Changes in Impression Complexity Over Time and Across Situations

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This set of studies tested the idea that higher levels of acquaintance with an individual would be associated with greater impression complexity. Two aspects of acquaintance were examined: length of relationship and contextual diversity of interactions. In Study 1, participants provided written descriptions of acquaintances known for different lengths of time and at different levels of contextual diversity. Contextual diversity in interactions with an acquaintance was associated with (a) less evaluative and descriptive consistency in impressions, (b) greater contextual differentiation in impressions, and (c) the development of causal theories to explain the acquaintance's behaviors. In Study 2, impression complexity was assessed using a trait-sort task. Contextual diversity, but not length of relationship, was associated with higher complexity scores.

The field of impression formation has typically been characterized by a basic assumption that people attempt to form unified, consistent impressions of the individuals whom they encounter. Dating back to the early work of Solomon Asch, it has been maintained that an individual is typically viewed as a "psychological unit" whose various traits and behaviors are integrated into "a single unifying theme" (Asch, 1946). Much research within the impression formation domain has produced results consistent with this assertion. For instance, primacy effects in impression formation demonstrate that perceivers maintain evaluative consistency in first impressions (Asch, 1946). Perceivers who learn both positive and negative information about a person form more negative impressions when the initial information about the person is negative than when the initial information is positive.

More recent developments in the area of person memory have demonstrated that we expect individuals to be consistent on the traits that we use to describe them. When perceivers encounter a behavior that is inconsistent with regard to a particular trait dimension (e.g., a kind person is observed engaging in an unkind act), they think about the behavior more and generate explanations for it, presumably in an effort to maintain an impression that is consistent on a particular trait dimension (Hastie, 1984). The enhanced processing engaged in for that behavior results in an "inconsistency effect" or better recall for inconsistent information (Hastie & Kumar, 1979; Srull, 1981). In short, this facilitated memory for inconsistent behaviors provides evidence that perceivers try to maintain a consistently kind or consistently unkind impression of the social target.

Recently, it has been suggested that the perception of high entitivity[1] in individuals can account for many of these phenomena. It is proposed that perceivers hold the assumption that individuals are coherent entities (Hamilton & Sherman, 1996) and that this perception of entitivity influences subsequent information processing and final impressions of the target (McConnell, Sherman, & Hamilton, 1994, 1997). Specifically, it is suggested that the perception of entitivity in a target facilitates the formation of consistent, unified impressions.

In sum, then, Asch's early notions about the unified nature of impression formation have garnered much empirical support. However, the research evidence sup-

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porting Asch's assumption that we perceive unity in individuals has generally been limited to assessments of first impressions. A basic paradigm in this domain involves participants coming to the lab and forming an initial impression after receiving a list of behaviors or traits characterizing an individual (see Asch, 1946; Burnstein & Schul, 1982; Coovert & Reeder, 1990; McConnell et al., 1994; Srull & Wyer, 1979; Welbourne, 1999). Thus, impressions at later stages of development are not captured by this paradigm. This paradigm also is constrained in that it rarely involves impressions of real people (however, see Park, 1986) but instead focuses primarily on impressions of hypothetical individuals. Thus, support for the idea that consistency characterizes impressions comes primarily from research on first impressions of hypothetical targets. The degree to which this assumption of consistency characterizes impressions of real people at various stages of impression development remains largely unexplored.

Interestingly, a number of studies outside of the domain of impression formation suggest that representations of other types of social targets, such as the self and familiar others, may be less likely to be characterized by this type of unity. For instance, perceivers are more likely to ascribe both of a pair of opposing traits to themselves than to others (Monson, Tanke, & Lund, 1980; Sande, Goethals, & Radloff, 1988) and to well-known others than to simple acquaintances (Kerber & Singleton, 1984; Monson et al., 1980; Sande et al., 1988). Sande and colleagues provided people with pairs of opposing traits (e.g., introverted-extroverted) and asked them to indicate whether one of the traits, both of the traits, or neither of the traits was descriptive of a particular social target. They found that "both traits" were more likely to be endorsed when participants were describing themselves than when they were describing someone else. In a follow-up study, they showed that acquaintances who were well liked and had been known for a fairly long time were perceived as having both of a pair of opposing traits more often than acquaintances who had been known for only a few months (Sande et al., 1988). These findings indicate that perceivers appear to recognize the existence of contradictory characteristics within themselves and within others with whom they are well acquainted.

One feature that is likely to characterize perceiver relationships with these particular social targets is increased cross-situational contact. Often, a consequence of becoming better acquainted with a person is having increased exposure to this individual's behavior across multiple contexts or situations. Thus, both well-known others and the self (a target with whom perceivers have a very high level of acquaintance) should be social targets with whom perceivers have interacted in different types of situations. On the other hand, first impressions of an individual are more likely to be based on observations of the individual within a single context. This contextual diversity aspect of acquaintance has not often been addressed in previous research. In most studies that examine representations of individuals known at different levels of acquaintance, acquaintance is conceptualized either as the length of time an individual has been known (Kenny, 1994; Nisbett, Caputo, Legant, & Maracek, 1973; Sande et al., 1988) or as a subjective feeling of "knowing a person well" (Monson et al., 1980) rather than the degree to which interactions with an individual occur across multiple contexts or are confined to a single setting.

Park (1986), for instance, traced the development of students' impressions of one another throughout a 7-week seminar. Students provided written descriptions of one another, which allowed Park to compare the content of their impressions at different points in time. Analyses of these descriptions revealed that impressions were more likely to include trait rather than other types of information as length of acquaintance increased. One limitation of this intriguing longitudinal study was that all interactions took place within a single academic context; no cross-situational contact occurred. Thus, these results, although informative about the development of impressions within a single context over time, provide little information about how cross-situational familiarity influences impressions. Interestingly, a recent study by Vonk (1998), which replicated Park's methodology, demonstrated that the endorsement of inconsistent traits to describe acquaintances did not increase over time, except for participants who indicated that they had some contact with acquaintances outside of class.

Thus, the contextual diversity aspect of acquaintance may contribute unique information to the impression formation process, beyond that which is provided by the length of time an individual is known. For instance, two persons may be known for equal lengths of time but differ in the extent to which they are known across different contexts (e.g., one person is known for 1 year, but only at work; the other person is known for 1 year across many different settings: at work, socially, with family). If level of acquaintance is examined solely in terms of length of time, these two individuals should be known equally well. However, intuitively, it would appear that the second relationship involves greater knowledge of a person. Specifically, interacting with a person across different types of situations should provide exposure to different (even opposing) aspects of the person that are displayed across these situations; this type of rich differentiated information about a person should not be as readily available through exposure to a person in a single situation.

The assertion that cross-situational exposure to a person should reveal different and opposing aspects of this person's behavior is supported by a long tradition of research that indicates that consistency in an individual's behavior across situations tends to be rather low (Dudycha, 1936; Hartshorne & May, 1928; Mischel, 1968; Mischel & Peake, 1982; Newcomb, 1929). Interestingly, although the presence of behavioral inconsistencies across situations may seem to imply a lack of coherence within an individual, recent research (Mischel & Shoda, 1995) suggests that the inconsistencies in an individual's behavior across different types of situations form a meaningful pattern that is both stable and predictable. Evidence for this was demonstrated in a study that examined situation-behavior profiles for a group of children. Shoda and colleagues found that each child seemed to have his or her own stable patterns of cross-situational behavior. For instance, a child might show a consistent pattern of responding aggressively when approached negatively by an adult but responding nonaggressively when approached positively by a peer (Shoda, Mischel, & Wright, 1994). Of importance, then, according to this perspective of personality (Mischel & Shoda, 1995), an understanding of the psychological components of the situations that produce each type of behavior should provide insight into the motivations, goals, and passions of the individual, thereby creating a coherent framework for understanding behavioral variability within the individual (however, for alternate perspectives on the cross-situational consistency of traits, see Block, 1968; Epstein & O'Brien, 1985).

Based on the previous research findings, it is predicted that when increased acquaintance with an individual is characterized by high levels of cross-situational contact, perceivers should begin to recognize inconsistencies in the individual's behavior and ultimately become aware of the pattern of situation-behavior contingencies that underlie these inconsistencies. These features of the observed individual should be incorporated into perceiver representations of the individual, resulting in impressions characterized by greater complexity. Specifically, as perceivers gain cross-situational familiarity with an individual, their impressions of the individual should contain more evaluative and descriptive inconsistencies. In other words, perceiver impressions should contain both positive and negative information (evaluative inconsistency), and they should contain opposing traits (descriptive inconsistency). In addition, as perceivers become aware of the stable pattern underlying an individual's behavior variability across situations, a contextually differentiated impression of the individual should develop. Perceivers also should be able to develop theories about the causes or motivations that underlie the person's behavior and traits across different situations and incorporate these theories into their impressions.

Present Studies

To investigate these ideas in the current set of studies, a method was developed that allowed the assessment of impressions of real-world acquaintances known at different levels of familiarity. Participants were asked to describe their impressions of real people known at different levels of acquaintance. A distinction was made between two different conceptualizations of level of acquaintance: acquaintance based on the length of time an individual had been known and acquaintance based on the degree of contextual diversity that characterized interactions with an individual within a long-term relationship. To examine the impact of the "time" aspect of acquaintance on impression complexity, participants were asked to describe acquaintances known for either a short, moderate, or long amount of time. To examine how the "contextual diversity" aspect of acquaintance influenced impression complexity, participants were asked to describe acquaintances known for either a long time in a single context or for a long time across multiple contexts.

The impact of these two aspects of acquaintance (length of time, contextual diversity) on impression complexity was assessed using the following operationalizations of complexity, which were derived from the previously described research.

Descriptive and evaluative inconsistency. One indicator of impression complexity used in the current set of studies is the presence of inconsistencies. Specifically, complex impressions should contain evaluatively inconsistent information rather than solely positive or solely negative information; in addition, complex impressions should contain more opposing traits, demonstrating greater descriptive inconsistency.

Contextual differentiation. A second indicator of complexity that is used in the following studies is the differentiation of impressions across situations. Specifically, when impressions are high in complexity, different types of traits and behaviors should be associated with the acquaintance in different types of situations or contexts.

Development of causal theories. Finally, the development of causal theories is used as an indicator of complexity in these studies. Specifically, high-complexity impressions should be characterized by theories that the perceiver has generated about the motivations and goals underlying the target's behaviors.

Overview of Studies

In Study 1, participants were randomly assigned to acquaintance conditions and were asked to select an

acquaintance to describe based on these criteria. Participants provided general and situational descriptions of these acquaintances. These impression descriptions were then content-analyzed to examine whether there were differences in impression complexity at these different levels of acquaintance. In Study 2, the effect of level of acquaintance on impression complexity was assessed using a trait-sort task. Participants were randomly assigned to acquaintance conditions and made trait groupings to describe their selected acquaintances. The impact of level of acquaintance on complexity scores was examined.

STUDY 1

In the first study, participants' general and situation-specific impressions of real-world acquaintances were examined. Participants were randomly assigned to select an acquaintance known for a short period of time, a moderate period of time, a long period of time, a long period of time across multiple contexts, or a long period of time in a single context. Participants provided a general impression description of the selected acquaintance as well as situational impression descriptions of what this acquaintance would be like in three different, specified situations.

The following predictions were made regarding the relationship between length of acquaintance, contextual diversity of acquaintance, and impression complexity. First, based on past research indicating an association between length of acquaintance and measures of descriptive inconsistency (see Nisbett et al., 1973; Sande et al., 1988), it was predicted that in the length-of-time (short, moderate, long) conditions, written impressions of acquaintances known for longer periods of time should be characterized by greater complexity than impressions of acquaintances known for less time. Of importance, it is suggested that any effect that length of acquaintance has on complexity in these conditions should be due to the greater contextual diversity that occurs over time rather than to length of time itself. (With degree of contextual diversity left unspecified in these conditions, it is assumed that greater contextual diversity will naturally be associated with longer lengths of time spent with an acquaintance.) If it is indeed the case that contextual diversity, rather than length of time itself, leads to greater impression complexity, when length of time is held constant, greater impression complexity should be more likely to occur for relationships high in contextual diversity than for those low in contextual diversity. Therefore, in the contextual diversity instruction conditions (where contextual diversity was varied within long-term relationships), written impressions of long-term acquaintances known in multiple contexts should be more complex than impressions of acquaintances known only in a single context. To examine these predictions, the open-ended descriptions that participants generated about their acquaintances were subjected to multiple forms of content analysis.

Method

PARTICIPANTS

Participants were 100 undergraduates enrolled in introductory psychology at the Ohio State University.

ACQUAINTANCE CONDITIONS

To examine two facets of acquaintance, degree of contextual diversity and length of time the acquaintance has been known, different sets of instructions were used to provide participants with guidelines on selecting acquaintances to describe. One set of instructions focused on the length of time an acquaintance was known: Perceivers who received these instructions were asked to describe individuals they had known for short (someone they have just met), moderate (someone known for a couple of months), or long (someone known for a year or more) amounts of time. A second set of instructions attempted to isolate the contextual diversity aspect of acquaintance within long-term relationships. Perceivers were asked to select long-term acquaintances with whom their interactions had a high level of contextual diversity (interactions occurred across multiple contexts; e.g., someone they interacted with socially, at work, in their class) or a low level of contextual diversity (interactions were limited to a single context; e.g., someone they interacted with only at work or only socially). Given these instructional variations, each participant received one of the following selection criteria for choosing an acquaintance to describe: short length of time, moderate length of time, long length of time, long length of time in a single context, or long length of time across multiple contexts.

PROCEDURE

After arriving at the lab, participants were informed that this was a study designed to examine impressions formed of others. Each participant was randomly assigned to one of the five acquaintance conditions. After selecting an acquaintance that fit the criterion provided in the acquaintance selection instructions, participants generated a written description of their general impression of this person. Specifically, they were asked, "What would you tell someone else about this person so that they would understand what this person is like and be able to predict what this person would do?"

Next, participants completed a situational impression description task for the selected acquaintance. They were instructed:

> We would like you to think about how this person would behave in a number of specific types of situations and why they would behave this way. Some of these situations may be ones you have seen this person in; others may be ones in which you have not seen this person. Even if you have not actually observed this person in the specific situation that is described, try to imagine how they would behave if they were in that situation and describe why you think they would behave that way.

Each participant provided written descriptions of their selected acquaintance in response to three different situations that were randomly selected. Each situation contained a scenario that involved an interaction with a family member, an authority figure, a stranger, or a peer (e.g., "imagine that this person is confronting a teacher about a grade," "imagine that this person has just been introduced to a stranger at a party," "imagine that a family member asks this person for help"). Finally, participants completed a manipulation check in which they reported how well they knew their selected acquaintance, the length of time they had known their acquaintance, and the different contexts in which they had interacted with this acquaintance.

CONTENT ANALYSIS OF IMPRESSION DESCRIPTIONS

The following methods of assessment were developed to analyze the content of the impressions.

Categories of Complexity coding system. General impression descriptions were content analyzed using an adaptation of the Categories of Complexity coding system developed and used by Woike (1994, 1997; Woike & Aronoff, 1992). The Categories of Complexity coding system assesses two types of impression complexity, differentiation and integration, both of which are separated into simple and elaborate levels. Differentiation refers to the number of aspects used to form an impression. Simple differentiation is a measure of the number of new or different aspects used to describe a person (e.g., this person is kind and honest). Elaborate differentiation refers to the number of contrasts made between aspects (e.g., this person is shy, but also assertive). Integration refers to the number of connections involving the aspects used to form an impression. Simple integration measures the number of examples that are provided to support previously described aspects (e.g., this person is very friendly; for example, this morning she crossed the street just to come over and say hello to me). Elaborate integration is a measure of the number of causal relationships that are developed to explain single aspects or contrasts (e.g., her uncertainty about meeting new people makes her shy at parties; on the other hand, because she is very confident about her job, she is outgoing at work).

Of importance, elaborate differentiation scores provide a measure of the number of opposing or inconsistent attributes (descriptive inconsistency) contained in an impression. In addition, elaborate integration is an indicator of whether perceivers have developed causal theories about the motivations and goals underlying the behaviors of their acquaintance. Both of these, then, are indicators of complexity predicted for levels of acquaintance that are characterized by contextual diversity. Because longer periods of acquaintance are expected to be characterized by greater contextual diversity, it was predicted that scores on both of these dimensions would be higher for acquaintances known for longer periods of time (in the length-of-time conditions where contextual diversity was left unspecified). However, when contextual diversity was varied within long-term relationships (in the contextual diversity conditions), it was predicted that higher elaborate differentiation and elaborate integration scores should be found for impressions of long-term acquaintances known across multiple contexts than for long-term acquaintances known only in a single context. No a priori predictions were made for the levels of simple differentiation and simple integration for impressions in the different acquaintance conditions.

Student ratings of descriptions. A separate group of participants ($n = 50$) read the general impression descriptions and the situational impression descriptions of acquaintances that were written by the original participants in this study and rated these descriptions on multiple dimensions. Ten general descriptions and 10 sets of situational descriptions were judged by each student rater. This allowed us to obtain five independent ratings for each description that was generated by a previous participant. Raters were blind to level of acquaintance conditions while making these ratings. Rating dimensions included perceived familiarity and evaluative consistency for the general descriptions and a "same/different" rating for the situational descriptions.

Familiarity ratings. The raters judged how well original participants knew their acquaintances based on the general impression descriptions that these participants generated. This measure was designed as a check on the level of acquaintance conditions, specifically, to examine whether outside raters are able to detect differences in level of acquaintance from the content of impression descriptions. It was expected that participants in the

length-of-time conditions would be perceived as better acquainted with persons known for longer periods of time (due to greater contextual diversity characterizing these relationships). In addition, it was predicted that participants in the contextual diversity conditions would be perceived as better acquainted with persons known across multiple contexts than with persons known only in a single context, based on the descriptions that they generated.

Evaluative consistency ratings. Raters also made judgments about the evaluative consistency of the general impression descriptions. It was expected that, within the length-of-time conditions, impressions of acquaintances known for longer periods of time would be characterized by less evaluative consistency than impressions of acquaintances known for shorter lengths of time. However, it is predicted that any decrease in evaluative consistency found here should be due to the greater contextual diversity typically observed in long-term relationships. Therefore, within the contextual diversity instruction conditions (in which contextual diversity was examined within long-term acquaintanceships), written impressions of long-term acquaintances known in multiple contexts should be rated as having less evaluative consistency than impressions of long-term acquaintances known only in a single context.

Same/different person (contextual differentiation) ratings. As previously reported, each of the original participants in this study described their selected acquaintance in three different situations. Two of these situational descriptions were randomly selected from each participant's data and given to the raters. For each pair of situational descriptions, raters were asked to indicate the likelihood that the two situational impressions described the same person or two different people (although in all cases, the two descriptions always described the same participant). This was used as an indicator of the contextual differentiation of impressions. Specifically, a "two different people" rating should be more indicative of a complex impression that is differentiated across situations than a "same person" rating. Within the length-of-time conditions, it was expected that pairs of situational descriptions for acquaintances known for longer periods of time would be more likely to be rated as descriptions of two different people than descriptions of acquaintances known for shorter periods of time. It is proposed that any effect obtained for length of time should be due to contextual diversity accompanying relationships over time. Therefore, it is predicted that in the contextual diversity instruction conditions, pairs of situational descriptions written about long-term acquaintances known in multiple contexts should be more likely to be rated as descriptions of two different people than pairs of situational descriptions of long-term acquaintances known only in a single context.

Results

MANIPULATION CHECKS

Length-of-time manipulation check. Participants reported the length of time they had known their acquaintances. The short, moderate, and long length-of-time conditions significantly differed in reported length of acquaintance, $F(2, 56) = 88.82$, $p < .0002$. There was a linear effect, $F(1, 56) = 136.09$, $p < .0002$, such that participants who were asked to describe acquaintances known for longer lengths of time reported knowing these acquaintances for longer periods of time (M length of acquaintanceship in months for the length-of-time conditions: short = 1.4, moderate = 2.5, long = 86.8 months). In addition, the impact of contextual diversity conditions on reported length of relationship was examined, revealing no differences between the single-context (M = 67.1 months) and multiple-context conditions (M = 80.4 months), $F(1, 38) = .83$, *ns*.

Contextual diversity manipulation check. Participants were asked to place a checkmark next to all of the following situations in which they interacted or spent time with their acquaintance: work, home, classes, social clubs or organizations, athletic teams, or other situations. A greater number of interaction contexts were reported for multiple-context acquaintances (M = 4.4 contexts) than single-context acquaintances (M = 1.9 contexts), $F(1, 38) = 44.73$, $p < .0002$, indicating that the contextual diversity instructions were effective. The effect of the length-of-time manipulations on reported contextual diversity also was examined, revealing significant differences between conditions, $F(2, 56) = 8.29$, $p < .0008$. As expected, a linear effect occurred for the length-of-time conditions, $F(1, 56) = 14.72$, $p < .0004$, such that a greater number of interaction contexts were reported for acquaintances who were known for longer lengths of time (Ms: short = 2.2, moderate = 2.4, long = 3.6).

Interestingly, the mean number of interaction contexts for the long length-of-time condition (where level of contextual diversity was not specified as part of the selection criteria) fell between the means for the two contextual diversity conditions. The number of contexts reported for acquaintances in this condition ranged from one to five. Taken together, these observations suggest that when level of contextual diversity was left unspecified, some participants selected long-term acquaintances who were known across many situations, whereas others selected long-term acquaintances known in only a few contexts. A great deal of variability in contextual diversity also was found for the short and moderate length-of-time conditions (number of contexts in

which an acquaintance was known ranged from 1 to 5 for each condition). This suggests that although longer relationships do appear to be associated with greater contextual diversity (as was predicted), perhaps there is not as much overlap between these two variables as was originally expected.

Familiarity ratings. Participants rated how well they knew their acquaintances using a 9-point scale (ranging from 1 = *not at all well* to 9 = *extremely well*). A between-subjects ANOVA indicated that familiarity ratings differed between conditions, $F(4, 95) = 49.48$, $p < .0002$. Planned contrast analyses indicated that there was a linear effect for the instructions that focused on length of time, $F(1, 95) = 138.51$, $p < .0002$, such that self-ratings of how well participants knew their acquaintances increased with the length of time the acquaintances had been known (*M*s: short time = 3.75, moderate time = 6.2, long time = 8.4). It was predicted that greater amounts of contextual diversity with an acquaintance would produce the same results, when length of time was held constant. To examine this hypothesis, planned contrasts were conducted on the contextual diversity instruction conditions. Consistent with predictions, participants reported that they knew long-term acquaintances encountered in multiple contexts better than long-term acquaintances encountered in single contexts, $F(1, 95) = 21.92$, $p < .0002$ (*M*s: single = 6.75, multiple = 8.60).

Length of impression descriptions. The length of the impression descriptions also was examined across experimental conditions because this is a variable that could potentially influence the measures of complexity assessed in this study. A between-subjects ANOVA indicated that there were no significant differences in the length (number of words) of the general impression descriptions across conditions, $F(4, 95) = 2.11$, *ns*. However, although the omnibus ANOVA showed no differences between conditions, planned contrasts between conditions did indicate a marginally significant linear effect for the length-of-time conditions, $F(1, 95) = 3.50$, $p < .07$, such that slightly longer impression descriptions were written about acquaintances who were known for longer periods of time. A planned contrast of the contextual diversity conditions showed no significant differences in the length of the descriptions written about single and multiple-context acquaintances, $F(1, 95) = 2.02$, *ns*.

OVERVIEW OF IMPRESSION CONTENT ANALYSES

Two data analysis strategies were used to examine the effects of contextual diversity and length of acquaintance on impression complexity in this study. First, between-subject ANOVAs were used to examine the impact of the experimental manipulations of length of acquaintance and contextual diversity on the measures of impression complexity. This approach allowed comparisons between the acquaintance conditions to which participants were randomly assigned. In the length-of-time conditions, a linear effect was expected, such that impressions of acquaintances known for longer lengths of time should be more complex. However, in the contextual diversity conditions (where length of time was held constant), it was predicted that impressions of multiple-context long-term acquaintances would be more complex than impressions of single-context long-term acquaintances, indicating that contextual diversity, rather than length of time alone, accounts for greater impression complexity.

It is important to note that although, according to the manipulation checks, the manipulations appeared to be successful in influencing participants' choices of acquaintances to describe, there was still a great deal of variability in contextual diversity and length of acquaintance *within* each of the experimental conditions. Therefore, a set of supplementary analyses was conducted using a more sensitive measure of contextual diversity and length of acquaintance. Specifically, participant self-reports of relationship length and contextual diversity were used in these analyses rather than the experimental manipulations of these variables. For these analyses, self-report measures were collapsed across all experimental conditions. First, zero-order correlations of self-reported relationship length and self-reported contextual diversity with impression complexity measures were computed. If both length of relationship and contextual diversity showed a significant correlation with impression complexity, complexity was then regressed on both variables. It was predicted that when both variables were entered into the regression, contextual diversity alone would be a significant predictor of impression complexity.

CATEGORIES OF COMPLEXITY CODING ANALYSES

Descriptions of overall impressions written by participants were coded by two independent coders using an adaptation of the Categories of Complexity system developed by Woike (1997). Coders were blind to the experimental conditions. Intercoder reliability was fairly high: Cronbach's alphas ranged from .74 to .97 for the four coding categories. Discrepancies in coding were resolved by one of the coders. Analyses then were conducted to examine the effects of contextual diversity and length of relationship on these four categories of complexity: simple differentiation, elaborate differentiation, simple integration, and elaborate integration.

Elaborate differentiation. A between-subject ANOVA was conducted to examine the effects of the experimentally manipulated acquaintance conditions on elaborate

TABLE 1: Means of Content Coding Ratings for Acquaintance Conditions in Study 1

	Elaborate Differentiation Rating	*Elaborate Integration Rating*	*Familiarity Judgments*	*Evaluative Consistency Rating*	*Same/Different Person Rating*
Length of time					
Short	.40	.05	4.75	5.73	3.66
Moderate	.35	.15	6.61	6.10	3.60
Long	.80	.40	7.31	5.36	4.10
Contextual diversity					
Long/single situation	.21	.21	6.31	5.80	3.57
Long/multiple situations	.84	.68	7.36	4.21	5.07

differentiation scores (high elaborate differentiation scores indicate more opposing traits or descriptive inconsistency in impressions). Elaborate differentiation scores differed significantly between instruction conditions, $F(4, 94) = 3.00$, $p < .03$ (see Table 1). Planned contrasts were conducted to examine the nature of this effect. A marginal linear trend was found for the length-of-time conditions, $F(1, 94) = 3.08$, $p < .09$, such that elaborate differentiation increased with length of time. As predicted, there was also a significant difference between the long-term multiple-context and long-term single-context conditions, $F(1, 94) = 7.31$, $p < .009$, such that impressions of multiple-context acquaintances had higher elaborate differentiation scores than did single-context acquaintances.

A set of supplementary analyses was conducted replacing the experimental manipulations of time and contextual diversity with participant self-reports of these variables. Zero-order correlations of elaborate differentiation with self-reported length of relationship and self-reported contextual diversity were computed. In these analyses, self-report measures were collapsed across all experimental conditions. Self-reported contextual diversity ($r = .29$, $p < .004$), but not self-reported length of acquaintance ($r = .12$, *ns*), was correlated with elaborate differentiation.

Elaborate integration. A similar pattern occurred for the measure of elaborate integration. A between-subject ANOVA showed a significant difference in elaborate integration scores between experimental conditions, $F(4, 94) = 4.10$, $p < .005$ (see Table 1). Planned contrasts indicated a linear trend for the length-of-time instructions, $F(1, 94) = 4.13$, $p < .05$; specifically, elaborate integration increased with length of time. However, when the effects of contextual diversity within a long relationship were examined, impressions of long-term acquaintances known in multiple contexts received higher elaborate integration scores than did long-term acquaintances known in single contexts, $F(1, 94) = 7.19$, $p < .009$.

Additional analyses were conducted using participant self-reports of contextual diversity and length of relationship in place of the experimental manipulations of these variables. Correlations between elaborate integration and self-reported time and contextual diversity were computed. These analyses yielded a significant correlation between self-reported contextual diversity and elaborate integration ($r = .20$, $p < .05$), but self-reported length of acquaintance was not significantly correlated with elaborate integration ($r = .15$, *ns*).

Simple differentiation and integration. Using between-subject ANOVAS, no significant differences were found between conditions for the categories of simple differentiation, $F(4, 94) = .79$, *ns*, and simple integration, $F(4, 94) = .89$, *ns*. In other words, conditions did not differ in the number of new aspects or supporting aspects contained in the overall written descriptions of acquaintances.

STUDENT RATINGS OF IMPRESSION DESCRIPTIONS

Judgments of familiarity. A separate group of participants rated how well they thought participants knew their acquaintances based on the general impressions that they generated (using a 9-point rating scale where 1 = *not at all well* to 9 = *extremely well*). Interrater agreement was fairly high, with a Cronbach's alpha of .82. A mean rating of how well others thought the participant knew his or her acquaintance was obtained for each description by averaging the familiarity ratings made by these outside raters.

A between-subjects ANOVA indicated that differences in mean familiarity ratings existed between conditions, $F(4, 94) = 11.03$, $p < .0003$ (see Table 1). Planned contrasts were conducted to examine the nature of this effect. The pattern that emerged was similar to the self-ratings of acquaintance familiarity that were made by participants. A significant linear trend, $F(1, 94) = 32.18$, $p < .0003$, was found for the length-of-time instructions. Specifically, the longer the selected acquaintance had been known, the higher were the ratings of familiarity.

Consistent with predictions, examination of the contextual diversity instruction conditions (in which length of time was held constant) indicated that impressions of long-term acquaintances known in multiple contexts received higher familiarity ratings than did long-term acquaintances known only in single settings, $F(1, 94) = 5.18$, $p < .03$.

Additional analyses were conducted using participants' self-report data of time and contextual diversity. According to these analyses, both self-reported contextual diversity ($r = .37$, $p < .0003$) and self-reported length of acquaintance ($r = .24$, $p < .02$) were correlated with ratings of familiarity. Self-reported time and contextual diversity were then simultaneously entered into a regression equation to predict familiarity ratings. When complexity was regressed on both of these variables, contextual diversity ($b = .386$, $p < .003$), but not time ($b = .003$, *ns*), significantly predicted ratings of familiarity. In other words, when contextual diversity was controlled for, length of acquaintance no longer predicted familiarity ratings.

Evaluative consistency ratings. The same group of raters judged the evaluative consistency of the general impression descriptions generated by participants in this study. Ratings of each description were made on a 7-point scale ranging from *not at all consistent* (description contains both positive and negative characteristics) to *completely consistent* (description contains only positive characteristics or only negative characteristics). Intercoder reliability was high; a Cronbach's alpha of .81 was obtained for judges' ratings on this variable. A mean evaluative consistency score was calculated for each of the general impression descriptions by averaging the evaluative consistency ratings made by this group of outside raters. The mean scores were used for all analyses.

A between-subjects ANOVA indicated that the evaluative consistency ratings differed between experimental acquaintance conditions, $F(4, 94) = 4.36$, $p < .004$ (see Table 1). Planned contrasts were conducted to examine this effect. No significant differences were found for the length-of-time instructions. However, consistent with predictions, examination of the contextual diversity instruction condition indicated that impressions of long-term acquaintances known in multiple contexts were rated as less evaluatively consistent than long-term acquaintances known only in single settings, $F(1, 94) = 9.51$, $p < .004$.

A set of additional analyses was conducted replacing the experimental manipulations of time and contextual diversity with participant self-reports of these variables. Correlations of self-reported time and self-reported contextual diversity with evaluative consistency ratings were computed (across all experimental conditions). In contrast to the ANOVA, analyses of the self-report data indicated that length of time was correlated with evaluative consistency ($r = -.21$, $p < .05$), whereas contextual diversity was not ($r = -.08$, *ns*).

Same/different person ratings of situational descriptions. After rating the evaluative consistency and familiarity of the general impressions, the same group of raters provided same/different person ratings of the situational descriptions written by the earlier participants in this study. Specifically, raters were asked to rate how likely it was that a pair of situational descriptions described the same person or described two different people. This rating was made on a 9-point scale ranging from 1 (*definitely the same person*) to 3 (*possibly the same person*) to 5 (*could be either the same person or two different people*) to 7 (*possibly two different people*) to 9 (*definitely two different people*). Interrater agreement was lower for ratings on this variable (Cronbach's alpha = .37). A mean same/different score calculated for each pair of descriptions by averaging the ratings was used in all analyses involving this dependent measure.

A between-subjects ANOVA indicated that there were significant differences between the acquaintance conditions for the same/different person ratings, $F(4, 94) = 4.59$, $p < .003$ (see Table 1). Planned contrasts were conducted to examine the nature of this effect. No significant differences emerged between the different length-of-time instructions, $F(1, 94) = 1.14$, *ns*. However, as predicted, planned contrasts comparing the two contextual diversity instruction sets indicated that pairs of situational descriptions of acquaintances known in multiple contexts were more likely to be rated as descriptions of two different people than were situational descriptions of acquaintances known only in single settings, $F(1, 94) = 12.74$, $p < .0008$.

Correlation analyses on participants' self-report data (collapsed across experimental conditions) were conducted, yielding a significant correlation between self-reported contextual diversity and the same-different ratings ($r = .25$, $p < .02$) and a marginally significant correlation between self-reported length of acquaintance and same-different ratings ($r = .17$, $p < .10$). Then, same-different ratings were regressed on self-reported time and contextual diversity. When both of these self-report variables were entered into the regression, contextual diversity ($b = .205$, $p < .05$), but not time ($b = .002$, *ns*), significantly predicted the same-different ratings. Thus, when contextual diversity was controlled for, length of acquaintance no longer predicted these ratings.

Discussion

This initial study investigated the question of whether impressions of individuals with whom perceivers have a high level of acquaintance are characterized by greater complexity than what has typically been found in the

first-impression literature. More specifically, the role of contextual diversity in this process was examined.

Consistent with predictions, contextual diversity affected impression complexity. Impressions of acquaintances who were known across more contexts were rated as less evaluatively consistent and less descriptively consistent. For instance, impressions of multiple-context acquaintances were more likely to be characterized by inconsistent or opposing traits than acquaintances known in fewer situations (demonstrated by the higher elaborate differentiation scores). Impressions of these acquaintances were also more contextually differentiated; for instance, situational descriptions of acquaintances who were known across multiple contexts were more likely to be judged as actually describing two different people than were situational descriptions of acquaintances known in fewer contexts. Finally, impressions of acquaintances known in more contexts contained more causal theories about the goals and motivations underlying the acquaintance's behaviors, as shown by the higher elaborate integration scores for impressions of these acquaintances. It is interesting to note that the familiarity ratings made both by participants themselves and by an independent group of raters indicated that greater contextual diversity in a relationship also was associated with a greater subjective sense of knowing a person. Interestingly, this suggests that people's implicit theories of acquaintance may include the idea that cross-situational knowledge is associated with higher levels of acquaintance.

Contextual diversity effects were highly consistent across both types of data analysis employed in the current study. Effects of contextual diversity on complexity emerged for elaborate integration, elaborate differentiation, same-different person ratings, and familiarity ratings when analyses were conducted on experimental manipulations of this variable as well as when analyses were conducted on participant self-reports of contextual diversity (collapsed across experimental conditions). Only for the measure of evaluative consistency was there an inconsistency between the experimental and correlational results (a significant effect for contextual diversity was found only in the experimental data). In general, then, the results of these analyses show strong support for the hypothesis that contextual diversity in relationships influences impression complexity.

One potential explanation for the effect of contextual diversity on complexity is that level of acquaintance may have affected impression complexity through its influence on the length of the description that was generated. In other words, it may be the case that having a high level of acquaintance with an individual allows one to generate more descriptive information about this person, resulting in a more complex impression (see Sande et al., 1988). However, analyses indicate that length of description did not vary according to level of contextual diversity in this study, suggesting that the complexity effects found for the contextual diversity conditions in this study were not due to this.

A less consistent pattern of results was found for the relationship between relationship length and impression complexity. It was initially expected that greater contextual diversity should accompany a relationship over time, and therefore, associations between length of time and complexity should be observed due to this greater contextual diversity. However, the current study offered only limited support for this hypothesis. When the impact of experimentally manipulated relationship length on complexity was examined, only two of the dependent measures (familiarity, elaborate integration) were influenced by this variable (although time had a marginal effect on elaborate differentiation). When additional analyses were conducted on participant self-reports of this variable that were collapsed across experimental conditions, again only two complexity measures (familiarity, evaluative consistency) were correlated with relationship length (although a marginal correlation between relationship length and contextual differentiation also was found).

Of importance, when a relationship between time and complexity *was* observed, these effects were subsumed by the impact of contextual diversity on complexity. For all analyses conducted on the experimentally manipulated variables, when contextual diversity was varied within long-term relationships, impressions of multiple-context acquaintances were more complex than single-context acquaintances, suggesting that any influence of length of time on complexity was due to the accompanying contextual diversity. In addition, when complexity measures were regressed on self-reports of both of these variables, only contextual diversity continued to predict complexity (with the exception of the evaluative consistency ratings).

In sum, Study 1 provides strong evidence for the role of contextual diversity in increasing impression complexity. Length of relationship, however, appeared to play only a minimal role in the development of impression complexity. The length of time an acquaintance had been known had, at best, a variable effect on the assessments of impression complexity used in this study. The finding that complexity increased with contextual diversity but did not also increase over time suggests that there may be less of an overlap between relationship length and contextual diversity than was predicted in the original framing of this study. In other words, although it was initially expected that increased contextual diversity usually accompanied acquaintanceships over time (resulting in increased impression complexity for long-

term relationships), it may be common for long-term relationships to be characterized by either high or low contextual diversity. This could account for the current results, which show only a weak association between time and complexity. As predicted, in the cases where length of time did show an initial association with impression complexity, this relationship appeared to be driven by contextual diversity rather than length of time itself.

STUDY 2

The open-ended descriptions generated by participants in the initial study provided rich qualitative information about the complexity of impressions at different levels of acquaintance. The results of this study indicate that perceivers are more likely to incorporate evaluative and descriptive inconsistencies into their written impressions of long-term acquaintances known across multiple contexts than for long-term acquaintances known only in a single context. In addition to this recognition of inconsistencies, perceiver impressions of these acquaintances are characterized by other indicators of complexity. Contextual differentiation and causal theories about goals and motivations underlying the acquaintance's behaviors were more likely to characterize impressions of long-term acquaintances known in multiple contexts than impressions of long-term acquaintances known only in a single context. The effect of contextual diversity on complexity also was demonstrated with participant's self-reports of this variable collapsed across experimental acquaintance conditions.

In contrast to the qualitative measures employed in the initial study, a shift was made to a more quantitative assessment of complexity in the subsequent study. Complexity scores were calculated from participants' performances on a trait-sorting task (adapted from Linville, 1987). This task involved selecting an assortment of attributes into meaningful groups to describe an acquaintance. As is standard in the use of this task (Linville, 1985, 1987), the number of groups formed and the degree to which the groups overlap determined the resulting complexity score. A high complexity score for a trait sort of an acquaintance would indicate that the perceiver viewed the acquaintance in terms of multiple, highly differentiated clusters of traits. A low complexity score would indicate that the perceiver viewed an acquaintance as having relatively few different facets, with overlapping content.

As in Study 1, it was hypothesized that complexity scores should be higher for acquaintances known for a longer length of time than for acquaintances known for short and medium lengths of time. Of importance, it was hypothesized that the increased contextual diversity that characterizes interactions with an acquaintance over time should account for these effects. Following this reasoning, higher complexity scores should be found for long-term acquaintances known in multiple contexts than for long-term acquaintances known in single contexts.

Method

PARTICIPANTS

Participants were 96 undergraduates enrolled in introductory psychology at the Ohio State University. Participants received research credit for participation in this study.

ACQUAINTANCE MANIPULATION

The acquaintance manipulation was identical to that used in Study 1.

PROCEDURE

Participants reported to the experimental session in groups of two to four and completed the experimental task at separate cubicles. Each participant provided information about one acquaintance, with the type of acquaintance (short time, moderate time, long time, long time in a single context, or long time in multiple contexts) specified in the instructions. During the session, participants completed a trait-sorting task (see Linville, 1985).[2] Each participant was provided with a set of 60 index cards, each containing a single attribute (e.g., assertive, friendly, selfish). Participants were asked to select attributes to form meaningful groups to describe their acquaintance. They were allowed to use as many or as few of the traits as they wished and to form as many or as few groups as they wanted. In addition, they were allowed to use the same trait in multiple groups. Participants reported their trait grouping on a recording sheet. After completing the trait-sorting task, participants indicated the length of time they had known their acquaintances and the different contexts in which they interacted with these acquaintances. Participants were thoroughly debriefed at the end of the session.

CALCULATION OF COMPLEXITY SCORES

A complexity score was calculated from each participant's trait-sort data. A measure of dimensionality based on the H Statistic (Attneave, 1959; Scott, 1969) was used to assess complexity.[3] The resulting complexity score reflects (a) the number of trait groupings and (b) the degree of overlap between these groupings. Specifically, a greater number of trait groupings and greater differentiation (less overlap) of trait groupings contribute to higher complexity scores.

Results

MANIPULATION CHECKS

Length-of-time manipulation check. Each participant reported how long the selected acquaintance had been known. A between-subjects ANOVA indicated that the length-of-time conditions differed significantly on this measure, $F(2, 55) = 51.70$, $p < .0002$. Planned contrasts revealed a linear effect for these conditions, $F(1, 55) = 77.88$, $p < .0002$, such that higher self-reports of relationship length occurred for the longer length-of-time selection criteria (*M*s: short = 1.7 months, medium = 3.1 months, long = 107.2 months). The effect of the contextual diversity manipulations on reported length of relationship also was examined, showing that length of acquaintanceship was marginally greater for multiple-context acquaintances ($M = 101.1$ months) than for single-context acquaintances ($M = 69.8$ months), $F(1, 37) = 3.49$, $p < .07$, suggesting a potential confound between contextual diversity and length of time in these conditions.

Contextual diversity manipulation check. Participants reported the number of contexts in which they interacted with their selected acquaintances by placing a checkmark next to all of the situations (work, home, classes, social clubs or organizations, athletic teams, or other situations) in which they spent time with them. A between-subjects ANOVA indicated that participants interacted with multiple-context acquaintances across more situations ($M = 4.5$) than with single-context acquaintances ($M = 3.0$), $F(1, 37) = 13.52$, $p < .0008$. The impact of the length-of-time manipulations on reported contextual diversity also was examined, revealing significant differences between the length-of-time conditions, $F(2, 55) = 24.07$, $p < .0002$. As expected, there was a linear effect for these conditions, such that more interaction contexts were reported for the longer length-of-time selection criteria (*M*s: short = 1.8, moderate = 2.4, long = 3.9). Again, there was a high degree of variability in reported contextual diversity in the long length-of-time condition, with reported number of interaction contexts ranging from one to six, suggesting that a long acquaintanceship may or may not be accompanied by contextual diversity.

COMPLEXITY SCORES

A between-subjects ANOVA indicated that there were no significant differences between instruction conditions, $F(4, 91) = 1.05$, *ns* (*M*s: short = 1.86, moderate = 1.97, long = 2.17, long in single context = 2.04, long in multiple contexts = 2.16). A closer examination of the manipulation check data for the contextual diversity instructions provides a potential explanation for why the predicted contextual diversity effect was not found. Participants in the multiple-context condition reported interacting with their acquaintance in an average of 4.5 contexts. However, participants in the single-context condition chose acquaintances that they interacted with in an average of 3.0 different situations. Although these means were significantly different, the mean for the single-context condition indicates that the selection criterion ("choose a person known in *only one* context") stated in this set of instructions was not being adhered to by all participants. In addition, confounds between time and contextual diversity for both sets of acquaintance conditions, as well as the high variability on these measures within some of the conditions, suggest that the experimental manipulations of contextual diversity and length of relationship in this study do not provide clean measures of these variables. Therefore, in a subsequent analysis, participants' self-reports of contextual diversity in interactions and length of acquaintance were used in place of the experimental manipulations of contextual diversity and length of time. Complexity scores were regressed on the self-reported measures of "length of time" and "contextual diversity" for all participants. The results of the regression indicate that reported contextual diversity of interactions with acquaintances ($b = .10$, $p < .03$), but not reported length of acquaintance ($b = .00$, *ns*), was a significant predictor of complexity scores. Specifically, greater contextual diversity predicted higher complexity scores.

Discussion

In this study, a complexity score calculated from a trait-sort task provided a more structured measure of the degree to which participants formed complex impressions of individuals known across multiple contexts. A high complexity score on this task indicates that an impression contains multiple, highly differentiated clusters of traits. It was predicted that higher complexity scores would be found for long-term acquaintances known across multiple contexts than for long-term acquaintances known only in a single context. However, no differences were found between any of the instruction conditions. Of importance, the experimental manipulation of contextual diversity was not as effective in this study, providing a potential explanation for the null effect of instruction condition on complexity scores. When, instead, complexity scores were regressed on participant self-reports of contextual diversity and length of time, contextual diversity significantly predicted complexity scores. Length of time was not a significant predictor of impression complexity scores.

Thus, consistent with predictions, greater contextual diversity (as self-reported by participants) was associated with higher complexity scores. In sum, these results provide quantitative evidence, in addition to the qualitative

evidence provided by the open-ended responses in Study 1, that greater complexity occurs for impressions of acquaintances known across multiple situations.

GENERAL DISCUSSION

Past research in the domain of impression formation has demonstrated that perceivers tend to form evaluatively and descriptively consistent first impressions of the people that they encounter (Asch, 1946; Hamilton & Sherman, 1996; Hastie & Kumar, 1979; Srull, 1981). These characteristics of first impressions have been linked to the perceptions of high entitivity that typically characterize our conception of individual persons (Hamilton & Sherman, 1996; McConnell et al., 1997). As initially conceptualized by Campbell (1958), the entitivity of a social target refers to the degree to which the target is perceived as a single unit or entity. The relationship between perceptions of entitivity and representations of social targets has been the target of much recent empirical work (McConnell et al., 1994, 1997). Interestingly, the high level of entitivity associated with individual social targets has been empirically linked to information-processing styles that enable perceivers to maintain evaluatively and descriptively consistent impressions of individuals (McConnell et al., 1997). The majority of the empirical work investigating entitivity has adopted this position by emphasizing the role of behavioral similarity and consistency in perceptions of target entitivity (McConnell et al., 1994, 1997). However, more recently, other bases of target entitivity have been considered. In particular, the presence of organization and structure in a social target is now regarded as an indicator of high entitivity in a target (Hamilton, Sherman, & Lickel, 1998).

The current research suggests that the particular aspects of entitivity that characterize representations of individuals may be related to the level of acquaintance a perceiver has with an individual. The results of the studies presented here suggest that as cross-situational familiarity with an individual increases, representations of the individual evolve from impressions characterized by evaluative and descriptive consistency to highly organized impressions with complex structures. In Study 1, impressions of acquaintances known across multiple contexts were less likely to be characterized by evaluative consistency and contained more opposing traits (elaborate differentiation) than impressions of single-context acquaintances. In addition, the "same-different" ratings of the situational descriptions provided of acquaintances in Study 1, as well as the complexity scores calculated from the trait-sort task in Study 2, indicate that cross-situational exposure to an individual was associated with impressions that were differentiated across different situations or roles. Finally, the higher elaborate integration scores found for impressions of multiple-context acquaintances compared to impressions of single-context acquaintances in Study 1 suggest that perceivers may develop theories about the goals and motivations underlying the behaviors of these acquaintances.

Interestingly, impressions of acquaintances known within a single context were most likely to reflect the type of unity that typifies first impressions within the impression formation literature. This suggests that when perceivers develop impressions of an individual within a single context, the perception of entitivity is associated with impressions that maintain consistency on evaluative and descriptive dimensions. These findings are consistent with the traditional conceptualization of entitivity as high degrees of similarity and consistency within a target.

On the other hand, the dimensional and evaluative consistency that is usually found in the first-impression literature, and that was obtained for impressions of single-situation acquaintances in the current study, was not present in impressions of long-term acquaintances known across multiple situations. Analyses of the written impressions in Study 1 show that perceivers recognized evaluative and descriptive inconsistencies in long-term acquaintances that were known across multiple contexts. This suggests that a relaxation of entitivity in perceiver impressions may have occurred as additional information was acquired about these individuals across different types of situations, allowing the perceiver to depart from the initial consistent representation held of the acquaintance.

However, although impressions of long-term multiple-context acquaintances contained inconsistent aspects, the impressions reported here did not portray disconnected, incoherent representations of these individuals (characteristics that would indicate low entitivity in a target). Instead, impressions of these acquaintances were highly organized, demonstrating perceivers' awareness of patterns of behavioral differentiation across situations and also of the goals and motivations that underlie these complex patterns of behavior for these acquaintances. Thus, although the unity associated with first impressions may have been relaxed as perceivers initially became aware of inconsistencies in their acquaintances, the impressions of multiple-context acquaintances were characterized by contextual differentiation and integration. Interestingly, although these impressions do not capture the consistency-based aspects of entitivity that were found in the impressions of single-context acquaintances, these qualities are consistent with a more recently emerging definition of entitivity: that of a target that is highly organized and structured.

In sum, although the design used here was cross-sectional, the current results suggest a longitudinal process

by which cross-situational familiarity may influence impressions. It is suggested that exposure to an individual within a single situation should reveal only a single facet of the person. Therefore, impressions formed under these circumstances should be characterized by high levels of unity and consistency, as demonstrated in the current results. As perceivers begin to gain cross-situational information about an individual, they should have increased opportunities to see different (or even opposing) aspects of the person, due to the low levels of consistency that have been reported to characterize individual's cross-situational behavior (Dudycha, 1936; Hartshorne & May, 1928; Mischel, 1968; Newcomb, 1929). At this point, a recognition of inconsistencies should be incorporated into impressions. Finally, as cross-situational contact with the individual continues, perceivers should become aware of the pattern of situational contingencies and the motivations that underlie these inconsistencies. When this occurs, perceivers should go beyond recognition of inconsistencies to form complex, differentiated, integrated impressions of these acquaintances. To trace this journey in terms of entitivity, a simple consistency-based entitivity should characterize impressions that are limited to a single context. In response to initial cross-situational exposure, this entitivity should be relaxed to accommodate inconsistencies that characterize the individual across different situations. Finally, as cross-situational familiarity grows, a complex entity characterized by organization and structure should emerge.

Future Directions

This set of studies takes an initial step in examining the role of contextual diversity in the impression formation process. However, many questions in this domain of research remain unanswered, suggesting a number of interesting directions for future investigation. First, a clearer understanding of the relationship between relationship length and impression complexity could benefit this line of research because the current studies showed a somewhat inconsistent pattern of results with regard to the relationship between these two variables. It was initially predicted that length of relationship would be associated with greater impression complexity and that this relationship would be mediated by contextual diversity with the acquaintance. In other words, longer relationships should lead to more contextual diversity (when contextual diversity was not otherwise specified), resulting in more complex impressions. Yet, relationship length showed no relationship with many of the complexity measures. One potential explanation for this is that although contextual diversity did increase with relationship length (as indicated in the manipulation checks), there may have been less overlap between contextual diversity and relationship length than was originally expected. In other words, perhaps, the relationship between these two variables is not strong enough for complexity effects to emerge through manipulations of relationship length alone (where high contextual diversity is not specified). In support of this suggestion, analyses in both studies indicated a good deal of variability in contextual diversity at each level of relationship length. In addition, the current results are consistent with work by Vonk (1998), which indicated that greater endorsement of opposing traits for school acquaintances did *not* occur over time, except in a subset of cases in which acquaintances were known across more contexts.

The current studies raise a second question about the role of relationship length in the obtained complexity effects. Specifically, the experimental design of these studies explored the role of contextual diversity within long-term relationships rather than at all levels of relationship length. Therefore, an interesting direction for future research might be to examine whether contextually diverse information that is gained about a person at other lengths of acquaintance (for instance, within a very short period of acquaintance) will produce the same complexity effects observed here within long-term relationships.

It is important to note that the current studies focus on the content of the impressions that result at different levels of contextual diversity; however, the process by which increasing contextual diversity influences complexity was not empirically examined here. Therefore, future inquiry in this area could benefit from a longitudinal analysis of how impressions change and develop with increasing contextual diversity. Such an investigation would provide more insight into the underlying processes that contribute to the effects obtained in the current studies. Finally, the current investigation focused on impressions of liked acquaintances. Future work may want to focus on whether cross-situational exposure to disliked individuals produces similar increases in complexity.

NOTES

1. This term is also spelled *entitativity* in the social psychological literature in reference to its original usage by Campbell (1958).

2. This task was adapted from a self-complexity trait-sort task developed and used by Linville (1985, 1987). The procedure and scoring of this task were the same as used by Linville. However, the task in the current research was adapted to include a total of 60 traits rather than the 33 originally used by Linville. The traits used in the current study were a compilation of traits used by Linville and traits that have been used in other research (John, Hampson, & Goldberg, 1991; Linville, 1987; Nisbett, Caputo, Legant, & Maracek, 1973). Specifically, traits were selected to represent opposing personality dimensions (e.g., intelligent/stupid) and varying levels of abstraction (see John et al., 1991).

3. The formula for calculating the self-complexity score is as follows:

$$SC = \log_2 n - (\Sigma_i \log_2 n_i)/n,$$

where n is the total number of features and n_i is the number of features that appear in a particular group combination.

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