Renovating Situation Taxonomies: Exploring the Construction and Content of Fundamental Motive Situation Types

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Abstract

The present work demonstrates a method for constructing theoretically based situational classifications and exploring their behavioral implications. Fundamental motives theory (FMT; Kenrick, Griskevicius, Neuberg, & Schaller, 2010; Kenrick, Neuberg, Griskevicius, Becker, & Schaller, 2010) proposes that humans have evolved seven specific social motives that would be differentially evoked by different situations. Experts in FMT used the Riverside Situational Q-sort (RSQ) to describe prototypic motive-relevant situations and the Riverside Behavioral Q-sort (RBQ) to construct templates representing predictions of how people would behave in them. A sample of 201 undergraduate participants used the RSQ to describe situations they had experienced within the past 24 hours, and they described their behavior in each situation using the RBQ. For both the RSQ and RBQ, self-protection and disease avoidance templates were highly similar to each other and different from mate-seeking and affiliation templates. Participants more often reported experiencing situations similar to the mate-seeking, affiliation, and kin care templates and less often reported experiencing situations similar to the self-protection and disease avoidance templates. Participants' reported behavior was consistent with expectations from FMT. This study illustrates how relations between situations and behavior can be illuminated through the use of theoretically derived templates.

Despite decades of social psychological research focusing on the effect of "situations" (Ross & Nisbett, 1991), a widely accepted taxonomy of situations has yet to be established (Frederiksen, 1972; Hogan, 2009; Kenny, Mohr, & Levesque, 2001; Pervin, 1978). The purpose of this work is to provide a review of various situational taxonomies and to present our research demonstrating a new method for developing and testing a situational taxonomy derived from theory.

A taxonomy is a system for identifying and classifying a set of items in an organized fashion, whether those items be biological organisms, personality traits, or situations. Taxonomies serve many functions, and researchers have extolled their virtues and possible benefits for the study of situations (Frederiksen, 1972; Reis, 2008; Yang, Read, & Miller, 2009). Over the past few decades, several efforts have been made to taxonomize situations, and the nature of these taxonomies has largely been dictated by how situations were defined in the first place (Pervin, 1978). An early effort explored the implications of physical environments (Kasmar, 1970). For example, an environment perceived to be warm and welcoming might elicit behaviors different from an environment perceived to be cold and formal. Employing the "lexical" assumption that important characteristics of situational features will appear in language, Kasmar (1970) developed the Environment Description Scale (EDS), a set of 66 bipolar adjective pairs (e.g., large-small).

Other researchers have attempted to categorize situations in terms of psychological features. On the basis of factor-analyzing participants' descriptions of situations they had experienced and their feelings and behaviors in them, Pervin (1976) suggested four bipolar dimensions (friendly-unfriendly, tense-calm, interesting-dull, and constrained-free) as well as six types (family, peers, play, work, school, and alone). More recently, a taxonomy derived from a principle components

analysis of undergraduates' descriptions of situations they had experienced, using the Riverside Situational Q-sort (RSQ), resulted in seven situation types (e.g., social, recreating, unpleasant; Sherman, Nave, & Funder, 2010). This view of situations as perceptions of psychological features is also the root of another recent, empirically derived taxonomy (Rauthmann et al., 2013). College student participants from Austria, Germany, Spain, and the United States used the RSQ to describe situations they had experienced the previous evening at 7:00. Factor-analytic techniques resulted in eight features of situations: duty, intellect, adversity, mating, enjoyment, negative feelings, deception, and social relations.

An alternative, commonly used method for creating taxonomies of situations is the lexical approach. A typical first step is to search the dictionary for words that can complete the phrase "Being in a ____ situation" (Van Heck, 1984, p. 154). Participants in this particular study then described such situations, and cluster analysis resulted in a taxonomy of 10 types (e.g., interpersonal conflict, interpersonal relations, and recreating). Borrowing from both Van Heck's (1984) taxonomy and a trait psychological perspective, Ten Berge and De Raad (2001) created a five-factor taxonomy (i.e., situations of adversity, amusement, positioning, conduct, and daily routine) and argued that each was related to the expression of one or more of the Big Five personality dimensions. Ten Berge and De Raad (1999, 2001, 2002) thus define situations as opportunities to express personality; as such, the content of their situational taxonomies reflects personality theory.

Other recently proposed taxonomies organize situations in terms of motivation. Bond (2013) organized situations in terms of the opportunities they afford for attaining relational and status goals; the four types of situations he proposed are being alone, being with one other person in private, being with one other person in public, and being in a group. A study using the lexical approach also categorized situations in terms of goals and expected outcomes (Edwards & Templeton, 2005). Participants described a situation they had experienced using 395 randomly selected adjectives, from a pool of over 1,000. The authors concluded that situations can be categorized by the extent to which they are positive or negative, relevant to a goal, and easy to deal with, and that perceptions of these situations are influenced by the goals of the perceiver (Edwards & Templeton, 2005). In a unique approach, Yang, Read, and Miller (2006) assessed the content of translated Chinese idioms (e.g., strike while the iron is hot), resulting in a set of three situation clusters all having to do with goal pursuit.

Previous efforts to develop taxonomies of situations, though extensive, have been limited in two significant ways. First, much previous research used factor-analytic methods in an attempt to derive taxonomies empirically. This approach is challenging because reliable results require a large amount of data from a large and representative sample of participants— but this requirement is rarely met. A related concern is that the empirical derivation of taxonomies leaves researchers to make sense of the situation types and features without any theoreti-

cal guidance. These interpretations can be difficult to form, leading some observers to make criticisms such as "taxonomies without theory can be about as intellectually satisfying as the Land's End catalog" (Reis, 2008, p. 315). A second limitation of prior efforts is that research programs generally stop once a situational taxonomy has been created. Further efforts to develop it into a measurement instrument or use it to understand behavior are rare (for an exception, see Kelley et al., 2003).

The present research seeks to go beyond these prior limitations in two ways. First, it will apply theory to the construction of a taxonomy of situations. But it will not stop there. The second step will be to use this taxonomy to categorize real-life situations and to explore the kinds of behavior reported to occur in them, and in that way test the usefulness of the proposed theoretical classification for understanding the relationships between situations and behavior.

The taxonomy will be based on the view that situations are opportunities to pursue and express motives, and that perceptions of situations will reflect those motives. Others have previously noted that because situations, personality, and behavior are all interconnected, and behavior and personality are motive-relevant, situations then must also be motive-relevant (Yang et al., 2009). The particular motives examined here are described by the fundamental motives framework, rooted in evolutionary theory (see Kenrick, Griskevicius, et al., 2010).

This perspective posits that for humans, social life poses both adaptive benefits and adaptive challenges. Humans' social relationships facilitate tasks that are difficult or less efficient to accomplish alone, yet increase individuals' biological fitness. For example, humans work with others to share resources in times of scarcity, protect against dangerous outgroups, and care for initially helpless offspring. Yet sociality poses adaptive challenges as well: Close proximity and interdependence make humans more vulnerable to a number of threats, such as communicable diseases, physical violence resulting from competition with other individuals, and ostracism.

Fundamental motives theory (FMT) posits that human social motivation is based on seven universal, overarching social goals over the course of the life span: self-protection, disease avoidance, affiliation, kin care, mate seeking, mate retention, and status seeking (Kenrick, Griskevicius, et al., 2010; Kenrick, Neuberg, et al., 2010). Self-protection refers to the need to protect oneself from physical threat, and disease avoidance refers to the need to remain healthy by avoiding indicators of disease. Affiliation refers to the need to socialize and interact with others, mate seeking refers to the need to find a romantic or reproductive partner, and mate retention refers to the need to maintain a partner's loyalty and fend off potential rivals. Status refers to the need to acquire resources and position, and kin care, or parenting, refers to the need to care for offspring but also includes aid directed toward related others. FMT does not argue that these are the only biologically relevant goals humans have—surely finding food, for example, is

a fundamental biological goal—but rather that this set of seven goals provides the overarching structure of human *social* motivation. Humans are built to care about (at least) these seven social goals; each of these fundamental motives is crucial for survival and reproduction, but not every motive is relevant or activated at all times.

A given social situation, therefore, may be evaluated in terms of the extent to which each of these fundamental social goals is relevant (Kenrick, Griskevicius, et al., 2010). For example, the disease avoidance motive and its related suite of behaviors is likely activated to a different extent in a hospital compared to in a classroom. Given their different levels of activation in different situations and the proposal that the activation of motives is related to behavior, the fundamental motives proposed by Kenrick and colleagues may provide a useful framework for organizing situations, as well as raise several important questions. First, what do these motive-relevant situations look like and how do they compare to one another? Second, how frequently do people experience situations relevant to the different motives? Third, how do people behave in natural settings that are differentially motive-relevant? Fourth, is this taxonomy useful in helping to understand behavior as a function of these types of situations?

To explore these questions, the current research will employ the Riverside Situational Q-Sort (RSQ; Wagerman & Funder, 2009), a measure designed to assess a diverse set of psychologically relevant characteristics of situations. The Q-sort technique is widely used in the description of personality, situations, and behaviors, and it requires users to sort the descriptive items by how characteristic they are of the person, situation, or behavior being described by placing the items into categories ranging from 1 (*extremely uncharacteristic*) to 9 (*extremely characteristic*; Block, 1961). The number of items placed into each category is prescribed such that fewer are placed in the extremes, whereas more are placed in the more neutral categories. The result is a quasi-normal, forced-choice distribution in which items are judged against one another rather than all being rated on a single, absolute scale. This technique offers certain advantages; for example, some response set biases are removed and each item rating must be carefully considered because giving any particular item a higher rating will require giving some other item a lower rating, and vice versa.

The RSQ version used in the present study consists of 81 items written so as to be readily usable by ordinarily socially competent participants or observers. Among these 81 items are "Situation may cause feelings of hostility" and "People who are present occupy different social roles or levels of status" (for a complete list, see Appendix A). The Riverside Behavioral Q-Sort (RBQ) provides descriptions of behavior gathered in a similar manner (Funder, Furr, & Colvin, 2000). Among the 67 items of the RBQ are "Exhibits an awkward interpersonal style" and "Says or does something interesting" (for a complete list, see Appendix B). Although situations and behaviors are related bidirectionally (e.g., a situation may elicit certain behaviors just as behaviors can alter the situation), the two are distinct constructs and the respective Q-sorts clearly delineate the two.

In previous research, Sherman et al. (2010) asked undergraduate participants to describe situations they experienced recently using the RSQ and their behavior in those situations using the RBQ. Analyses demonstrated that the situations that each participant experienced were relatively stable over time, that behavior was more consistent across situations that were more similar, and that individuals' behavioral consistency was greater than would be predicted from the similarity of the situations they experienced. Further analyses demonstrated that although different individuals generally perceive the characteristics of situations similarly, both personality and gender have unique influences on perceptions of situations (Sherman, Nave, & Funder, 2013).

The present study uses the RSQ in a novel way by creating theoretically derived, prototypical templates of situation types. These templates can then be correlated with one another to assess the degree to which motive-relevant situations are psychologically similar, and they can be correlated with participant-completed RSQs to determine the degree to which participants' situations are described by each of the fundamental motives. Further calculations allow for the consideration of participants' behavior as it relates to the degree of match between their experiences and each of the situation templates. The use and benefits of template construction have been described elsewhere (Bem & Funder, 1978). In particular, the template-matching approach offers an indirect way of assessing participants' naturally experienced situations without burdening them or their perceptions with the theory of interest.

The present study aims not only to offer a new, theoretically derived taxonomy of situations, but also to explore the content of and behavior in these situations and in that way demonstrate the broader possibilities of theoretically based situational assessment. More specifically, this work employs the evolutionarily based fundamental motives framework to illuminate situations and how people behave in them.

METHOD

Template Creation

Three experts in the fundamental motives framework each completed an RSQ to describe the prototypical situation that would evoke each of the seven motives. The final set of seven situation templates was created by taking the average of the three raters' templates. The inter-rater reliability of each RSQ template is as follows: self-protection: $\alpha = .87$; disease avoidance: $\alpha = .79$; affiliation: $\alpha = .83$; kin care: $\alpha = .82$; mate seeking: $\alpha = .89$; mate retention: $\alpha = .66$; and status: $\alpha = .82$. Appendix A displays the motive-relevant RSQ templates and provides a sense of what these motive-relevant situations look like.

Motive-relevant behavioral templates were created the same way. The three experts completed an RBQ to describe how

people would be expected to typically behave when pursuing each motive.[1] Separate mate-seeking motive RBQ templates were created for males and females because an evolutionary perspective predicts they will engage in somewhat distinct strategies (Buss & Schmitt, 1993). The inter-rater reliability of each RBQ template is as follows: self-protection: $\alpha = .80$; disease avoidance: $\alpha = .84$; affiliation: $\alpha = .91$; kin care: $\alpha = .83$; mate seeking (males): $\alpha = .88$; mate seeking (females): $\alpha = .88$; mate retention: $\alpha = .50$; and status: $\alpha = .84$. Appendix B displays the motive-relevant RBQ templates and provides a sense of how people are expected to behave in these motive-relevant situations.

Data Collection

Participants. Two hundred twenty-one undergraduate students from the University of California, Riverside, were recruited through an online psychology research participation system and campus fliers to participate in this multivisit study. Participants were scheduled to complete five visits in the lab, and those who were unable to complete all visits ($n = 16$), who participated in the study twice ($n = 3$), and who were suspected of random reporting ($n = 1$) were dropped from analyses, resulting in a final sample of 201 (104 females, 97 males). The sample reflected the diversity of UC Riverside's undergraduate population: 36.8% Asian, 27.4% Hispanic/Latino, 12.9% Caucasian, 12.9% Other, 8.5% African American, and 1.5% no report. Participants were paid $12.50 per hour up to a maximum of $75. Some data from this large, multifaceted project have been reported previously (Sherman et al., 2010, 2012, 2013; Sherman, Figueredo, & Funder, 2013), but the present analyses are novel.

Procedures. The five visits to the lab were each spaced roughly one week apart. During a first, preliminary visit participants were given information about the study, answered demographic questions, and completed self-report measures that are not relevant to the current report. During visits 2–5, participants were asked to write on a 3×5 in. index card what they were doing the previous day at a given time (10:00 a.m., 2:00 p.m., 5:00 p.m., or 9:00 p.m.); the time of day was counterbalanced across participants and across visits. Participants were asked to specify only one situation for each visit, and if participants had been sleeping at the indicated time, they were asked to report what they were doing just before or after. Subsequently, participants described the psychological characteristics of the situation using the RSQ (version 2.0) and their behavior in it using the RBQ (version 3.0). Thus, for each participant who completed the study ($N = 201$), there is one RSQ and one RBQ for each of the last four visits. Upon completion of the last visit, participants were debriefed and paid.

Measures. Participants used the Q-sort technique to describe the psychological characteristics of the situations they experienced and their behavior in them. Q-sorting requires users to place descriptive items into categories ranging from 1 (*extremely uncharacteristic*) to 9 (*extremely characteristic*), creating a forced-choice, quasi-normal distribution. The RSQ version 2.0 (Wagerman & Funder, 2009) comprises 81 items (e.g., "Situation is uncertain," "Social interaction is possible"). The RBQ version 3.0 (Funder et al., 2000; Furr, Wagerman, & Funder, 2010) comprises 67 items (e.g., "Laughs frequently," "Behaves in a fearful or timid manner"). A computer-based Q-sorter program developed in our lab allows participants to complete their Q-sorts on the computer rather than using the traditional method of sorting paper cards. This program, along with the several Q-sort decks, is free for download.[2]

RESULTS

Comparisons of Templates

The first step of data analysis was to compare the seven prototypically motive-relevant situations to one another. The correlation matrix among the seven situation templates (Table 1) shows a few general trends. First, the self-protection and disease avoidance situation templates correlated highly ($r = .74$; 95% CI [.62, .83]), indicating that the expert raters judged situations relevant to these motives in similar ways. Second, the affiliation and mate-seeking situation templates also correlated highly ($r = .61$, CI [.45, .73]), suggesting that the judged psychological characteristics of these prototypical situations overlap. Third, the self-protection and disease avoidance templates correlated negatively with the affiliation and mate-seeking templates, indicating that expert raters judged these pairs of situations to be characterized by distinct situational features. Fourth, disease avoidance, kin care, and status were not correlated with each other.

Assessment of Situations

The next set of analyses examined the types of situations people experienced. Correlations were computed between each participant's RSQ at each visit and each of the RSQ

Table 1 RSQ Template Correlation Matrix of the Fundamental Evolutionary Motives

Motive	SP	DA	AF	KIN	MS	MR	ST
SP	—						
DA	.74**	—					
AF	−.30**	−.23*	—				
KIN	−.09	.14	.42**	—			
MS	−.37**	−.27*	.61**	.11	—		
MR	.31**	.31**	.28*	.23*	.35**	—	
ST	.22*	−.02	.34**	−.04	.32**	.30**	—

Note. RSQ = Riverside Situational Q-sort; SP = self-protection; DA = disease avoidance; AF = affiliation; KIN = kin care; MS = mate seeking; MR = mate retention; ST = status.
*$p < .05$. **$p < .01$.

templates, creating seven RSQ-Template match scores for each participant at each visit. For example, a participant might use the RSQ to describe a situation in which he or she was spending time with friends. Correlating the participant's RSQ of that situation with each of the seven RSQ motive-relevant templates assesses the degree to which the situation was similar to each of the seven fundamental motive templates. As a specific example, the participant's RSQ with the highest match to the self-protection template was associated with the situation "talking to a police officer about what was missing in my house because someone broke in," and the participant's RSQ with the highest match to the disease avoidance template was associated with the situation "sat outside while my friend smoked and talked." Histograms displaying participants' template-match scores illustrate that participants more often reported experiencing situations similar to the mate-seeking, affiliation, and kin care templates and less often reported experiencing situations similar to the self-protection and disease avoidance templates (Figure 1).

Assessment of Behavior

Parallel analyses can be conducted comparing participants' RBQs and the RBQ templates, creating seven RBQ-Template match scores for each participant at each visit. This RBQ-Template match score is the extent to which the participant's behavior in a situation could be considered "affiliative," "self-protective," and so forth. This analysis, across all participants and visits, reveals the types of situations people encounter and the behavior patterns they employ in them, but it is only the first step in applying the fundamental motives framework to understanding situations and behavior.

Situation-Behavior Correlations

The next set of analyses examined the relationships between situations and behaviors. For each visit, participants' RSQ-Template match scores, the correlation value indicating the degree of match between a participant's RSQ and each of the fundamental motive RSQ-Templates, were correlated with participants' placement of each RBQ item. For example, participants' "self-protection" RSQ-Template match scores at the first visit were correlated with their placement of the first RBQ item "Interviews others (if present)," resulting in a single correlation value reflecting the degree to which participants "interviewed others" in situations highly relevant to self-protection. The same calculation was performed for each visit and then averaged across the four visits. These calculations were performed for each of the remaining 66 RBQ items. Tables 2–8 show the 10 highest and 10 lowest correlations between behaviors and the degree to which situations matched the expert prototypes for each of the fundamental motives for genders combined, for females, and for males. The tables also show that the number of significant behavioral correlates observed in situations relating to each situation type far exceeds the number to be expected by chance, as determined using randomization procedures described by Sherman and Funder (2009).

Situations more closely matching the self-protection template tended to be associated with behaviors described as tense, anxious, hostile, and irritated. Participants were unlikely to show enjoyment, such as smiling, laughing, or behaving in a relaxed and comfortable way in these situations. Situations more closely matching the disease avoidance template were associated with similar behaviors, such as feeling irritated and anxious and feeling little enjoyment in the situation. In contrast, situations more closely matching the affiliation template were associated with cheerful behaviors like smiling, laughing, and initiating humor but not with behaviors such as feeling anxious or detached. Similarly, in situations more closely matching both kin care and mate-seeking situations, participants were more likely to describe themselves as behaving socially and expressing warmth, but not being unexpressive or insecure. Situations more closely matching the mate retention and status templates were not as strongly associated with participant behavior as the others, but situations similar to the mate retention template were associated with behavior expressing insecurity and sexual interest, and situations similar to the status template were associated with competitive behavior.

On the surface, these behaviors appear to be consistent with what fundamental motives theory would expect to be typical behaviors in pursuit of each of these motives. To assess this claim, we considered the extent to which the RBQ templates created by our expert raters reflected actual participant behavior. The behavioral RBQ templates, representing expert raters' predictions of the behaviors likely to occur in each type of motive-relevant situation, were each correlated with their respective profile of RBQ correlates for the RSQ template matches (partial listings of the profiles of RBQ correlates appear in Tables 2–8), and we found strong, positive correlations between the RBQ templates and participants' self-reported behavior for each of the motives (Table 9). This finding is unsurprising given the similarities in content and form between the RSQ and RBQ, but it also supports the assertion that when in situations that evoke particular motives, people behave in ways consistent with pursuing that motive.

DISCUSSION

The present study used an evolutionary-based theory of motives to guide the construction of a taxonomy of situations. The first useful outcome was clarification of the psychologically relevant characteristics of motive-relevant situations and the assessment of the degree to which the motives' situational prototypes are similar. For example, it was demonstrated that self-protection and disease avoidance situations are relatively similar in nature and that they differ from situations having to do with affiliation and mate seeking. To our knowledge, this is
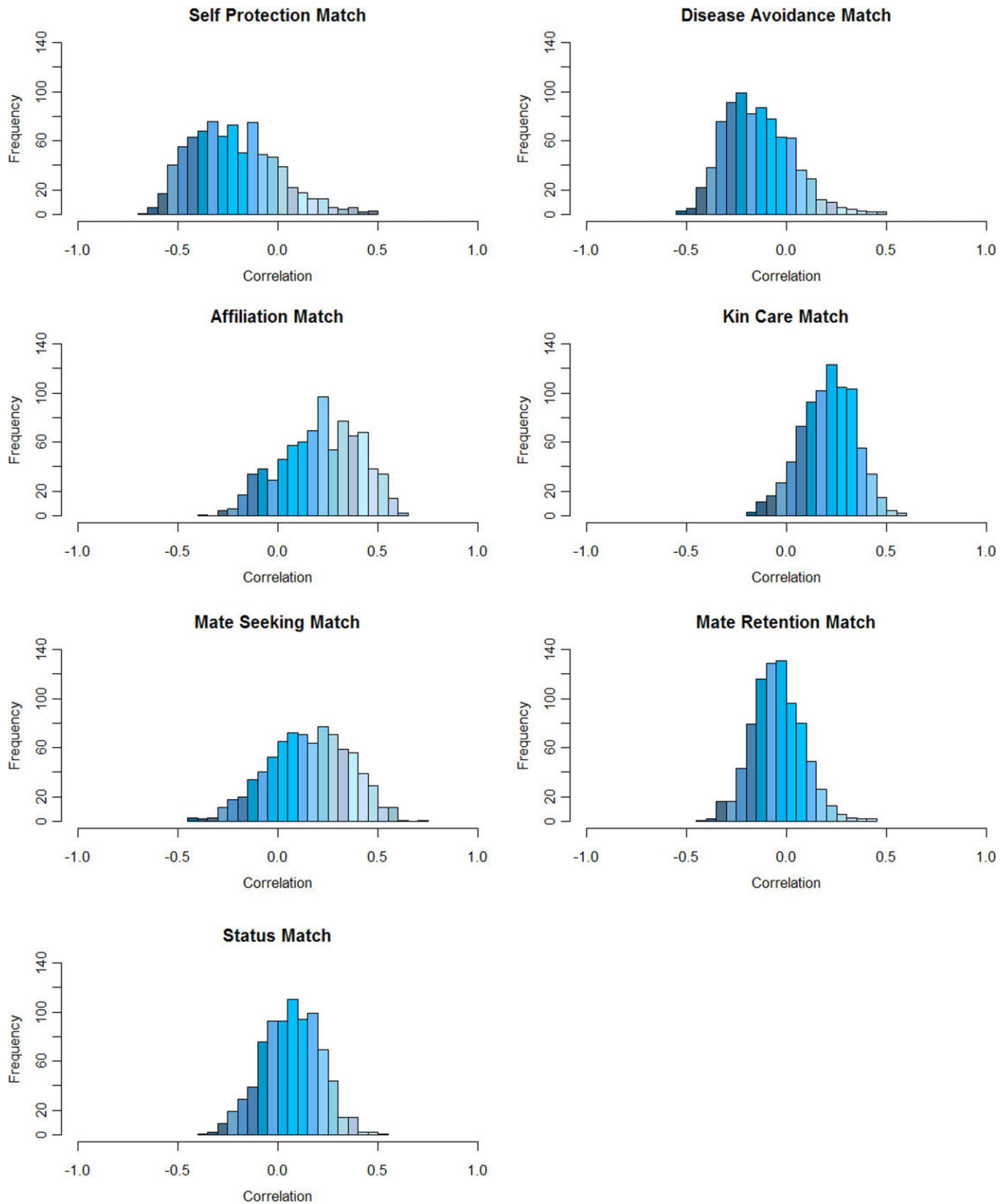
Figure 1 Histograms of participants' template-match scores, across four visits, for each of seven motive-relevant situation templates.

Table 2 Behavioral Correlates of Self-Protection Situation Template-Match

Positive Behavioral Correlates

RBQ #	Item	Combined	Female	Male
31	Acts irritated.	.53***	.54***	.51***
22	Shows physical signs of tension or anxiety.	.52***	.58***	.47***
34	Expresses hostility (no matter toward whom or what).	.36***	.40***	.33**
64	Concentrates on or works hard at a task.	.34***	.35***	.34***
47	Expresses self-pity or feelings of victimization.	.32***	.37***	.29**
21	Expresses insecurity.	.32***	.42***	.21*
4	Tries to control the situation.	.31***	.36***	.26**
36	Behaves in a fearful or timid manner.	.29***	.35***	.24*
40	Keeps other(s) at a distance; avoids development of any sort of interpersonal relationship.	.28***	.31**	.24*
8	Is reserved and unexpressive.	.26***	.27**	.25*

Negative Behavioral Correlates

RBQ #	Item	Combined	Female	Male
42	Seems to enjoy the situation.	−.54***	−.60***	−.48***
9	Laughs frequently.	−.50***	−.56***	−.45***
10	Smiles frequently.	−.50***	−.54***	−.45***
6	Appears to be relaxed and comfortable.	−.47***	−.54***	−.41***
25	Initiates humor.	−.44***	−.46***	−.47***
49	Behaves in a cheerful manner.	−.42***	−.49***	−.37***
62	Acts playful.	−.37***	−.43***	−.35***
7	Exhibits social skills.	−.36***	−.43***	−.29**
28	Seems likeable (to other[s] present).	−.34***	−.36***	−.31**
16	Shows a wide range of interests	−.32***	−.33***	−.31**

Note. RBQ = Riverside Behavioral Q-sort. The number of significant RBQ correlates for genders combined, female, and male was 49, 41, and 36, respectively, and the number of correlations for each was significantly greater than what was expected by chance.
+$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.
95% CI for combined sample: $r = .54$ [.43, .63]; $r = .26$ [.13, .38].
95% CI for female sample: $r = .60$ [.46, .71]; $r = .27$ [.08, .44].
95% CI for male sample: $r = .51$ [.35, .64]; $r = .21$ [.01, .39].

Table 3 Behavioral Correlates of Disease Avoidance Situation Template-Match

Positive Behavioral Correlates

RBQ #	Item	Combined	Female	Male
22	Shows physical signs of tension of anxiety.	.48***	.51***	.45***
31	Acts irritated.	.48***	.47***	.49***
47	Expresses self-pity or feelings of victimization.	.35***	.39***	.32**
67	Exhibits physical discomfort or pain.	.31***	.27**	.36***
34	Expresses hostility (no matter toward whom or what).	.31***	.36***	.27**
36	Behaves in a fearful or timid manner.	.31***	.36***	.25*
21	Expresses insecurity.	.30***	.40***	.19+
44	Says negative things about self.	.29***	.30**	.28**
39	Expresses guilt.	.29***	.33***	.24*
40	Keeps others(s) at a distance; avoids development of any sort of interpersonal relationship.	.29***	.31**	.27**

Negative Behavioral Correlates

RBQ #	Item	Combined	Female	Male
42	Seems to enjoy the situation.	−.53***	−.58***	−.49***
9	Laughs frequently.	−.47***	−.50***	−.45***
6	Appears to be relaxed and comfortable.	−.45***	−.51***	−.39***
10	Smiles frequently.	−.44***	−.48***	−.40***
49	Behaves in a cheerful manner.	−.40***	−.46***	−.35***
25	Initiates humor.	−.39***	−.36***	−.46***
7	Exhibits social skills.	−.34***	−.37***	−.32**
28	Seems likable (to other[s] present).	−.33***	−.34***	−.32**
62	Acts playful.	−.32***	−.36***	−.31**
16	Shows a wide range of interests.	−.32***	−.34***	−.30**

Note. RBQ = Riverside Behavioral Q-sort. The number of significant RBQ correlates for genders combined, female, and male was 46, 33, and 30, respectively, and the number of correlations for each was significantly greater than what was expected by chance.
+$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.
95% CI for combined sample: $r = .53$ [.42, .62]; $r = .29$ [.16, .41].
95% CI for female sample: $r = .58$ [.44, .70]; $r = .27$ [.08, .44].
95% CI for male sample: $r = .49$ [.32, .63]; $r = .19$ [−.01, .38].

the first attempt at exploring the psychological characteristics of situations that are relevant to the fundamental motives proposed by evolutionary theorists. An understanding of the situational content will allow future researchers to ensure the appropriateness of their manipulations of various motives by validating their manipulation against the motive-relevant situation templates created in the present study.

Second, this study allowed us to assess the degree to which situations experienced in the daily lives of our participants were relevant to each of the fundamental motives, and to explore how participants behaved in these situations. The behavioral correlates were predictable and fit with common sense: Participants whose perceptions of their situations more closely matched the self-protection and disease avoidance templates tended to behave more anxiously and were less likely to be enjoying themselves, whereas participants whose perceptions of their situations matched motive-relevant situation templates such as affiliation, mate seeking, and kin care displayed

Table 4 Behavioral Correlates of Affiliation Situation Template-Match

Positive Behavioral Correlates

RBQ #	Item	Combined	Female	Male
7	Exhibits social skills.	.52***	.54***	.51***
9	Laughs frequently.	.50***	.53***	.49***
10	Smiles frequently.	.49***	.53***	.44***
25	Initiates humor.	.48***	.46***	.54***
42	Seems to enjoy the situation.	.44***	.50***	.47***
20	Is talkative.	.43***	.40***	.47***
3	Seems interested in what someone had to say.	.39***	.39***	.38***
12	Seems to like other(s) present.	.38***	.39***	.40***
49	Behaves in a cheerful manner.	.38***	.44***	.33**
32	Expresses warmth.	.37***	.41***	.31**

Negative Behavioral Correlates

RBQ #	Item	Combined	Female	Male
31	Acts irritated.	−.55***	−.55***	−.56***
22	Shows physical signs of tension or anxiety.	−.48***	−.53***	−.43***
64	Concentrates on or works hard at a task.	−.40***	−.41***	−.40***
60	Seems detached from the situation.	−.37***	−.40***	−.34***
34	Expresses hostility (no matter toward whom or what).	−.37***	−.39***	−.35***
8	Is reserved and unexpressive.	−.37***	−.35***	−.38***
40	Keeps other(s) at a distance; avoids development of any sort of interpersonal relationship.	−.34***	−.37***	−.32**
67	Exhibits physical discomfort or pain.	−.30***	−.31**	−.30**
36	Behaves in a fearful or timid manner.	−.29***	−.32***	−.28**
33	Tries to undermine, sabotage, or obstruct.	−.29***	−.30**	−.29**

Note. RBQ = Riverside Behavioral Q-sort. The number of significant RBQ correlates for genders combined, female, and male was 49, 42, and 40, respectively, and the number of correlations for each was significantly greater than what was expected by chance.
+*p* < .10. **p* < .05. ***p* < .01. ****p* < .001.
95% CI for combined sample: *r* = .55 [.45, .64]; *r* = .29 [.16, .41].
95% CI for female sample: *r* = .55 [.40, .67]; *r* = .30 [.11, .47].
95% CI for male sample: *r* = .56 [.41, .68]; *r* = .28 [.09, .45].

Table 5 Behavioral Correlates of Kin Care Situation Template-Match

Positive Behavioral Correlates

RBQ #	Item	Combined	Female	Male
7	Exhibits social skills.	.41***	.44***	.38***
3	Seems interested in what someone had to say.	.36***	.40***	.30**
25	Initiates humor.	.35***	.37***	.36***
9	Laughs frequently.	.35***	.41***	.30**
20	Is talkative.	.35***	.39***	.31**
10	Smiles frequently.	.33***	.39***	.28**
12	Seems to like other(s) present.	.32***	.33***	.32**
1	Interviews others (if present).	.29***	.29**	.31**
32	Expresses warmth.	.28***	.33***	.21*
42	Seems to enjoy the situation.	.27***	.29**	.25**

Negative Behavioral Correlates

RBQ #	Item	Combined	Female	Male
31	Acts irritated.	−.38***	−.39***	−.37***
55	Behaves in a competitive manner.	−.36***	−.41***	−.30**
22	Shows physical signs of tension or anxiety.	−.35***	−.40***	−.30**
34	Expresses hostility (no matter toward whom or what).	−.33***	−.37***	−.29**
33	Tried to undermine, sabotage, or obstruct.	−.33***	−.32**	−.33**
21	Expresses insecurity.	−.29***	−.32***	−.28**
17	Talks at rather than with other(s).	−.28***	−.34***	−.21*
8	Is reserved and unexpressive.	−.27***	−.30**	−.24*
27	Exhibits condescending behavior.	−.27***	−.28**	−.25*
40	Keeps other(s) at a distance; avoids development of any sort of interpersonal relationship.	−.27***	−.32***	−.21*

Note. RBQ = Riverside Behavioral Q-sort. The number of significant RBQ correlates for genders combined, female, and male was 48, 36, and 29, respectively, and the number of correlations for each was significantly greater than what was expected by chance.
+*p* < .10. **p* < .05. ***p* < .01. ****p* < .001.
95% CI for combined sample: *r* = .41 [.29, .52]; *r* = .27 [.14, .39].
95% CI for female sample: *r* = .44 [.27, .58]; *r* = .28 [.09, .45].
95% CI for male sample: *r* = .38 [.20, .54]; *r* = .21 [.01, .39].

greater enjoyment and less anxiety. Additionally, these patterns were successfully predicted by experts using an evolutionary approach.

Taken in their entirety, these findings suggest that template matching is a fruitful way to explore, understand, and categorize both the content of situations experienced in daily life and the behavior displayed in these situations. This work provides a demonstration of the relevance of motives to our understanding of situations and behavior and provides explicit evidence of the close relationships between situation content and behavior.

The central purpose of the present research was to demonstrate a method to develop and use theoretically derived situational templates, and to provide examples of the kinds of insights such templates can generate. For this purpose it used the RSQ, the content of which is not intentionally oriented toward evolutionary theory or any other particular approach to categorizing situations. A virtue of this method is that the RSQ can be a "fair test"; it was not designed to emphasize one approach or another. But the present research is also limited in that situationally descriptive items written to capture elements

Table 6 Behavioral Correlates of Mate-Seeking Situation Template-Match

Positive Behavioral Correlates

RBQ #	Item	Combined	Female	Male
10	Smiles frequently.	.49***	.53***	.45***
9	Laughs frequently.	.48***	.52***	.45***
42	Seems to enjoy the situation.	.48***	.55***	.42***
25	Initiates humor.	.47***	.46***	.50***
7	Exhibits social skills.	.45***	.47***	.42***
49	Behaves in a cheerful manner.	.39***	.47***	.31**
62	Acts playful.	.36***	.45***	.29**
20	Is talkative.	.35***	.32***	.39***
12	Seems to like other(s) present.	.35***	.37***	.31**
28	Seems likable (to other[s] present).	.35***	.39***	.31**

Negative Behavioral Correlates

RBQ #	Item	Combined	Female	Male
31	Acts irritated.	−.52***	−.50***	−.55***
22	Show physical signs of tension or anxiety.	−.46***	−.50***	−.42***
64	Concentrates on or works hard at a task.	−.38***	−.38***	−.37***
34	Expresses hostility (no matter toward whom or what).	−.35***	−.36***	−.34***
47	Expresses self-pity or feelings of victimization.	−.33***	−.35***	−.32**
8	Is reserved and unexpressive.	−.33***	−.34***	−.31**
60	Seems detached from the situation.	−.31***	−.36***	−.26*
36	Behaves in a fearful or timid manner.	−.30***	−.31**	−.28**
40	Keeps other(s) at a distance; avoids development of any sort of interpersonal relationship.	−.30***	−.31**	−.27**
21	Expresses insecurity.	−.27***	−.34***	−.18+

Note. RBQ = Riverside Behavioral Q-sort. The number of significant RBQ correlates for genders combined, female, and male was 52, 44, and 39, respectively, and the number of correlations for each was significantly greater than what was expected by chance.
+p < .10. *p < .05. **p < .01. ***p < .001.
95% CI for combined sample: r = .52 [.41, .61]; r = .27 [.14, .39].
95% CI for female sample: r = .55 [.40, .67]; r = .31 [.12, .47].
95% CI for male sample: r = .55 [.39, .68]; r = .18 [−.02, .37].

Table 7 Behavioral Correlates of Mate Retention Situation Template-Match

Positive Behavioral Correlates

RBQ #	Item	Combined	Female	Male
48	Expresses sexual interest.	.19**	.18+	.18+
21	Expresses insecurity.	.16*	.22*	.09
39	Expresses guilt.	.16*	.20*	.10
1	Interviews others (if present).	.15*	.11	.19+
58	Makes or approaches physical contact with other(s).	.14*	.17+	.12
7	Exhibits social skills.	.14*	.07	.20*
44	Says negative things about self.	.12*	.18+	.05
20	Is talkative.	.11+	.10	.11
22	Shows physical signs of anxiety.	.10+	.12	.08
14	Compares self to other(s).	.10+	.09	.12

Negative Behavioral Correlates

RBQ #	Item	Combined	Female	Male
38	Expresses interest in fantasy or daydreams.	−.31***	−.29**	−.34***
6	Appears to be relaxed and comfortable.	−.25***	−.28**	−.22*
42	Seems to enjoy the situation.	−.23***	−.24*	−.21*
41	Shows interest in intellectual or cognitive matters.	−.21**	−.27**	−.16
23	Exhibits a high degree of intelligence.	−.20**	−.25**	−.13
43	Says or does something interesting.	−.15*	−.21*	−.10
64	Concentrates on or works hard at a task.	−.13*	−.15	−.11
49	Behaves in a cheerful manner.	−.13*	−.11	−.15
16	Shows a wide range of interests.	−.12*	−.15	−.08
54	Emphasizes accomplishments of self, family, or acquaintances.	−.12*	−.18+	−.06

Note. RBQ = Riverside Behavioral Q-sort. The number of significant RBQ correlates for genders combined, female, and male was 17, 8, and 5, respectively, and the number of correlations for each was greater than what was expected by chance.
+p < .10. *p < .05. **p < .01. ***p < .001.
95% CI for combined sample: r = .31 [.18, .43]; r = .10 [−.04, .24].
95% CI for female sample: r = .29 [.10, .46]; r = .07 [−.12, .26].
95% CI for male sample: r = .34 [.15, .51]; r = .05 [−.15, .27].

of particular theories might provide additional information not captured by the RSQ. For example, considering situations and behavior from an evolutionary perspective such as the fundamental motives framework points to features of situations that might not otherwise be considered (and are not present in the RSQ), such as ambient darkness of the space (Schaller, Park, & Mueller, 2003), sex ratio of others present (Li, Kenrick, Griskevicius, & Neuberg, 2012), and other factors. Work in progress elsewhere is developing a measure of situational features relevant to FMT and evolutionary theory more generally

(Brown, Neel, & Sherman, 2013). Other possible theoretical bases for specifically written, situationally descriptive items include Maslow's hierarchy of needs (1943) or Ryan and Deci's (2000) self-determination theory.

A further limitation of the present study is that it sampled undergraduate participants; future research with a more representative adult sample would provide a more comprehensive view of situational experiences and associated behaviors. For example, there may be age-related differences in the way in which people perceive and behave in motive-relevant

Table 8 Behavioral Correlates of Status Situation Template-Match

Positive Behavioral Correlates

RBQ #	Item	Combined	Female	Male
55	Behaves in a competitive manner.	.35***	.39***	.31**
45	Displays ambition.	.34***	.42***	.27**
64	Concentrates on or works hard at a task.	.34***	.39***	.29**
23	Exhibits a high degree of intelligence.	.21**	.29**	.15
41	Shows interest in intellectual or cognitive matters.	.16*	.24*	.08
31	Acts irritated.	.15*	.17+	.14
4	Tries to control the situation.	.14*	.15	.12
29	Seeks advice.	.14*	.09	.19+
14	Compares self to other(s).	.13*	.14	.12
5	Dominates the situation.	.12+	.15	.08

Negative Behavioral Correlates

RBQ #	Item	Combined	Female	Male
38	Expresses interest in fantasy or daydreams.	−.34***	−.28**	−.40***
66	Acts in a self-indulgent manner.	−.25***	−.24*	−.26*
48	Expresses sexual interest.	−.23***	−.23*	−.24*
42	Seems to enjoy the situation.	−.22**	−.17+	−.26*
9	Laughs frequently.	−.20**	−.22*	−.17+
25	Initiates humor.	−.19**	−.22*	−.18+
62	Acts playful.	−.19**	−.16+	−.22*
6	Appears to be relaxed and comfortable.	−.19**	−.15	−.22*
32	Expresses warmth.	−.19**	−.21*	−.16
10	Smiles frequently.	−.18**	−.18+	−.19+

Note. RBQ = Riverside Behavioral Q-sort. The number of significant RBQ correlates for genders combined, female, and male was 21, 11, and 9, respectively, and the number of correlations for each was greater than what was expected by chance. +p < .10. *p < .05. **p < .01. ***p < .001.
95% CI for combined sample: r = .35 [.22, .47]; r = .12 [−.02, .25].
95% CI for female sample: r = .42 [.25, .57]; r = .09 [−.10, .28].
95% CI for male sample: r = .40 [.22, .56]; r = .08 [−.12, .28].

Table 9 RBQ Template × RBQ Correlates of RSQ Template Match

	Motives							
Gender	SP	DA	AFF	KIN	MSF	MSM	MR	ST
Combined	.72	.77	.83	.65	.75	.55	.55	.38
Females	.67	.77	.83	.67	.75	.53	.45	.33
Males	.73	.74	.81	.61	.74	.55	.56	.40

Note. RBQ = Riverside Behavioral Q-sort; RSQ = Riverside Situational Q-sort; SP = self-protection; DA = disease avoidance; AFF = affiliation; KIN = kin care; MSF = mate seeking (female); MSM = mate seeking (male); MR = mate retention; ST = status.

trast, the present study had the goal of gathering data relevant to situations experienced and behavior performed during participants' ordinary daily activities and (given practical and ethical constraints) required the trade-off of having to rely on self-report. Nonetheless, it is useful to learn that, even filtered through the subjective lens of self-report, the fundamental motives framework was able to distinguish among situations to predict participants' self-reported behaviors.

Notwithstanding these limitations, the present study is the first to quantitatively compare the degree of similarity and difference among different situations of a taxonomy rooted in a theory of evolutionarily based motives, to assess behavior in these situations, and to assess the degree to which a perspective derived from that theory can predict behavior. We are hopeful that other researchers will develop other theoretically based definitions of situations and approaches to taxonomy construction as the study of situations becomes increasingly organized, coherent, and useful.

Notes

1. Two raters completed an RBQ for the status motive.
2. The Q-sorter program and decks can be downloaded from the Riverside Accuracy Lab Web site: http://rap.ucr.edu/qsorter/.

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situations; perhaps middle-aged and young adults seek status in different kinds of situations, and their behavior may reflect those differences, whereas those features of situations relevant to self-protective situations and behaviors may be consistent across age groups.

A final limitation of this study is that it is based on retrospective self-report rather than direct behavioral observation. Therefore, the present data cannot distinguish between situations as they "actually" exist and as they are subjectively, and perhaps idiosyncratically, construed by the individuals who experience them; the same can be said about participants' descriptions of their behavior. Only research in the laboratory, where common situations can be constructed for all participants and independently observed, can allow this distinction to be assessed (such a project is currently in progress). In con-

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APPENDIX A

RSQ Motive-Relevant Situation Templates

RSQ Item	SP	DA	AFF	KIN	MS	MR	ST
1. Someone is trying to impress someone or convince someone of something.	3.33	2.33	7.67	5.00	8.00	6.00	7.67
2. P is counted on to do something.	5.33	4.00	5.00	8.33	4.67	5.33	5.67
3. Talking is permitted, invited, or conventionally expected.	3.00	4.00	7.67	5.00	6.00	6.00	6.33
4. P is asked for something, or someone is in need.	7.00	7.00	4.67	8.33	4.00	6.33	4.33
5. Minor details in a task or situation might be important to some.	3.67	6.00	4.33	6.00	4.33	5.00	4.33
6. Situation evokes values concerning lifestyles or politics.	3.33	3.33	6.67	6.00	5.33	5.33	4.00
7. Affords an opportunity to demonstrate intellectual capacity (e.g., an intellectual discussion, a problem needs to be solved).	4.33	3.00	6.00	4.67	6.00	3.67	6.33
8. Situation is uncertain or complex.	7.33	5.67	4.33	4.33	5.67	5.00	5.33
9. Situation is potentially enjoyable.	1.33	1.00	7.33	7.67	6.67	2.67	4.33
10. Another person [present or discussed] is under threat.	8.33	7.00	1.67	3.33	1.67	2.33	2.67
11. P is being criticized, directly or indirectly.	5.33	3.00	2.67	3.00	2.00	5.33	3.00
12. P is being insulted, directly or implicitly.	5.33	2.67	2.67	1.67	3.00	4.67	3.33
13. Someone might potentially or is attempting to dominate or "boss" P.	7.00	3.00	5.00	4.33	4.00	4.33	8.00
14. Situation is playful.	1.67	2.00	7.33	7.00	7.33	3.67	3.67
15. Affords an opportunity for introspection (e.g., reflection upon deeply personal issues).	2.33	2.67	4.00	5.33	3.33	4.00	1.67
16. Someone [present or discussed] is unhappy or suffering.	7.33	8.00	2.00	4.00	1.67	6.00	2.67
17. Affords an opportunity to seek reassurance (e.g., situation might undermine P's confidence, or a potentially reassuring other is present).	6.00	6.00	6.67	3.67	4.33	6.00	3.33
18. Activities might potentially proceed at a slow or fast pace.	5.33	5.00	4.33	5.00	3.67	4.33	4.33
19. P might need or appear to need the support and nurturance of others.	7.67	6.67	7.00	4.67	4.00	5.33	4.67
20. P might potentially be blamed for something.	5.00	5.67	4.33	5.67	2.33	5.33	3.67
21. A decision might be made on rational or irrational grounds.	6.67	6.33	4.67	5.00	5.33	6.00	5.00
22. Self-restraint is desirable but difficult.	5.33	6.67	3.67	5.33	5.33	4.33	4.00
23. A job needs to be done.	5.00	5.00	3.33	6.33	3.67	3.33	6.00
24. Situation involves competition.	5.00	3.67	4.33	1.67	7.33	6.33	8.33
25. Affords an opportunity to do things that might make P liked or accepted.	4.67	4.67	8.67	5.33	7.67	5.67	7.33
26. Others are present who might need or desire advice and reassurance.	5.33	6.33	5.67	8.33	3.67	5.00	4.33
27. Situation entails frustration and adversity.	7.33	6.33	3.33	4.33	3.67	5.33	5.00
28. Physical attractiveness (of P) is salient.	4.00	6.33	5.67	2.33	8.67	6.67	5.67
29. P might make a positive or negative impression on others.	4.67	5.33	8.33	5.33	7.67	4.33	7.67
30. Context would make some people tense and upset.	7.67	7.00	6.00	5.67	4.67	7.00	7.33
31. Situation includes one or more small frustrations or annoyances.	5.33	6.00	2.67	6.33	4.00	5.67	4.33
32. Situation might evoke warmth or compassion.	4.00	6.33	7.67	9.00	6.33	6.00	3.00
33. A person or activity could be undermined or sabotaged.	6.00	4.00	3.67	2.33	4.00	5.00	7.00
34. Affords an opportunity to be honest or deceitful.	5.33	5.00	7.33	4.00	6.33	7.00	6.33
35. Situation may cause feelings of hostility.	8.33	6.33	3.67	2.67	3.33	5.33	7.00
36. Affords an opportunity to express unusual ideas or points of view.	3.00	4.00	5.33	3.67	4.67	2.33	4.00
37. Context is potentially threatening or fear-inducing (to P).	9.00	8.33	3.33	2.33	2.33	4.67	5.33
38. Situation raises moral or ethical issues (e.g., a moral dilemma is present; a discussion of morality).	5.33	5.33	2.67	4.33	3.00	3.67	4.00
39. The situation calls for a quick resolution or commitment to a particular course of action.	7.33	5.67	2.33	4.00	3.33	3.67	4.67

RSQ Item	SP	DA	AFF	KIN	MS	MR	ST
40. Situation allows a free range of emotional expression.	4.00	3.33	7.00	6.00	5.00	4.67	3.33
41. Others present might have conflicting or hidden motives.	6.33	4.33	4.67	3.00	6.00	6.33	7.00
42. Situation entails or could entail stress or trauma.	8.00	8.00	4.00	5.00	4.33	6.67	5.33
43. Affords an opportunity to ruminate, daydream, or fantasize.	2.33	2.67	2.67	4.00	4.33	2.67	1.67
44. Situation has the potential to arouse guilt (in P).	4.00	6.00	3.00	6.00	4.33	6.00	4.00
45. Close personal relationships are present or have the potential to develop.	4.67	4.33	8.67	8.67	8.33	8.33	4.33
46. Situation raises issues of trust or mistrust.	6.00	6.00	7.00	6.67	6.00	8.33	7.00
47. Context includes intellectual or cognitive stimuli (e.g., books, lectures, intellectual conversation).	2.00	2.67	4.33	3.33	4.33	2.00	4.67
48. Assertiveness is required to accomplish a goal.	5.67	4.00	3.67	3.33	6.00	4.33	7.33
49. Context includes potential for immediate gratification of desires (e.g., food, shopping, sexual opportunities).	2.67	4.00	4.33	4.67	7.67	5.67	3.00
50. Social interaction is possible.	5.67	7.00	8.00	7.00	6.67	7.67	6.67
51. Situation is humorous or potentially humorous (if one finds that sort of thing funny).	2.00	3.67	7.33	6.33	6.67	1.67	4.00
52. P is the focus of attention.	5.67	4.33	5.00	2.67	5.67	2.67	5.67
53. Context includes sensuous stimuli (e.g., touch, taste, smell, physical contact).	4.33	5.67	4.00	5.33	6.33	4.67	2.67
54. Context is relevant to P's bodily health (e.g., possibility of illness; a medical visit).	5.67	9.00	2.00	4.33	4.33	2.33	2.67
55. Success in this situation requires self-insight.	3.00	3.33	4.67	5.00	2.00	4.00	5.00
56. P controls resources needed by others.	4.67	5.33	4.00	7.00	4.33	6.33	4.67
57. Behavior of others presents a wide range of interpersonal cues.	5.00	5.33	6.33	6.67	5.67	6.67	6.00
58. Situation includes implicit or explicit behavioral limits (that might or might not be challenged).	5.67	5.67	4.67	5.33	4.67	4.33	4.67
59. Context includes aesthetic stimuli (e.g., art, music, drama, beauty).	2.33	3.33	5.33	4.00	6.00	4.00	2.00
60. Context is potentially anxiety-inducing.	7.67	8.33	6.33	6.33	6.00	6.33	6.33
61. Context includes explicit or implicit demands on P.	6.00	5.67	5.33	7.00	4.67	5.33	6.00
62. Affords an opportunity to express or demonstrate ambition.	4.00	3.33	4.33	2.67	7.00	4.33	9.00
63. Context raises issues of personal adequacy (e.g., includes demands or expectations that P might not be able to meet).	5.00	4.67	5.67	7.00	5.33	8.00	6.33
64. Context includes stimuli that could be construed sexually.	3.33	3.67	3.33	1.00	8.33	6.33	2.67
65. Situational demands are rapidly shifting.	5.67	5.00	5.00	4.67	3.67	3.67	4.33
66. Context has potential to arouse feelings of victimization or self-pity by P.	6.33	6.33	3.33	4.00	2.67	6.33	3.33
67. Members of the opposite sex are present (especially those who are potential romantic partners, at least hypothetically).	4.67	4.67	5.33	4.67	9.00	8.67	4.67
68. Context has potential to arouse internal conflicts and related anxiety (e.g., ambivalence, approach-avoidance, competing motivations).	6.33	8.00	5.33	5.00	5.00	6.00	5.67
69. Context is basically simple and clear-cut.	4.33	4.33	3.67	3.67	3.00	3.00	3.00
70. Affords an opportunity to express one's charm.	3.33	3.33	7.67	5.33	7.00	4.67	6.33
71. Situation involves social comparison.	3.67	4.67	6.00	4.67	6.33	6.00	8.00
72. Context raises issues of power (for P or others present).	6.00	4.67	4.67	5.33	5.00	4.67	8.00
73. Affords an opportunity to express masculinity or femininity (depending on whether P is male or female, respectively).	5.33	4.67	5.33	6.67	8.00	6.33	5.33
74. Others may need or are requesting advice from P.	4.67	5.67	4.00	7.00	3.00	4.33	4.00
75. P's independence and autonomy is questioned or threatened.	6.00	6.00	3.00	5.33	1.67	3.67	4.00
76. Context is potentially emotionally arousing.	7.00	7.00	5.00	6.67	6.33	5.33	4.67
77. Affords an opportunity for demonstrating verbal fluency (e.g., a debate, a monologue, an active conversation).	2.00	2.67	6.00	4.00	5.33	3.67	4.67
78. Others present occupy a variety of social roles or levels of status.	4.33	5.33	4.33	5.67	3.33	4.33	7.33
79. P is being pressured to conform to the actions of others.	4.67	5.00	6.67	4.00	3.33	3.00	3.67
80. Success requires cooperation.	4.33	4.33	5.67	5.00	3.67	4.67	5.67
81. P is being complimented or praised.	1.33	3.00	4.67	3.67	5.67	3.00	4.67

Note. RSQ = Riverside Situational Q-sort; SP = self-protection; DA = disease avoidance; AFF = affiliation; KIN = kin care; MS = mate seeking; MR = mate retention; ST = status; P = participant. Values range from 1 (*Extremely Uncharacteristic*) to 9 (*Extremely Characteristic*).

APPENDIX B

RBQ Motive-Relevant Situation Templates

RBQ Item	SP	DA	AFF	KIN	MSF	MSM	MR	ST
1. Interviews others (if present).	4.00	5.33	5.33	5.33	5.67	4.67	5.67	5.50
2. Volunteers a large amount of information about self.	3.00	4.00	6.33	4.67	5.00	6.00	4.67	4.50
3. Seems interested in what someone had to say.	3.67	4.00	7.67	6.67	6.33	6.00	7.00	5.00
4. Tries to control the situation.	6.67	7.67	4.33	7.00	3.00	6.33	7.33	8.00
5. Dominates the situation.	3.67	5.33	4.00	6.33	2.67	7.00	5.33	8.00
6. Appears to be relaxed and comfortable.	1.33	2.67	5.67	5.67	5.67	5.00	2.67	4.50
7. Exhibits social skills.	5.67	3.67	8.33	6.33	7.67	7.67	6.00	8.00
8. Is reserved and unexpressive.	6.33	8.00	1.67	2.67	3.00	2.00	2.67	3.00
9. Laughs frequently.	3.33	3.67	7.33	5.67	8.00	5.00	4.67	4.50
10. Smiles frequently.	4.00	3.33	8.00	7.00	8.00	6.00	5.00	4.00
11. Is physically animated; moves around.	7.00	6.00	5.67	6.67	5.33	5.33	5.33	6.00
12. Seems to like other(s) present.	4.67	2.00	8.67	7.00	7.67	6.67	4.67	4.50
13. Exhibits an awkward interpersonal style.	6.00	7.00	3.00	2.67	3.00	3.33	3.33	3.00
14. Compares self to other(s).	4.67	6.33	4.67	2.67	5.00	7.33	7.67	8.50
15. Shows high enthusiasm and a high energy level.	3.67	3.00	7.00	6.33	6.33	6.33	4.33	6.00
16. Shows a wide range of interests.	4.00	4.00	6.33	5.33	5.33	5.67	4.00	5.00
17. Talks at rather than with other(s).	5.00	5.67	3.00	4.33	3.67	5.33	4.33	6.50
18. Expresses agreement frequently.	5.33	5.33	7.33	5.33	7.33	4.67	5.33	3.00
19. Expresses criticism (of anybody or anything).	5.00	6.33	2.67	5.00	4.00	3.67	6.00	6.00
20. Is talkative.	3.33	3.67	6.67	6.00	5.67	6.00	5.00	5.50
21. Expresses insecurity.	6.67	7.33	3.67	3.33	4.33	3.33	7.00	1.00
22. Show physical signs of tension or anxiety.	8.67	8.33	4.67	4.33	4.00	4.00	5.67	4.00
23. Exhibits a high degree of intelligence.	5.00	5.00	5.00	5.00	4.00	6.00	5.00	7.00
24. Expresses sympathy.	5.33	4.67	6.33	7.33	6.00	4.67	5.67	4.00
25. Initiates humor.	3.33	4.00	7.00	6.00	5.00	7.00	5.33	6.50
26. Seeks reassurance.	7.00	5.33	5.33	3.00	5.67	3.33	6.00	3.00
27. Exhibits condescending behavior.	4.67	6.67	3.67	5.67	2.67	5.67	4.33	7.50
28. Seems likable (to other[s] present).	5.33	3.33	9.00	6.33	7.33	6.00	5.33	5.00
29. Seeks advice.	6.00	5.00	5.67	4.00	5.00	3.33	5.33	3.00
30. Appears to regard self as physically attractive.	5.00	6.00	4.00	3.33	8.67	6.67	5.00	5.50
31. Acts irritated.	6.33	7.33	1.67	4.00	2.67	2.67	5.33	5.50
32. Expresses warmth.	5.33	3.00	8.33	8.33	7.67	6.00	7.33	4.50
33. Tries to undermine, sabotage, or obstruct.	6.33	5.67	3.00	2.33	3.67	4.00	6.67	6.00
34. Expresses hostility (no matter toward whom or what).	8.33	7.00	1.67	2.33	3.00	2.33	5.67	5.50
35. Is unusual or unconventional in appearance.	4.33	4.00	4.33	4.33	4.67	5.67	4.33	5.00
36. Behaves in a fearful or timid manner.	9.00	8.00	2.67	2.67	4.33	2.67	4.33	1.00
37. Is expressive in face, voice, or gestures.	5.67	4.67	6.00	6.67	6.00	5.33	6.00	5.50
38. Expresses interest in fantasy or daydreams.	3.00	4.67	5.00	6.33	5.00	3.33	3.33	2.50
39. Expresses guilt.	5.00	5.33	5.00	3.67	3.67	3.00	6.00	2.50
40. Keeps other(s) at a distance; avoids development of any sort of interpersonal relationship.	6.33	9.00	1.00	1.33	2.33	1.67	3.00	4.50
41. Shows interest in intellectual or cognitive matters.	3.33	5.00	5.00	4.33	4.33	5.33	3.00	5.50
42. Seems to enjoy the situation.	1.00	1.67	6.33	6.67	6.33	5.67	3.33	5.00
43. Says or does something interesting.	4.67	4.33	6.00	5.00	6.00	6.33	5.33	5.50
44. Says negative things about self.	4.67	4.00	3.33	3.33	3.67	2.33	2.67	1.50
45. Displays ambition.	4.67	4.33	5.00	3.67	3.33	8.00	6.00	9.00
46. Blames others.	6.67	6.67	3.33	4.33	3.00	3.67	6.67	5.50
47. Expresses self-pity or feelings of victimization.	6.67	6.67	3.67	3.67	3.67	2.33	6.00	2.50
48. Expresses sexual interest.	3.00	1.00	3.67	1.33	8.00	8.67	8.00	5.50
49. Behaves in a cheerful manner.	2.33	3.00	6.67	5.67	6.33	5.00	4.00	4.00
50. Gives up when faced with obstacles.	4.33	4.67	4.33	3.33	3.67	3.00	2.67	2.50
51. Behaves in a stereotypically masculine or feminine style or manner.	7.67	5.00	4.67	5.33	1.00	9.00	4.67	8.50
52. Offers advice.	3.67	4.67	6.00	8.00	4.33	4.33	4.33	6.00
53. Speaks fluently and expresses ideas well.	4.33	4.67	5.33	4.67	5.00	5.67	4.00	6.00
54. Emphasizes accomplishments of self, family, or acquaintances.	4.33	4.67	5.00	6.00	4.67	7.33	4.33	7.00

RBQ Item	SP	DA	AFF	KIN	MSF	MSM	MR	ST
55. Behaves in a competitive manner.	7.00	5.67	3.33	3.67	5.67	8.67	7.33	9.00
56. Speaks in a loud voice.	5.33	4.67	4.00	4.67	3.67	5.00	4.33	6.00
57. Speaks sarcastically.	5.00	5.67	4.00	4.33	4.00	4.33	4.33	5.50
58. Makes or approaches physical contact with other(s).	5.33	1.00	7.00	8.00	7.33	7.67	7.67	4.50
59. Engages in constant eye contact with someone.	2.67	2.67	6.33	6.67	7.33	6.00	6.33	5.50
60. Seems detached from the situation.	3.33	6.67	2.00	2.67	2.33	3.00	1.33	3.50
61. Speaks quickly.	5.33	5.33	4.67	4.33	4.67	4.33	4.00	5.00
62. Acts playful.	2.33	2.67	7.00	8.33	7.67	5.67	4.67	4.00
63. Other(s) seeks advice from P.	5.00	4.67	5.67	7.33	4.67	3.33	4.00	5.50
64. Concentrates on or works hard at a task.	7.33	6.33	5.00	5.00	5.00	4.67	6.33	6.50
65. Engages in physical activity.	7.00	5.00	4.00	5.00	4.00	4.67	3.67	4.00
66. Acts in a self-indulgent manner.	3.67	4.33	3.67	4.00	5.00	5.00	3.33	4.00
67. Exhibits physical discomfort or pain.	7.67	7.67	3.00	4.00	2.67	3.33	4.67	3.00

Note. RBQ = Riverside Behavioral Q-sort; SP = self-protection; DA = disease avoidance; AFF = affiliation; KIN = kin care; MSF = mate seeking (female); MSM = mate seeking (male); MR = mate retention; ST = status. Values range from 1 (*Extremely Uncharacteristic*) to 9 (*Extremely Characteristic*).