

**ON SOCIAL-COGNITIVE AND DIALOGICAL MODELS OF PERSONALITY:
THEORETICAL AND EMPIRICAL STEPS
TOWARD AN INTEGRATIVE VIEW**

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ABSTRACT. Social-cognitive and dialogical perspectives are two of the primary ways of conceptualizing persons in contemporary psychology. The present paper endeavors, in two ways, to advance a dialogue between these theoretical viewpoints. At the level of theory, we explore issues for which social-cognitive and dialogical analyses may be mutually complementary. Regarding empirical research, we report novel analyses of a dataset involving idiographic measures of self-knowledge and self-efficacy appraisals. Results of this analysis indicate that variations in the complexity of dialogues in which people describe their personal attributes predict item-to-item statistical variance on a multidomain self-efficacy measure. We conclude with a discussion of how methodological advances may help to link the knowledge structures studied in social-cognitive theory to the discursive processes studied by narrative and dialogical theorists.

Throughout its history, psychology has been home to multiple theoretical perspectives on human nature and individual differences (Cervone & Pervin, 2008). Some differ so deeply that they have little to say to one another. Others, however, offer insights and empirical tools that may prove to be complementary.

On Social-Cognitive and Dialogical Perspectives

Two contemporary views of the person that have particularly promising synergistic potential are social-cognitive and dialogical perspectives (cf. Cervone & Lott, 2007; Hermans, 1996). They share three critical features. Both address processes of meaning construction; social-cognitive and dialogical theorists agree that, to understand individuals' experiences, one must explore the meanings that people assign to the occurrences of their lives. Secondly, they both address social context; they recognize that meaning construction occurs in socially, culturally, and historically situated contexts, and a psychology of the individual thus must address both individuals and the contexts in which they live (cf. Hermans & Dimaggio, 2007; Shoda, Cervone, & Downey, 2007). Thirdly, both are sensitive to idiosyncrasy and the need for idiographically-tailored assessments of the individual (cf. Cervone, 2004; Hermans, 1988).

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Social-cognitive and dialogical perspectives do differ markedly, as Hermans (1996) has explained. In these differences, however, may lay the synergistic potential. In principle, social-cognitive theory and research on the organization of knowledge may answer questions that are raised, but not fully answered, in dialogical theory. These include questions about the cognitive skills and knowledge underlying people's capacity to construct multivoiced dialogues, as well as individual differences in that capacity. Conversely, the insights of dialogical self theory (Hermans & Konopka, 2010) may enable social-cognitivists to expand their conceptual scope by addressing questions about subjectivity and individual development to which they previously have devoted insufficient attention.

Although this potential for theoretical gain has been recognized, it has not been fully realized. When Hermans reviewed social-cognitive investigations of the organization of knowledge and subparts of the self while advancing his dialogical self theory more than a decade ago, he concluded that social-cognitive analyses that were built on an information processing model of mind had "dealt neither with voice nor with the dialogical relationship between the subparts [of the self]" (Hermans, 1996, p. 34). Hermans judged that computer scientists had shed more light on the multivoiced nature of self than had social and personality psychologists working in a social-cognitive information-processing tradition.

One can see signs of progress in the years since Hermans' (1996) review. Hong and No (2005) have related their model of self processes in bicultural individuals to Hermans' analyses of multivoiced dialogue. Oleś (2005) has explored the dialogical nature of social-cognitive self-guides (the ought and ideal self; Higgins, 1987). Both Andersen (2007) and Baldwin (1999) have advanced lines of research that reveal how social-cognitive knowledge structures are inherently relational in nature; that is, knowledge structures combine beliefs about personal attributes with beliefs about interpersonal relationships.

Yet, even these admirable scientific contributions do not fully capitalize on possibilities for integration. To a significant degree, Hermans' assessment of the literature circa 1996 is still relevant. If one were to view contemporary social-cognitive research from a dialogical perspective, one might judge that Hermans' (1996) original conclusion still applies: There is "multifacetedness but not multivoicedness" (p. 38). Social-cognitive research has long recognized the multifaceted nature of self-representations (Markus & Wurf, 1987). Yet, to the present day, it is rare in laboratory research on social-cognitive processes that participants are allowed to give voice, in their own chosen terms, to multiple features of the self, as they are expressed in multiple contexts and construed from multiple positions.

If one were to switch perspectives, and to evaluate the dialogical literature from the perspective of social-cognitive theory, one might again conclude that there exists

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potential for integration that remains unfulfilled. From this stance, the untapped potential includes points of theory. Social-cognitive psychologists strive to relate their research findings to broad theoretical questions about human nature that have been asked, for nearly a century, in the psychology of personality (Stern 1918; see Lamiell & Deutsch, 2000). Much of the social-cognitivists' theoretical writing advances this goal (e.g., Bandura, 1968, 1999; Cervone & Pervin, 2008; Mischel, 2004; Mischel & Shoda, 1995). Dialogical self researchers might have been valuable partners in the social-cognitivists' efforts to direct personality psychology to questions of meaning construction, social context, and individual idiosyncrasy. However, that partnership has not fully developed (but see Hermans, 1988). It is noteworthy that when Oleś (2005) recently posed the question, "What are the consequences of a dialogical approach to the general theory of a person?" (p. 180), he did so at the *conclusion* of a chapter on the dialogical self. The question, in other words, was a challenge to be taken up in the future, rather than an issue that previously had been adequately addressed.

We will consider here one example of how dialogical self theory can speak to questions of longstanding interest in personality science (Cervone & Mischel, 2002). It is a case in which, to our knowledge, the insights of dialogical self theory have not previously been exploited. We hope that our discussion is the type of extension of dialogical self theory to "the general theory of a person" that Oleś had in mind.

An Example Case: Variability in Experience and Action

In personality science (Cervone & Mischel, 2002), investigators have long debated a fundamental question: What are the psychological qualities that constitute – in other words, that can be interpreted as – indications of an individual's personality? Since the writings of Allport (1937), one theoretical position is that these qualities consist of average-level behavioral tendencies. A person's thoughts and action may vary from time to time, and place to place. The variations, however, are mere statistical "noise." It is the arithmetic mean – the average tendency – that is interpreted as the marker of personality structure. This perspective is pervasive in trait theories of personality; in an Allportian spirit, the traits (e.g., conscientiousness, agreeableness) refer to generalized, trans-situational qualities. In assessment methods, an individual's personality is represented in terms of average tendencies to exhibit the thoughts, feelings, and actions referenced by each generalized trait construct.

Social-cognitive theorists have objected to this equation of "personality" with the "generalized average." The most forceful objections have been those of Mischel (1968, 2004), who explains another key indicator of personality structure is *variability* in personal functioning. Patterns of variation in behavior, from one context to another, are signatures of an individual's personality (Mischel & Shoda, 1995). To support this argument, Mischel and colleagues have marshaled much empirical evidence showing that different people who are the same "on average" (and thus would be equated in trait

theory) can differ considerably in their patterns of variability around the average (Mischel & Shoda, 1998). Disregarding these distinctive patterns of action would be a blunder, Mischel explains, since it would overlook valuable information about the distinctive personal qualities of the individual. The body of theory and empirical evidence amassed by Mischel and colleagues is meant to reorient the field; they wish to convince students of personality to move beyond conceptions in which “personality” is equated with “context-free average-level tendencies.”

Dialogical theorists would require little convincing. We suspect that there is not a single reader of this journal who would subscribe to the view that, to learn about a person, one should statistically average together the different voices in an individual’s multivoiced dialogue, in order to represent the person’s singular “average voice.” That would be senseless – as senseless as trying to understand a novel by determining the average psychological attributes of its multiple characters and disregarding the varied ways in which they interact. Work on the dialogical self renders nearly absurd the notion that an individual’s personality is best understood by computing the person’s average tendencies in thought and action. One must study the way “the *I* fluctuates among different and even opposed positions” (Hermans, 1996, p. 33), rather than averaging together the fluctuations in order to study the *I*’s “average position.”

The empirical and theoretical base of dialogical self theory, then, undermines the presumption that “personality = average tendencies” in much the same manner as does the work of Mischel and colleagues. In retrospect, scientific debate on the sufficiency of context-free trait variables as foundations for personality theory (e.g., Pervin, 1994) would have been more illuminating and convincing if it had benefited from the arguments of dialogical self theory, which complement those of the social-cognitive theorist.

In the remainder of this paper, we move from those broad points about potential integration to more specific issues of theory and empirical research. We outline one social-cognitive perspective on personality functioning and present novel data illustrating how it might foster research on social-cognitive structures and dialogical processes.

KAPA Model of Personality Architecture

The Knowledge-and-Appraisal Personality Architecture (KAPA; Cervone 2004) model is an effort to characterize social-cognitive structures and processes that contribute to personality functioning. Rather than describing all of the features of this theoretical model here, we will highlight the particular aspect of the KAPA model that underlies the present empirical investigation (for a full treatment, see Cervone, 2004, 2008).

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As noted by Lazarus and colleagues (1991; Smith & Lazarus, 1990) in their study of cognition and emotion, the cognitions that contribute to personal function are of two types. Some are aspects of *knowledge*, a term that refers to “our understanding of the way things are and work.” (Lazarus, 1991, p. 144). Elements of knowledge are enduring mental representations of the attributes of entities (including oneself). Appraisals, in contrast, are dynamic evaluations of the meaning of encounters for oneself. In a continuously ongoing manner, people appraise the personal significance of their current circumstances, judging, for example, whether events are potentially harmful or beneficial, and whether they can cope with challenges that may arise.

In the KAPA model, elements of knowledge are enduring cognitive structures of personality. People possess beliefs about themselves, others, and the social world that endure over time, and thus are construed as cognitive “structures.” Enduring cognitive structures thus contribute to consistencies in the way an individual interprets and experiences the world.

Appraisals are dynamically shifting personality processes. People’s appraisals change rapidly from one moment to the next, as they encounter potentially rapidly-changing environments or contemplate upcoming challenges that vary from one another.

Basic principles from the field of social cognition (Higgins, 1996) explain how knowledge and appraisals are related. When appraising the environment to determine its personal significance, people draw on their enduring beliefs. Since people hold a large number of beliefs about themselves and the social world, only a very small subset of these beliefs is likely to come to mind in any given situation (Markus & Wurf, 1987). The particular subset of beliefs that springs to mind may determine the meaning people assign to a given encounter. For example, imagine a somewhat shy individual who is extended an invitation to a party. If the person thinks about her tendency to be shy, she may appraise the situation as threatening and turn down the invitation. If, however, something reminds her of her intelligence and wit rather than her shyness, she may appraise the situation as a valued opportunity and accept it.

An implication of this line of thinking is that elements of knowledge that are highly mentally accessible – that come to mind readily, in many life circumstances – are the ones most likely to foster consistent patterns of appraisal. The KAPA model (Cervone, 2004) anticipates that a given element of knowledge may come to mind, and foster consistent appraisals, across seemingly diverse circumstances. In our example, the woman’s thoughts of her shyness might come to mind in multiple circumstances – a party invitation, a job interview, a holiday gather with family – and cause her to appraise the diverse circumstances in a similar manner.

In empirical research, we have tested this hypothesis by conducting research in which both knowledge structures and contextualized appraisal processes are assessed. To assess enduring elements of self-knowledge about the self, or self-schemas (Markus,

1977), we ask participants to write narratives in which they describe positive and negative personal attributes of theirs. To determine how individuals subjectively relate their personal attributes to everyday social situations, we ask participants to complete a categorization task in which they indicate the degree to which each of their personal attributes is relevant to each of a wide variety of everyday social contexts (for details on the assessment method, see Cervone Shadel, & Jencius, 2001). When these assessments of self-schemas and situational beliefs are combined, the result is analogous to the contextual position matrix of dialogical self theory (Hermans, 2001); ours is a matrix whose rows and columns are personal attributes (phrased, by participants, in their own terms; cf. Hermans, 1988) and everyday social contexts.

Finally, in a later experimental session, we target one aspect of appraisal: appraisals of self-efficacy (Bandura, 1997), that is, people's appraisals of their capabilities to execute specific actions in designed contexts. The contexts we employ when assessing self-efficacy appraisals are highly related to those used in the earlier assessment of situational beliefs; this enables us to identify subsets of situations within which the individual is predicted to display consistently high or low appraisals of self-efficacy. A critical aspect of these predictions is that they are made idiographically; since different people have different beliefs about themselves and social situations, we predict self-efficacy appraisals on an idiographic, case-by-case basis.

Findings robustly confirm our theoretical predictions. People's appraisals of self-efficacy are consistently high (low) across situations that they subjectively link to positive (negative) schemas about the self (Cervone, 1997, 2004; Cervone, Orom, Artistic, Shadel, & Kassel, 2007). Similar results are not obtained if one assesses generic personality attributes, rather than the distinctive attributes identified in our idiographic methods. We find also that experimentally priming different aspects of self-knowledge alters self-appraisals. Subtle priming procedures raise the accessibility of one versus another aspect of self-knowledge, and thereby influence the self-efficacy appraisals people subsequently form (Cervone, Caldwell, & Fiori, 2006; Shadel & Cervone, 2006).

Self-Appraisals in Multiple Contexts as Dialogue?

A question that arises in the context of a Special Issue of this journal is the degree to which our empirical methods involve dialogue. The research procedures we have just described clearly are less dialogical than, for example, asking participants to engage in an imagined dialogue with a figure depicted in a painting (see Hermans, 1996) or to chat with an anonymous interlocutor (Stemplewska-Żakowicz, Walecka, Gabińska, Zalewski, & Suszek, 2005). When participants in our research report on their self-efficacy beliefs in different contexts, the contexts arise in an order determined by the experimenters, who present a series of structured questionnaire items; the participants' reports, then, do not have the flow of a narrative.

Yet our methods do contain a dialogue, albeit of a highly structured, technical sort. As Harré has explained, when a “participant is answering questions posed by an experimenter,” the “joint activity is a kind of formal conversation” (2002, p. 172). To the extent that the participants’ conversation with the experimenter on the topic of personal attributes, social contexts, and self-efficacy for coping with everyday challenges resembles his or her private, internal dialogue on these matters, our methods could be seen to tap aspects of the participants’ inner voicing in multiple life contexts.

KAPA-Based Methods and Dialogue

An investigation of dialogical aspects of the self, then, can be undertaken using existing methods derived from the KAPA model (Cervone, 2004). The idiographic, bottom-up methods outlined in the KAPA model include an unstructured assessment of self-knowledge. In this assessment process, participants can express their subjective view of their own most important personal attributes, be they traits, skills, personal goals, or even personal life stories that are revealing of the self; the content and form expression are chosen by the participant. The researcher uses this information about the individual’s knowledge structures to predict coherent patterns of appraisals-in-context.

In the present paper, we report novel analyses of an existing dataset; we reanalyzed previous work from a dialogical perspective suggested by the work of Hermans. We recognize that an ideal investigation to bridge the gap between the KAPA model and Hermans’ model of dialogical self would employ assessment methods that are less structured than the ones we are to present here; ideally, participants would have more flexibility to voice multiple aspects of self in a format, and of a length, of their own choosing. Nonetheless, the present methods show how the researcher can begin making the move from studying the static cognitive structures traditionally targeted by research in social cognition to the dynamic dialogical processes that occur when a person contemplates multiple attributes of self and the multiple situations in which these attributes bear upon social behavior.

Overview of Empirical Methods

As noted above, Cervone and colleagues’ (Cervone 2004; Cervone, Caldwell, Fiori, et al., 2008; Orom & Cervone, 2009) experimental methods allow participants to write unstructured essays about themselves, and thus provide idiographic data, rather than the nomothetically-structured data seen commonly in personality research. This is in keeping with Hermans’ repeated call (e.g. Hermans, 1996, 2004) for a paradigm shift in psychological research away from an exclusive reliance on nomothetic measurement. Such a shift should allow complex, temporally and spatially nuanced selves to speak for themselves rather than describing themselves merely in terms dictated by the researcher (cf. Kelly, 1955).

In the present study, we attempt to advance such methods through novel analyses of open-ended essays previously described by Cervone (2004). Participants were asked to write about personal strengths and weaknesses. In the original research (Cervone, 2004), analyses focused merely on two of the attributes mentioned in these essays: the positive and negative attribute that participants judged to be most self-defining. The original analyses, then, did not investigate overall narrative qualities of the essays in a holistic manner. In the present report, we reanalyze the data with a coding system that captures the overall complexity of each individual's self-knowledge.

When researchers conduct empirical studies of self-knowledge structures, they face a number of methodological requirements. One, of course, is that the method they choose is psychometrically reliable. A second concerns efficiency; if they are investigating a sample of research participants rather than one person in great depth, researchers need a way of coding participants' statements that is efficient, in order to complete research in a timely manner. Finally, the research cannot sacrifice the sensitivity of his or her measures. They must be sensitive, in particular, to idiosyncrasy in personal beliefs. One wants to capture people's beliefs in their own terms, without forcing participants' belief systems into the researcher's favored terminology. In the present study, we used a coding system that is derived from an information-processing perspective, yet that allows for an examination of a holistic self-concept: an index of integrative complexity (Schroeder, Driver, & Streufert, 1967; Suedfeld & Rank, 1976; Tetlock, 1984).

Integrative Complexity

As previously stated, social-cognitive theories of mind portray the enduring knowledge structures from which recurring patterns of appraisals stem. By identifying multiple aspects of knowledge, and the social contexts in which this knowledge shapes appraisals, the KAPA model yields a complex portrait of a whole person, as opposed to merely a few numerical estimates of a person's average standing on cross-situational traits. Yet even the KAPA model may fail to capture aspects of selfhood that are revealed by dialogical theory and its associated methods (e.g., Lyddon, Yowell, & Hermans, 2006), which are particularly able to provide a holistic portrait of the individual's intrapsychic experience. As such, incorporating a method that allows for both the concept of enduring knowledge and dialogical complexity would allow a researcher to examine both enduring knowledge and internal dialogue. Integrative complexity, a synergistic coding method wrought from an information-processing framework (Driver & Streufert, 1969), seems to allow for such an analysis.

Integrative complexity is defined as the amount of nuanced cognitive understanding a person expresses (Driver & Streufert, 1969; Schroeder, Driver, & Streufert, 1967; Suedfeld, Tetlock, & Streufert, 1992). This understanding can be in

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relation to either situational determinants of action or personality attributes and the ways in which one differs from other persons.

Integrative complexity develops as a two-stage process, consisting of an initial differentiation of concepts and then a subsequent integration of knowledge (Driver & Streufert, 1969; Shroeder, Driver, & Streufert, 1967; Suedfeld, Tetlock, & Streufert, 1992, Tetlock, 1984). In the differentiating stage, a person recognizes at least two conflicting concepts with regard to an issue. The integration of these concepts, which necessarily follows the initial differentiation, ranges from (1) low to (2) moderate to (3) high, depending on whether a statement reflects (1) little understanding of the possible integration of two or more differentiated concepts, (2) an uncomplicated understanding of the concepts' basic interaction, or (3) a more complex understanding of the connection between the concepts, which intuitively seemed disparate (Driver & Streufert, 1969; Shroeder, Driver, & Streufert, 1967; Suedfeld, Tetlock, & Streufert, 1992, Tetlock, 1984).

Within the context of two open-ended essays regarding personal strengths and weaknesses, then, integrative complexity seems a particularly apt construct for indexing individual differences in people's narratives about their personal characteristics. It represents a temporal progression and communication (if not total integration) of spatially disparate voices, and thus captures aspects of self that have been explored dialogically (e.g., Hermans, 1996). Integrative complexity is an individual-differences variable that reflects the transitioning of multiple internal narratives: the interplay of multiple self-narratives is implied in the emerging complexity of self-representation. That is, it is an individual differences variable that *allows* for possible positions, as opposed to standing in contrast to such a concept (see Hermans, Kempen, & van Loon, 1992).

Dialogical Complexity

With rare exception (e.g., Pratt, Pancer, Hunsberger, & Manchester's (1990) use of integrative complexity in relation to Gilligan's moral orientations model), integrative complexity has not been used to study the self. Perhaps one of the reasons that researchers have rarely attempted to code for integrative complexity in relation to the self is the inherent difficulty faced when attempting to parse integrative complexity and narrative complexity. Integrative complexity is conceptually independent of the ability to summon narrative complexity (i.e., writing style), but it is difficult to devise a paradigm to keep these variables from becoming conflated. Some studies examining integrative complexity have found an association with verbal fluency (Shroeder, Driver, & Streufert, 1967; Suedfeld, Tetlock, & Streufert, 1992), whereas others have found little association (Coren & Suedfeld, 1990; Suedfeld, Tetlock, & Streufert, 1992). We believe that when examining self-complexity, in contrast to other individual differences or determinants of action, it is vital to parse verbal fluency from self-concept. Persons

may have complexly investigated the nuances of their internal self-dialogues, but this may not be information that is readily expressed due to restrictions in writing ability. As well, a narrative that is crafted too precisely may represent a motivated attempt to present oneself as a function of the format in which it is presented (see White, 1987).

In an attempt to address these issues, we adjust traditional integrative complexity methods to allow for narrative and integrative complexity to be separated. As described further below, we include a second coding scheme to assess writing style. By including a second coding scheme that assesses writing style, and coding self-schematic open-ended essays, we establish a technique that allows the researcher to delineate internal, integrative complexity from external writing style. Thus, with the researcher is able to assess *dialogical complexity*: integrative complexity – writing style = *dialogical complexity*.

In summary, idiographic assessment allows for participants to provide unrestricted data regarding their own self-knowledge, while a coding system based on integrative complexity, with the removal of participants' writing skill, allows for an assessment of their (general) dialogical complexity. The dialogical researcher hence is provided with the tools to empirically analyze questions about internal communication without the need to attempt to find a direct, explicit measurement of an otherwise internal dialogue.

Predicting Dialogical Complexity

Now imbued with the ability to assess for dialogical complexity, the task turns to understanding what cross-situational measure might predict it. This task is of primary importance to dialogical studies, in that it will establish a measure that can serve as a proxy for dialogical complexity. Here we examine a multidomain self-efficacy scale (Cervone, 2004). This measure assesses participants' confidence in their behavioral success across a wide array of specific situations.

Rather than exploring participants' mean score on this scale, we examined the *variance* in their responses. We hypothesized that there would be a systematic association between this variance and dialogical complexity. Specifically, we predicted that the complexity of the dialogues created by participants when they were asked to write narratives describing their personal qualities would be positively associated with amount of variance seen in their responses to the self-efficacy measure.

This hypothesis was based on the following reasoning. On the narrative task, some individuals will display relatively low levels of integration of self-knowledge. We anticipated that, when contemplating multiple situations during the multi-domain assessment of self-efficacy, such persons would be relatively unable to access or constitute multiple aspects of self. They would tend, then, to consider situations from only one perspective; phrased differently, they would tend to consider only "one side" of

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a problem, rather than considering a problem from multiple perspectives that addressed multiple contingencies. As a result, some circumstances presented on the self-efficacy scale would seem completely unmanageable to them, others would seem easily manageable, and their scores on the scale would vary widely.

Conversely, a person who has an established, readily-accessible, integrated dialogical self should tend to consider multiple perspectives when contemplating situations. The complex, multi-voiced dialogue about the self should reduce the situation-to-situation variability in self-efficacy appraisals, because the individual would tend, in any given situation, to envision *both* personal strengths, that might enhance performance, and personal weaknesses, that might impair it. Therefore, we hypothesized that variance in self-efficacy ratings and dialogical complexity would be statistically related, such that those lower in dialogical complexity would be higher in variability on the self-efficacy questionnaire.

The current empirical analysis extends the concept of integrative complexity to include dialogical complexity, by (1) coding essays in which research participants had been asked to describe their personal attributes, while (2) removing a possible confound of writing style. Our goal was to assess whether dialogical complexity was systematically related to situation-to-situation variability in people's expressions of their beliefs in their personal efficacy for performance.

Method

As part of course requirements, 122 undergraduates participated in three assessment sessions over a 1-month period (see Cervone, 2004). Data from the first and third assessments were analyzed, with data from session one coded for dialogical complexity using a modified integrative complexity coding scheme, and a writing style coding scheme.

Narrative Essays: Personal Strengths and Weaknesses

In the first session, participants wrote two open-ended essays describing their personal strengths and personal weaknesses. Instructions encouraged writing whatever information came to mind first. A sheet of paper with 20 blank lines was provided for each essay. Participants could write for up to 5 minutes per narrative.

This information was subsequently coded for integrative complexity using a modified, streamlined integrative complexity coding scheme, and also coded for writing style. Writing style was coded on a 7-point scale, ranging from *low narrative complexity* (1) to *high narrative complexity* (7), by examining each essay for grammar errors, and for general narrative complexity. Integrative complexity was coded by comparing the strengths and weaknesses essays to one another, in order to ascertain the amount of contingencies used by the participant in relating each essay back to the other.

Situational differences and complex personal attributes were also assessed, along with any demonstration of an integration of various self-motifs.

Participants' essays already differentiated responses into strengths and weaknesses, based on the instructions of the experiment. Therefore, only integration scores were coded. Thus, the coding scheme used a 7-point scale, ranging from *low integration* (1) to *high integration* (7).

An example of a 7-point Integrative Complexity score (Writing Complexity = 3):

Subject 127

Strengths: "Analytical, thought-proking (sic), have answer for a lot of things, think a lot, laughter-oriented..."

Weaknesses: "All the same on previous page. There are times when these things are good and some when there (sic) bad. The situation matters. That's not a cop out. I'm not being lazy. There are times I'd rather be dumb instead of smart. There times (sic) to be realistic and dream, too."

An example of a 1-point Integrative Complexity score (Writing Complexity = 3):

Subject 123

Strengths: "If I start something, I like to finish it. If someone tells me I incapable (sic) of doing something, I try to prove them wrong. I am a patient person, understanding, forgiving, and loving."

Fig. 1. Two case examples of participants' responses to strength and weaknesses open-ended questions; the first participant has a 7-point integrative complexity score, whereas the second participant has a 1-point integrative complexity score.

Self-Efficacy Appraisals in Context

In a subsequent experimental session, participants completed an 81-item multidomain self-efficacy scale (Cervone, 2004). Items featured concrete, self-referent sentences that described specific behaviors in specific encounters. Participants indicated, on 10-point scales ranging from *certain I could not do it* (1) to *certain I could do it* (10), their sense of personal efficacy in being able to perform the indicated behaviors in the designated contexts. Test items varied across a range of contexts and challenges; for example, some were interpersonal (e.g., "If you and your boyfriend have had an argument, [how confident are you that you could] figure out a way to 'patch

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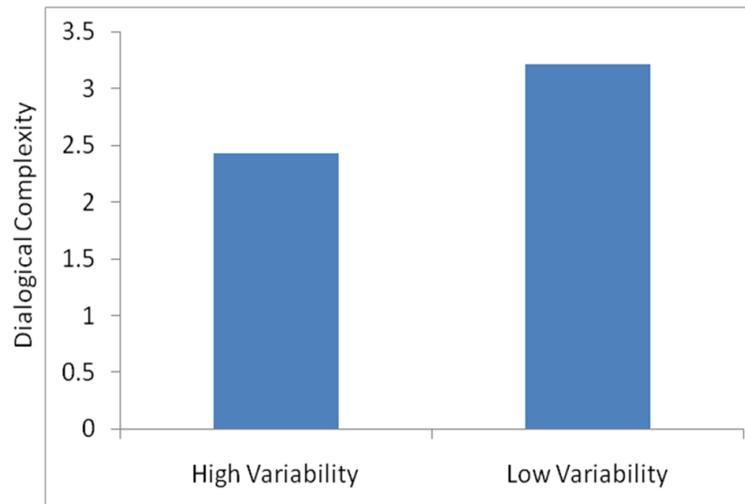


Fig. 2. Mean Dialogical Complexity score for people with either high or low variability responses to an objective measure of self-efficacy

things up' while still maintaining your pride”) and others intellectual (“If a friend starts an argument with you, [how confident are you that you could] win the argument by discussing the issue from a number of different points of view and then drawing a convincing conclusion”).

Participants who had the narrowest ($n = 22$) and widest ($n = 20$) range of scores on the multidomain self-efficacy scale were selected for this analysis, leaving a final $N = 42$.

Results

Before conducting the main analysis, self-efficacy mean distributions were examined for extreme scores. Three scores exceeded the distribution by at least .63 on a 10-point scale, and were placed in the group predicted to have low dialogical complexity scores ($8.48 <$ placed in alternate group; $7.86 =$ highest mean within distribution), as indicated earlier. For ease of interpretation, actual, not estimated means are reported.

In order to assess whether variability on a nomothetic self-efficacy measure negatively predicted dialogical complexity, a 2-way (self-efficacy variability) ANCOVA was conducted with integrative complexity as the dependent measure, and writing style as a covariate. As predicted, there was a main effect of self-efficacy variability, $F(1, 41) = 3.11$, $p < .05$ (one-tailed), $\eta_p^2 = .07$; in other words, participants who differed in

situation-to-situation variability on the self-efficacy measure also differed in dialogical complexity.

An examination of the sample means revealed the direction of this difference was as predicted. Participants with lower variability on the self-esteem measure had higher dialogical complexity ($M = 3.21$, $SD = 2.016$) than those with higher variability on the self-esteem measure ($M = 2.43$, $SD = 1.34$). Higher levels of dialogical complexity, then, predicted lesser situation-to-situation variance in self-appraisal (see Figure 2).

Discussion

The results demonstrate a relationship between statistical variance on a self-report of personal efficacy for performance, and dialogical complexity on an open-ended narrative task. Participants who displayed high levels of variability on the restricted measure also showed relatively low levels of dialogical complexity on the open-ended measure.

We interpret these results in the context of the KAPA model of personality architecture, which posits that enduring elements of knowledge underlie consistency and variability in self-efficacy appraisals (Cervone, 2004). People vary in the complexity of their self-knowledge and, we suggest, this complexity is evident in our coding of the personal narratives our participants wrote. Our findings suggest that people with a more nuanced cognitive understanding of themselves will be less prone to large variations in self-efficacy appraisal as they consider multiple contexts. The cognitively complex person will, therefore, display less cross-situational variance.

Our method of coding for dialogical complexity should be understood as one technique for quantifying individual differences in the complexity of people's personal knowledge systems. A key methodological procedure is that we statistically controlled for any theoretically unrelated ability participants might have had to craft a narrative (White, 1987). We also examined people's responses on an objective measure of self-efficacy for variability in response style, i.e., how much each individual response people made differed from their average response collapsed across all questions. We then looked to see if people's different levels of variability on the objective self-efficacy measure predicted people's strength of dialogical complexity. We predicted that the more variable people's responses were on the objective measure, the less dialogical complexity they would show on an open-response question about themselves. As predicted, we found this relationship.

Although our methods identified a link between dialogical complexity and statistical variability on our self-efficacy measure, and in this sense were successful, in future research investigators should consider additional methodological tools that might constitute more powerful methods of linking the knowledge structures studied in social-

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cognitive theory to the discursive processes studied by narrative and dialogical theorists. In particular, a great strength of experimental cognitive and social-cognitive psychology is that it furnishes research methods for studying self-knowledge that are not based on explicit self-report. For example, reaction time and thought-listing tasks have long been used to measure the degree to which elements of knowledge are highly accessible for the individual (Higgins, 1996). One direction for future research is to determine whether these laboratory-based measures of cognitive accessibility might predict the complexity of multi-voiced dialogues produced by an individual. If so, the knowledge structures could be understood as conceptual “tools” with which an individual constructs a dialogical understanding of himself or herself; the person who has a greater repertoire of stored knowledge may build more complex dialogical constructions.

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