The validity of eliciting and coding personal narratives: understanding the properties of coherence and richness

Daniel Thomas Rogers

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To the Graduate Council:

I am submitting herewith a thesis written by Daniel Thomas Rogers entitled "The validity of eliciting and coding personal narratives: understanding the properties of coherence and richness." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts, with a major in Psychology.

Robert G. Wahler, Major Professor

We have read this thesis and recommend its acceptance:

Michael R. Nash, Kristina C. Gordon

Accepted for the Council:
Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)
To the Graduate Council.

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Accepted for the Council.

Interim Vice Provost and Dean of the Graduate School
THE VALIDITY OF ELICITING AND CODING PERSONAL NARRATIVES: UNDERSTANDING THE PROPERTIES OF COHERENCE AND RICHNESS

A Thesis
Presented for the
Master of Arts
Degree
The University of Tennessee, Knoxville

Daniel Thomas Rogers
August 2000
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ABSTRACT

The current study examined the reliability and discriminant validity of a technique for eliciting and assessing individuals' personal narratives. Previous research has indicated the value of assessing personal narrative in order to better understand how individuals perceive self and other and develop internal models of their relationships with the world around them. Forty participants completed two personal narrative interviews, approximately two weeks apart, which varied in level of provided structure. Participants also completed a test of verbal ability and a questionnaire pertaining to psychopathy. The coherence and richness of narrative responses to more structured interviews demonstrated considerable temporal stability. Results also indicated that individuals produce significantly greater amounts of richness in their narrative responses to less structured, or free-form interviews when compared to structured interviews. Additionally, the richness and coherence of individuals' narrative productions appears to be relatively independent of those individuals' verbal abilities, regardless of interview type. Finally, richness scores proved to be inversely related to levels of overall psychopathy, or more specifically, fearlessness. These findings are discussed in terms of their impact on future investigations of personal narrative utilizing the investigated measures. Additional discussion considers the ramifications of the findings in light of previously discussed theories of narrative development and function.
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CHAPTER I

INTRODUCTION AND REVIEW OF THE LITERATURE

As humans, we retain personal summaries of our experiences in the world. We recount these summaries, from the momentous to the mundane, in the form of stories or narratives. While the reasons for constructing stories about our past experiences are varied, fundamentally, these personal narratives are the means to understanding our lives and our selves (Pennebaker & Seagal, 1999). They serve to provide organization to and assist us in remembering a myriad of experiences in a relatively coherent manner (Castlebury, 1998). In addition, they allow for securing the roles and intentions of other individuals involved in those experiences (Braid, 1996). Repeated formulations and tellings of our narratives allow us to gradually develop an understanding of our relationship to the world around us. Evident in the stable characteristics that our narratives present are not only aspects of how we perceive self and other, but also the rules we follow and impose on a variety of social exchanges between the two (Gergen & Gergen, 1988). In this sense, the stories we tell come to embody our understanding of basic human interactions and relationships. Subsequently, while the personal narrative may be inherently based on our perceptions of past experience, the narrative may also provide the careful listener with insight into how the narrator will interpret and respond to experiences in the future (Applebee, 1978).

The nature, development, and role of personal narrative in human experience has begun to emerge as an area of research that promises to shed light on many of the basic concepts related to how individuals perceive, organize, and interact with the world.
around them. Research methods in the area continue to expand and develop. The current study seeks to explore aspects of the reliability and discriminate validity of one of these techniques. However, given the range of interest in researching and understanding personal narrative, careful consideration must first be given to the origins of such attention and the previous research it has fostered. Several major areas of research and theory have contributed to our understanding of the nature and role of narrative in human existence. Among these, emphasis has perhaps been placed most heavily on the function of narrative as a thought process, as a form of communication, and as a developmental achievement. In recent years, considerable effort has been made to examine the ways in which individuals rely on their narratives as representations of past happenings that shape current experience. The majority of such research has concentrated on understanding the function of narrative through attachment theory. Revisiting each of these perspectives on the nature of narrative provides a foundation from which to more critically consider the function and role of narrative and its various properties in everyday life.

**Narrative as Thought**

As a concept, narrative is considered a primary cognitive instrument, as elementary and essential as theory and metaphor in basic thought processes (Mink, 1978). As a foundational component of thought, the concept of personal narrative has largely been endorsed by and subsequently investigated in various areas of psychology. A common element of such interest resides in the exploration of how personal narratives function as knowledge structures. Such structures are theorized to underlie the ways in which ordinary experience is represented, constructed, and organized.
The personal narrative is perhaps best explained as a knowledge structure in terms of its relationship to the concept of the cognitive schema. Schemas are the basic cognitive structures that serve to represent regularities in patterns of our personal experience (Brewer, 2000). From this cognitive framework, narrative extends beyond the most simplistic role of the schema. Schank and Abelson (1988) have suggested that the schemas that comprise our personal narratives are more complex than patterns or regularities, and may be better described as scripts. Scripts provide the individual with representations of entire stereotyped event sequences. The scripts or narratives are activated, through any exposure to relevant material, when the individual expects such sequences to occur. Baldwin (1992) has further argued that the majority of our scripts can be conceptualized as relational schemas, which serve as internal representations of complex patterns of interpersonal relationships. In this sense, our narratives may ultimately provide us with well-formed expectations that guide us in interpreting and responding to new experiences, and in particular, social interactions (Wahler, 1996).

**Narrative as Communication**

Beyond the acceptance of the schema and script concepts from cognitive psychology, the development of interest and research in the area of personal narratives can be largely attributed to the pioneering work of linguists studying narrative structure as it occurs in natural discourse (Labov, 1982; Labov & Waletsky, 1967). Even in the early stages of research in the area, one assumption was held constant among such theorists: narratives are inherently interpersonal and are therefore told to others in ways that can be understood (Haden, Haine, & Fivush, 1997). This assumption also underlies
much of social and developmental psychology's understanding of narrative development and maintenance. However, the claim that narrative is inherently interpersonal places greater requirements on the individual narrator than the ability to simply create and maintain knowledge structures. Sharing personal narratives requires both an autobiographical memory for the experiences and a capacity to organize and express them to others in recognizable forms. From this understanding, the processes through which individuals develop such capacities became a logical extension for further research.

**Narrative Development**

Investigations into the development of narrative ability and the emergence of personal narratives themselves have relied on several conceptual frameworks. Most prominent among these has been Vygotsky's (1978) notion that cognitive skills essential to narrative construction originate from early social interactions with skilled partners. In exploring this theory of narrative development and the acquisition of the cognitive abilities it involves, continued research has focused more closely on early parent-child interactions. Fivush, Gray, & Fromhoff (1987) have demonstrated that efforts at telling stories and recounting personal experiences begin early in childhood, almost as soon as children begin to talk. As in language development when vocabulary, syntax, and grammar are modeled and shaped, parents provide their children with a structure or scaffold that allows the dyad to talk about past experiences together (Eisenberg, 1985; Hudson, 1990, Engel 1986). Over time, children's competency to narrate increases and the scaffolding is reduced by the skilled partner. Eventually, children internalize the necessary skills to support independent personal narrative.
construction (Wertsch, 1985) Further inquiries have revealed considerable stability between the coherency and emotional qualities of a parent and child co-constructed narrative, and those the child later produces on his or her own (Oppenheim, Nir, Warren, & Emde, 1997). Hudson (1990) has further argued that it is the basic form or structure of the personal narrative that children acquire from an early age as a result of these interactions. The basic narrative structure is then carried throughout life, underlying any of the expected increases in elaboration and complexity that accompany normal intellectual development.

**Narrative and Attachment**

Researchers in the area of attachment have generated considerable interest in the impact that narrative development has on adult functioning and child development. The theory of attachment, as originally proposed by Bowlby (1973), seeks to explain the nature of a child's tie to his or her parent in terms of biological functioning. In particular, early attachment theory sought to explain the disturbing behavior observed among infants experiencing prolonged separations from their attachment figures or caregivers. Recent emphasis on the development of attachment has begun to examine the ways in which the adult caregivers process information relevant to providing an attachment experience for their child. Such efforts have placed importance on an adult's mental representation of his or her own attachment experience to parental figures, through applying the cognitive organization and representation concepts of cognitive psychology (Mandler, 1983). The approach suggests that an adult caregiver's personal experience of attachment with his or her parents can be conceptualized as an internal model, or state of mind (Main, Kaplan, & Cassidy, 1985). In order to assess
this mental representation, George, Kaplan, and Main (1985) developed the Adult Attachment Interview (AAI). The AAI is based on two assumptions: (a) autobiographical memory is an active process of constructing one’s ideas about past experience based on new information, and (b) the structure, style, and content of these memories, as they are produced in narrative form, can provide information relevant to the quality of early childhood experiences (van IJzendoorn, 1995).

The AAI requires parents to complete a structured interview that involves questions related to their own early childhood attachment experiences. The responses are analyzed for content, but the overwhelming emphasis is placed on the coherency of the narrative productions. Narrative coherence refers to the narrator’s ability to summarize his or her historical experiences into a consistent pattern, or recognizable form, that presents their unique personal strategies for relating to others (Fox, 1995). Ratings of the coherency of narrative responses to the AAI allow for classification of an adult’s attachment style and experience (Bakermans-Kranenburg & van IJzendoorn, 1993). An adult’s mental representation of their own attachment experience, in particular the ability to organize and present a narrative account, is proposed to influence and direct approaches to interacting with his or her own children (Main & Goldwyn, 1992). While the reliability and discriminate validity of the AAI has been documented (van IJzendoorn, 1995) and many of its original investigations replicated, critics have argued that the coherency of an adult’s narrative as generated during the AAI may have alternative derivations other than attachment experiences (Fox, 1995). A recent investigation by Waters, Rodrigues, and Ridgeway (1998) suggests that a more complete analysis of the cognitive variables underlying coherency in individuals’ story
completions may improve our understanding of attachment representations. Accounting for cognitive variables such as scriptedness and number of idea units may help better differentiate attachment representations and cognitive development.

The Role of Personal Narrative

In an extension of the adult attachment research, investigations into the function and maintenance of personal narratives have tended to focus on aspects of both structure and content. Although the distinction between these dimensions is somewhat artificial, such provisional categories provide a useful framework for examining narrative (Castlebury, 1998). Coherency is by definition a structural quality, which embodies the elements of consistency in discourse. Elements such as clarity, relevance, progression, and brevity all contribute to narrative coherence (Grice, 1975). However, a critical distinction must be drawn between coherency and historical accuracy. Coherency is the individual's ability to summarize historical experiences and to present them in an understandable and clear manner, regardless of the veracity of the historical recollection (Fox, 1995). As Ross (1989) has argued, the social construction of personal histories and narratives is subject to a multitude of factors, not the least of which are personality and present functioning. Coherency therefore emerges as a property of personal narratives that must be evaluated largely independent of concern for historical accuracy. However, this does not negate or diminish the power of coherency in narrative. A large body of research on the AAI provides strong evidence that the coherency of adults' personal narratives is related to both their perceptions of their own attachment experience, and the quality of the their relationship with their own children (Bus & van IJzendoorn, 1992, Cohn, Cowan, Cowan & Pearson, 1992; Crowell
& Feldman, 1988, Eiden, Teti, & Corns, 1995, Ward & Carlson, 1995) Coherent narratives provide reliable guidelines for responding to and interacting with the world. The greater the narrator’s ability to summarize and conceptualize experiences in this manner, the greater the likelihood that the individual can productively interpret, respond to, and incorporate new experiences into his or her internal representations of the world.

Recently, greater emphasis has been directed away from the variations in structure and coherency of personal narratives towards understanding individual differences in narrative style. The impetus for much of this focus stems from previous research findings which indicate that mothers present individual differences in styles of talking with their children about past experiences (Fivush & Fromhoff, 1988; McCabe & Peterson, 1991) In particular, two distinct parental styles have been documented and include a high-elaborative, or topic-extending, and a low-elaborative, or topic-switching, style (Fivush & Fromhoff, 1988, Reese & Fivush, 1993) In comparison to unelaborative narratives, elaborate or rich narratives have the ability to more fully convey the complexities of personal experience. However, a crucial realization in this area of research suggests that the variations in styles of recounting personal experience can occur independent of structural qualities such as coherence. Two narratives generated about the same experience can be considered equivalent in their coherence yet distinct in terms of elaborative style. As a quality of narrative style, richness, or variation in elaboration, encompasses the narrator’s willingness to situate events and actions in a more specified context of time, place, and character. In addition, it captures the narrator’s desire to also provide the audience with a subjective evaluation of the described experiences (Castlebury, 1998). In contrast to coherency, the quality of
richness suggests willingness on the part of the narrator to engage the other through
relating information that may often be unnecessary in clearly presenting the narrative’s
main points Along with coherency, the degree of richness in parental narratives has
continued to reveal the strong degree to which this approach to organizing and
presenting personal experiences is internalized and adopted by the child (McCabe &
Patterson, 1991)

While the majority of research and interest in the function and development of
personal narratives has been concentrated in parent-child interactions and child
development, several theories grounded more in interpersonal relationships and
personality functioning have also attempted to define the purpose and qualities of
narrative Prominent among these approaches is the idea that the role of personal
narrative is that of a relational schema or script for creating and maintaining
relationships (Baldwin, 1999, Abelson, 1981) As these schemas are shaped in early
childhood in an environment of social experience and assisted narrative structuring, the
child begins to develop dispositional tendencies to responding to others (Main, 1991)
In adulthood, these tendencies encompass expectations about other’s emotional
availability and dependability (Collins & Read, 1994) These internal representations
can predict a range of behavioral and emotional responses as well as the quality of
relationships to significant others (Hazen & Shaver, 1994). In this sense, an
individual’s personal narrative assists in negotiating relationships with others based on
an understanding of his or her past experience The consequences of such guidance can
be positive or negative based on the nature of previous experiences and the narrator’s
ability to coherently summarize the interaction between his or her unique personality style and the social context in which it developed (Wahler, 1996)

**Current Study**

The potential for exploration of the purpose of personal narrative in individual functioning remains immense. Beyond the presented investigations into the role of narrative in attachment representations and the knowledge structures of schema and script, research into personal narrative has almost entirely been relegated to case studies of individual differences or highly standardized story completion techniques (see Bretherton, Ridgeway, & Cassidy, 1990, and Gilmartin, 1997, for examples). In an effort to better understand and directly assess the elements of individuals’ personal narratives, Wahler and Castlebury (1997) developed a personal narrative coding system (PNCS). The PNCS involves conducting a personal narrative interview (PNI) in order to assess the narratives of adults and children. Following the PNI, individual responses are subjected to careful examination and coding of specified variables. The system has demonstrated considerable internal consistency and interrater reliability along the two main dimensions of narrative coherency and richness (Castlebury & Wahler, 1998). While this approach offers promise for future investigations into the development and function of personal narrative, several issues remain unclear concerning the reliability and discriminate validity of the PNCS and PNI.

First, in order to continue to employ the PNCS and PNI methods in personal narrative research, the stability of the assessed qualities of an individual’s personal narrative, as well as the ability of these methods to reliably elicit and assess such qualities must be demonstrated. Previous research on the narratives elicited by the AAI
has demonstrated temporal stability in the narratives and reliability in assessing them through attachment classifications (Bakermans-Kranenburg & van IJzendoorn, 1993). However, these properties may have been artificially inflated due to the classification system of the AAI, which investigates narratives for their relation to one of only three or four attachment styles. The PNCS relies on more detailed codings of personal narratives, resulting in continuous variables for coherence and richness that may be subject to greater fluctuation over time.

Second, continued research with the PNCS may require alterations to the PNI in order to accommodate various populations and research interests. Given the potential need to make such adaptations, the ability to alter the PNI in terms of its level of structure and content, while retaining its capacity to elicit similar narrative qualities, must be demonstrated. Of particular concern is the degree to which highly structured interviews, which may be necessary for research purposes, may also restrict certain characteristics of the individual's unique narrative production. Research concerning properties of the narratives generated in response to the AAI, a semistructured interview that encourages discourse, suggests that individual differences are easily manifested and assessed (Bakermans-Kranenburg & van IJzendoorn, 1993). The PNI that the PNCS originally proposed to use is fairly structured and restrictive in comparison to the AAI, and the effects of this on narrative coherence and richness have yet to be determined.

Third, in order to assess personal narrative qualities across individuals differing in age, education, and socioeconomic status, the relationships between verbal and overall intelligence to narrative coherence and richness must be understood. In particular, if intelligence or verbal abilities play an important role in these properties,
this relationship must be controlled for when investigating personal narratives. Again, research on the discriminate validity of the AAI provides some guidance in this area in suggesting that classifications of narrative responses appear to be independent of verbal intelligence (Bakermans-Kranenburg & van IJzendoom, 1993). Yet, the continuous coding variables of the PNCS may reflect a greater degree of influence based on the narrator’s verbal abilities.

Finally, in order to begin to understand the function of specific narrative qualities, the properties which are assessed must be validated against known measures that are congruent with their theoretical bases. The AAI literature has provided considerable insight into the function of coherence in facilitating conceptualization and prediction of personal experience and interactions, and to the origins of this ability in early parent-child story co-construction and reminiscing (van IJzendoom, 1995, Oppenheim et al., 1997; Fox, 1995). However, beyond the assumption that narrative richness is generated from motivational and emotional arousal in the narrative context, relatively little is known about the functioning of this property (Baldwin, 1992). If the property of narrative richness does indeed caputlate a willingness or motivation on the part of the individual to convey affective and evaluative information to the other, this quality should be related to similar constructs. Given that the majority of individuals adapt their personal narratives to reflect some degree of richness, further investigation should consider examining the absence or dearth of richness in personal narrative, and its possible causes and correlates. In particular, as richness conveys a sense of motivation and affective involvement in the original experience and the narrative retelling, a lack of such motivation and emotional involvement should be evident in an
absence of richness. The heavily researched concept of psychopathy, which includes hallmark traits such as an absence of empathy, shallow emotions, egocentricity, and a lack of anxiety, presents as a logical source of further investigation into the dysfunction and underdevelopment of narrative richness (see Cleckley, 1976; McCord & McCord, 1964).

The current study investigates issues of reliability and discriminate validity of the PNCS and PNI in order to further their utility in research that seeks to elicit and assess personal narratives. In particular, four hypotheses were investigated, along with an analysis of gender differences across narrative properties. First, coherence and richness are hypothesized to be stable qualities of an individual's personal narrative over a brief period of time, and can therefore be reliably assessed with any single measurement or interview. Second, although highly structured and more free-form or flexible interviews may elicit personal narratives that differ in content, when taken from the same individual, they are hypothesized to be highly similar in coherence and richness. Next, the coherence and richness of a personal narrative are hypothesized to be related to the narrator's overall verbal abilities. In particular, as the level of the narrator's vocabulary increases, the level of coherence and richness present in their narrative productions is expected to also increase. This relationship is further hypothesized to be more evident in free-form interview responses due to the greater flexibility these PNIs afford the narrator in their responding. Lastly, the richness of a personal narrative, more specifically the paucity of richness, is hypothesized to be related to aspects of the narrator's level of psychopathy. Specifically, lower levels of
narrative richness are hypothesized to be associated with increased levels of overall psychopathy, egocentricity, callousness, and fearlessness
CHAPTER II

METHOD

Participants

Participants in the study were 44 undergraduate students enrolled in psychology courses at a large southeastern university. As part of stated curriculum, many psychology courses at this university offer a limited amount of extra credit to students who choose to participate in approved research projects. All participants were awarded extra credit for the course in which they were enrolled. As a result of failure to complete the entire procedure, 4 participants were excluded from the final data analyses. The remaining sample of 40 participants included 19 men and 21 women. The average age was 18.7 years, and the average years of completed education was 13.1. Three of the participants were African American, two were Indian-American, and the remaining participants were Caucasian.

Measures

Personal Narrative Interview (PNI). Two types of PNIs were administered in the study. The structured PNI, as originally developed by Wahler and Castlebury (1997), requires a participant to respond verbally to a series of six questions as they are read verbatim by an experimenter. The six questions are open-ended in the sense that a participant is free to respond as they choose. However, the questions are designed to elicit a participant’s personal narrative as it relates to a specified experience. For the structured PNI utilized in the current study, the specified experience was that of being a college student. The six questions pertained to the participants’ college experiences,
and focused specifically on details of daily routines, positive and negative impressions, meaningful interactions, and general expectations (see Appendix A for structured PNI).

The concept of utilizing a free-form PNI to also elicit personal narratives was introduced for the purposes of this study. This interview requires a participant to respond verbally to two questions as they are read verbatim by an experimenter. While the questions in the free-form PNI are also open-ended in that the participant is free to respond as they choose, unlike the structured PNI, these questions are designed to elicit a personal narrative as it relates to a specific experience that is largely generated by the participant. For the current study, the questions contained in the free-form PNI were restricted to school-related events so as to ensure a level of continuity between the general content of any free-from and structured PNI responses. The two questions required the participants to select and describe a meaningful, school-related event from when they were young, and one from their college career (see Appendix B for free-form PNI).

The author served as the experimenter and interviewer for the study, and conducted all PNIs. Emphasis was placed on strictly adhering to the scripted questions, with no deviations, throughout both forms of the PNI. In addition to reading the questions verbatim, the interviewer refrained from making any outside or additional comments that were based on the content of a participant's narrative or elements of their interpersonal style. All PNIs were audio taped and then transcribed verbatim by trained research assistants. The author randomly selected the personal narratives of eight participants (20%) in order to check the level of agreement between the transcriptions.
and the audio tapes. All examined transcripts were found to be consistent with the original interviews.

Personal Narrative Coding System (PNCS). After each PNI was transcribed, a trained reader, referred to as the primary rater, applied a coding system to the participants’ narratives. The PNCS was designed to assess the dimensions of coherence and richness in an individual’s narrative response to the PNI (Wahler & Castlebury, 1997). In the current study, each participant’s narrative was initially separated into chapters. Each chapter coincided with their answers to one of the questions contained in the respective PNIs. For each chapter, the primary rater then answered a series of yes/no questions, five related to coherence, and five related to richness (see Appendix C for PNCS). Yes answers were assigned a value of one point and were totaled across the chapters. For each participant’s narrative response, mean chapter scores were calculated for the coherence and richness dimensions.

During the development of the PNCS, internal consistency for the coherence questions was established at an Alpha correlation coefficient of .86. Interrater reliability, in independent answers to the item questions, produced an intraclass correlation coefficient of .80. Internal consistency for the richness questions was established at an Alpha correlation coefficient of .72. Interrater reliability in independent answers to the item questions demonstrated an intraclass correlation coefficient of .95 (Castlebury & Wahler, 1998).

Vocabulary Test. Each participant completed the vocabulary subtest of the Wechsler Adult Intelligence Scale–Third Edition (WAIS-III, Wechsler, 1997). While vocabulary tests explicitly assess a subject’s range of vocabulary and verbal abilities,
scores from this particular subtest have consistently been shown to have the greatest correlation among all WAIS verbal subtests to the overall verbal intelligence scores derived from completing the entire battery (Gregory, 1987). Additionally, the vocabulary subtest has been shown to be the most reliable indicator of overall intelligence indices when compared to all other subtests in the full WAIS battery (Blatt & Allison, 1968). Administration of the vocabulary test followed the protocol outlined in the WAIS-III manual for standard administration (Wechsler, 1997). The experimenter read instructions verbatim from the manual to each participant. Each participant was then orally and visually presented with a series of vocabulary terms, which they were then required to orally define. Responses were recorded verbatim by hand and were scored during administration according to WAIS-III scoring procedures.

An individual’s subtest scores from the WAIS-III are typically converted to scaled scores that reflect his or her performance in comparison to age-based norms. In the current study, all participants fell into one division of the norms created by Wechsler (1994), and therefore raw scores from the vocabulary test were utilized in the data analysis.

**Psychopathic Personality Inventory.** Participants also completed the Psychopathic Personality Inventory (PPI, Lilienfeld & Andrews, 1996). This self-report measure is comprised of 187 items that provide an index of the core personality features of psychopathy. In completing the PPI, individuals read each item as a self-description and select a rating that reflects the accuracy of the statement along a scale of 1 (false) to 4 (true). The PPI provides a global index or Total Score of psychopathy and eight subscales, which assess various facets of the syndrome. Of interest to the current study
were the subscales of Machiavellian Egocentricity, Coldheartedness and Fearlessness. Although not yet widely used in clinical settings, the PPI has demonstrated considerable psychometric validity. In particular, the PPI has consistently demonstrated a strong correlation to the primary factors of the Psychopathy Checklist-Revised (Hare, 1991), the most widely used, third-party psychopathy and empathetic capacity rating scale (Lilienfeld & Andrews, 1996). In distinguishing itself from previous attempts to assess psychopathy through self-report, the PPI has shown considerable correlation with peer-rated, interview-rated, and semistructured interview measures of psychopathy among both prison and undergraduate samples (Sandoval, Hancock, Poythress, Ednes, & Lilienfeld, 2000).

Procedure

Participants were assessed during two separate sessions, referred to as Time 1 (T1) and Time 2 (T2). Scheduling of participants attempted to maintain the length of time between T1 and T2 at 14 days. However, due to individual scheduling differences, the period ranged from 12 to 16 days (M = 13.88, SD = 8.0). During T1, each participant completed one of the two types of PNIs, the vocabulary test, and the PPI. During T2, each subject again completed one of the two PNIs.

As detailed in Table 1, participants were randomly assigned to one of three groups, with consideration given only to attempting to maintain equivalent numbers of males and females within groups. These groups differed solely in terms of the type and order of PNI presentations across T1 and T2. Group 1 was designed to assist in determining the stability of an individual's personal narrative over time, and the test-retest reliability of the structured PNI and PNCS. Group 1 (N=20) responded to the
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<tr>
<td>T1</td>
<td>- structured PNI</td>
<td>- free-form PNI</td>
<td>- structured PNI</td>
</tr>
<tr>
<td>T2</td>
<td>- structured PNI</td>
<td>- free-form PNI</td>
<td>- structured PNI</td>
</tr>
</tbody>
</table>

structured PNI at T1 and T2. The remaining two groups were designed to assist in determining the ability of the PNCS to tap common qualities of an individual's personal narrative across structured and free-form PNIs. Two groups were created solely to provide for counterbalancing so as to control for order effects for PNI presentation. Group 2 (N=10) responded to the structured PNI at T1 and to the free-form PNI at T2. Group 3 (N=10) responded to the PNIs in reverse order from Group 2.
CHAPTER III

RESULTS

In the current study, the author served as the expert rater in order to obtain reliability estimates of the primary rater’s coding of the narratives. Ten subjects (25%) were randomly selected for the reliability analysis. The primary and expert raters’ application of the PNCS to each of the selected participant’s two narrative responses were compared. The raters’ responses to the five yes/no questions for coherence and the five yes/no questions for richness were examined across the chapters of the 20 selected narratives. Due to the high and low frequency of occurrence for responses to several questions, Cohen’s Kappas were computed between the primary and expert raters’ coding. Kappas ranged between .66 and .90 for the coding questions, demonstrating satisfactory interrater reliability ($M = .74, SD = .09$).

Table 2 presents means and standard deviations for relevant variables in the current study. Since participants in Group 1 responded to two structured PNIs, their narrative responses to the first administration of this interview were selected for reporting means and standard deviations, and for several subsequent analyses. The vocabulary test score is presented as a raw score and was analyzed accordingly. However, it is of note that the mean raw score for the sample equates to a scaled score of 11 according to the age-based norms for the WAIS-III (Wechsler, 1994). This scaled score reflects a mean vocabulary subtest performance that is within one standard deviation of the established mean for this age group. The mean PPI Total Score and the three subscale scores of interest for the current sample were similar to the respective
Table 2  Means and Standard Deviations of Critical Variables (N = 40)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coherence in first Structured PNI</td>
<td>4.44</td>
<td>.38</td>
</tr>
<tr>
<td>Richness in first Structured PNI</td>
<td>2.88</td>
<td>.50</td>
</tr>
<tr>
<td>Coherence in Free-Form PNI a</td>
<td>4.60</td>
<td>4.5</td>
</tr>
<tr>
<td>Richness in Free-Form PNI a</td>
<td>3.89</td>
<td>8.2</td>
</tr>
<tr>
<td>Vocabulary Test</td>
<td>43.13</td>
<td>7.72</td>
</tr>
<tr>
<td>PPI Total Score</td>
<td>356.08</td>
<td>33.13</td>
</tr>
<tr>
<td>PPI Machiavellian Egocentricity</td>
<td>64.93</td>
<td>11.07</td>
</tr>
<tr>
<td>PPI Coldheartedness</td>
<td>41.68</td>
<td>7.11</td>
</tr>
<tr>
<td>PPI Fearlessness</td>
<td>45.15</td>
<td>11.45</td>
</tr>
</tbody>
</table>

a N = 20

means reported in the original development of the measure, however normative values do not yet exist so as to allow for a more complete comparison (Lilienfeld, 1996)

Gender differences were assessed across coherence and richness scores, the vocabulary test, and the PPI, using a one-way analysis of variance (ANOVA). Results revealed no significant differences between males and females on either the vocabulary test or for scores on the PPI. Results did reveal a significant difference between males and females for coherence in the narrative response to the structured PNI ($F(1,38) = 4.73, p < .05$), with males producing greater coherence scores. No significant differences were found between males and females in terms of coherence in narrative response to the free-form PNI, or in terms of richness in narrative responses to either structured or free-form PNIs.
To analyze the stability of the variables of coherence and richness across narrative response at T1 and T2, participants in Group 1 responded to the structured PNI at both times. Results revealed a significant correlation between coherence in narrative responses at T1 and T2 ($r = .83, p < .001$) and between richness in narrative responses at T1 and T2 ($r = .60, p < .005$).

In order to assess differences in coherence and richness in narrative responses to PNIs that varied in provided structure, the presentation order of the structured and free-form PNI were counterbalanced between Groups 2 and 3. A 2x2 ANOVA was conducted between PNI types and order for coherence and richness, and revealed no significant effects for the order of PNI presentation.

In analyzing the ways in which the structured and free-form PNIs may have elicited different levels of narrative coherence and richness for participants, paired samples t-tests were conducted across Groups 2 and 3. As presented in Figure 1, results demonstrated no significant differences between coherence as it was manifested in narrative responses to structured and free-form PNIs. However, there was a significant difference between richness as it was manifested in narrative responses to structured and free-form PNIs, with the free-form PNIs eliciting significantly greater richness scores ($t(19) = -4.44, p < .001$). Additional analyses revealed no significant correlations between coherence scores or richness scores across narrative responses to the structured and free-form PNIs.

In assessing the relationship between verbal abilities and coherence and richness scores, each participant's narrative response to their initial structured PNI was first selected for analysis. Results revealed no significant correlation between verbal skills...
as assessed by the vocabulary test and narrative coherence or richness. The same relationship was investigated based on coherence and richness scores for the narratives in response to the free-form PNI in Groups 2 and 3, and revealed no significant correlations.

In analyzing the relationship between narrative richness and psychopathy characteristics, each participant’s narrative response to their initial structured PNI was first selected for analysis. Richness scores were significantly correlated with PPI Total Score ($r = -0.32, p < .05$) and the PPI Fearlessness subscale ($r = -0.43, p < .01$). By nature of the design of the PPI, each of the subscales contribute substantially to the Total Score.
and are therefore correlated. The correlation between richness and the PPI Total Score could be attributable to a relationship between narrative richness and the psychopathy construct as a whole, or could largely be a product of the relationship between narrative richness and fearlessness alone. Consequently, the correlation between the Total Score and Fearlessness subscale was partialled out of the correlation between Total Score and richness. The correlation failed to retain its previous significance.
CHAPTER IV
DISCUSSION

The current study sought to provide research concerning the reliability and discriminant validity of the PNI and PNCS as developed by Wahler and Castlebury (1998). In particular, the properties of narrative coherence and richness are believed to be central to any application of the measure in analyzing the narrative of individuals or particular groups. Consequently, a greater understanding must be developed of the ways in which these properties are presented by the individual, are elicited by interview, and are related to other known and measurable constructs.

The finding of a gender difference in narrative coherence in response to the structured PNI was unexpected. Although gender differences were analyzed primarily to assess any dramatic discrepancies between males and females, no specific differences were hypothesized given that none had been reported in the relevant literature. Other findings concerning greater verbal fluency or proficiency among females indicated that some differences may occur in narrative richness that would have involved females displaying a significantly higher score, but none occurred (see Hyde, 1997 for a review). The finding that males demonstrated greater levels of coherency in response to the structured PNI may be attributable to an apparent tendency of the PNCS to penalize individuals for being too verbose if the narrative is tangential or straying from topic. However, if males demonstrate an advantage in being able to confine their responses to the specific question, the advantage remits when the free-form PNI is introduced.
Although research with the AAI has demonstrated temporal stability of individual responses to narrative interviews, the AAI relies on a coding system which ultimately codes narratives by grouping them into three or four categories (Bakermans-Kranenburg & van IJzendoorn, 1993). Categorical coding of personal narratives may produce greater estimates of temporal stability than the continuous coding utilized in the PNCS. As was originally hypothesized, results of the current study indicate that the properties of coherence and richness, as elicited through a structured PNI and assessed through the PNCS, are highly correlated across a mean period of 14 days. Further research will need to assess more closely the nature of this stability across greater periods of time, particularly given that the narrative is assumed to be a fluid system of organizing experience that allows for changes and revisions. However, most importantly, these results indicate that the function of the PNI and PNCS to elicit and assess certain narrative qualities is relatively reliable over a short period of time. Of primary concern in conducting personal narrative research is the degree to which narrative responses may be influenced by situational variables, such as mood states, that are not related to the properties of coherence and richness. If the PNI and PNCS were sensitive to such interference it would necessitate taking multiple measures from each individual to accurately estimate their personal narrative properties. However, the findings suggest that an individual's personal narrative style and tendencies can be reliably assessed through a single PNI.

The impact of the level of structure provided within a PNI on the narrative produced in response to it has not been previously examined. In particular, applying the PNI and PNCS to various populations may require adjustments to the structure of the
For example, young children often do not respond to the structured version of the PNI with particularly rich or elaborative narratives. A potential method for adapting to such differences includes altering the level of structure provided to the individual in the PNI. As was hypothesized, the current findings indicate that narrative coherence did not differ in response to the structured and free-form PNIs. However, in findings contrary to the original hypothesis, narrative richness was significantly greater in response to the free-form PNI than to the structured PNI. These findings suggest that the property of narrative coherence may involve a cognitive skill or framework, which an individual can easily apply or translate to various tasks or different PNIs. As a narrative property, richness appears to be more subject to the requirements or specifics of the task at hand. There are two possible explanations for the increase in richness that occurs with less provided structure. The free-form PNI may simply afford an increased range of flexibility for an individual to respond how they choose, and allow them to demonstrate a greater level of narrative richness; or perhaps the more heavily structured PNI diminishes the richness of the narrative response to some degree. Perhaps the mechanism at work in this phenomenon can be understood from Vygotsky's (1978) notion that the cognitive skills essential to narrative production originate from early social interactions with skilled partners. During this period, the acquisition of structure is paramount in the child's learning of what comprises a coherent story, and the skilled partner assists primarily through providing scaffolding, or external structure to the narrative creation. The structured PNI appears to be functioning in similar manner in creating an interview that provides consistent, external scaffolding to the narrator. However, unlike Vygotsky's concept of the responsive skilled partner, the structured
PNI does not adjust its provided scaffolding so as to encourage or foster elaboration or narrative richness. Unlike the free-form PNI, which allows the individual to choose their own specific story to recall from a broad topic and provides no additional structure, the structured PNI may involve a return to a level of scaffolding and support that many individuals have progressed beyond in terms of narrative development. As a result, their normal levels of narrative richness, elaboration and complexity may be diminished by the task.

An important result in the current findings was the fact that although narrative coherence scores did not change between structured and free-form PNIs while richness scores increased, there was no correlation between the two PNI types for either narrative property. In other words, while mean levels of coherence did not differ between structured and free-form PNIs, variations did occur among participants which were not consistent for the group as a whole. Some individuals produced more coherent narratives in response to the structured PNI while others responded better to the free-form PNI. For the property of narrative richness, although the mean level increased from the structured to the free-form PNI, there also appeared to be no concordant variation among the group as a whole. This suggests that the level of structure provided in the PNI does indeed influence narrative richness, but not in a consistent manner across individuals. These findings indicate that not only do individuals respond differently to structured and free-form PNIs, but that the ways in which an individual's responding changes is not necessarily related to his or her performance in other PNIs. Such evidence suggests that future research should select the level of provided structure to be utilized in the PNI and take steps to maintain it throughout the investigation. In
addition, the research must acknowledge that certain levels of provided structure in the PNI might affect individuals’ responses differently.

Previous research has indicated that verbal abilities and intelligence appear to have little impact on personal narrative production and coding in the AAI system (Bakermans-Kranenburg & van IJzendoorn, 1993). However, the continuous coding of narrative coherence and richness in the PNCS poses the possibility that such differences may have a greater impact in this system. Consequently, verbal abilities or intelligence, assessed through a vocabulary test, was hypothesized to be related to the properties of both narrative coherence and richness. The current findings do not support the original hypothesis and indicate that in response to both the structured and free-form PNIs, neither narrative coherence nor richness appear to be related to verbal abilities or overall verbal intelligence. The finding bodes well for future applications of the PNI and PNCS among populations with considerable diversity of education and intelligence. In particular, research with these populations can be far less concerned that such factors are significant contributors to variations in narrative coherence and richness.

The property of narrative richness has been considered to be reflective of an individual’s desire to effectively communicate with the listener. Baldwin argued for richness as involving a motivation to be affectively expressive and a desire to be understood by the other (1992). Narrative richness was therefore hypothesized to be negatively correlated with subscales of the PPI, which assess an individual’s desire and capacity to engage and connect with another. The results of the current study suggest that an absence of narrative richness is related to some of the traditional characteristics of psychopathy, as measured by the Total Score variable of the PPI. However, further
analysis revealed that the strength of this relationship could be largely attributed to the high scores on the Fearlessness subscale of those individuals’ scoring low in narrative richness. Contrary to the original hypothesis, richness seemed unrelated to egocentricity as assessed in the Machiavellian subscale, and unrelated to callousness as assessed in the Coldheartedness subscale. According to the PPI, the Fearlessness subscale measures an absence of anticipatory anxiety and a willingness to engage in behaviors that many may consider risky or dangerous (Lilienfeld, 1996). In responding to a PNI, the individual high in fearlessness is likely to feel far less anxiety about the interview situation or any judgment or evaluation of their narrative response by the interviewer. Although this comfort may be thought to allow the individual to speak more freely, the opposite appears to be occurring. Individuals who appear to experience greater levels of anticipatory anxiety apparently also produce more elaborate and rich personal narratives. Those scoring high in fearlessness also are perhaps more likely or willing to break social conventions that concern conversing with other individuals, or responding to an interview. Low scores in narrative richness were hypothesized to be related to the individuals’ lack of motivation for interpersonal connection, as measured through the PPI scales. However, the findings suggest that the strongest relationship between narrative richness and characteristics of psychopathy may rest in the role of situational or anticipatory anxiety, and a willingness to break social conventions.

The current study was designed to begin to investigate the reliability and discriminate validity of the PNI and PNCS. Taken together, the findings suggest that the systems for eliciting and coding individuals’ narratives are reliable and useful tools that provide an assessment of the properties of narrative coherence and richness.
relatively independent from verbal abilities or intelligence. The results also suggest that variations in the structure provided by the PNI will have effects on the property of narrative richness. Given that modifications may be required to the PNI for work with some populations, this finding necessitates comparing the application of the PNCS in these groups only to those individuals who respond to similarly structured PNIs. Future research must begin to investigate the potential bases for such individual differences in order to better understand what elements of the property of richness are influenced most by changes in provided structure, and what determining factors within the individual promote such changes.

The findings continue to lend support to perceiving the personal narrative as a foundational component of thought, or a knowledge structure, that is relatively stable and functions independently of verbal abilities to provide us with a means of representing, constructing, and organizing experience (Mink, 1978; Schank & Abelson, 1977). Although the findings indicate the utility of PNI and PNCS for future research, several elements require further attention. First, the AAI literature gives some indication as to the interplay between narrative content and coherency. Previous research has demonstrated the ways in which narrative coherency reveals aspects of how the narrative content was originally experienced (Bus & van IJzendoorn, 1992, Cohn, Cowan, Cowan & Pearson, 1992, Crowell & Feldman, 1988). For example, an individual's experience of his or her attachment to parental figures, or at least the memory of it, can be compiled from the coherency of their narrative regarding this content or subject. Given that this narrative summary of experience will serve to guide the individual in his or her future experiences, patterns of attachment are seen as having
significant potential of being repeated. Unlike the AAI, the PNCS has been designed with the ability to modify and change the content focus of the PNI. Consequently, future research concerning the measure should include a closer investigation of the relationship between content and narrative properties.

Secondly, the critique offered by Waters, Rodrigues, and Ridgeway (1998) of the AAI literature suggested that a more careful analysis of cognitive variables underlying coherency in narrative responses could only facilitate our understanding of the implications of this property on attachment representations. In this vein, future research utilizing the PNCS should seek to account for cognitive variables such as scriptedness, or the adherence by the individual to patterns of responding. Investigations of this element may require several administrations of the PNI in order to begin to understand which individuals rely more heavily on these internal schemas. In addition, although the PNCS codes narrative responses in chapters, this organization assumes that responses to PNI questions are idea units unto themselves. In fact, some individuals may produce numerous separate and distinct ideas or concepts in response to one question on the PNI. Future research should account for this variable and assess whether the PNCS favors individuals who generate multiple idea units or those who respond in a more restricted manner.

Finally, more careful consideration should be given to measuring and understanding the individual’s current level of adjustment and functioning. Wahler (1996) has suggested that the guidance function of the personal narrative, or its ability to offer mental representations of past experience and future expectations, can be both a positive and negative situation for the individual, based on the nature of their previous
experience. The most beneficial scenario would appear to result from an individual who has internalized experiences that are defined by a relatively stable and healthy fit between their personality style and the social context in which they live. One avenue for future research could include focusing administration of the PNI and PNCS on a specific population with similar social experiences and assessing their level of personal adjustment in order to understand better the functioning of personal narrative to integrate and guide experience. The college sample used in the current study may provide an excellent population to investigate this mechanism further. As is reflected in the results of the current study, the PNCS and PNI continue to prove to be useful tools in conducting such analyses.
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REFERENCES


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APPENDICES
APPENDIX A

Structured Personal Narrative Interview

1. Tell me about what you do as a college student.

2. What do you like best about it?

3. What don’t you like about it?

4. What was the most interesting thing you were involved in during the last month?

5. What person takes up the biggest share of your time? Tell me about the last time you did something with this person.

6. What were your expectations about college when you decided you were going to come and are they the same or different now?
APPENDIX B

Free-Form Personal Narrative Interview

1. Think about going to school when you were growing up. Select a time that something happened at school that stands out to you and tell me everything you can remember about it.

2. Think about the time you’ve been at college. Select a time that something happened at college that stands out to you and tell me everything you can remember about it.
APPENDIX C

Personal Narrative Coding System

Coherence:

1. Upon reading the narrative do you as the listener clearly get the point (or points) being made by the narrator?

2. Are all the ideas or happenings presented by the narrator relevant to the question being asked?

3. Does the narrator's response follow a clear progression (beginning, middle, and end)?

4. Is the narrator's response free of tangential remarks?

5. Do the parts of the narrator's response fit together to form a sensible whole?

Narrative Richness:

1. Is at least one idea or happening introduced by the narrator elaborated beyond its initial introduction?

2. Is at least one specific or concrete event described?

3. Is the narrator's response free from vague or ambiguous thought?

4. Does the narrator support a presented idea or happening with evaluative remarks?

5. Does the narrator provide information with regard to others?
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