisfying than “love marriages,” the evidence is mixed (Myers, Madathil, & Tingle, 2005; Xiaoho & Whyte, 1990).

hold overly positive views of their romantic partners, the individuals about whom the most is known (Murray, Holmes & Griffin, 1996; see Gagné & Lydon, 2004, for a review). Again, we do not argue that increased information leads to less liking in every case, but rather that this is the case on average. Individuals may feel overly positively toward their significant others, but these are the rare exceptions who were liked enough to stimulate efforts to acquire more information. Less salient to individuals are the countless cases when some information was learned about someone who was subsequently disliked and discarded.

### *Dissimilarity and Negativity*

Dissimilarity is not the only information shown to be highly diagnostic of disliking, of course. The impact of negative information, for example, has received a great deal of empirical attention (e.g., Fiske, 1980; Kanouse & Hanson, 1972; Peeters & Czapinski, 1990; Skowronski & Carlston, 1989). We assigned traits randomly in Studies 2 and 3 to show that increased information led to less liking without regard to the valence of that information; results of Study 3 (and its follow-up study) showed that perceptions of dissimilarity mediated this relationship, offering further support for dissimilarity as the key construct underlying our effect. A valence account and our dissimilarity account might be pitted against each other in the following manner: A valence account would hold that more positive information should always lead to more liking (or at minimum, more positive information should not lead to less liking); a similarity account, however, would hold that positive information only increases liking to the extent that it also indicates similarity. The available evidence tends to support the similarity account. Encountering individuals who are too good—those who resemble people's ideal selves rather than their actual selves—are actually liked less, showing that increasing positivity can lead to less liking (e.g., Herbst, Gaertner, & Insko, 2003). At the same time, however, the few studies that have pitted similarity and negativity against each other to determine their relative weight in impression formation have tended to show that valence outweighs similarity (Ajzen, 1974; Lydon, Jamieson, & Zanna, 1988). Montoya and Horton (2004) suggested one possible resolution: Evidence of targets' similarity to others influences people's evaluations of those targets, which in turn influences liking, suggesting that valence may mediate the link between similarity and liking.

### *Learning That Less Is More*

Study 1B showed that people fail to predict that their initially sweet impressions will turn sour over time. We wondered whether these falsely high expectations might be tempered over time; in theory, at least, people could learn over the course of many disappointing experiences to temper their expectations. Our data from our online daters in Study 5 shed light on the learning process. Participants also reported their total number of first dates, allowing us to examine the relationship between this measure of experience and their expectations for their dating partners. Overall, the more dates people had been on, the lower their expectations were,  $r(112) = -.26, p < .01$ , suggesting that experience tempers optimism. It is interesting, however, that the effect of experience on expectations varied depending on whether those expectations

pertained to a first or a second date. For those daters who were anticipating going on a first date, the number of dates was not correlated with expectations,  $r(56) = .04, p = .77$ ; however, after the date, when asked about expectations for seeing someone for the second time, participants showed strong evidence of tempered expectations,  $r(56) = -.45, p < .001$ . One explanation for these results is that people suspend disbelief when going on first dates but are more realistic when thinking about seeing—or not seeing—that person again.

Why might individuals suspend their disbelief, especially when evidence suggests that having these high expectations dashed is so disheartening (Frost, Norton, & Ariely, 2006)? There are two stages to finding a mate (or, more generally, to establishing any relationship): The first involves casting a wide net to discover possible options, and the second involves screening those options to select winners. Given the ultimate goal of finding a mate, it might be adaptive to start with a positive bias to generate many new options from which to choose; given limited capacity, however, in both available time and cognitive capacity (Dunbar, 1993), it may be adaptive to switch to a negativity bias while screening to eliminate poor options quickly (see Peeters & Czapinski, 1990). In fact, the robustness of optimism prior to first dates may be essential in motivating people to persevere in a long and arduous screening process. Although high expectations may lead to greater disappointment, it is still likely the case that selecting individuals for whom expectations are highest maximizes one's chances of finding an acceptable mate (see Denrell, 2005; Harrison & March, 1984). Unfortunately, selecting only those individuals for whom liking and perceived similarity are the highest makes impressions of these individuals especially likely to become more negative over time (as they regress toward the mean). In sum, inflated expectations have costs and benefits, but the lone payoff may be worth the many disappointments.

### *Conclusion*

Benjamin Franklin proposed that fish and visitors have something in common: Both begin to stink after 3 days. The present research offers empirical support for Franklin's quip. The more people learn about others—and anyone who has had houseguests knows all too well how much one can come to know in a short time—the less they like them, on average. As the quotes with which we opened suggest, many prospects, whether world leaders or would-be hipsters, who looked good from afar suddenly seem less attractive once more is known. Echoing the distinction we drew in the introduction between effects within and across individuals, we stress that our effect is true in the aggregate, not in every case: The occasional houseguest may indeed grow on us, but on average, the majority will not. Thus, to the list of other factors shown to play a key role in liking such as propinquity and similarity, we add a novel and, at least to our participants, counterintuitive factor: ambiguity. Unlike these previously identified factors, which can wax and wane over time, ambiguity necessarily decreases over the course of acquaintance, and the positive expectations that people read into ambiguous others diminish as more and more evidence of dissimilarity is uncovered. Although people believe that knowing leads to liking, knowing more means liking less.

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