Message in a Ballad
The Role of Music Preferences in Interpersonal Perception
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ABSTRACT—How is information about people conveyed through their preferences for certain kinds of music? Here we show that individuals use their music preferences to communicate information about their personalities to observers, and that observers can use such information to form impressions of others. Study 1 revealed that music was the most common topic in conversations among strangers given the task of getting acquainted. Why was talk about music so prevalent? Study 2 showed that (a) observers were able to form consensual and accurate impressions on the basis of targets’ music preferences, (b) music preferences were related to targets’ personalities, (c) the specific cues that observers used tended to be the ones that were valid, and (d) music preferences reveal information that is different from that obtained in other zero-acquaintance contexts. Discussion focuses on the mechanisms that may underlie the links between personality and music preferences.

I like to think I present an innocuous, well-socialized face to the world—nothing for anyone to worry about. But if you know that I like [alternative music] then you know a little something else about me. You’ve gotten a new data point. If you have all of my songs, the points coalesce to form a picture, an intimate one that doesn’t quite match the public persona. (Schwarz, 2004, p. 6)

What is the process by which unacquainted strangers become acquainted, and possibly friends? Without doubt, getting acquainted is a long and multifaceted process, but at the broadest level it comes down to transferring information. Getting to know people better means getting to know more about them.

Past research has pointed to many cues that individuals can use to piece together a picture of what someone else is like. Studies have shown, for example, that observers can glean information from such cues as physical appearance (Kenny, Horner, Kashy, & Chu, 1992), nonverbal behavior (Borkenau, Mauer, Riemann, Spinath, & Angleitner, 2004; Paulhus & Bruce, 1992), facial features (Berry & Finch-Wero, 1993), bedrooms and offices (Gosling, Ko, Mannarelli, & Morris, 2002), Web sites (Vazire & Gosling, 2004), and clothing (Burroughs, Drews, & Hallman, 1991). These modes of communication may be informative, but the most obvious form of communication—talking—has been curiously neglected in these zero-acquaintance studies of impressions based on minimal information.

In most real-world getting-acquainted interactions, people talk to each other. Yet with few exceptions (Anderson, 1984), research has rarely examined the content of such conversations, much less how the topics discussed influence people’s impressions of one another. The content of conversations can communicate all kinds of information about individuals’ thoughts, preferences, feelings, and values. So studying such conversations seems like a sensible way to learn about the kinds of information people actually use as they become acquainted.

What types of things might individuals talk about as they become acquainted? Obviously, people can discuss a wide range of topics—from work and politics to general likes and dislikes—all of which could be rich with information about their personalities. It is likely that through experience people will come to learn which topics possess the most diagnostic information and seek out information about these topics. To find out which kinds of information people seek when they are getting to know one another, it is informative to look at naturally occurring contexts in which the core task explicitly centers on getting to know one another.

One such context is dating, in which both parties have an interest in conveying information about themselves efficiently and effectively. In modern Western societies, this efficiency is perhaps best epitomized by Internet dating sites, where users can search hundreds of profiles for potential matches. Given the fierce competition among dating companies, the types of information used to develop users’ profiles will likely include categories that people at least believe are rich with information about them. One category common to virtually all dating Web
sites is music preferences: Nine of the 10 most-visited on-line dating Web sites identified on www.alexa.com ask users questions about their music preferences. This is consistent with past research, which has shown that individuals consider their preferences for music more revealing of their personalities than their preferences for books, clothing, food, movies, and television shows (Rentfrow & Gosling, 2003). This emphasis on music may be especially strong among young adults, who report significantly stronger preference ratings for music than do older adults (LeBlanc, Sims, Siivola, & Obert, 1996).

The prevalence of music-preference information in real-life getting-acquainted contexts and the belief that music preferences reflect information about personality suggest that people, especially young adults, might talk about music in the service of sharing information about their personalities. In this article, we examine the types of information that naturally arise as individuals become acquainted, and the impact of such information on their impressions of one another’s personalities and values.

**STUDY 1: WHAT DO PEOPLE TALK ABOUT AS THEY BECOME ACQUAINTED?**

Study 1 investigated the conversation topics that naturally arise as young adults become acquainted. Specifically, we examined the content of conversations among strangers over a 6-week getting-acquainted period. Because music is widely believed to convey information about personality, we predicted it would be among the most common topics discussed.

**Method**

**Participants**

Sixty University of Texas at Austin (UT) undergraduates (55% women; mean age = 18.4 years, SD = 0.94) volunteered in exchange for partial fulfillment of a psychology course requirement. Of those who indicated their ethnicity, 4 participants (8.5%) were Asian, 3 (6.4%) were Hispanic, 36 (76.6%) were White, and 4 (8.5%) were of other ethnicities.

**Procedure**

Participants were introduced to a study of how individuals get to know one another over the Internet. Each was instructed to interact with another participant for 6 weeks using an on-line bulletin-board system. Half the participants were assigned to same-sex pairs, and half to opposite-sex pairs. Participants were given no specific instructions about what to talk about. Instead, they were encouraged to talk about anything that they thought would enable them to get to know one another.

**Coding the Interactions**

On the basis of our previous research (Rentfrow & Gosling, 2003), it seemed likely that individuals would discuss their preferences for books, clothing, movies, music, and television shows. To cross-check our intuitions and identify other possible topics, we examined the types of information reported in the profiles of users at Internet dating sites; virtually all of the topics we identified, especially music, movies, and books, were common in the profiles of Internet-dating users. However, because this research was conducted during football season at UT, a school where athletics are very prominent, we added two sports categories to our list, one that included football only and another that included all sports other than football. Thus, we coded the conversations in terms of seven topics: books, clothing, movies, music, television shows, football, and sports other than football.

We analyzed the transcript from each interaction using the Linguistic Inventory and Word Count computer program (LIWC; Pennebaker, Francis, & Booth, 2001). LIWC checks each word of a text against an internal dictionary; words in the text that also appear in the dictionary are assigned to a specific linguistic category, and the percentage of total words in each category is reported. In this study, the internal dictionary comprised keywords in the seven preference and activity categories identified in the previous paragraph.1 For each category each week, we calculated the percentage of participants who had mentioned a keyword at least once.

**Results and Discussion**

Figure 1 shows the percentage of participants who talked about music and the mean percentage of participants who talked about any of the other preference domains each week. Music was the most commonly discussed topic overall and among the most commonly talked about topics for every 1 of the 6 weeks tested. During the first week, 58% of participants talked about music; the next most common categories were movies (41%) and football (41%). The difference between the percentages for music and movies and the difference between the percentages for music and football were significant, ts(58) > 2.1, ps < .05, d's ≥ .50. As the 6-week period progressed, talk about all of the preference domains decreased gradually. However, music continued to be among the most commonly discussed topics; only once in the first 5 weeks was it not the most discussed topic.

In a context where individuals were completely free to discuss absolutely anything that they considered relevant to the task of becoming acquainted, the majority talked about music. It should be borne in mind that the participants were at an age when music may be particularly important, and it is possible that Internet-based communications are particularly likely to foster conversations about music. Nevertheless, these results provide compelling evidence that music preferences can play a prominent role in the early stages of becoming acquainted.

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1The keywords defining the preference categories were selected independently by two expert judges. Some categories were broader than others, so to gauge the frequency of the categories, we needed more keywords for some than for others. However, the number of keywords in a category was not related to the frequency with which words from that category were identified in the transcripts. The keywords defining each category are available from the first author.
role in getting acquainted and raise the question: What interpersonal information do music preferences convey?

STUDY 2: WHAT INTERPERSONAL INFORMATION DO MUSIC PREFERENCES CONVEY?

Research on the social psychology of music suggests that (a) individuals believe music preferences reveal information about their personalities (Rentfrow & Gosling, 2003), (b) individuals deliberately use music preferences to convey information about themselves (North & Hargreaves, 1999), and (c) music preferences and personality are linked (Little & Zuckerman, 1986; McCown, Keiser, Mulhearn, & Williamson, 1997; Rentfrow & Gosling, 2003). Therefore, it is reasonable to infer that discussions about music preferences could serve to inform individuals’ understanding of one another’s personalities. This inference raises three further questions: Do a person’s music preferences convey a clear, consistent, and interpretable message about his or her personality? If so, how accurate is that message? And what features of these preferences convey the interpersonal information?

In keeping with our ecologically oriented approach, Study 2 used real targets’ top-10 songs as the stimuli. Lists of this sort are appealing because they represent stimulus sets similar to the complex music-preference information individuals may encounter in their daily interactions.

Two different sources of music-based information seem potentially relevant for forming impressions. First, observers might rely on specific features of a target’s music preferences (e.g., fast tempo) that could allow direct inferences about that target’s behaviors (active) and personality (extraverted). Second, judgments about a target could be less direct, influenced by a stereotype (e.g., heavy-metal fan) that is associated with a whole suite of traits (disagreeable and reckless).

We examined the role of these two types of information within the framework provided by Brunswik’s (1956) lens model. In this model, cue utilization refers to the link between an observable cue (e.g., a reported preference for heavy metal) and an observer’s judgment (e.g., of agreeableness). Cue validity refers to the link between the observable cue (the preference for heavy metal) and a target person’s actual level of the underlying construct (agreeableness). If both links are intact, then observers’ judgments should converge with the underlying construct being observed, resulting in observer accuracy (e.g., accurate impressions of agreeableness).

Method

Targets
Seventy-four UT undergraduates (40.5% women; mean age = 18.9, SD = 2.3) volunteered in exchange for partial fulfillment of a psychology course requirement. Seven participants (9.5%) were Asian, 5 (6.8%) were Hispanic, 49 (66.2%) were White, and 13 (17.6%) were of other ethnicities.

Procedure
Data on targets’ personalities and music preferences were collected in a two-part procedure. First, participants completed several measures of personality and created a preliminary list of their top-10 favorite songs, providing for each song the title, the band’s or artist’s name, and the music genre. Pilot testing revealed that creating a top-10 list without warning is a difficult task. So to increase the likelihood that targets created lists truly representative of their favorites, we gave them an additional week to think about their selections. They returned 1 week later to finalize their top-10 lists.

The songs on each target’s top-10 list were compiled onto a separate audio CD; the songs were recorded in the order they were listed by the participant.2 These 74 CDs served as stimulus sets for the observers.

Coding the Songs
So we could compare the effects of specific music features and music stereotypes on observers’ impressions of targets, we collected two types of information on the targets’ music preferences: information about the specific features of each song (e.g., tempo) and about the genre of each song (e.g., rock). Information about the genre of each song was obtained directly from the targets’ top-10 lists. Information about the specific features was

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2Unfortunately, we did not specify clearly enough that targets should list songs rather than whole albums. Consequently, some participants listed albums instead of songs. In such instances, we selected two songs that sounded representative of the album’s style.
using the intraclass correlation (ICC; Shrout & Fleiss, 1979).

To address this question, we calculated interobserver agreement on the Basis of Their Music Preferences?

Results and Discussion

Did Observers Form Similar Impressions About Targets on the

Observer Ratings

Ratings of targets were made by 8 observers (5 female; mean age = 20.4, SD = 3.1). Each observer listened to each top-10 CD and independently rated each target on several personality measures. Observers were given no instructions regarding what information they should use to make their ratings. The observers had no contact with the targets and made their judgments independently after listening to the CDs in different random orders.

Instruments

Observers’ ratings and self-reports of personality were made with the 44-item Big Five Inventory (BFI; John & Srivastava, 1999). Observers’ ratings and self-reports of values were collected using Rokeach’s (1973) Values Survey (RVS). Targets reported their instrumental and terminal values using the standard procedure, rank-ordering each of the RVS values in terms of its personal importance to them. However, because rating 74 targets is an arduous task, we modified the procedure slightly for the observers, who instead rated the targets on 12 of the terminal values (a comfortable life, a world at peace, a world of beauty, an exciting life, family security, inner harmony, national security, salvation, self-respect, social recognition, true friendship, and wisdom) and 6 instrumental values (ambition, courage, forgiveness, imagination, intellect, and love).

Observers’ ratings and self-reports of self-esteem, positive affect, and negative affect (which we refer to as “affect” variables) were also collected. Self-esteem was measured using the single-item self-esteem measure (Robins, Hendin, & Trzesniewski, 2001). Self-reports of affect were obtained using the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988). Again, to reduce observers’ fatigue, we asked them to rate targets’ affect on a subset of 9 of the 20 PANAS adjectives. Observers rated each target on 4 adjectives from the positive-affect subscale (alert, attentive, inspired, strong) and 5 from the negative-affect subscale (afraid, guilty, hostile, scared, upset).

Results and Discussion

Did Observers Form Similar Impressions About Targets on the Basis of Their Music Preferences?

To address this question, we calculated interobserver agreement using the intraclass correlation (ICC; Shrout & Fleiss, 1979), ICC(2, 1) computed across the eight judges. The ICCs were positive for the BFI traits, values, and affect variables, with mean ICCs(2, 1) of .29, .16, and .10, respectively. As can be seen in Table 1, BFI Openness showed the strongest consensus, followed by BFI Agreeableness, BFI Conscientiousness, the value of social recognition, BFI Extraversion, and the value of imagination. Consensus was low for the three affect-related variables.

Were Observers’ Impressions Accurate?

Accuracy was assessed by correlating the aggregated observer ratings with targets’ self-ratings on each dimension. Arguments can be made for the superiority of various accuracy criteria (e.g., Kenny, 1994; McCrae, Stone, Fagan, & Costa, 1998), but self-ratings represent one reasonable and widely used option (e.g., Blackman & Funder, 1998). As shown in Table 1, the accuracy correlations were positive for the BFI traits, values, and affect (mean rs = .24, .15, and .10, respectively). Accuracy was highest for BFI Openness and the values of imagination and a world of beauty, and lowest for the value of ambition, negative affect, and the value of self-respect.

To contextualize the magnitude of the accuracy correlations, we compared the accuracy correlations for BFI traits in this study with the correlations obtained in previous zero-acquaintance research (summarized by Kenny, 1994). The observer-accuracy profiles displayed in Figure 2 show that music preferences convey information very different from that conveyed through the stimuli used in past zero-acquaintance research (e.g., photographs, brief video recordings). In particular, music preferences provide more information about targets’ Agreeableness, Emotional Stability, and Openness and less information about targets’ Extraversion and Conscientiousness than do traditional zero-acquaintance stimuli. Of course, there are numerous differences between the conditions under which the music-based impressions and the zero-acquaintance impressions were collected, so the differences depicted in the figure may not be entirely attributable to the difference between music cues and zero-acquaintance cues.

What Perceptual Processes Guided Observers’ Impressions?

To examine which music cues were associated with which personality impressions, we computed cue-utilization correlations between the aggregated observers’ ratings for each BFI trait, value, and affect variable and (a) the 25 music attributes, averaged across the songs on targets’ top-10 lists, and (b) the music genres included in targets’ lists. The findings suggest that observers’ judgments of targets were associated with a number of the music attributes and genres. For example, observers’ ratings of targets’ Extraversion were positively related to such

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3The 25 music attribute items were selected using extensive item generation and selection procedures reported in Rentfrow and Gosling (2003, Study 5).

4To conserve space, the full correlation tables are not provided here, but they are available from the first author.
To examine which music cues were associated with what the targets were like, we computed cue-utilization correlations between the targets' self-ratings and the coded music attributes as energy (.42), enthusiasm (.48), and amount of singing (.38), and the genres country (.23) and hip-hop (.33).

To examine which music cues were associated with what the targets were like, we computed cue-utilization correlations between the targets' self-ratings and the coded music attributes and genres. Several of both types of cues were valid indicators of what the targets were like. For instance, the top-10 lists of extraverted targets contained music with a lot of energy (.12), enthusiasm (.18), and singing (.29), and country (.32) and hip-hop (.13) songs.

To test the extent to which observers’ cue-utilization patterns matched the patterns of cue-validity correlations, we computed intercorrelations among the column vectors for each BFI trait, value, and affect variable (see Funder & Sneed, 1993). To eliminate any artificial inflation of variance produced by the arbitrary direction in which the variables were keyed, we used the absolute values of the cue-utilization and cue-validity correlations. We transformed the absolute correlations using Fisher’s r-to-z formula. Finally, for each trait, value, and affect variable, we correlated these transformed correlations across the cues. The vector correlations thus obtained reflect the overall congruence between the cue-utilization and cue-validity patterns.

The column-vector correlations (shown in the last two columns of Table 1) were large for the accurately judged qualities, suggesting that it was these cues that mediated judges’ accurate impressions. For example, the two most accurately judged qualities, Openness and imagination, were characterized by somewhat stronger vector correlations than the two least accurately judged qualities, ambition and negative affect. Furthermore, examination of the differences between the two types

<table>
<thead>
<tr>
<th>Criterion measure</th>
<th>Music attributes</th>
<th>Music genres</th>
</tr>
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<tbody>
<tr>
<td>BFI personality</td>
<td>.27**</td>
<td>.27*</td>
</tr>
<tr>
<td>Extraversion</td>
<td>.37***</td>
<td>.21*</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>.30**</td>
<td>−.01</td>
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<tr>
<td>Conscientiousness</td>
<td>.11</td>
<td>.23*</td>
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<tr>
<td>Emotional Stability</td>
<td>.58**</td>
<td>.47**</td>
</tr>
<tr>
<td>Openness to Experience</td>
<td>.78**</td>
<td>.37</td>
</tr>
</tbody>
</table>

Note. Interobserver consensus is the intraclass correlation, ICC(2, 1), for all eight judges. Observer accuracy is the correlation between the aggregated observer ratings and targets’ self-reports. The mean correlations were computed using Fisher’s r-to-z formula. The vector correlations reflect the convergence between the cue-utilization correlations and the cue-validity correlations. BFI = Big Five Inventory. Significance of the consensus and accuracy correlations for the BFI traits and values is based on a sample size of 74; for the affect variables, the sample size was 72. Significance of the column-vector correlations is based on the number of attributes (25) and genres (19) codod.

*p < .05, d ≥ .41. **p < .01, d ≥ .56.
of cues suggests that impressions of certain qualities (e.g., Extraversion) are more strongly related to information about music attributes than to information about genres, whereas other impressions (e.g., salvation) are more strongly associated with information about genres than with information about music attributes.

**GENERAL DISCUSSION**

The findings from these two studies suggest that music preferences can play an important role in everyday contexts of social perception. Study 1 showed that music is a common topic of conversation among strangers engaged in the task of getting to know one another. Study 2 showed that individuals’ music preferences convey consistent and accurate messages about their personalities. Additionally, the results suggest that specific attributes of individuals’ music preferences and music-genre stereotypes differentially influenced observers’ impressions of targets’ traits, values, and affect. Together, these findings highlight some of the processes that may guide interpersonal perception in daily life.

Unlike most zero-acquaintance research, this study used stimuli that were merely a constellation of targets’ preferences; no direct information about the targets was available to observers. Nevertheless, observers were able to accurately infer several psychological characteristics of the targets. Moreover, as shown in Figure 2, the pattern of accuracy findings is quite different from that obtained in zero-acquaintance research, which uses photographs or video clips of targets as stimuli (Kenny, 1994). These findings suggest that music preferences carry unique information about personality that is not readily available from more observable cues.

**Expression and Perception of Personality Through Music Preferences**

Why do music preferences reveal information about personality? At least three mechanisms may be active independently or in concert. First, individuals might seek out styles of music purely on the basis of how pleasing they sound. Such pleasingness may depend on a variety of factors ranging from low-level auditory aesthetics (e.g., extraverted individuals might listen to choral music purely because they enjoy the sound of the human voice) to higher-level cognitive processes (e.g., the words of a religious song may resonate with an individual’s spiritual beliefs). Second, individuals might seek out styles of music to regulate their arousal levels; for example, easygoing individuals might prefer soothing styles of music because such music enables them to maintain a level of calmness (Sloboda & O’Neill, 2001). Third, individuals might use music to make self- and other-directed identity claims (Gosling et al., 2002); for instance, intellectual people might listen to complex music because it projects an image of sophistication.

The present work suggests that observers have an intuitive understanding of the links between music preferences and personality. For example, targets with a preference for music with vocals were correctly perceived as extraverted, targets with country songs in their top-10 lists were accurately perceived as emotionally stable, and targets with jazz in their lists were correctly perceived as intellectual.

Lay theories about the links between music preferences and personality are likely shaped by individuals’ social interactions and exposure to popular media and cultural trends. Thus, the personality characteristics ascribed to someone who likes a particular style of music probably vary as a function of observers’ social status, country of residence, and cohort, as well as the culture-specific associations with that style of music at that point in history. For example, a person who likes jazz music might be perceived as erudite by young observers, but as conventional by observers who grew up when jazz was more mainstream.

The precise mechanisms governing the expression of personality in music preferences and the particular inference processes used in music-based personality impressions have yet to be studied in detail. With the basic links among personality, music preferences, and impressions of personality now established, future research should focus on illuminating the processes underlying these links.

**Limitations**

The present research focused exclusively on young adults, so it is not clear whether the findings would generalize to older targets. The importance of music diminishes with age (LeBlanc et al., 1996), so perhaps younger people talk about music more often than do older people. Indeed, research among adolescents suggests that music serves as a symbolic badge that defines aspects of young peoples’ identities and peer groups (North & Hargreaves, 1999). Therefore, among older individuals, music may be less informative about personality than are other topics, such as finances, family, and politics.

Nonetheless, with the growing popularity of music-sharing devices (e.g., iTunes), which allow individuals to make their music available to other people on their computer network, information about individuals’ music preferences is becoming increasingly available to individuals of all ages. For example, one study of the practices surrounding on-line music sharing suggests that in work settings, individuals’ impressions of their colleagues are influenced by knowing the content of their colleagues’ music collections (Voida, Grinter, Ducheneaut, Edwards, & Newman, 2005). Although most of the participants in this study already worked together, information about their co-workers’ music preferences enabled them to develop nuanced impressions about personality characteristics that were not easily derived from other interactions at work.
CONCLUSION

Every day, people engage in a variety of activities, from listening to music and watching movies, to reading books and playing sports. Such ordinary aspects of people’s daily experiences are crucial elements of what people are like (Craik, 2000). Therefore, it is reasonable to suppose that information about such quotidian details should play a pivotal role in how individuals come to know about the personalities of others. Our results are consistent with this idea: We found that music preferences provide unique information about personality that is unavailable through other cues.

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