

## **Personality and Personal Persistence in the Postmodern Self**

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### **Abstract**

Modern Western thought, from the philosophy of Descartes and Hume to the psychology of James and Erikson, equated psychological health with personal persistence, the subjective conviction that one's past and present selves are fundamentally the same. Beginning in the 1980s, modern assumptions of coherence and continuity were rivaled by postmodern descriptions of plurality and discontinuity. Galen Strawson, for example, understands the presence or absence of personal persistence as an individual difference variable with no implication, positive or negative, for psychological health. Using a convenience sample of 177 students, the present study found significant correlations between personality and personal persistence. The absence of personal persistence was associated with introversion, neuroticism, antagonism, a foreshortened future orientation and restricted conscientiousness. Contrary to Strawson, these results validate classical theories, suggesting that the absence of personal persistence may well be a marker of sub-clinical psychopathology.

**Keywords:** Personal persistence, diachronic disunity, perceived self-change, personality.

### **1. Introduction**

The pages of journals such as *Narrative*, *International Journal of Education and Religion*, *Psychological Inquiry*, *Science* and the *European Journal of Personality* are increasingly being swelled by theorists, psychologists and philosophers, all of whom have something to say about the following question: Must self-experience be personally persistent? In other words, must one's retrospectively reconstructed past self be reconcilable with the presently

experienced self? On one side, there are those who assert that who one was, should be who one is; on the other side, there are those that challenge the verity of this assertion, arguing instead that personal persistence is not a necessary part of personhood.

Such debate is recent. Generations past and present more or less equated personal persistence with personhood. It was assumed that who one was yesterday, should be meaningfully and essentially who one is today: “Nearly all theoretical speculation about the self incorporates a deep presumption that if one is arguing for the existence of the mental self one is arguing for something that exists for a substantial period of time (Gallagher & Shear, 1999; page 21).” For Locke, humanity, rationality and a coherent sense of self rely upon the practice of retrospection and propection (Seigel, 2005; Locke, 1689/1996). Descartes’ *ego theory* held that, “persons are continuing, spiritual substances” (Tye, 2005) and only in consequence do they remain sentient, conscious, agentic and personally culpable for their actions. Bundle theory, attributed to Hume, equates personhood with the integrative bundling of memories, introspections and perceptions through time (Gale, 2005; Tye, 2005). As modern psychology differentiated from Enlightenment philosophy, the same story was echoed, albeit with more nuance. William James’ theory of self allows for pluralism in the form of the ‘Mes,’ but importantly maintains a clear cohesive agent in the form of the ‘I’ (James, 1890/1950; McAdams, Josselson & Lieblich, 2002; James, 1892/1985). Jung’s differentiated self (Jung, 1954) provides a feeling of stability and continuity, enabling the individual to sense a connection with the world at large (Hall & Nordby, 1973).

And then there was Erikson who, more powerfully, fully and explicitly than anyone before or since, equated personal persistence with personhood. Erikson, however, was the last in this long line. Being born long after Locke, Hume and Descartes, hardly a contemporary of James and outliving Jung by more than three decades, Erik Erikson arguably created the last grand theory that was to unquestioningly require the presence of personal persistence for the development of psychological health (Schachtler, 2005).

After Erikson, the self in the history of Western intellectual thought would remain 1) bounded such that self and other could be differentiated, 2) a single mental thing with some degree of internal unity, 3) the subject of conscious experience (Martin & Barresi, 2006), but it would not remain personally persistent; the self would not be invariably thought to remain subjectively stable through time. It was no longer sufficient for self theorists to simply mention the importance of personal persistence and require its presence. Theorists that wrote after the age of Eriksonian identity were less likely to equate personal persistence with psychological health. Those that persisted in this practice did so in explicit or implicit reaction to pluralistic or episodic accounts of the self (Singer, 1996; Singer, 2004). For instance, Prescott Lecky’s resistance theory describes a homeostatic perceptual bias; a natural protective process acting to buffer the self against becoming overwhelmed, disorganized (Ansbacher, 1981), or pathological (Stevens, 1992). More recently, narrative identity theory finds continuity in story. Weaving together past and present, the life narrative binds the self, which would otherwise be temporally compartmentalized (McAdams, 1996; McAdams, 2006; McAdams, Anyidoho, Brown, Huang, Kaplan, & Machado, 2004).

Theories such as the *Protean Self* (Lifton, 1993), the *Dialogical Self* (Hermans, 2001), and the *Polyphonic Self* (Raggatt, 2000) obliquely undermine the self as personally persistent because they directly attack the self as internally coherent. In contrast, Galen Strawson’s self theory is an example of personal persistence being questioned powerfully, directly and saliently. Strawson experiences life episodically (Battersby, 2006) as a string of pearls (Strawson, 2005). Of course Strawson feels himself to be the same being, hence the string, but at any point in time he only feels connected to the recent past and the impending future, hence the pearls. He doesn’t sense sameness through time over distant periods of retrospect or prospect: “I have no sense of my life as a narrative...I have little interest in my own past and little concern for the future.” Strawson (2009) speaks of ‘Endurists,’ people who experience their

selves as persisting over relatively extended periods of time, and ‘Impermanists,’ who have no such sense of diachronic existence. For the Impermanist, “...the self that they now experience themselves to be is not something that there was in the remoter past...” His articulation of this phenomenological state across a series of papers and books (Strawson, 1997; 1999; 2005; 2009) elicited strong reactions from others that ranged from an attempt to minimize the novelty of his experiential state (Battersby, 2006) to morally condemning a self so constituted (Wilks, 1999).

While personal persistence is much discussed, it is little studied. Chandler, Lalonde, Sokol and Hallett (2003) are among the first to describe how research participants use narrative and essentialist methods to bridge time and connect their past and present selves. Most recently, Quoidbach, Gilbert and Wilson (2013), sampled thousands in a series of studies, finding that most acknowledged self-change across traits, values and preferences between the present self and the self of a decade past. While studies of personal persistence are generally rare, those that attempt to understand the origins of individual differences on this variable are more so. Truly, Lampinen, Odegard and Leding’s (2004) research is the only study that pointedly attempts to understand why some are personally persistent and others are not. Lampinen and colleagues found that most participants identified themselves as personally persistent (referred to as diachronic unity by Lampinen et al.), though a large minority identified themselves as lacking any connection to the past which could be identified as personal persistence (a condition referred to as diachronic disunity by Lampinen et al.). Lampinen and colleagues found that as perceived levels of external change rose, rates of personal persistence fell. Another one of Lampinen et al’s principal findings was that non-clinical elevations in dissociation are correlated with the absence of personal persistence. From a pilot study conducted on a subset of Lampinen et al’s sample, it is further known that sexual identity and changes in religious views can undermine personal persistence.

Our own research (Hertler, Krauss & Ward, 2013) contained some few narrative responses that attributed a lack of personal persistence to religious epiphanies, new-found independence or grief and loss. Nevertheless, those that lacked personal persistence routinely cited the mutative effects of time, maturation, and the changes in perspective that accompany them. Interestingly, the personally persistent wrote in much the same way about the powerful forces of time, maturation and perspectival change. Significantly, however, after doing so they attributed their personal persistence to a guiding moral code or apperceived personality trait. In conclusion, the aggregate of empirical research suggests that personal persistence is 1) somewhat more common than its absence, 2) fostered by the apperception of an unchanging essentialist core or narrative theme, 3) undermined by non-clinical elevations in dissociation 4) preserved through the apperception of stable personality traits and moral codes and 5) weakened in some by self-reported change in external realities.

The purpose of the present study is to better understand why some lack personal persistence. In other words, the study is designed to discover the determinants of diachronic disunity. With little previous research, there are many present paths. We chose to investigate personality for the following reasons: 1) The rates of diachronic disunity are so high that determinants are more likely individual differences as opposed to diagnosable pathology (Lampinen, Odegard & Leding, 2004; Hertler, Krauss & Ward, 2009). 2) Personality is mentioned in most narrative explanations of personal persistence as a grounding experiential factor. Conversely, personality is not generally mentioned in narrative explanations of diachronic disunity (Hertler, Krauss & Ward, 2013). 3) Strawson suggests that the presence or absence of personal persistence might hinge upon whether personality is something persons “look through” or whether it is something they “look at” (Strawson, 1997). 4) Strawson argues that the presence or absence of personal persistence hinges upon individual differences in temperament or mental style (Strawson, 2009). 5) Strawson judges that any sense of personality he possesses may go unnoticed as he participates in the present moment in which the self is experienced, “as a kind of bare locus of consciousness-not just as detached, but as

void of personality, stripped of particularity of character....(Gallagher & Shear, 1999; page 13)”

With historical theories of self, we understand personal persistence to be a natural outgrowth of normal self-development. We disagree with those such as Strawson who think the presence or absence of personal persistence an immaterial individual difference, as we disagree with those such as Lifton who think the absence of personal persistence a beneficial adaptation to variable postmodern environments. Though we do not suggest that the absence of personal persistence denotes clinical psychopathology, we hypothesize that it is not a coequal form of subjectivity. We look to personality, finding it likely that certain traits and trait profiles, first are associated with marginal coping, and second are disproportionately affected by external change.

## 1.1 Research Goals

The goal of the present study is to discover the determinants of personal persistence; specifically, to establish whether personal persistence varies as a function of personality: Neuroticism and extraversion, as measured by the NEO Five Factor Inventory (NEO-FFI) and future orientation, as measured by the Time Reference Inventory (TRI).<sup>1</sup>

## 1.2 Hypotheses

- I. The NEO-FFI scales of Neuroticism and Extraversion will be negatively correlated with personal persistence. As these NEO-FFI domains increase, personal persistence will decrease.
- II. Change over time will moderate the relationship between NEO-FFI domains of Extraversion and Neuroticism and personal persistence. The relationship between personal persistence and the NEO-FFI domains of Extraversion and Neuroticism will become increasingly negative as the level of change decreases.
- III. Future oriented thought, as measured by the TRI, will be positively correlated with diachronicity.

## 1.3 Exploratory Analyses

There was no suggestive literature or empirical evidence linking agreeableness or conscientiousness to personal persistence. Accordingly, these variables will be examined in an exploratory manner. Openness to experience, on the other hand, has many once-removed and circuitous connections with personal persistence (McCrae, 1994; Tesch & Cameron, 1987; Wild, Kuiken & Schopflocher, 1995) that would require non-linear analyses and focused treatment; consequently, openness is excluded from the present investigation. Finally, sex differences will be measured in a separate exploratory analysis.

## 2. Methodology: Sampling and Participants

The sample included undergraduate and graduate students from two metropolitan NYC universities. Collectively, 177 individuals participated in the study and completed the packet of inventories with supporting demographic information. Participants ranged in age between 18 and 44 with a mean of 21.54 years of age. Fully 92 percent of participants were 25 years or younger with only eight participants above thirty years of age. Of the 175 participants that reported their sex, 73.4 percent were female. The majority of the sample was Caucasian (46.9%) with the second largest category being Asian (15.8%) followed by *Other* (12.4%), Latino (11.3%), African American (10.7%) and Pacific Islander (1.1%). Three of the students (1.7%) chose not to report their race. The majority (86.5%) of participants were undergraduates, the minority (11.8%) were graduate students, and the remainder (1.7%) did

not respond. Some students (12.4%) did not record their grade point average (GPA), though the GPA of the remaining respondents ranged from 1.0 to 4.0 with a mean of 3.35 and a median and mode both measured at 3.5.

## **2.1 Methodology: Measures: Diachronicity Scale (DS)**

Lampinen, Odegard and Leding's (2004) *Diachronicity Scale* (DS) is a graphic self-report measure of personal persistence (diachronic unity) and its absence (diachronic disunity). The DS allows for the linear assessment of both personal persistence and change. There are two axes and respondents plot a single point, indicating personal persistence on the y-axis and self-change on the x-axis. Lampinen and colleagues (2004) felt that there was good reason to distinguish between a general subjective sense of change as a function of time and personal persistence. This distinction is highly relevant because change, though clearly correlated with diachronic disunity, does not invariably result in diachronic disunity (Lampinen et al, 2004; Hertler, Krauss & Ward, 2010). This is especially true when there is great variability in many sources of identity except for a core trait. For example, if a self-definitional moral code remains stable over time, less integral self-features can change culminating in a great amount of felt change over time without producing a corresponding sense of diachronic disunity (Lampinen et al., 2004).<sup>2</sup>

## **2.2 Methodology: Measures: Likert Diachronicity Scale (LDS)**

Lampinen, Odegard and Leding's (2004) DS, corresponding to its two axes, asks two questions of the participant: Have you changed? Are you the same person? The Likert Diachronicity Scale (LDS) follows the same format, asking the same two questions. However, these two questions are not proposed in a global sense, but proposed in relation to nine categories: 1) Religious/spiritual convictions, 2) moral/value system, 3) family relationships, 4) romantic relationship status, 5) societal roles, 6) self-conceptualization or thought about the self, 7) change in context/place, 8) amount of stress experienced, and 9) physical features. For example, the participant would respond to the first of these nine categories by answering the following questions: 1) *has there been a major change in your religious or spiritual convictions in the last five years?*; 2) *as a result of any change in your religious or spiritual convictions, to what extent do you feel that you have become another person compared to who you were five years earlier?* This pattern of couplets is reproduced for each of the nine categories resulting in 18 questions. The LDS is significantly correlated with both axes of the DS: change ( $r = .433, p < .01$ ) and diachronicity ( $r = .265, p = .001$ ) (Hertler, Krauss & Ward, 2013).

## **2.3 Methodology: Measures: Adapted Personal Persistence Interview (APPI)**

An adapted version of Chandler, Lalonde, Sokol and Hallett's (2003) Personal Persistence Interview was included as a third measure of diachronicity. This open-ended, paper and pencil self-report asks 1) who the participant was five years ago, 2) who the participant is currently, 3) whether change has taken place, 4) and then concludes with a forced choice scenario asking whether the participant feels that they are the same person or not; thus creating a binary and quantifiable variable in addition to narrative explanations. The APPI's binary variable proved to be positively and significantly correlated with the DS ( $r = .490, p < .01$ ) and the LDS ( $r = .540, p < .01$ ). See Hertler, Krauss and Ward (2013) for extended descriptions of these three measures of personal persistence or for more detailed discussion of the APPI's narrative data.

## 2.4 Methodology: Measures: Time Reference Inventory (TRI)

Future orientation was measured with the Time Reference Inventory (TRI), a thirty item paper and pencil self-report measure that can be administered to adults and children as young as eight (Rosen, 1990). Items are assertions, such as ‘the most productive period of my life is’..., that the participant finishes by writing ‘past,’ ‘present’ or ‘future.’ An age is also assigned to each statement, so that if a thirty-year-old participant responds ‘future,’ they also write in, for instance, ‘fifty-five,’ as an estimate of when in the future the assertion is most likely to be true.

The TRI was originally utilized to distinguish between various groups such as those with average cognitive capacities and intellectually deficient individuals (Roos & Albers 1965a), “normals” and “alcoholics” (Roos & Albers, 1965b), and finally between non-clinical individuals and those diagnosed with schizophrenia (Foulks, Webb, & Garner, 1967; Foulks & Webb, 1970). According to Rosen (1990) the TRI significantly differentiated among these groups, while showing stability through measures of reliability. For example, in the Foulks et al. (1967) study, the TRI demonstrated “satisfactory test-retest reliability over two week intervals (future extension: .57 to .84; past extension: .60 to .89).” The amount of years that subjects project into the past or future was also found to be reliable (.76 to .92) for all populations besides those with schizophrenia (.24) (Rosen, 1990). Foulks et al. (1967) regarded the TRI as a reliable and accurate measure of time orientation. Rosen (1990) provided evidence of the TRI’s concurrent validity by demonstrating correlations with the Time Questionnaire. The present study assesses future orientation in two ways, one conventional (described as *future extension* in the results section) and one unconventional (described simply as *future*). Future extension was calculated by measuring the average number of years that the subject projected into the future and thereafter subtracting the chronological age from this number. So if a thirty year old projected an average of thirty-five years into the future, his *future extension* score would be five. Future was calculated by counting the absolute number of items designated ‘future,’ as opposed to past or present.<sup>3</sup>

## 2.5 Methodology: Measures: Five-Factor Model and the NEO-FFI

Personality was measured using the NEO-FFI. The NEO-FFI is a shortened version of the NEO Personality Inventory-Revised (NEO-PI-R); both are thought to faithfully operationalize the five-factor traits of openness, conscientiousness, extraversion, agreeableness and neuroticism (Widiger & Trull, 1997). Taking most respondents between ten and fifteen minutes to complete, the NEO-FFI contains sixty items, which are equally divided into five twelve-item scales (McCrae & Oliver, 1992). Factor analyzed items of the NEO-FFI (Costa & McCrae, 1992) represent all traits while retaining reliability and internal consistency scores similar to that of the original NEO-PI-R.

## 2.6 Methodology: Procedure

Participants from Pace University and the Fashion Institute of Technology were recruited from undergraduate and graduate level classes and assessed as whole groups during class time with the consent of their respective professors. Participant confidentiality was secured by assigning numerical codes for identification purposes. In addition to filling out the primary questionnaires, participants provided demographic data, including: Age, gender, ethnicity, major, grade point average, and relationship status. Demographic information was completed first, followed by the NEO-FFI to obtain information about personality variables. The Time Reference Inventory was administered next. After the predictive measures were administered, Lampinen, Odegard and Leding’s (2004) DS was filled in, followed by the completion of the APPI and finally the LDS. The APPI was presented in a bound packet with each question or statement appearing on a small sheet of paper (8 ½ by 5 ½ inches) in

numbered order, followed by a lined area for participant responses. The sequence of the evaluation was held constant for all participants. Participants were directed to complete the questionnaires in the order that they received them. Incentives, such as gift cards, not exceeding fifteen dollars, were raffled off at the end of most assessments. Finally, the precedent of five years, established by Lampinen, Odegard and Leding (2004), was followed across all three dependent measures used in the present study.

### 3. Results: Hypothesis I

Hypothesis I predicted that the NEO-FFI scales of Neuroticism and Extraversion would be negatively correlated with diachronicity. In other words, as the aforementioned NEO-FFI domains increase, the levels of personal persistence will decrease. Correlational analyses as well as a series of regression analyses were conducted for all three levels of the dependent variable.

Looking first at the Neuroticism scale, there was limited support for the hypothesis. Using correlational analyses, as seen in Table 1, the Neuroticism scale evidenced a significant negative association with the LDS's even items (assessing diachronicity) ( $r = -.171$ ,  $p = .025$ ). As neuroticism increases personal persistence decreases.

**Table 1:** Intercorrelations across the dependent measures (DS, LDS and the APPI) and the five NEO-FFI domains: Neuroticism (N), Extraversion (E), Agreeableness (A) and Conscientiousness (C)

Measures	N	E	A	C
1. DS y-axis (diachronicity)	-.103	.152*	.209**	.036
2. DS x-axis (change)	-.042	.074	-.079	.037
3. LDS even items (diachronicity)	-.171*	-.019	.214*	.047
4. LDS odd items (change)	.169*	-.006	-.111	-.083
5. APPI	.018	.104	-.183*	-.078

**Note:** \*  $p < .05$ . \*\*  $p < .01$ .

This correlational finding was bolstered by the regression model, as shown in Table 2., yielding a significant negative association between the LDS's even items (assessing diachronicity) and Neuroticism ( $t = -2.022$ ,  $p = .045$ ). This again, suggests that neuroticism undermines personal persistence.

**Table 2:** Regression of NEO-FFI subscales on LDS's even items (diachronicity) and DS's y-axis (diachronicity)

Predictors	<u>Likert even items</u> ( $R^2 = .073$ , $p = .026$ )				<u>Diachronicity scale y-axis</u> ( $R^2 = .075$ , $p = .022$ )			
	B	$\beta$	t	p	B	$\beta$	t	p
1. Constant	25.812	-	5.264	.000	-.517	-	-.268	.789
2. Neuroticism	-.109	-.172	-2.022	.045	-.019	-.075	-.897	.371
3. Extraversion	-.084	-.083	-1.076	.248	.047	.114	1.478	.141
4. Agreeableness	.196	.212	2.672	.008	.074	.198	2.510	.013
5. Conscientiousness	-.071	-.074	-.868	.387	-.030	-.077	-.908	.365

This finding indicates, as hypothesized, that as levels of Neuroticism increase, levels of personal persistence decrease. In other words, those that are Neurotic are more likely to lack

personal persistence. However, this relationship, whether using correlational or regression models, was not evident across the other measures of diachronicity (see Tables 1, 2 and 3). Turning next to extraversion, as seen in Table 1., there was a significant association between Extraversion and the LDS's even items (assessing diachronicity) ( $r = .152$ ,  $p = .045$ ). However, as the Pearson correlation displays, the relationship is in the positive direction, rather than in the predicted negative direction, indicating that high levels of Extraversion are associated with personal persistence. Possible explanations for this will be reviewed in the discussion section. No other significant relationships were produced for Extraversion on either the correlational (see Table 1.) or regression models (see Tables 2 and 3).

**Table 3:** Logistical Regression Analysis, regressing NEO subscales and APPI response

Predictors	$\beta$	SE $\beta$	Wald's X <sup>2</sup>	df	p	e $\beta$ (odds ratio)
1. Constant	-1.914	1.871	1.047	1	.306	.147
2. Neuroticism	.004	.021	.037	1	.847	1.004
3. Extraversion	.037	.031	1.432	1	.231	1.038
4. Agreeableness	.080	.031	6.767	1	.009	1.083
5. Conscientiousness	-.059	.033	3.202	1	.074	.942

**Note:** Omnibus Test X<sup>2</sup> (5) = 11.0,  $p = .051$

### 3.1 Results: Hypothesis II

Hypothesis two predicted that change over time will moderate the relationship between personal persistence and the NEO-FFI domains of Neuroticism and Extraversion. In other words, the relationship between personality and personal persistence will become increasingly attenuated as change increases. This is because change, in and of itself, is believed to reduce personal persistence (Lampinen, Odegard & Leding, 2004). To test this hypothesis a series of three-predictor multiple regression analyses used change over time as the moderator, the particular personality trait as the independent variable and level of personal persistence as the dependent variable. Change and diachronicity as measured by the DS and the LDS were used in this series of analyses (the APPI cannot be considered due to its binary nature and because it has no quantifiable measure of change).

No significant main effects or interaction effects were found for Neuroticism when using the DS's y-axis (diachronicity) and x-axis (change) as dependent and moderator variables respectively. However, when employing the LDS's odd items (change) as the moderator variable and LDS's even items (diachronicity) as the dependent variable, there was, as seen in Table 4., a significant main effect for Neuroticism ( $t = -2.352$ ,  $p = .020$ ), a main effect for LDS odd items ( $t = -6.189$ ,  $p < .01$ ) and a significant interaction ( $F = 4.575$ ,  $p = .034$ ).

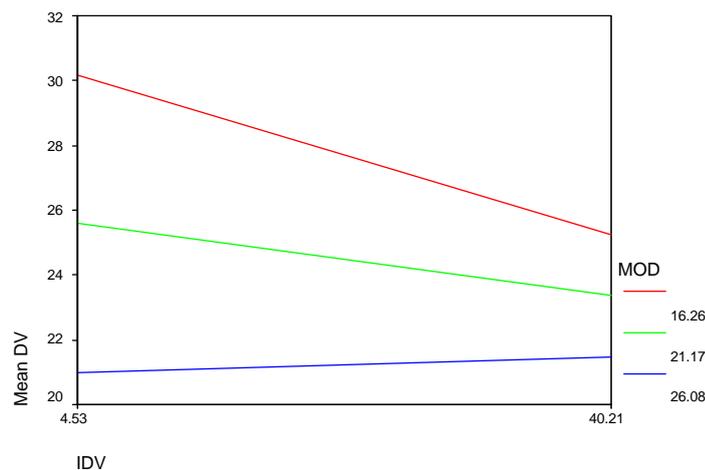
**Table 4:** Summary of the three-predictor regression analyses using Neuroticism as the independent variable: results presented for the DS and followed by results for the LDS

Variable	t	F	B	SE	$\beta$
Neuroticism	-1.060		-4.592E-02	.043	-.178
DS x-axis (change)	11.438		-.516	.359	-.276
DS x-axis x Neuroticism	.443	.196	6.932E-03	.016	.106
Neuroticism	-2.352*		-.387	.164	-.607*
LDS odd items (change)	-6.189**		-1.004	.162	-.867**

LDS odd items x Neuroticism	2.139*	4.575*	1.533E-02	.007	.653*
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**Note:** \*  $p < .05$ . \*\*  $p < .01$ .

When looking at the interaction effect, there was a stronger negative relationship between Neuroticism and diachronicity, as measured by the LDS for those participants that scored low (mean of 16.26 out of a range between 9-36) on the moderator of LDS odd items (assessing change) ( $\beta = -.216$ ,  $p = .019$ ); this can be viewed graphically by looking at the negative slope of the top line in Figure 1. In other words, for those participants that reported a low degree of change and who also reported high levels of diachronic disunity, there was a significantly higher level of Neuroticism. This corresponds to the proposed hypothesis: Diachronic disunity, in the relative absence of change, is associated with Neuroticism.



**Figure 1:** Three predictor multiple regression using Neuroticism as the Independent variable, LDS even items (diachronicity) as the dependent variable and LDS odd items (change) as the moderator. This graph displays the moderating effect of change on the relationship between neuroticism and diachronicity. As change decreases, the relationship between neuroticism and the diachronicity becomes increasingly negative.

When using the LDS as the moderator and dependent variable, no main effects or significant interactions were found for Extraversion, as seen in Table 5. Substituting the DS for the LDS yielded similarly meager results with no significant main effects or interaction effects detected.

**Table 5:** Summary of the three-predictor regression analyses using Extraversion as the independent variable: results presented for DS followed by the results for the LDS

Variable	t	F	B	SE B	$\beta$
Extraversion	.165		1.016E-02	.062	.025
DS x-axis (change)	-1.610		-1.129	.702	-.603
DS x-axis x Extraversion	1.084	1.175	2.445E-02	.023	.440
Extraversion	.048		1.444E-02	.298	.014
LDS odd items (change)	-1.476		-.651	.441	-.562
LDS odd items x Extraversion	-.126	.015	-1.755E-03	.014	-.060

**Note:** \*  $p < .05$ . \*\*  $p < .01$ .

### 3.2 Results: Hypothesis III

Hypothesis three predicted that increasing future oriented thought, as measured by the Time Reference Inventory (TRI), will be positively correlated with personal persistence. Future orientation, as measured by format one (future), was significantly correlated with the APPI ( $r = -.153$ ,  $p = .048$ ). As the level of future orientation increases, the probability of responding to question four (identifying oneself as personally persistent) increases. However, as seen in Table 6, this finding was not reproduced across the other two dependent variables (DS & LDS).

**Table 6:** Intercorrelations across the dependent measures (Diachronicity Scale, Likert items and the APPI) and time orientation as measured by the number of past items (past), present items (present), future items (future) as well as future extension

Measures	Past	Present	Future	Future Extension
1. Diachronicity scale y-axis	-.078	-.084	.127	.193*
2. Diachronicity scale x-axis	.132	.026	-.099	-.197*
3. Likert diachronicity even items	-.141	-.030	.122	.217**
4. Likert diachronicity odd items	-.173*	.109	-.210**	-.151
5. APPI-Diachronicity	-.200**	-.003	.153*	.015

**Note:** The correlations between measures of change and the dependent variables will be addressed in a subsequent exploratory section. \*  $p < .05$ . \*\*  $p < .01$ .

The second method, *future extension*, yielded a diametrically opposite set of associations compared with the findings for *future*. As Table 6 depicts, there was no significant relationship identified for between future extension and the APPI. However, there was a significant positive association between future extension and LDS even items (assessing diachronicity) ( $r = .217$ ,  $p = .010$ ) as well as a significant positive correlation between future extension and the DS's y-axis ( $r = .193$ ,  $p = .021$ ). These three findings partially supported the hypothesized relationship, suggesting an association between future oriented thought and diachronicity, such that greater projection, investment and thought about the future is related to increasing levels of personal persistence.

### 3.3 Results: Exploratory Analyses: Agreeableness and Conscientiousness

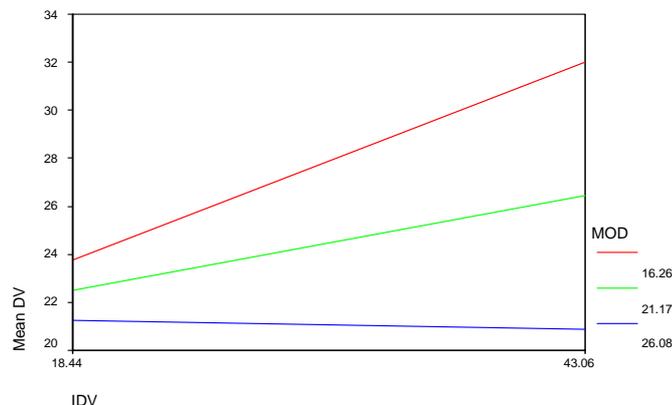
As Table 1 displays, the correlational analyses found Agreeableness to be significantly and positively associated with all three measures of the dependent variable: LDS even items (assessing diachronicity) ( $r = .214$ ,  $p = .005$ ), APPI ( $r = .183$ ,  $p = .017$ ), and the DS's y-axis ( $r = .209$ ,  $p = .006$ ). Regression analyses produced parallel results, as seen in Tables 2 and 3: LDS even items ( $t = 2.672$ ,  $p = .008$ ), APPI (Wald = 6.767,  $p = .009$ ), and the DS's y-axis ( $t = 2.510$ ,  $p = .013$ ). This strongly indicates that Agreeableness is positively related to personal persistence. These robust findings were fortified and dissected by the following three-predictor regressions. As seen in Table 7, the three predictor multiple regression model for Agreeableness yielded significant results when the LDS was utilized, but none were effected for the DS. The analysis for Agreeableness using the LDS's odd items (assessing change) as the moderator and the LDS's even items (assessing diachronicity) as the dependent variable yielded a significant main effect for the Agreeableness ( $t = 3.768$ ,  $p < .01$ ) and a significant interaction Agreeableness x LDS odd items ( $F = 10.805$ ,  $p = .001$ ).

**Table 7:** Summary of the three-predictor regression analyses using Agreeableness as the independent variable: results presented for the DS and followed by the results for the LDS

Variable	t	F	B	SE B	$\beta$
Agreeableness	1.184		6.267E-02	.053	.167
DS x-axis (change)	-.766		-.473	.617	-.253
DS x-axis x Agreeableness	.235	.055	4.541E-03	.019	.080
Agreeableness	3.768**		.912	.242	.988**
LDS odd items (change)	1.183		.399	.337	.344
LDS Odd Items x Agreeableness	-3.287**	10.805**	-3.551E-02	.011	-1.202**

**Note:** \*  $p < .05$ . \*\*  $p < .01$ .

Higher levels of change reduced the positive relationship between Agreeableness and diachronicity. This effect can be seen in Figure 2. by observing the reduction in the steepness of the line representing *medium change* ( $\beta = .174$ ,  $p = .004$ ) when compared to the line representing *low change* ( $\beta = .363$ ,  $p < .01$ ). Figure 2 also shows that the line for the high change group ( $\beta = -.015$ ,  $p = .845$ ) flattens completely. For those that were classified as *high change*, there was no relationship between Agreeableness and diachronicity. This means that as the level of change increased the positive relationship between diachronicity and Agreeableness decreased and became non-existent for those classified as high in change. In other words, the positive relationship between Agreeableness and personal persistence becomes more apparent as the effects of change decrease.



**Figure 2:** Three predictor multiple regression using Agreeableness as the independent variable, LDS even items (diachronicity) as the dependent variable and LDS odd items (change) as the moderator. This graph displays the moderating effect of change on the relationship between Agreeableness and diachronicity. As change decreases, the relationship between Agreeableness and the diachronicity becomes increasingly positive.

Correlational analyses did not yield a significant association between Conscientiousness and any of the three measures of diachronicity (see Table 1). The same is true of the three regression analyses that considered diachronicity and Conscientiousness (see Tables 2 and 3). However, after conducting the three-predictor regression analysis that accounted for change, a veiled pattern emerged. This remained undetected by the initial analyses because they could only measure the association between Conscientiousness and personal persistence collapsing across change. Conscientiousness followed the same pattern as Agreeableness, with significant findings found exclusively when using the LDS. As can be seen in Table 8, the analysis for Conscientiousness, using LDS odd items (assessing change) as the moderator and LDS even items (assessing diachronicity) as the dependent variable, yielded a significant

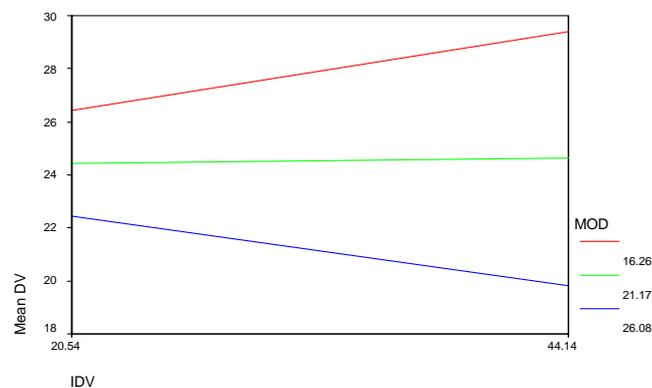
main effect for Conscientiousness ( $t = 2.049$ ,  $p = .042$ ) and a significant interaction Conscientiousness x LDS odd items (assessing change) ( $F = 4.495$ ,  $p = .035$ ).

**Table 8:** Summary of the three-predictor regression analyses using Conscientiousness as the independent variable: results presented for DS followed by the results for the LDS

Variable	t	F	B	SE	$\beta$
Conscientiousness	-.587		-3.692E-02	.063	-.095
DS x-axis (change)	-1.403		-1.126	.802	-.601
DS x-axis x Conscientiousness	.965	.931	2.278E-02	.024	.440
Conscientiousness	2.049*		.522	.255	.542*
LDS odd items (change)	.246		9.463E-02	.384	.082
LDS odd items x Conscientiousness	-2.120*	4.495*	-2.430E-02	.011	-.854*

**Note:** \*  $p < .05$ . \*\*  $p < .01$ .

None of the moderator groups were significantly distinct from one another. However, Figure 3. graphically depicts the tendency for each level of the moderator (change) to slope in a specific direction. Medium levels of change attenuated any relationship between diachronicity and Conscientiousness ( $\beta = -.008$ ,  $p = .900$ ); low levels of change appeared to allow the relationship between Conscientiousness and diachronicity to gravitate towards the positive ( $\beta = .132$ ,  $p = .137$ ); and finally, high levels of change appeared to permit the relationship between Conscientiousness and diachronicity to become increasingly negative ( $\beta = -.116$ ,  $p = .150$ ). In summary, as the level of change decreases, the relationship between Conscientiousness and diachronicity becomes increasingly positive; higher levels of Conscientiousness are associated with personal persistence for those that experience little change.



**Figure 3:** Three predictor multiple regression using Conscientiousness as the independent variable, LDS even items (diachronicity) as the dependent variable and LDS odd items (change) as the moderator. This graph displays the moderating effect of change on the relationship between Conscientiousness and diachronicity. As change decreases, the relationship between Conscientiousness and the diachronicity becomes increasingly positive.

### 3.4 Results: Exploratory Analyses: Gender Effects

In the present sample, 75 percent of males report the absence of personal persistence whereas only 59 percent of females report the same. As seen in Table 9., a series of correlational analyses were run for all three dependent measures to see if this differential reached a level of statistical significance.

**Table 9:** Intercorrelations between gender and the three measures of diachronicity: APPI, LDS and the DS

Measures	1.	2.	3.	4.	5.	6.
1. Gender	-	.137	.142	-.104	.182*	-.142
2. APPI Diachronicity		-	.540**	-.460**	.490**	-.325**
3. Likert Diachronicity			-	-.609**	.433**	-.303**
4. Likert Change				-	-.450**	.265**
5. Diachronicity y-axis					-	-.193*
6. Change x-axis						-

**Note:** \*  $p < .05$ . \*\*  $p < .01$ .

When personal persistence was measured by the APPI, no gender differences were detected ( $r = -.137$ ,  $p = .078$ ). Substituting the LDS yielded only marginally significant results ( $r = .142$ ,  $p = .065$ ). However, as Table 9 displays, associations between gender and the DS reached statistical significance ( $r = .182$ ,  $p = .017$ ), providing limited support for a male bias towards the absence of personal persistence that is seen in the marginal effect of the other two measures.

#### 4. Discussion

The present study demonstrated a relationship between personality and perceived personal persistence. Two hypothesized relationships were upheld, one was controverted. However, as a rule, personality was invariably related to personal persistence in some respect. This relationship, at first view appears to be disjointed and arbitrary, but an intelligible pattern appears when looking at the results in aggregate.

As predicted, neuroticism and personal persistence are negatively correlated; as neuroticism increased, personal persistence decreased. This relationship is consistent with Clancy and Dollinger's (1993) finding that Neuroticism is related to a prolonged and distressing search for identity and generally with hesitance to adopt life roles. Also as predicted, future orientation and personal persistence were, in half of the analyses, positively correlated; as future orientation increased, so did personal persistence. This is consistent with Strawson's (2005) present focused episodic subjectivity. Strawsonian pearls are bounded in front and back, in respect to the past and future. Strawson's written accounts of his subjectivity clearly show blunted anticipatory anxiety and limited future projection, which indicate a foreshortened future orientation.

Contrary to the stated hypothesis, the relationship between Extraversion and personal persistence turned out to be positive. It is the extravert, not the introvert, who is personally persistent. We had predicted that the introvert, being oriented to his phenomenology, traits and motivations, would consequently display higher rates of personal persistence. It is precisely this orientation, however, that might undermine personal persistence. Inverting the significance of the introvert's internal orientation, it transitions from a positive sign denoting intrapersonal awareness to a negative sign denoting intrapersonal turmoil. In this view, the extravert's orientation away from the intrapersonal world and towards the interpersonal world signals self-assurance, competence and direction, not insufficient meta-awareness, incognizance and shallowness. The fluid navigation of the social world by the extravert can be likened to the proficient athlete that has internalized the movements of his sport, whereas the nervous hesitancy of the introvert is characteristic of the novice who, sensing that he is marginally competent, plans, thinks and worries himself into disharmony and discredit. In this way, introverted introspection might be thought of as a symptom of sorts. The withdrawal and self-focus of introversion, in this light, overlaps with the insecurities and

anxieties of neuroticism; and indeed trait studies show neuroticism and introversion to be positively correlated.

Exploratory analyses established a positive relationship between personal persistence and the personality traits of Conscientiousness and Agreeableness. When looking at the aggregate of results across these specified and exploratory analyses, a pattern emerges. Especially when the relationship between change and personal persistence is controlled for, each of these five traits showed significant associations with at least one measure of personal persistence. Personal persistence is associated with high future orientation, extraversion, agreeableness, conscientiousness and low neuroticism. Personal persistence, in a sense, generates a corresponding personality profile; that of a pleasant, hardworking and sociable person that is goal oriented and relatively free of internal distress. Alternatively, those that lack personal persistence, those that would be described by Lampinen et al as *diachronically disunified*, are more likely to be relatively isolated, anxious and unsure individuals that have inadequate future goals and limited drive to attain them.

The latter personality pattern is in no sense pathological or diagnosable under any established nosology of mental illness. Although this pattern is not indicative of clinically significant maladjustment, it does undermine the Strawsonian position, which states that the presence or absence of personal persistence is simply an individual difference variable with genetic underpinnings, which is devoid of positive or negative connotations. This is at least true when analyzing the data through the lens of Western cultural values. So far as can be inferred, the traits of future orientation, conscientiousness, agreeableness, extraversion and positive emotional adjustment are rewarded with preferential mate choice, encomiums, emoluments, vocational latitude and money. Undoubtedly there are specialized societal and vocational niches where the opposite of each of these traits are desirable. One can even envision how groups of these traits might confer advantages in certain settings, and yet, in most currently valued contexts, it is this pattern and these traits which enable potent and adaptable navigation of the social world and which inform success across a variety of contexts.

Following this line of reasoning, the absence of personal persistence, so far as we can ascertain, is a phenomenological symptom. The failure to warrant a sense of personal persistence is, perhaps, a symptom in the sense that rumination and excessive self-monitoring is a symptom. Affecting many individuals, it is a subjective consequence of marginalization, coping problems, or some other form of non-clinical maladjustment. It is our contention that participants that lack personal persistence are showing signs of non-clinical adaptive strain, which is in some ways akin to the rejection sensitive pattern of “shyness,” “hesitancy,” “melancholy” and “over-cautiousness” that Peter Kramer (1993) describes.

While future studies might 1) investigate the relationship between openness and personal persistence, 2) use older participants and persons in different developmental phases, 3) examine the moral reasoning of those that lack personal persistence or 4) explore how participant responses are affected by questionnaire protocols, the most compelling domain of future study will examine the cultural impetus responsible for the ostensible decrease in personal persistence among postmodern selves. Both the present study and the work of Lampinen et al. (2004), show that personal persistence is absent almost as much as present. It very well may be that this was always so. Notwithstanding this possibility, we believe that writings are reflective of cultural patterns and of the phenomenology of individuals. Consequently, we understand the transition from Eriksonian assumptions to Strawsonian questions to be symptomatic of real social change. If the swell of publications on personal persistence can be relied upon as a barometer of change, something is indeed afoot. The most instructive future investigations, consequently, will attempt to figure out what social changes depressed rates of personal persistence. One promising candidate of mutative social change, is change itself. Change, independently and powerfully, erodes personal persistence

(Lampinen, Odegard & Leding 2004; Hertler, Krauss & Ward, 2013). There may be a kind of diathesis-stress dynamic occurring. It may be that in order to maintain personal persistence, those with certain traits or patterns of traits (neuroticism, low conscientiousness, low agreeableness, introversion, restricted future orientation) required premodern supports of external social stasis (religious uniformity, limited vocational choice, restricted social latitude, consistent residence in one's home, and neighborhood). While it is not possible to measure the personal persistence of medieval or early modern persons, it is possible to measure the subjectivity of Eastern persons and perhaps of those Westerners residing in the bucolic isolation of more traditional cultures.

## Appendix A

### Time Reference Inventory

Identification Number \_\_\_\_\_

Date of Birth \_\_\_\_\_

### Time Reference Inventory

This is a brief inventory designed to estimate people's reaction in terms of past, present and future. Please indicate for each statement below whether it most nearly refers to the past, present or future by placing an X in the appropriate column. Be sure to place only one X for each statement. In the "Age" column, indicate your best guess of your age at the time to which the statement refers. In cases where a statement applies to a time in the future less than a year from now, list under the "Age" column you present age.

#### Two Samples Follow:

**Sample 1:** I am taking the Time Reference Inventory in the

Past	Present	Future	Age
	X		Current age

**Sample 2:** My death is in the

Past	Present	Future	Age
		X	85

In the Sample 1, since the subject is currently taking the Time Reference Inventory he places an X under the "Present" column, and under the "Age" column he lists his current age.

In Sample 2, the subject expects to die in the future, and hence he places the X under the "Future" Column. His guess is that the will die at the age of 85, and, therefore, he writes "85" under the "Age" column.

Please complete EVERY statement below, even though you may have to make "wild guesses".

1. The most important time of my life is probably in the

Past	Present	Future	Age
------	---------	--------	-----

2. I believe the happiest time of my life is in the

- |  | Past | Present | Future | Age |
|--|------|---------|--------|-----|
| 3. The most productive period of my life is in the           |      |         |        |     |
|  | Past | Present | Future | Age |
| 4. The most peaceful time of my life is in the               |      |         |        |     |
|  | Past | Present | Future | Age |
| 5. I usually <u>prefer</u> talking about the                 |      |         |        |     |
|  | Past | Present | Future | Age |
| 6. The most crucial period of my life is probably in the     |      |         |        |     |
|  | Past | Present | Future | Age |
| 7. The most satisfying time of my life is probably in the    |      |         |        |     |
|  | Past | Present | Future | Age |
| 8. My period of greatest accomplishment is probably in the   |      |         |        |     |
|  | Past | Present | Future | Age |
| 9. The most untroubled period of my life is in the           |      |         |        |     |
|  | Past | Present | Future | Age |
| 10. I get most enjoyment about thinking about the            |      |         |        |     |
|  | Past | Present | Future | Age |
| 11. The most unhappy time in my life seems to be the         |      |         |        |     |
|  | Past | Present | Future | Age |
| 12. I believe the most difficult period of my life is in the |      |         |        |     |
|  | Past | Present | Future | Age |
| 13. The most frightening time in my life is in the           |      |         |        |     |
|  | Past | Present | Future | Age |
| 14. My period of greatest worrying is probably in the        |      |         |        |     |
|  | Past | Present | Future | Age |
| 15. The most discouraging time of my life seems to be the    |      |         |        |     |
|  | Past | Present | Future | Age |

16. My period of greatest depression is probably in the

Past Present Future Age

17. I feel the most frustrating time of my life is in the

Past Present Future Age

18. The most anxious time of my life is probably in the

Past Present Future Age

19. The most troubled period of my life is probably in the

Past Present Future Age

20. My period of greatest discouragement is probably in the

Past Present Future Age

21. The busiest time of my life is probably in the

Past Present Future Age

22. The most religious time of my life is probably in the

Past Present Future Age

23. Most of my daydreams are about the

Past Present Future Age

24. My important decisions are usually primarily based on the

Past Present Future Age

25. I most often dream about the

Past Present Future Age

26. My most active period is probably in the

Past Present Future Age

27. My greatest concern over religious materials is probably in the

Past Present Future Age

28. Most of my fantasies are about the

Past Present Future Age

29. My plans are usually based principally on the

Past	Present	Future	Age
------	---------	--------	-----

30. Most of my dreams are usually about the

Past	Present	Future	Age
------	---------	--------	-----

## Notes

1. The experience of time is purported to be a central tenet of personality (Calabresi & Cohen, 1968). Future orientation is defined as conceiving of one's self in future environments and situations (Pulkkinen & Ronka, 1994). Future mindedness became a term that was regularly used by psychologists and related professionals around the time of the First World War. According to Peterson (1950) future oriented thought is traditionally related to positive qualities such as persisting toward a desired goal, a sense of industry and the ability to forgo immediate gratification in expectation of future emoluments. Highly future oriented individuals can be expected to check the time more often, create lists of pressing activities and use calendars to mark relevant dates. Future oriented thought involves setting and working towards goals, anticipating blessings and preparing for tragedy (Gjesme, 1983). Future orientation, though not customarily included in measures of personality, surfaces in the personal persistence literature. The presence of future orientation is necessary for Locke who saw it as a prerequisite to pride and vengeance and Erikson who believed it to function jointly with memory to create present identity. In turn, Strawson reports, not only "little interest my own past," but also "little concern for the future." Thus, we included future orientation as a personality variable and measured it alongside tradition traits.
2. For a more full description of the Diachronicity Scale see Lampinen, Odegard and Leding's *Diachronic Disunity* (2004), a book chapter in *The Self and Memory*, edited by Beike, Lampinen and Behrend and cited in the reference list. A detailed description of the diachronicity scale is also contained in our own work: *Understanding Diachronic Reasoning: Exploratory Measures of Self Change in Young Adults*.
3. Although many calculation variants exist for the Time Reference Inventory (TRI), convention has produced the following three measurement strategies: 1) Assessment of future extension, measured by the average number of years (minus the chronological age) that the subject projected into the future (for those items categorized as future). For example, of the thirty items on the TRI, the subject might designate eight items as corresponding to future. For this participant then, these eight responses would serve as the items from which future extension would be calculated, with the other 22 being excluded from the calculation. The ages of these eight items would be added and divided by eight and that number would be subtracted from the participant's chronological age yielding some number beyond the participant's current age. This number would be the participant's future extension. 2) Average number of years projected into the past, measured in the same manner as future extension (mean past extended age, minus chronological age). 3) The quantity of positive negative and neutral statements designated as past present or future (Roos & Albers, 1965b).

For the present study, the first of these conventional measurement strategies, described in the paragraph directly above will serve as the form of calculation (this will be referred to as *future*

*extension* in the results section). The other two conventional calculations do not specifically assess future orientation and so are not pertinent to the hypothesized relationship between future orientation and personal persistence. One novel calculation, not described in the literature, will be included. Throughout the documented uses of the TRI there does not seem to be a pure measure of frequency of future items that disregards number of years extended and affective valence. The present study will employ this novel calculation, which will be referred to in the results section as *future*. These measurement techniques are deemed to be congruent with the nature of future oriented thought as it pertains to personal persistence.

## References

- [1] H.L. Ansbacher, Prescott Lecky's concept of resistance and his personality, *Journal of Clinical Psychology*, 37(1981), 791-795.
- [2] J.L. Battersby, Narrativity, self and self-representation, *Narrative*, 14(2006), 28-44.
- [3] D.R. Beike, J.M. Lampinen and D.A. Behrend, *The Self and Memory*, (2004), New York: Psychology Press.
- [4] R. Calabresi and J. Cohen, Personality and time attitudes, *Journal of Abnormal Psychology*, 73(1968), 431-439.
- [5] M.J. Chandler, C.E. Lalonde, B.W. Sokol and D. Hallett, Personal persistence, identity development and suicide, *Monographs of the Society for Research in Child Development*, 68(2003), 1-128.
- [6] S.M. Clancy and S.J. Dollinger, Identity, self and personality: I, Identity status and the five-factor model of personality, *Journal of Research on Adolescence*, 3(1993), 227-245.
- [7] P.T. Costa and R.R. McCrae, *Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI) Professional Manual*, (1992), Lutz, FL: Psychological Assessment Resources, Inc.
- [8] J.D. Foulks and J.T. Webb, Temporal orientation of diagnostic groups, *Journal of Clinical Psychology*, 26(1970), 155-159.
- [9] J.D. Foulks, J.T. Webb and B.H. Garner, Stability of temporal orientation of diagnostic groups, *Paper Presented at the Meeting of the South Eastern Psychological Association*, Atlanta, GA, (1967), In D. Rosen, A comparison of temporal experience of depressed and non depressed adolescents, *Unpublished Doctoral Dissertation*, (1990), Pace University, New York.
- [10] R.M. Gale, *The Philosophy of William James: An Introduction*, (2005), New York: Cambridge University Press.
- [11] S. Gallagher and J. Shear, *Models of the Self*, (1999), Thorverton, England: Imprint Academic.
- [12] T. Gjesme, On the concept of future time orientation: Considerations of some functions' and measurements' implications, *International Journal of Psychology*, 18(1983), 443-461.
- [13] C.S. Hall and V.J. Nordby, *A Primer of Jungian Psychology*, (1973), New York: Penguin Group.
- [14] H.J.M. Hermans, Conceptions of self and identity: Toward a dialogical view, *International Journal of Education and Religion II*, 1(2001), 43-62.
- [15] S. Hertler, H. Krauss and A. Ward, Understanding diachronic reasoning: Exploratory measures of self-change in young adults, *Submitted to Psychological Reports*, Currently under review, (2013).
- [16] W. James, *The Principles of Psychology*, (1890/1950), New York: Dover Publications, Inc.
- [17] W. James, *Psychology: The Briefer Course*, (1892/1985), Boston, MA: Harvard University Press.
- [18] C.G. Jung, *The Development of Personality: Papers on Child Psychology, Education and Related Subjects*, (1954), New York: Princeton University Press.

- [19] P.D. Kramer, *Listening to Prozac: A Psychiatrist Explores Antidepressant Drugs and the Remaking of the Self*, (1993), New York: Penguin Books.
- [20] J.M. Lampinen, T.N. Odegard and J.K. Leding, Diachronic disunity, In D. Beike, J.M. Lampinen and D.A. Behrend (Eds.), *The Self and Memory*, (2004), 227-253, New York: Psychology Press.
- [21] R.J. Lifton, *The Protean Self: Human Resilience in an Age of Renewal*, (1993), New York: Basic Books.
- [22] J. Locke, *An Essay Concerning Human Understanding*, (1689/1996), Indianapolis, IN: Hackett Publishing Company, Inc.
- [23] R. Martin and J. Barresi, *The Rise and Fall of Soul and Self: An Intellectual History of Personal Identity*, (2006), New York: Columbia University Press.
- [24] D.P. McAdams, Personality, modernity and the storied self: A contemporary framework for studying persons, *Psychological Inquiry*, 7(1996), 295-231.
- [25] D.P. McAdams, *The Redemptive Self: Stories Americans Live by*, (2006), New York: Oxford University Press.
- [26] D.P. McAdams, N.A. Anyidoho, C. Brown, Y.T. Huang, B. Kaplan and M.A. Machado, Traits and stories: Links between dispositional and narrative features of personality, *Journal of Personality*, 72(2004), 761-784.
- [27] D.P. McAdams, R. Josselson and A. Lieblich, *Identity and Story: Creating Self in Narrative*, (2002), Washington DC: American Psychological Association.
- [28] R.R. McCrae, Openness to experience: Expanding the boundaries of factor V, *European Journal of Personality*, 8(1994), 251-272.
- [29] R.R. McCrae and J.P. Oliver, An introduction to the five-factor model and its applications, *Journal of Personality*, 60(1992), 175-215.
- [30] C. Peterson, *Character Strengths and Virtues: A Handbook and Classification*, (1950), New York: Oxford University Press.
- [31] L. Pulkkinen and A. Ronka, Personal control over development, identity formation and future as components of life orientation: A developmental approach, *Developmental Psychology*, 30(1994), 260-271.
- [32] J. Quoidbach, D.T. Gilbert and T.D. Wilson, The end of history illusion, *Science*, 339(2013), 96-98.
- [33] P.F. Raggatt, Mapping the dialogical self: Towards a rationale and method of assessment, *European Journal of Personality*, 14(2000), 65-90.
- [34] P. Roos and R. Albers, Performance of retardates and normals on a measure of temporal orientation, *American Journal of Mental Deficiency*, 69(1965a), 835-838.
- [35] P. Roos and R. Albers, Performance of alcoholics and normals on a measure of temporal orientation, *Journal of Clinical Psychology*, 21(1965b), 34-36.
- [36] D. Rosen, A comparison of temporal experience of depressed and non-depressed adolescents, *Unpublished Doctoral Dissertation*, (1990), Pace University, New York.
- [37] E.P. Schachtler, Erikson meets the postmodern: Can classic identity theory rise to the challenge, *Identity: An International Journal of Theory and Research*, 5(2005), 137-160.
- [38] J. Seigel, *The Idea of the Self: Thought and Experience in Western Europe Since the Seventeenth Century*, (2005), Cambridge, England: Cambridge University Press.
- [39] J.A. Singer, To integrate or not to integrate: A dilemma for modern personality theory, *Psychological Inquiry*, 7(1996), 367-371.
- [40] J.A. Singer, Narrative identity and meaning making across the adult lifespan: An introduction, *Journal of Personality*, 72(2004), 437-459.
- [41] G. Strawson, Models of the self, *Journal of Consciousness Studies*, 4(1997), 405-428.
- [42] G. Strawson, The self and the self, In S. Gallagher and J. Shear (Eds.), *Models of the Self*, (1999), 483-519, Thorverton, England: Imprint Academic.
- [43] G. Strawson, *The Self?* (2005), Malden, MA: Blackwell Publishing Ltd.
- [44] G. Strawson, *Selves: An Essay in Revisionary Metaphysics*, (2009), New York: Oxford University Press.

- [45] M.J. Stevens, Prescott Lecky: Pioneer in consistency theory and cognitive therapy, *Journal of Clinical Psychology*, 48(1992), 807-811.
- [46] S.A. Tesch and K.A. Cameron, Openness to experience and development of adult identity, *Journal of Personality*, 55(1987), 615-630.
- [47] M. Tye, *Consciousness and Persons: Unity and Identity (Representation and Mind)*, (2005), Cumberland, RI: MIT Press.
- [48] T.A. Widiger and T.J. Trull, Assessment of the five-factor model of personality, *Journal of Personality Assessment*, 68(1997), 228-250.
- [49] T.C. Wild, D. Kuiken and D. Schopflocher, The role of absorption in experiential involvement, *Personality and Social Psychology*, 69(1995), 569-579.
- [50] K. Wilkes, Know thyself, in S. Gallagher and J. Shear (Eds.), *Models of the Self*, (1999), 24-37, Thorverton, England: Imprint Academic.