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### Effects of self-concept differentiation on sense of identity: The divided self revisited again

**Abstract:** This article describes research on the associations between self-concept structure and sense of personal identity. Particular emphasis was given to the feature of self-concept differentiation (SCD). Notably, it was examined whether the effects of SCD on such aspects of self-experience as sense of having inner contents, sense of uniqueness, sense of one's own boundaries, sense of coherence, sense of continuity in time, and sense of self-worth depend on individuals' epistemic motivation, and more specifically their joint need for cognition, reflection, and integrative self-knowledge scores. Cluster analysis revealed three distinct profiles of epistemic motivation: disengaged, engaged and struggling, and engaged and integrating group. Subsequent analysis showed, first, that the three groups differed in SCD and sense of identity, with the epistemically disengaged group having the highest levels of SCD, and the epistemically engaged and integrating group having consistently the strongest sense of identity. Second, and more importantly, it showed that SCD was negatively related to overall sense of identity, and, in particular, senses of having inner contents, coherence and continuity in time, but only among individuals in the epistemically engaged and struggling group.

**Key words:** self-concept differentiation, sense of identity, epistemic motivation, moderation

#### Introduction

Modernity has changed the character of the everyday life and individuals' most personal experiences. The traditional notion that there is a unified, central self has been replaced by the idea of multiplicity of selves that emerge contextually and reflect the individuals' multiple involvements. This assumption of self as dynamic and complex can be marked as the starting point of research on self-structure, vigorously pursued over the past 3 decades. Currently, there are several models of self-structure that highlight specific features of self-knowledge organization and examine their association with aspects of psychological and social well-being (e.g., Linville, 1985; Showers, 2002). Among the most widely studied of these is Donahue et al.'s (1993) model of self-concept differentiation (SCD). SCD refers to an individual's tendency to view oneself as possessing different personality characteristics across different social roles. Donahue et al.'s (1993) measure requests participants to rate how descriptive a set of traits is of them in five specific roles. The SCD index reflects differences among the ratings and can be computed as the unshared variance across the roles, the mean interrole

correlation, or the absolute differences among the roles (Campbell, Assanand, & Di Paula, 2003; Donahue et al., 1993; Styła, Jankowski, & Suszek, 2010).

In short, Donahue et al. (1993) posit that holding diverse self-views (i.e., high levels of SCD) is indicative of a divided self and unresolved intrapsychic conflicts. They concur with Block's (1961) view, characterizing fragmented persons as ones with "role diffusion, where an individual is an interpersonal chameleon, with no inner core of identity, fitfully reacting in all ways to all people" (p. 392). Support for this fragmentation position has been obtained in numerous studies showing that high levels of SCD lead to maladaptive outcomes such as emotional distress, failed role relationships, and, in particular, identity struggle (Campbell et al., 2003; Diehl, Hastings, & Stanton, 2001; Pilarska & Suchańska, 2015; Sheldon, Ryan, Rawsthorne, & Ilardi, 1997; Styła et al., 2010). It is still debated, though, as to whether the observed relation between cross-context self-variability and well-being indicators should be considered linear and unconditional. Behind this questioning lie three major sources of doubt.

First, although the positive association of SCD with psychological maladjustment has been reported repeatedly,

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to state that the less one varies across roles, the more well-being one experiences seems counterintuitive in light of everyday experience. It is apparent that people do behave differently in different roles and situations (e.g., Funder & Colvin, 1991), and it would not appear quite accurate to interpret flexibility of behavior as maladaptive, particularly in the world where change and discontinuity seem often the case. Well-adjusted individuals should allow their behavior to be shaped by conventions appropriate to differing contexts (Mackey, 2009)<sup>1</sup>. Even Block's (1952) original hypothesis (though not supported with empirical evidence) recognized the potential implications of role rigidity and postulated that "the amount of interpersonal consistency is curvilinearly related to the degree of maladjustment" (p. 285). After all, it is the rigidity of functioning that is considered an essential diagnostic criterion for personality disorders (American Psychiatric Association, 2000; World Health Organization, 2011).

Second, there is contrasting literature pointing to psychological benefits of contextually-based self-concept variability. It considers differentiation (inconsistency) as reflecting self-concept complexity and specialization that facilitate coping with the diverse demands that arise out of different roles and circumstances (Linville, 1985; Lutz & Ross, 2003). Overall, however, research has not consistently supported this assumption. While some studies have found evidence that people high in self-complexity deal better with stressful experiences than do those low in self-complexity (e.g., Kalthoff & Neimeyer, 1993; Linville, 1985, 1987), others have found that they cope no better, or even cope worse (e.g., Brown & Rafaeli, 2006; Woolfolk, Novalany, Gara, Allen, & Polino, 1995).

Third, the relationships between SCD and adaptive outcomes, particularly identity-related ones, are not robust. The correlation coefficients tend to be low or moderate (i.e.,  $r$ s ranging from .01 to .39) and unstable (e.g., Pilarska, 2016a; Pilarska & Suchańska, 2015), suggesting that SCD is not as vital to sense of identity as has been suggested (e.g., Block, 1961; Donahue et al., 1993). High SCD does not necessarily imply feelings of self-doubt and lack of self-integrity, and strong sense of identity does not necessarily come from low SCD. Apparently some other factors are at play here, and these factors could help distinguishing – on the intrapersonal dimension – self-differentiation from self-confusion and – on the interpersonal dimension – being flexible from being a social chameleon. There have been attempts to explore this issue empirically. Boucher (2011) provided evidence that dialecticism moderated the relationship between SCD and subjective well-being, self-concept clarity, and felt authenticity. Variability across roles was negatively related to these outcomes, but more so for relatively nondialectical thinkers. Cross et al.'s (2003) study found that cross-role consistency was less related to well-being for those scoring high on relational self-construal than those scoring low. A few studies investigated whether the effects of SCD may be qualified by clarity with which

self-beliefs are defined (Bigler, Neimeyer, & Brown, 2001; Diehl, & Hay, 2011; Pilarska, 2016a). The results, however, did not support this contention.

The present study seeks to advance understanding of the role of self-concept differentiation in adjustment by examining its relationship to sense of identity, defined here as a multidimensional construct that entails subjective awareness and experience of inner content, coherence, continuity, uniqueness, self-boundaries, and self-worth (Blasi & Glodis, 1995; Pilarska, 2016b). More specifically, it was investigated whether the importance of cross-role consistency for sense of identity depends on epistemic motivation. Epistemic motivation, in the most general sense, refers to an individual's inclination to achieve an understanding of an experience, and largely determines the depth of information processing (e.g., De Dreu, Nijstad, & van Knippenberg, 2008; Kruglanski, 1989). Epistemic motivation can be rooted in individual differences such as need for cognition (i.e., preference to engage in and enjoy effortful, elaborative thought; Cacioppo & Petty, 1982), reflection (i.e., self-focus motivated by epistemic interest in the self; Trapnell & Campbell, 1999), and integrative self-knowledge (i.e., active efforts to integrate one's self-experience across time; Ghorbani, Watson, & Hargis, 2008), with the latter two explicitly referring to self-related processing. These variables were chosen based on their conceptual relevance and empirical associations with various aspects of self-knowledge in previous studies. In essence, individuals higher in these characteristics appear more curious and receptive, and pursue meaning more actively than those who are lower in these traits. Furthermore, they seem to be more prone to reconcile contradictory information and integrate personal experience and knowledge (Ghorbani et al., 2008; Steger, Kashdan, Sullivan, & Lorentz, 2008; Thompson, Zanna, & Griffin, 1995; Thomsen, Tønnesvang, Schnieper, & Olesen, 2011). All three variables have also been shown to have positive effects on identity formation (e.g., Berzonsky & Sullivan, 1992; Ghorbani, Watson, Zarehi, & Shamohammadi, 2010; Johnson & Nozick, 2011; Luyckx et al., 2007; Njus & Johnson, 2008; Pilarska, 2016c). While the present study is partially exploratory, based on the findings from these prior studies, a general expectation would be that higher levels of SCD would only predict weaker sense of identity when individuals exhibit low levels of these epistemic motivations. This is because epistemically motivated individuals should engage in more deliberate and systematic processing of self-relevant information and thereby be more likely to clarify and integrate inconsistent self-views into a meaningful whole.

## Method

### Participants

As part of a larger research study, data were collected from 544 undergraduate students (59.5% female) from several higher education institutions in Wielkopolska

<sup>1</sup> It should, however, be noted that it is unclear to what extent variability in self-perception and variability of behavior correlate.

(Great Poland). Participants' age ranged from 18 to 32 years ( $M = 21.29$ ,  $SD = 1.46$ ; data missing for three). Before data collection, participants were informed about objective of the study, their voluntary participation, anonymity, and confidentiality of data.

### Measures

Self-concept differentiation was measured by the *Self-Incoherence Scale* (SIS, Styła et al., 2010), based on the methodological approach proposed by Donahue et al. (1993). Using a 7-point scale, participants rated how descriptive 7 personality traits (i.e., active, open-minded, loyal, self-confident, resourceful, independent, direct) are of them in five roles (student, romantic partner, son or daughter, friend, and worker). The total score represented the absolute differences in trait ratings in various roles, and was obtained by first computing the standard deviation of each of participant's personality trait ratings across each role (7 standard deviations in all), and then averaging them<sup>2,3</sup>. In the present study, Cronbach's reliability coefficient was .83.

Sense of identity was assessed via the *Multi-dimensional Questionnaire of Identity – Extended Form* (MQI; Pilarska, 2012, 2015). The scale consist of 45 items relating to six identity-related senses (sense of having inner contents, sense of uniqueness, sense of one's own boundaries, sense of coherence, sense of continuity over time, and sense of self-worth). All items (e.g., I feel that I was once a very different person than I am now; It happens that I perceive my close one as an important part of my self) are evaluated on a 4-point scale from "strongly disagree/never" to "strongly agree/always". Subscale scores are calculated by averaging the relevant items. A single composite score for global sense of identity is computed by averaging scores across six subscales. For this study's sample, the Cronbach's alpha coefficient for the overall scale was .80, and ranged from .60 to .81 (average, .71) for the individual subscales.

Need for cognition was measured using the 36-item *Need for Cognition Questionnaire* (NCQ; Matusz, Traczyk, & Gąsiorowska, 2011). The items focus on engagement and enjoyment of intellectual activities (e.g., I try to avoid situations that require intensive thinking from me; I enjoy broadening my knowledge about things), and are evaluated on a 5-point scale from "strongly disagree" to "strongly agree". Total scores are calculated by summing across all items. In the present sample, Cronbach's reliability coefficient was found to be .88.

Reflection was assessed through the 8-item Reflection subscale from the *Rumination-Reflection Questionnaire – Shortform* (RRQ Shortforms) by Trapnell (1997, translated version by Pilarska & Suchańska, 2013). The items pertain to curiosity and interest in introspecting about the self (e.g., I love exploring my "inner" self; I love analyzing why I do things), and are rated on a 5-point scale from "strongly disagree" to "strongly agree". Scores are obtained by averaging across items. In this study, Cronbach's alpha coefficient was .80.

The *Integrative Self-Knowledge Scale* (ISK; Ghorbani et al., 2008; Polish adaptation by Pilarska, 2016d) was used to measure integrative self-knowledge. The scale includes 12 items referring to an individual's efforts to integrate self-experience across time (e.g., If I need to, I can reflect about myself and clearly understand the feelings and attitudes behind my past behaviors; By thinking deeply about myself, I can discover what I really want in life and how I might get it); each rated on a 5-point scale from "largely untrue" to "largely true". Scale scores are computed by averaging the items. In this sample, Cronbach's alpha coefficient was found to be .80.

## Results

### Descriptive statistics

Table 1 shows the means, standard deviations, and bivariate correlations among the study variables. The obtained results were generally in line with prior studies and in support of the fragmentation hypothesis. Five of the 7 correlation coefficients between SCD and identity variables were significantly different from zero, though not of large magnitude ( $p < .05$  or less). Greater SCD was associated with weaker sense of identity, both globally and in all of its aspects, with the exception of sense of uniqueness and sense of one's own boundaries. SCD was also negatively correlated with all three epistemic variables ( $p < .001$ ). Integrative self-knowledge and need for cognition were, quite consistently, positively related to identity-related senses and global sense of identity ( $p < .001$ ). Reflection, however, was found to be unrelated to identity variables, except for small correlations with sense of uniqueness and sense of self-worth ( $p < .05$  or less). Need for cognition, reflection, and integrative self-knowledge were all positively correlated with one another ( $p < .001$ ), which indicates that they are related but seem to capture slightly different aspects of epistemic motivation<sup>4</sup>.

<sup>2</sup> The standard deviation method is preferable to the principal components method, as the latter may confound irrelevant sources of variance, such as cross-item variance within roles (Baird, Le, & Lucas, 2006).

<sup>3</sup> For cases where at least 80% of items within each measure were endorsed, missing data were replaced using person-mean substitution. Participants missing more than 20% of items on a scale or subscale were excluded from analyses involving that measure.

<sup>4</sup> Due to considerable correlations present among some of the study variables, additional analyses were performed to justify their use as separate measures. When the observed correlations were corrected for attenuation due to unreliability, the results revealed only a few correlations exceeded .50. The largest corrected correlation – that between global sense of identity (i.e., the composite MQI-score) and integrative self-knowledge – was .58, indicating that the two variables share about 33.6% common variance. Confirmatory factor analysis (CFA) was also used to evaluate the discriminant validity of the study measures. Among the several models tested, the correlated ten-factor model with items loading on their originally intended factors provided a significantly better fit to the data than did the one-factor model and alternative models in which items from different measures were set to load on the same factor ( $p < .001$ , chi-square difference test). More detailed results are available on request.

**Table 1. Descriptives and correlations of the study variables**

	2	3	4	5	6	7	8	9	10	11	<i>M</i>	<i>SD</i>
1. SCD	-.18***	-.04	-.01	-.19***	-.11*	-.12**	-.16***	-.29***	-.18***	-.18***	0.98	0.37
2. SIC	–	.29***	.23***	.78***	.59***	.57***	.83***	.27***	-.04	.40***	2.16	0.49
3. SU	–	–	.12**	.22***	.26***	.51***	.58***	.28***	.23***	.27***	1.72	0.49
4. SOB	–	–	–	.34***	.06	.29***	.48***	.06	-.02	.20***	1.50	0.44
5. SC	–	–	–	–	.57***	.56***	.82***	.28***	-.08	.38***	1.91	0.45
6. SCT	–	–	–	–	–	.48***	.69***	.24***	-.04	.30***	1.88	0.40
7. SSW	–	–	–	–	–	–	.81***	.36***	.10*	.40***	1.97	0.47
8. GSI	–	–	–	–	–	–	–	.36***	.04	.47***	1.85	0.32
9. NC	–	–	–	–	–	–	–	–	.37***	.43***	127.39	17.92
10. RF	–	–	–	–	–	–	–	–	–	.29***	3.26	0.77
11. ISK	–	–	–	–	–	–	–	–	–	–	2.36	0.63

Note. SCD = self-concept differentiation, SIC = sense of having inner contents, SU = sense of uniqueness, SOB = sense of one's own boundaries, SC = sense of coherence, SCT = sense of continuity over time, SSW = sense of self-worth, GSI = global sense of identity, NC = need for cognition, REF = reflection, ISK = integrative self-knowledge.

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ .

Gender and age associations were also explored using correlations and U Mann-Whitney tests. Compared with women, men scored higher on SCD,  $z = 2.37$ ,  $p = .018$ , and reflection,  $z = 2.12$ ,  $p = .034$ , and had stronger senses of uniqueness,  $z = 3.25$ ,  $p < .001$ , their own boundaries,  $z = 2.65$ ,  $p = .008$ , and self-worth,  $z = 2.27$ ,  $p = .023$ . Small positive correlations were found between age and senses of one's own boundaries,  $r = .09$ ,  $p = .036$ , coherence,  $r = .12$ ,  $p = .004$ , and global sense of identity,  $r = .12$ ,  $p = .007$ , as well as between age and reflection,  $r = .10$ ,  $p = .018$ , and integrative self-knowledge,  $r = .10$ ,  $p = .027$ .

### Moderation analyses

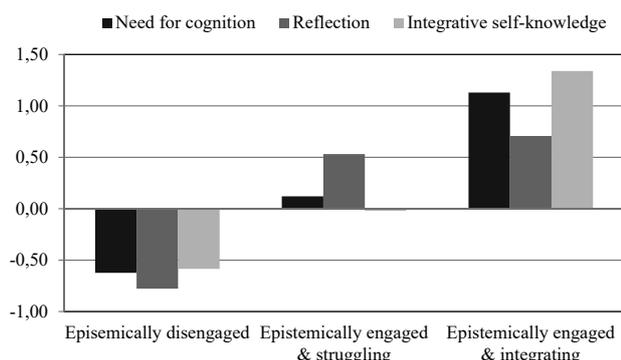
Rather than testing each moderator variable separately, a person-oriented approach was used to identify different profiles of epistemic motivation, and examine how these profiles influence the outcomes of SCD. A two-step cluster analysis, which identifies the groupings by forming pre-clusters first and then by hierarchical methods, was performed<sup>5</sup>. The decision over the number of clusters to be selected was based on an examination of the information criterion change and the solution's interpretability. Three distinct and theoretically meaningful clusters emerged,

with a silhouette measure of cohesion and separation indicating a fair cluster quality. The clusters differed on all clustering variables ( $p < .001$ ,  $\eta^2 = .44$  to  $.52$ ; see Figure 1 and Table 2). Cluster 1 ( $n = 232$ ), which was denoted the epistemically disengaged group, was distinguished by the lowest levels of all the epistemic motivation variables considered. Cluster 3 ( $n = 105$ ), reported a profile of high scores on all of the epistemic motivation measures, and was designated the epistemically engaged and integrating group. Cluster 2 ( $n = 201$ ), which was described as the epistemically engaged and struggling group, was characterized by a mixture of high scores in reflection on the one hand, and relatively lower scores in need for cognition and integrative self-knowledge on the other.

The clusters did not vary by age,  $\chi^2(2) = 5.10$ ,  $ns$ , or gender,  $\chi^2(2) = 2.06$ ,  $ns$ . However, there were significant differences between the groups regarding SCD and identity variables ( $p < .001$ ,  $\eta^2 = .03$  to  $.14$ ; see Table 2)<sup>6</sup>. Individuals in the two epistemically engaged groups tended to describe themselves fairly consistently across roles (i.e., low SCD), but those in the integrating group exhibited stronger sense of identity, in all of its facets, than those in the struggling group. Individuals in the epistemically

<sup>5</sup> Six participants were excluded from the cluster analysis due to missing data.

<sup>6</sup> Additional analyses were performed to assess the effects of clustering on the variances of the study's variables within the emergent clusters. Using the normal approximation to the chi-square to compare the variances in the whole sample to the variances for each of the clusters, it was found that the variance of sense of continuity over time decreased in Cluster 1 ( $Z = -2.11$ ,  $p = .035$ ), the variance of sense of self-worth decreased in Cluster 2 ( $Z = -2.11$ ,  $p = .035$ ), and that the variance for SCD decreased in both Clusters 2 and 3 ( $Z = -2.91$ ,  $p = .004$  and  $Z = -2.22$ ,  $p = .026$ , respectively), while it increased in Cluster 1 ( $Z = 3.23$ ,  $p = .001$ ). The corresponding effect sizes ( $r$ ) ranged from  $.14$  to  $.22$ , and were below the threshold for medium effects (Cohen, 1988). There was no evidence of changes in variances for the rest of the variables of interest. The within-cluster sample variances were all roughly comparable, with the exception of the variances for SCD and sense of uniqueness ( $p < .05$ , Brown-Forsythe's and Levene's tests for equal variance).

**Figure 1. Profiles of standardized means for each cluster**

disengaged group tended to describe themselves differently depending on the role (i.e., high SCD) and had considerably weaker sense of identity than those in the integrating group, but, with the exception of sense of uniqueness, sense of self-worth, and global sense of identity, no different than that of those in the struggling group.

To test for the predicted moderating effect of epistemic motivation on the importance of SCD in predicting sense of identity, the PROCESS macro (Hayes, 2013) was used. For a multicategorical moderator (i.e., cluster membership) with 3 groups, PROCESS automatically constructs 2 dummy variables and adds them to the model along with necessary products to specify the interaction. In addition, an omnibus test of interaction between an independent variable

(i.e., SCD) and a moderator is provided in the form of an  $F$ -ratio. Separate regression analyses were performed for each outcome variable, with gender and age included as covariates. The overall models were significant, but not all that robust ( $p < .001$ ,  $R^2 = .05$  to  $.17$ ; see Table 3). There was no significant effect of SCD on global sense of identity,  $t = -0.61$ ,  $ns$ , 95% CI:  $\{-.12, .06\}$ , nor on any of its aspects: sense of having inner contents,  $t = -1.16$ ,  $ns$ , 95% CI:  $\{-.23, .06\}$ ; sense of uniqueness,  $t = 0.90$ ,  $ns$ , 95% CI:  $\{-.08, .21\}$ ; sense of one's own boundaries,  $t = 0.17$ ,  $ns$ , 95% CI:  $\{-.12, .14\}$ ; sense of coherence,  $t = 1.63$ ,  $ns$ , 95% CI:  $\{-.24, .01\}$ ; sense of continuity in time,  $t = 0.15$ ,  $ns$ , 95% CI:  $\{-.11, .13\}$ ; and sense of self-worth,  $t = -0.64$ ,  $ns$ , 95% CI:  $\{-.18, .09\}$ . The SCD-by-cluster interaction was marginally significant for sense of having inner contents,  $F(2, 514) = 2.80$ ,  $p = .062$ , sense of coherence,  $F(2, 515) = 2.75$ ,  $p = .065$ , sense of continuity in time,  $F(2, 512) = 2.46$ ,  $p = .086$ , and for global sense of identity  $F(2, 512) = 1.99$ ,  $p = .137$ . Even though the strengths of the interaction effects were modest, they indicated that the slopes of the relationships of SCD with identity outcomes varied across profiles of epistemic motivation. Simple slope analyses (see Figure 2) revealed that among individuals in the epistemically engaged and struggling group, the higher the SCD score, the lower the individuals' global sense of identity,  $t = -2.82$ ,  $p = .005$ , 95% CI  $\{-.32, -.06\}$ , as well as identity-related senses of having inner contents,  $t = -3.65$ ,  $p < .001$ , 95% CI  $\{-.61, -.18\}$ , coherence,  $t = -3.85$ ,  $p < .001$ , 95% CI  $\{-.57, -.19\}$ , and continuity in

**Table 2. Comparison of clusters across the study variables**

Source	Epistemically disengaged	Epistemically engaged & struggling	Epistemically engaged & integrating	$\chi^2(2)$	$\eta^2$
	$M(SD)$	$M(SD)$	$M(SD)$		
NC	116.23 (14.26) <sup>a</sup>	129.56 (14.04) <sup>b</sup>	147.64 (11.34) <sup>c</sup>	235.01***	.44
REF	2.66 (0.48) <sup>a</sup>	3.67(0.52) <sup>b</sup>	3.80 (0.79) <sup>b</sup>	278.36***	.52
ISK	1.99 (0.49) <sup>a</sup>	2.35 (0.43) <sup>b</sup>	3.20 (0.37) <sup>c</sup>	263.47***	.49
SCD	1.06 (0.42) <sup>a</sup>	0.93 (0.31) <sup>b</sup>	0.88 (0.31) <sup>b</sup>	19.36***	.04
SIC	2.08 (0.48) <sup>a</sup>	2.13 (0.47) <sup>a</sup>	2.42 (0.49) <sup>b</sup>	39.56***	.07
SU	1.55 (0.44) <sup>a</sup>	1.78 (0.44) <sup>b</sup>	1.98 (0.52) <sup>c</sup>	58.54***	.11
SOB	1.46 (0.43) <sup>a</sup>	1.46 (0.44) <sup>a</sup>	1.64 (0.43) <sup>b</sup>	14.95***	.03
SC	1.85 (0.45) <sup>a</sup>	1.86 (0.41) <sup>a</sup>	2.15 (0.43) <sup>b</sup>	40.98***	.08
SCT	1.83 (0.36) <sup>a</sup>	1.85 (0.40) <sup>a</sup>	2.06 (0.43) <sup>b</sup>	24.59***	.05
SSW	1.82 (0.46) <sup>a</sup>	1.99 (0.42) <sup>b</sup>	2.28 (0.43) <sup>c</sup>	70.22***	.13
GSI	1.76 (0.30) <sup>a</sup>	1.84 (0.29) <sup>b</sup>	2.09 (0.31) <sup>c</sup>	76.10***	.14

Note. NC = need for cognition, REF = reflection, ISK = integrative self-knowledge, SCD = self-concept differentiation, SIC = sense of having inner contents, SU = sense of uniqueness, SOB = sense of one's own boundaries, SC = sense of coherence, SCT = sense of continuity over time, SSW = sense of self-worth, GSI = global sense of identity. Means with different subscripts are significantly different from each other. \*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ .

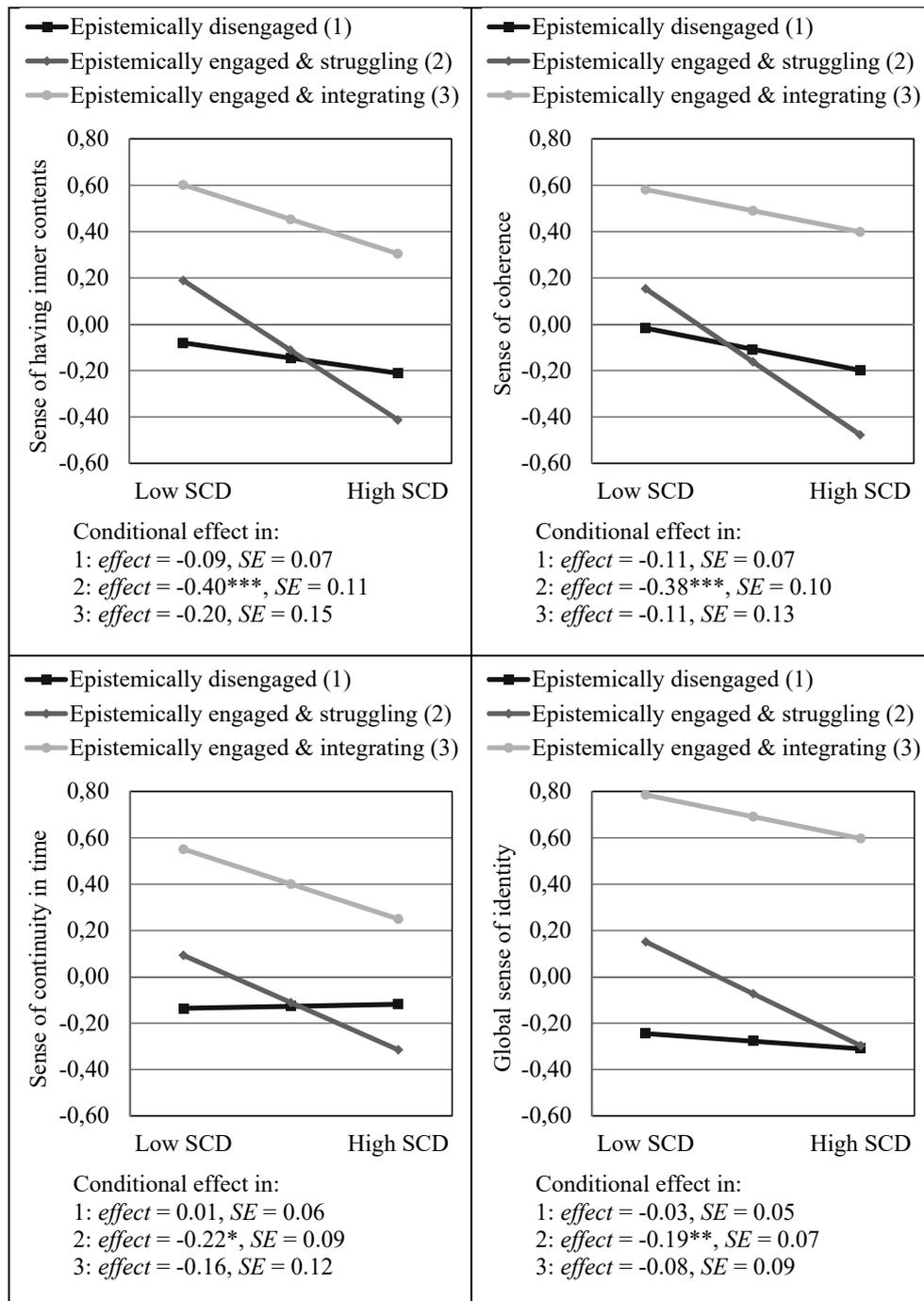
**Table 3. Regression models summaries**

	SIC	SU	SOB	SC	SCT	SSW	GSI
Final <i>F</i>	7.83***	11.29***	3.77***	9.32***	4.97***	12.89***	15.09***
Final <i>R</i> <sup>2</sup>	.10	.13	.05	.11	.06	.15	.17

Note. SIC = sense of having inner contents, SU = sense of uniqueness, SOB = sense of one's own boundaries, SC = sense of coherence, SCT = sense of continuity over time, SSW = sense of self-worth, GSI = global sense of identity.

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ .

**Figure 2. Conditional effects of SCD on identity outcomes. Standardized means are presented**



\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ .

time,  $t = -2.42$ ,  $p = .016$ , 95% CI  $\{-.40, -.04\}$ . However, for those in the epistemically disengaged and those in the epistemically engaged and integrating group, the above relationships were not significant<sup>7</sup>.

### Discussion

The current study revisited the issue of the relationship between self-concept differentiation (SCD), the tendency to see one's self as different in different roles, and psychological adjustment, particularly in the area of personal identity. Since the seminal work of Donahue et al. (1993), several studies have replicated the negative effect of SCD on intrapersonal and interpersonal functioning, thereby concretizing the notion that SCD is an expression of a fragmented self (e.g., Campbell et al., 2003; Diehl et al., 2001; Pilarska & Suchańska, 2015; Sheldon et al., 1997; Styła et al., 2010). However, as pointed out in the introduction, there still seems to be some doubt as to whether this is always the case. Unlike the previous research, the primary interest in the present study was not whether the relationship between SCD and lower psychological well-being (e.g., problems regarding an individual's identity formation) exists, but rather, it concerned the boundaries of this relationship. More specifically, it was assumed that the relationship between SCD and personal identity would change as a function of epistemic engagement, i.e., an individual's inclination to engage in reflective and self-reflective thinking, as measured by need for cognition, reflection, and integrative self-knowledge. The key dependent variable, personal identity, was operationalized in terms of global sense of identity, and in terms of six specific identity-related senses (e.g., Pilarska, 2016b).

In general, the zero-order correlation results were consistent with Donahue et al.'s (1993) position regarding the negative impact of a divided self on psychological adjustment. SCD showed a negative association with global sense of identity and four of its aspects (i.e., senses of having inner contents, coherence, continuity in time, and self-worth), suggesting that individuals with more differentiated self-concepts tended to suffer more from feelings of inner emptiness, personal meaninglessness, fragmentation, and discontinuity of the self. Yet the moderation analyses provided some interesting insight into the nuances of these relationships. Cluster analysis allowed the different epistemically relevant motivations to be understood in relation to each other and to variation in the associations of SCD with identity outcomes. Three epistemic pattern groups were identified: epistemically disengaged (i.e., those acting as cognitive misers and lacking epistemic interest in their self-experience), epistemically engaged and struggling (i.e., those highly self-attentive but often failing to gain a deeper self-understanding), and epistemically engaged and integrating (i.e., those acting as effortful thinkers and empowered with a meaningfully integrated self-understanding). Subsequent regression analyses revealed

trend-level moderating effects of epistemic motivation on the relationships of SCD with senses of having inner contents, coherence, and continuity in time, as well as with global sense of identity. These moderating effects were each obtained in the context of non-significant main effects of SCD on identity outcomes. In all cases, the moderating effect was such that greater SCD was related to weaker sense of identity in those epistemically engaged and struggling, but not those epistemically disengaged nor those epistemically engaged and integrating.

Overall, these findings partially and weakly supported the original hypothesis. As expected, SCD proved to be of little relevance to those who have ability and desire to form and sustain a thorough self-understanding. Note, however, that a mere lack of epistemic motivation was not driving the detrimental effects of SCD. Individuals experiencing the greatest weakening of sense of identity in the face of increasing cross-role variability were not those epistemically disengaged, but rather those who were helplessly self-absorbed. These results are better understood if one takes into account the groups' characteristics regarding SCD and sense of identity. The epistemically disengaged group generally exhibited weaker sense of identity and less consistency in self-views across roles and situations than the other two groups. Those individuals resembled carefree diffusions, described by Luyckx et al. (2008), in that they were seemingly unbothered by their diffusion, did not attempt consolidation of a more evolved sense of identity, and appeared highly dependent upon hedonic and situational conditions. Berzonsky (1991) has termed those individuals as utilizing a diffuse-avoidant style. The epistemically engaged and integrating group's characteristics were a reverse reflection of the aforementioned pattern. Those individuals had a strong sense of identity, and could be referred to as identity achievements, characterized by open-mindedness and independence from external social forces to shape their conceptualization of self (Luyckx et al., 2008; Marcia, 1966). In regard to cross-role consistency, this group appeared similar to the epistemically engaged and struggling group. For the latter however, the experience of being at one with oneself, which accompanies a mature sense of identity (Erikson, 1974), was somewhat elusive. Those were the individuals for whom maintaining strong sense of identity within the context of differing role-specific self-views appeared to be psychologically demanding. The nature of sense of identity in those individuals seemed fragile, such that increased SCD posed the threat of the experience of a divided self. They tended to be highly self-attentive, and they may have been engaging in some identity work, but not really succeeding in developing a clear sense of who they were. To some extent, those individuals resembled troubled-diffused individuals described by Luyckx et al. (2008) and moratorium-diffusion individuals described by Josselson (1987).

<sup>7</sup> For the record, it should be noted that the corresponding analyses on the differences between the slopes of the three regression lines indicated that, while the slope for Cluster 2 was, in each case, significantly steeper than that of Cluster 1 ( $p < .05$ , Paternoster et al.'s Z test), it did not differ from that of Cluster 3.

Two additional issues merit comment. First, it is important to point out that the observed moderation changed only the strength and not the direction of the associations between SCD and identity variables. Even those epistemically engaged and integrating did not conform to the specialization hypothesis, as no beneficial effects of SCD were noted. As such, although consistency may not be a panacea for everyone to the same extent, it is nevertheless preferable to the reverse (see also Bigler et al., 2001; Diehl & Hay, 2011). Second, it is worth noting that the obtained results may provide additional evidence favoring active cognitive engagement, and especially efforts to achieve teleological coherence, in identity formation (e.g., Berzonsky & Sullivan, 1992; Njus & Johnson, 2008). They also highlight the somewhat controversial nature of reflection – although reflection may be an important element for fostering meaning-making, reflection alone does not ensure meaning-finding. This aligns with findings from other studies, which found that reflection correlated positively with rumination (Elliot & Coker, 2008; Takano & Tanno, 2009) and negatively with self-concept clarity (Campbell et al., 1996; Johnson & Nozick, 2011).

### Conclusions and limitations

The major finding of this study is that the negative effect of SCD on sense of identity seemed to vary across different modes of epistemic engagement, such that it was most pronounced in the group labeled as epistemically engaged and struggling. Although caution is warranted, given the marginal statistical significance of the moderation effects, these findings may help clarify the predictive importance of SCD, and so extend and qualify Donahue et al.'s (1993) position regarding the detrimental effect of contextual variability in the self.

This study has a few noteworthy limitations. First, the generalizability of the findings is limited because the sample comprised only young adults. Available evidence, although limited, suggests that self-perceived inconsistency across social roles may be of greater importance for well-being starting in midlife compared to early adulthood (Diehl et al., 2001). Hence, it is possible that a different sampling frame could provide different results than those that were observed here. Another limitation of the present study is its cross sectional design, which implies uncertainty regarding the temporal and causal relation between SCD and sense of identity. Also, the presence of correlations between the moderator and both SCD and sense of identity may have caused imprecise (e.g., attenuated) moderated regression results. It is likewise possible that the distinguished epistemic pattern groups differed in respects not directly attributable to epistemic motivation. Finally, an important characteristic of the current study is the narrow focus on sense of identity. Future research should determine if the reported results are generalizable to different facets of well-being (e.g., affect balance, role relationships).

### References

- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author.
- Baird, B.M., Le, K., & Lucas, R.E. (2006). On the nature of intraindividual personality variability: Reliability, validity, and associations with well-being. *Journal of Personality and Social Psychology, 90*, 512–527.
- Berzonsky, M.D. (1991). *A process view of identity formation and maintenance*. Paper presented at the Biennial Meeting of the Society for Research in Child Development. WA: Seattle.
- Berzonsky, M.D., & Sullivan, C. (1992). Social-cognitive aspects of identity style: Need for cognition, experiential openness, and introspection. *Journal of Adolescent Research, 7*, 140–155.
- Block, J. (1952). The assessment of communication: Role variations as a function of interactional context. *Journal of Personality, 21*, 272–286.
- Block, J. (1961). Ego-identity, role variability, and adjustment. *Journal of Consulting Psychology, 25*, 392–397.
- Bigler, M., Neimeyer, G.J., & Brown, E. (2001). The divided self revisited: Effects of self-concept clarity and self-concept differentiation on psychological adjustment. *Journal of Social and Clinical Psychology, 20*, 396–415.
- Blasi, A., & Glodis, K. (1995). The development of identity: A critical analysis from the perspective of the self as subject. *Developmental Review, 15*, 404–433.
- Boucher, H.C. (2011). The dialectical self-concept II: Cross-role and within-role consistency, well-being, self-certainty, and authenticity. *Journal of Cross-Cultural Psychology, 42*, 1251–1271.
- Brown, G., & Rafaeli, E. (2007). Components of self-complexity as buffers for depressed mood. *Journal of Cognitive Psychotherapy, 21*, 310–333.
- Cacioppo, J.T., & Petty, R.E. (1982). The need for cognition. *Journal of Personality and Social Psychology, 42*, 116–131.
- Campbell, J.D., Assanand, S., & Di Paula, A. (2003). The structure of the self-concept and its relation to psychological adjustment. *Journal of Personality, 71*, 115–140.
- Campbell, J.D., Trapnell, P.D., Heine, S.J., Katz, I.M., Lavallee, L.F., & Lehman, D.R. (1996). Self-concept clarity: Measurement, personality correlates, and cultural boundaries. *Journal of Personality and Social Psychology, 70*, 141–156.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd edition). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Cross, S.E., Gore, J.S., & Morris, M.L. (2003). The relational-interdependent self-construal, self-concept consistency, and well-being. *Journal of Personality and Social Psychology, 85*, 933–944.
- De Dreu, C.K.W., Nijstad, B.A., & van Knippenberg, D. (2008). Motivated information processing in group judgment and decision making. *Personality and Social Psychology Review, 12*, 22–49.
- Diehl, M., Hastings, C.T., & Stanton, J.M. (2001). Self-concept differentiation across the adult life span. *Psychology and Aging, 16*, 643–654.
- Diehl, M., & Hay, E.L. (2011). Self-concept differentiation and self-concept clarity across adulthood: Associations with age and psychological well-being. *International Journal of Aging and Human Development, 73*, 125–152.
- Donahue, E.M., Robins, R.W., Roberts, B.W., & John, O.P. (1993). The divided self: Concurrent and longitudinal effects of psychological adjustment and social roles on self-concept differentiation. *Journal of Personality and Social Psychology, 64*, 834–846.
- Elliott, I., & Coker, S. (2008). Independent self-construal, self-reflection, and self-rumination: A path model for predicting happiness. *Australian Journal of Psychology, 60*, 127–134.
- Erikson, E.H. (1974). *Dimensions of a new identity*. New York, NY: Norton.
- Funder, D.C., & Colvin, C.R. (1991). Explorations in behavioral consistency: Properties of persons, situations, and behaviors. *Journal of Personality and Social Psychology, 60*, 773–794.
- Ghorbani, N., Watson, P.J., & Hargis, M.B. (2008). Integrative Self-Knowledge Scale: Correlations and incremental validity of a cross-cultural measure developed in Iran and the United States. *Journal of Psychology, 142*, 395–412.

- Ghorbani, N., Watson, P.J., Zarehi, J., & Shamohammadi, K. (2010). Muslim extrinsic cultural religious orientation and identity: Relationships with social and personal adjustment in Iran. *Journal of Beliefs and Values, 31*, 15–28.
- Hayes, A.F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: Guilford.
- Johnson, E.A., & Nozick, K.J. (2011). Personality, adjustment, and identity style influences on stability in identity and self-concept during the transition to university. *Identity: An International Journal of Theory and Research, 11*, 25–46.
- Josselson, R. (1987). *Finding herself: Pathways to identity development in women*. San Francisco, CA: Jossey-Bass.
- Kalthoff, R.A., & Neimeyer, R.A. (1993). Self-complexity and psychological distress: A test of the buffering model. *International Journal of Personal Construct Psychology, 6*, 327–349.
- Kruglanski, A.W. (1989). *Lay epistemics and human knowledge: Cognitive and motivational bases*. New York, NY: Plenum.
- Linville, P.W. (1985). Self-complexity and affective extremity: Don't put all of your eggs in one cognitive basket. *Social Cognition, 3*, 94–120.
- Linville, P.W. (1987). Self-complexity as a cognitive buffer against stress-related illness and depression. *Journal of Personality and Social Psychology, 52*, 663–676.
- Lutz, C.J., & Ross, S.R. (2003). Elaboration versus fragmentation: Distinguishing between self-complexity and self-concept differentiation. *Journal of Social and Clinical Psychology, 22*, 537–559.
- Luyckx, K., Soenens, B., Berzonsky, M.D., Smits, I., Goossens, L., & Vansteenkiste, M. (2007). Information-oriented identity processing, identity consolidation, and well-being: The moderating role of autonomy, self-reflection, and self-rumination. *Personality and Individual Differences, 43*, 1099–1111.
- Luyckx, K., Schwartz, S., Berzonsky, M., Soenens, B., Vansteenkiste, M., Smits, I., & Goossens, L. (2008). Capturing ruminative exploration: Extending the four dimensional model of identity formation in late adolescence. *Journal of Research in Personality, 42*, 58–82.
- Mackey, R.A. (2009). *The emerging self in psychotherapy with adults*. Bentham Science Publishers.
- Marcia, J.E. (1966). Development and validation of ego-identity status. *Journal of Personality and Social Psychology, 3*, 551–558.
- Matusz, P.J., Traczyk, J., & Gąsiorowska, A. (2011). Kwestionariusz Potrzeby Poznania – konstrukcja i weryfikacja empiryczna narzędzia mierzącego motywację poznawczą. *Psychologia Społeczna, 62*, 113–128.
- Njus, D., & Johnson, D.R. (2008). Need for cognition as a predictor of psychosocial identity development. *The Journal of Psychology: Interdisciplinary and Applied, 142*, 645–655.
- Pilarska, A. (2012). Wielowymiarowy Kwestionariusz Tożsamości. In W.J. Paluchowski, A. Bujacz, P. Haładziński, & L. Kaczmarek (Eds.), *Nowoczesne metody badawcze w psychologii* (pp. 167–188). Poznań: Wydawnictwo Naukowe WNS UAM.
- Pilarska, A. (2015). Contextualized self-views and sense of identity. *Personality and Individual Differences, 86*, 326–331.
- Pilarska, A. (2016a). How do self-concept differentiation and self-concept clarity interrelate in predicting sense of personal identity?. *Personality and Individual Differences, 102*, 85–89.
- Pilarska, A. (2016b). Wokół pojęcia poczucia tożsamości: przegląd problemów i propozycja konceptualizacji. *Nauka, 2*, 123–141.
- Pilarska, A. (2016c). Contributions of cognitive-motivational factors to the sense of identity. *Current Psychology*, Online publication date: 23-Mar-2016.
- Pilarska, A. (2016d). Psychometric properties and initial validation of the Polish translation of the Integrative Self-Knowledge Scale. *Polskie Forum Psychologiczne, 21*, 378–393.
- Pilarska, A., & Suchańska, A. (2013). Strukturalne właściwości koncepcji siebie a poczucie tożsamości. Fakty i artefakty w pomiarze spójności i złożoności koncepcji siebie. *Studia Psychologiczne, 51*, 29–42.
- Pilarska, A., & Suchańska, A. (2015). Self-complexity and self-concept differentiation – What have we been measuring for the past 30 years?. *Current Psychology, 34*, 723–743.
- Sheldon, K.M., Ryan, R.M., Rawsthorne, L.J., & Ilardi, B. (1997). Trait self and true self: Cross-role variation in the Big-Five personality trait and its relation with psychological authenticity and subjective well-being. *Journal of Personality and Social Psychology, 73*, 1380–1393.
- Showers, C.J. (2002). Integration and compartmentalization: A model of self-structure and self-change. In D. Cervone & W. Mischel (Eds.), *Advances in personality science* (pp. 271–291). New York, NY: Guilford.
- Steger, M.F., Kashdan, T.B., Sullivan, B.A., & Lorentz, D. (2008). Understanding the search for meaning in life: Personality, cognitive style, and the dynamic between seeking and experiencing meaning. *Journal of Personality, 76*, 199–228.
- Styla, R., Jankowski, K., & Suszek, H. (2010). Skala niespójności Ja (SN-Ja). *Studia Psychologiczne, 48*, 31–43.
- Takano, K., & Tanno, Y. (2009). Self-rumination, self-reflection, and depression: Self-rumination counteracts the adaptive effect of self-reflection. *Behaviour Research and Therapy, 47*, 260–264.
- Thompson, M.M., Zanna, M.P., & Griffin, D.W. (1995). Let's not be indifferent about (attitudinal) ambivalence. In R.E. Petty & J.A. Krosnick (Eds.), *Attitude strength: Antecedents and consequences* (pp. 361–386). New York, NY: Psychology Press.
- Thomsen, D.K., Tønnesvang, J., Schnieber, A., & Olesen, M.H. (2011). Do people ruminate because they haven't digested their goals? The relations of rumination and reflection to goal internalization and ambivalence. *Motivation and Emotion, 35*, 105–117.
- Trapnell, P.D. (1997). *RRQ Shortforms*. Retrieved from <http://www.paul-trapnell.com/measures/RRQshortforms.rtf>
- Trapnell, P.D., & Campbell, J.D. (1999). Private self-consciousness and the five-factor model of personality: Distinguishing rumination from reflection. *Journal of Personality and Social Psychology, 76*, 284–304.
- Woolfolk, R.L., Novalany, J., Gara, M.A., Allen, L.A., & Polino, M. (1995). Self-complexity, self-evaluation, and depression: An examination of form and content within the self-schema. *Journal of Personality and Social Psychology, 68*, 1108–1120.
- World Health Organization. (2011). *International statistical classification of diseases and related health problems* (10th ed.). Geneva: Author.