Within-person and between-people variability in personality dynamics: Knowledge structures, self-efficacy, pleasure appraisals, and the Big Five ☆

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ABSTRACT

We investigated within-person co-variations from the perspective of knowledge-and-appraisal theories of personality. Knowledge structures were idiographically assessed as personal beliefs on the relevance of personality characteristics in facilitating successful actions in interpersonal situations. Three main findings emerged. First, beliefs of situational relevance of self-defining strengths and weaknesses show additive effects in accounting for intra-individual variability in contextualized self-efficacy appraisals. Secondly, between-person variability in Extraversion moderates within-person co-variation between self-efficacy and knowledge structures. Thirdly, self-efficacy mediates the impact of knowledge structures on perceived likelihood of performing the interpersonal behaviors in the future, after controlling for rated frequency of the same behaviors in the past. Overall, the present findings suggest that within-person and between-person approaches are complementary and need to be integrated.

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1. Introduction

The present study was planned on knowledge and appraisal theories of personality and emotions (Cervone, 2004; Lazarus & Smith, 1988; Smith & Lazarus, 1990). According to these theories, the understanding of personality and emotion processes requires focusing attention on self-relevant constructs and contextualized appraisals. The current study aimed at investigating personality processes by addressing the interrelations among self-knowledge structures linking persons to social situations, self-appraisals in social situations, and estimates of acting in the future, via a within-person approach; in addition, it investigates between-people correlations among these variables and the Big Five.

Social-cognitive theories posit that knowledge and appraisal represent two conceptually different types of cognition (Lazarus & Smith, 1988). Knowledge refers to relatively well-developed and enduring patterns of beliefs, goals, and expectancies on the world and people (Bandura, 1978, 2001; Cervone, 2005; Mischel, 2004). Such personal constructs are of special importance for understanding personality and emotion processes, when these constructs are significant for the self (Markus & Wurf, 1987).

Self-relevant knowledge represents an individual cognitive-affective system which guides his/her ways of acting, feeling, and thinking (Cervone, 2005; Mischel, 2009).

Appraisals are contextualized psychological meanings a person attributes to an encounter, that is, evaluations relating the self to an occurring event and to its consequences in terms of personal well-being. Smith and Lazarus (1990) have developed an analytic model of appraisals and distinguished among six possible components, whose different combinations point to different core relational themes, namely, categories representing possible person-situation relationships. From this perspective, self-efficacy (Bandura, 1977) represents a core relational theme subsuming components of motivational relevance and congruence, problem-focused coping potential, and future expectancy. As such, self-efficacy contributes to appraisal outcomes of emotions and behaviors thereby (Smith & Lazarus, 1990).

Knowledge and appraisal play different roles in explaining behaviors (Cervone, 1997, 2004) and emotions (Smith, Haynes, Lazarus, & Pope, 1993). Their different explanatory functions reflect the basic assumption according to which behaviors and emotions can be comprehended only if the person-in-situation is considered. In fact, self-knowledge structures include relatively long-lasting and idiosyncratic constructs and represent the lens through which an individual interprets currently meaningful situations and consequently react to them (Kelly, 1955). As such, chronically accessible units of an individual's self-system underlie and contribute to yield relatively consistent patterns of action and

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reaction across those situations the person perceives as functionally similar (Andersen & Thorpe, 2009; Cervone, 2004; Mischel, 2009; Orom & Cervone, 2009). Nevertheless, different working self-relevant representations are activated across different situations as a function of accessible enduring conditional person-situation patterns as well as of temporary conditions (Bargh, Bond, Lombardi, & Tota, 1986; Cervone & Shoda, 1999; Hinkley & Andersen, 1996; Markus & Wurf, 1987; Mischel & Shoda, 1995). Appraisals are contextualized judgments that depend on both an individual's knowledge structures and the provisional features of situations, and transitory conditions of the person, with more deep-rooted constructs being however expected to generally have a primacy over momentary states (Andersen & Chen, 2002; Cervone, Shadel, Smith, & Fiori, 2006). Hence, appraisals represent dynamic processes that directly relate person to situation, causally contribute to emotions and behaviors, and mediate the impact of self-related knowledge on outcomes (Cervone, 2004; Lazarus & Smith, 1988).

Knowledge structures are unique to each individual. Operationally, nomothetic and idiographic assessment procedures have to be combined thereby, in order to access an individual's self-system and find out general laws underlying dynamic processes of behaviors and emotions (Hinkley & Andersen, 1996). Cervone (2004), for example, developed a three-session paradigm where personal construct are first self-generated; these self-relevant representations are then mixed with self-irrelevant items, and their relevance to a selected set of situations is rated; lastly, self-efficacy ratings are provided for each situation. Self-efficacy ratings are compared across situations, idiographically clustered, where personal attributes generally have different relevance in favoring or hindering a performance. This paradigm has been developed on the social-cognitive Knowledge and Appraisal Personality Architecture (KAPA) model (Cervone, 2004).

Research has consistently demonstrated the appraisal-emotion relationship (Smith & Lazarus, 1990). For instance, a daily process design study showed that different core relational appraisals predict specific emotions, although not in terms of one-to-one association (Nezlek, Vansteelandt, Mechelen, & Kuppens, 2008). In addition, experimental studies have demonstrated that appraisals mediate the association between knowledge structures—such as causal attributions of personally relevant events occurred in the past—and emotional outcomes (Smith et al., 1993).

Research on personality has demonstrated the impact of knowledge on self-appraisals. Cervone and colleagues have compellingly demonstrated that intra-individual variability in self-efficacy appraisals across situations vary as a function of self-relevant situational knowledge structures, in non-experimental as well as experimental design studies (Cervone, 2004; Cervone, Orom, Artistico, Shadel, & Kassel, 2007; Cervone et al., 2008; Orom & Cervone, 2009). In fact, results generally showed that the higher the relevance of a schematic personality characteristic in commonly favoring rather than hindering a successful performance in a given situation, the higher the reported self-efficacy level in that situation. Such a covariation was not found when self-irrelevant attributes were inspected. Empirically, less attention has however been paid on intra-individual dynamic processes where different units are active in a self-system and influence an outcome. To date, research on social-cognitive processes has shown that short- and long-term construct accessibility additively predict person perception (Bargh et al., 1986), with more chronically accessible constructs prevailing over temporarily primed constructs (Higgins, Bargh, & Lombardi, 1985). Shoda (2007) developed computational models to demonstrate the complex cascade effects of one cognitive-affective unit on the other units in the self-system. Similarly, less attention has been paid to the association between knowledge, emotions, and anticipated behaviors. Caldwell, Cervone, and Rubin (2008) demonstrated that individuals' beliefs about the situational relevance of reasons for using humor

accounted for intra-individual likelihood variation of using humor in the future, only if the beliefs were idiographically but not nomothetically assigned to the person. However, the hypothesis of a mediating role of self-efficacy appraisals on the association between personality-related knowledge (Smith & Lazarus, 1990) and anticipated behaviors is unexplored yet.

The within-person KAPA paradigm aggregates self-rated appraisals across situations with comparable relevance to schematic and aschematic personality attributes which are unique to the individual to find out distinctive intra-individual patterns linking relatively stable knowledge structures to dynamic acting-in-situations. Different paradigms have been developed to understand personality processes underlying relatively stable individual differences. From a dispositional perspective, attention has been focused on states and traits. In accordance with the hypothesis that states and traits are isomorphic, variations in states are investigated in order to understand variations in traits (Fleeson, 2001). Differently from the KAPA paradigm, operationally self-ratings are aggregated across the same items for all the participants, personality structures are investigated from a between-people approach (Cervone, 2005; Hampson, 2012), and dynamics from a within-person approach by inspecting co-variations between states repeatedly measured for a short-time period. Empirically, Fleeson, Malanos, and Achill (2002), Wilt, Noftle, Fleeson, and Spain (2011) demonstrated that intra-individual daily fluctuations in extraversion states and positive affect states covary and replicate the well-established positive association between Extraversion and Positive Affect as traits. To our knowledge, no empirical study has combined the two approaches yet and simultaneously explored unique intra-individual co-variations between Attribute x Situation knowledge and self-appraisals by controlling for between-people individual differences in personality traits.

1.1. Present study and hypotheses

We conducted a within-person design and examined three hypotheses. First, knowledge structures representing situational relevance of self-defining personality strengths and weaknesses predict contextualized self-efficacy appraisals (Cervone, 2004) and have additive effects on the appraisals, with characteristics facilitating a successful action compensating for the negative effect of characteristics hindering performance, and vice versa (Bargh et al., 1986; Steele, 1988). An interaction effect between situationally relevant personal strengths and weaknesses on self-efficacy would further indicate that helpful characteristics progressively reduce the negative effect of hindering characteristics on contextualized self-efficacy appraisals, and vice versa (Andersen & Thorpe, 2009).

Second, trait-like constructs such as Extraversion are expected to account for between-people differences in self-efficacy in social situations, beyond person mean levels in situational relevance of their strengths and weaknesses. In fact, the so-called traits represent abstract self-views on an individual's behavioral tendencies (Fiske, 1993; McAdams, 1995), with predictive validity across a wide range of outcomes (Hampson, 2012), although they include an unknown proportion of measurement error at the individual level, also due to self-irrelevant items for the single person (Britt & Shepperd, 1999). As such trait profiles may provide self-related information, in addition to specific cognitive attribute-in-situation units. Interaction effects between unique attribute x situations representations and personality traits were analyzed as well, in order to explore whether individuals with higher levels in interpersonal traits such as Extraversion and Agreeableness moderate the strength of association between self-appraisals and unique knowledge structures at the intra-individual level.

Thirdly, self-efficacy mediates the effect of knowledge structures on perceived likelihood of engaging in and performing