



An evolutionary formulation of person–situation interactions

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ABSTRACT

This article proposes a novel evolutionary psychological formulation of person–situation interactions. *Situations* are defined by adaptive problems encountered and the corresponding evolved psychological mechanisms that render some clusters of cues psychologically salient and other information invisible. *Developmental environments* are defined by the distribution, salience, and sequencing of adaptive problems encountered over time. *Person–situation interactions* come in two main forms: (1) the ways in which person variables, through the processes of selection, evocation, and manipulation, lead to non-random exposure to different suites of adaptive problems, and (2) individual differences in the strategies deployed toward solving the adaptive problems that people non-randomly encounter.

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The field of personality and social psychology still has not successfully solved the problem of how to conceptualize person–situation interactions. One of the key impediments is the nearly total lack of progress in conceptualizing situations in a non-arbitrary manner. As Funder (2008) notes, “the situational variables examined in published research are almost completely ad hoc” (p. 571). A second limitation has been a restricted conceptualization of person variables. This paper proposes an evolutionary conceptualization of both, which leads to a novel formulation of person–situation interactions.

An evolutionary psychological perspective provides a novel non-arbitrary conceptualization of situations: *adaptive problems define situations* (see also Figueredo et al., in press). Examples include: avoiding predators, hunting prey, choosing among available partners for cooperative social alliances, dealing with cheaters in social exchange, confronting threats to status, attracting a desirable mate in a field of intrasexual competitors, fending off mate poachers, allocating limited resources to friends and genetic relatives, being socially ostracized by one’s group, fending off unwanted sexual advances, resolving coalition-weakening conflict among members of one’s group, negotiating a status hierarchy from a subordinate position, and dozens more.

These situations (adaptive problems) are non-arbitrary because humans and their ancestors have confronted them and have had to solve them billions of times over evolutionary history. Consequently, humans have evolved psychological mechanisms that are specifically sensitive to cues that signal the presence of each adaptive problem, procedures for processing adaptively-relevant information about them, and decision rules for deploying behav-

ioral strategies for solving them. These evolved psychological circuits are called adaptations.

Psychological adaptations define which aspects of the environment are rendered psychologically salient. Consider a man who suspects that his wife is having an extramarital affair, a poignant and evolutionarily recurrent adaptive problem. The psychologically relevant aspects that define this situation include a rumor he overheard about his mate being seen with another man, eye contact between his wife and another man that lingers a split second too long, a sudden mechanical quality to their sexual interactions, or a failure to reciprocate an “I love you” (Shackelford & Buss, 1997). Other psychologically salient cues that partly define the situation include retrieved memories about events that seemed previously irrelevant, such as an unexplained absence or her inexplicable failure to answer her cell phone last Thursday.

The same objectively available cues are differentially psychologically salient as a consequence of adaptive individual differences. There exists strong empirical evidence, for example, that cues to emotional infidelity are more salient to women and cues to sexual infidelity are more psychologically salient to men. The sexes differ in which cues they attend to, process quickly, and remember vividly (Schutzwohl, 2006). These differences occur because male and female jealousy adaptations contain sex-differentiated design features, corresponding to the sex-differentiated adaptive problems each has recurrently faced over evolutionary time—paternity uncertainty for men, and resource and commitment diversion for women (Buss & Haselton, 2005). The key point is that each psychological adaptation defines which constellation of cues among the thousands potentially available from the external and interior worlds become psychologically relevant and which are rendered psychologically invisible.

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Individuals differ in the adaptive problems they encounter. Individuals *select* some and selectively avoid others. They predictably *evoke* social reactions from other individuals. And they use strategies to *influence* or *manipulate* adaptively-relevant aspects of situations (Buss, 1987). Selecting a narcissistic or low conscientious individual for a spouse, for example, means facing a statistically greater likelihood of confronting the adaptive problem of spousal infidelity (Buss & Shackelford, 1997). Being disagreeable and low on conscientiousness increase the odds that an individual will pursue a short-term mating strategy (Schmitt & Shackelford, 2008), which in turn can evoke satellite adaptive problems such as managing damage to social reputation.

Some personality characteristics can be conceptualized as strategic individual differences—the patterned ways in which different individuals solve adaptive problems. A physically formidable male, for example, can succeed in solving problems of social conflict through an aggressive strategy. His diminutive peer perforce may cultivate more conciliatory conflict resolution strategies.

An evolutionary framework, in short, provides a non-arbitrary conceptualization of situations. They are defined by adaptive problems and the relevant psychological mechanisms that render some clusters of cues psychologically salient and others irrelevant. More broadly, a person's *developmental* or *life history environment* is defined by the *distribution*, *salience*, and *sequencing* of adaptive problems encountered over time. *Person–situation interactions* come in two well-defined forms: (1) the ways in which person variables, through processes such as selection, evocation, and manipulation,

influence non-random exposure to different suites of adaptive problems, and (2) adaptive individual differences in the strategies that people deploy toward solving the adaptive problems to which they are non-randomly exposed.

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