THE ENNEAGRAM AND STYLES OF PROBLEM-SOLVING

Hannah Nathans and Han Van der Meer

Abstract

In this article the first results are shown of a research study on the relationship between Enneagram types and KAI scores. In many descriptions of the Enneagram types, several remarks are made about the style of problem-solving and creativity. With this research the authors try to explore the validity of these descriptions by using the KAI inventory in a sample of 124 persons with highly accurately described Enneagram types. The results of the research proved to be statistically significant. Most findings support the Enneagram descriptions, but some do not. Deeper research into the meaning of concepts such as "creativity" and "innovation" in descriptions of the Enneagram types is needed.

Introduction

The question that motivated this study was this: Can popular descriptions of the creativity and problem-solving characteristics of the Enneagram types can be sharpened by applying a well-validated theory of problem-solving styles? In an effort to answer this question, this research study applies the Kirton Adaption Innovation theory to the Enneagram personality types.

This study seeks to find out if general references to the creative problemsolving styles of the Enneagram types that can be found in some of the most authoritative descriptions of the types are really accurate. Descriptions of the Enneagram types often include accounts of particular types' conformism or nonconformism, their innovativeness, and their adaptablity. For instance, a type 9 person is usually described as being conforming. However, the authors knew of at least one person with the type 9 personality who consistently scored 118 on the KAI, the Kirton Adaption Innovation Inventory, meaning she was decidedly on the innovative side of the scale.

According to the Adaption-Innovation theory of Kirton (1989) the tendencies of conformism and innovativeness are mutually exclusive. When we use this theory to evaluate common ideas about the Enneagram types, several questions emerge: How can we define the supposed creativity of type 4? What exactly is meant by that? What does it mean that type 7s are repeatedly described as innovative? Certainly not all 7s have created big innovations. One could suppose type 1 to have an improvement-based style, but is this really true? And what about the creative disposition of type 2, for which we did not find any problem-solving statements in the literature? These all seemd to be challenging subjects for further research.

To conduct this research we used the Kirton Adaption Innovation Inventory (KAI). This instrument seemed to offer a good operationalization of the diffuse and vague concepts of creativity and innovation. We also selected this instrument because it has been well-validated (Kirton 1987). By comparing descriptions of the Enneagram types in the Enneagram literature with the KAI scores of people of particular Enneagram types, we attempt to test the accuracy of popular notions of the styles of the personality types when it comes to creativity and more specifically, to problem-solving and creative thinking activity.

Literature Review: Assessing the Enneagram Types' Creative and Problem-Solving Styles

First, we provide a summary of the characterizations of the Enneagram types in terms of creativity and problem-solving strategy as found in the Enneagram literature. In the descriptions of the nine Enneagram personality types, the concepts of creativity, innovative ability, or adaptive qualities, constitute one of the key denominators (Nathans, 2004). To illustrate this, we offer a number of examples from some of the founding authors of the Enneagram movement, including Naranjo, Palmer, Riso and Hudson, Wagner, and Hurley and Donson.

Type 1 is described as "orderly, consistent, and punctual" (Riso & Hudson, 1999, p. 112), as exact, precise, meticulous, and focused on not making mistakes (Hurley & Donson, 1991), as obsessed with improving things, compulsively orderly (Naranjo, 1994), and as excelling at refining systems (Palmer, 1998). This points to an adaptive style of problem-solving in the KAI.

We did not find any indications for the type 2 style of problem-solving in the literature.

Type 3 is described as pragmatic, adjusting to environment (Riso & Hudson, 1999), efficient, pragmatic (Naranjo, 1994; Wagner, 1996), other-directed (Naranjo, 1994), and practical and goal-oriented (Wagner, 1996). This points to an adaptive style.

Authors describe type 4s as feeling attracted to the unusual and tending to find radical innovations extremely exciting (Hurley & Donson, 1991). Palmer (1988) speaks about suffering expressed through a creative act. Wagner (1996) calls them original and creative. This points to an innovative style.

Riso and Hudson (1999) describe type 5 as innovative, as their intense focus can lead them to have remarkable discoveries and innovations. However, focus belongs to the adaptive style. This led us to expect an average score.

This is what Riso and Hudson (1999) say about type 6: "Sixes often attempt to solve the problem of finding the right answers by aligning themselves with multiple authorities and systems. Many sixes have a great deal of flexibility and

creativity within the security of known boundaries" (pp. 247-248). This sounds like it would be an average score on the KAI.

Wagner (1996) describes type 7 as creative, visionary, imaginative. Hurley and Donson (1991) ascribe to him an attraction to the newest ideas and say that type 7s find solutions to worldwide problems. Riso and Hudson (1999) say type 7s have a talent for generating ideas quickly and spontaneously. According to Palmer (1995), 7s can become insistent about impractical ideas and inefficient approaches, prefer ideas and theory to implementation, and will open a task to new approaches rather than face dealing with a more routine method. All of this points to an innovative style on the KAI.

For type 8 we found descriptions like independent (Wagner, 1996), rebellious (Naranjo, 1994), autonomous (Wagner, 1996; Naranjo, 1994), true "rugged individualists," who refuse to give in to social convention and do not let the opinions of others sway them (Riso & Hudson, 1999). The are also characterized as having a "my way or the highway" (Palmer, 1998) attitude, seeing rules as controlling, and testing limits (Palmer, 1995). These descriptions point to a high score on rule conformity, one of the sub-scores of the KAI.

Type 9 is described as often falling in a kind of ritualistic routine, liking procedures, and clear lines of command. They also like structure and they want rewards to be well-defined (Palmer, 1998). Riso and Hudson (1999) say they tend to accommodate, and Naranjo (1994) speaks about over-adaptation and robotic habit boundedness. All of these descriptions point to an adaptive style.

We wondered if these descriptions could be improved by comparing them to the Kirton Adaption Innovation Inventory, a validated instrument used to ascertain an individual's style of problem-solving.

The Kirton Adaption Innovation Inventory

Kirton (1989) states that cognitive style impacts thinking, problem-solving, decision-making, and creating. Style refers to a characteristic way in which individuals deal with information. According to Kirton's definition, this style is stable over time and not dependent on situation. Kirton (1989) makes a clear distinction in level of problem-solving (i.e., the capacity of a person to solve problems) and style of problem-solving (i.e., the way a person prefers to solve a problem). Level and style show no correlation. (Kirton, 1987: all correlations of KAI with commonly used tests of intelligence are within the range of .00-.12.)

The KAI (Kirton Adaption Innovation Inventory) is based on the Adaption – Innovation theory defined by Kirton (1976). This theory defines and measures a style of decision-making, clarifying earlier literature on problem-solving and creativity, which concentrates more on defining and assessing *level* rather than *style*. KAI only measures style. The word "creativity" does not appear in the KAI because the construct "creativity" seems to have elements of both style and level.

According to the Adaption-Innovation Theory, everyone can be located on a continuum ranging from highly adaptive to highly innovative according to their score on the KAI. The range of responses is relatively fixed and stable in the long run, and in the general population, it approaches the normal curve distribution (Kirton, 1987). For the purpose of clarity, Table 1 characterizes those individuals at the extreme ends of the continuum.

Table	1:	Behavior	descriptions	of	^f adaptors	and	innovators	(Kirton,	1976)
			····· I ·····		I			· · · ·	

Adaptor	Innovator
Characterized by precision, reliability, efficiency, methodicalness, prudence, discipline, conformity	Seen as undisciplined, thinking tangentially, approaching tasks from unsuspected angles.
Concerned with resolving problems rather than finding them	Could be said to discover problems and discover avenues of solution
Seeks solutions to problems in tried and understood ways	Queries problems' concomitant assumptions; manipulates problems
Reduces problems by improvement and greater efficiency, with maximum of continuity and stability	Is catalyst to settled groups, irreverent of their consensual views; seen as abrasive, creating dissonance
Seen as sound, conforming, safe, dependable	Seen as unsound, impractical; often shocks his opposite
Liable to make goals of means	In pursuit of goals treats accepted means with little regard
Seems impervious to boredom, seems able to maintain high accuracy in long spells of detailed work	Capable of detailed routine (system maintenance) work for only short bursts, quick to delegate routine tasks

continued on p. 65

Adaptor	Innovator
Is an authority within given structures	Tends to take control in unstructured situations
Challenges rules rarely, cautiously, when assured of strong support	Often challenges rules, has little respect for past custom
Tends to high self-doubt. Reacts to criticism by closer outward conformity. Vulnerable to social pressures and authority; compliant	Appears to have low self-doubt when generating ideas, not needing consensus to maintain certitude in face of opposition
Is essential to the functioning of the institution all the time, but occasionally needs to be 'dug out' of his systems	In the institution is ideal in unscheduled crises, or better still to help to avoid them, if he can be controlled
When collaborating with innovators: supplies stability, order and continuity to the partnership	When collaborating with adaptors: supplies the task orientations, the break with the past and accepted theory
Sensitive to people, maintains group cohesion and cooperation	Appears insensitive to people, often threatens group cohesion and cooperation
Provides a safe base for the innovator's riskier operations	Provides the dynamics to bring about periodic radical change, without which institutions tend to ossify

KAI only gives descriptions for the ends of the scale. It is a dichotonomy with a bell shaped normal deviation of the total population(N 0,1). Being a dichotonomy, it is not possible to describe the middle other than by the fact that some scores are in the middle or are average scores (86-116).

The KAI is an 33-item paper and pencil inventory designed to measure the preferred behavior of an individual regarding problem-solving. The typical items in the inventory are statements such as:

How easy or difficult do you find it to present yourself, consistently, over a longer period as a person who conforms?

The KAI (Kirton 1987, Loo & Shiomi 1997) is validated in numerous cultures (original study in UK, N=562; Italy, N=835; U.S.A, N=214; France/Belgium/ Canada N=264; Netherlands N=449; Slovakia N=353) and has been used in numerous situations. In the validation research the KAI has proven to be a stable measure (Cronbach alpha ranges from .86 to .90 in 14 independent studies; test-retest ranging from .82 to .91 in 5 independent studies) on preferred behavior regarding problem-solving (Kirton 1989, Isaksen & Pucio 1988). There is a significant correlation with the Cattell Sixteen Personality Factor Inventory (Kirton & Ciantis 1985), with the Myers-Briggs Type Indicator (especially Sensing-Intuition, Judgement-Perception)(Jacobson 1993), with the Torrance Test of Creative Thinking (Isaksen & Pucio 1988) and with a variety of lesser-used personality tests on flexibility, risk-taking, and sensation-seeking (Kirton 1987).

Methodology

To get valid results we needed to distribute the KAI to people who had identified their type correctly. We needed to be absolutely sure of the accuracy of the subjects' types. Questionnaires on Enneatype usually don't come up with just one type, and they do not always locate the right one. After all, the filling-in of a questionnaire demands a high degree of self-insight that often is only the result of working for some time with the Enneagram and does not precede it.

Therefore we choose another way. We approached groups of people that had been working with the Enneagram for quite some time and had established their type by self-observation. Sometimes the individual's self-evaluation was supported by typing interviews and feedback from others. We did a pilot study with the members of the Enneagram Business Network Europe. After promising results on the pilot study, we distributed the questionnaire to participants of the Enneagram Professional Training Program (EPTP is the professional training program of Helen Palmer and David Daniels), and to participants of the annual conference of the Association of Enneagram Teachers in the Narrative Tradition, which is the alumni association of the EPTP. We also administered the questionnaire to members of the Enneagram Foundation Netherlands. Thus, respondents came from different countries and were for the most part professionally working with the Enneagram. We asked them to fill in the questionnaire. The KAI is translated and validated in many languages. The Dutch respondents used the Dutch questionnaire, the others used the English version.

The questionnaires were processed by Marijke Nipperus, one of the members of the Enneagram Foundation Netherlands, and statistically processed by Twente University, Netherlands. Further statistical analyses were done at the Erasmus University Rotterdam with SPSS (Magielse, 2005).

Results

The results of our research proved to be statistically significant. There was a clear relationship between KAI-score and Enneatype.

Enneagram						
type	n	mean	95%	s.d.		
1	20	89.70	81.15 - 98.25	18.28		
2	12	98.25	89.74 - 106.76	13.40		
3	8	116.13	102.71 – 129.54	16.05		
4	16	122.69	116.52 – 128.85	11.57		
5	13	99.54	88.41 - 110.67	18.42		
6	20	105.70	96.46 - 114.94	19.74		
7	10	123.90	115.32 - 132.48	11.99		
8	7	115.86	102.81 - 128.91	14.11		
9	18	100.56	91.38 - 109.73	18.45		

KAI-score per type:

Research: Nathans and Van der Meer



Table 2. Enneagram type and KAI-score

To test the significance of the differences between the different types and their scores on KAI we used the ANOVA procedure. For the sake of clarity we only show the significant differences between types (significance level of .05 or better).

Туре	type	Mean of difference	Level of significa
1	3	-26.43	.009
	4	-32.99	.000
	7	-34.20	.000
	8	-26.16	.018
2	4	-24.44	.007

continued on p. 70

Туре	type	Mean of difference	Level of significance
3	7	-25.65	.017
	1	26.43	.009
	1	32.99	.000
	2	24.44	.007
	5	23.15	.011
4	9	22.13	.007
5	4	-23.15	.011
	7	-24.36	.026
	1	34.20	.000
7	2	25.65	.017
	5	24.36	.026
	9	23.34	.020
8	1	26.16	.018
9	4	-22.13	.007
	7	-23.34	.020

continued from p. 69

Table 3. Differences between Enneagram types related to score on KAI

As Table 3 shows most of the predicted differences between Enneagram types and scores on KAI are significant on a group level.

On the other hand we have to be reticent about taking these observations on a group level to the level of individuals. The scores within one type differ widely. For instance the scores of type 1 vary from 66 (highly adaptive) to 124 (highly innovative), those of type 6 from 74 (adaptive) to 146 (extremely innovative), those of type 9 from 69 (highly adaptive) to 140 (extremely innovative).

We need to draw your attention to the fact that the mean score in this research (105,9) is more than 10 points higher than in the general population (95,6). That is, the population in this research is 10 points more innovative than the general population. This is related to the professions involved in our sample: many trainers, therapists, and consultants were in this group, and these are all individuals who may be expected to be more innovative than the general population. In other research we see the same shift in style for consultants in the field of creativity, change, and personal development (van der Meer 2000, Kirton 1989).

Sub-scores

The KAI has three factor traits or sub-scores, one on S (style of), O (originality), E (efficiency), and R(rule/group conformity). The first sub-score (SO) deals with the style of individuals on the way they generate ideas. This sub-score helps show more clearly the differences between people in their preferred handling of original notions or ideas. The second sub-score(E) is on the way methodology is used. This sub-score helps show more clearly the style differences of the preferred method of problem-solving. The last sub-score (R) measures the way the individual manages the social structure. This sub-score helps show style differences in the management of social structures within which problem-solving occurs. The results on these sub-scores are given in Tables 4-6.



TYPE

Sub-scores on SO (style of originality)

The Enneagram	Journal	– July 2009
---------------	---------	-------------

Enneagram						
type	Ν	mean	95%	s.d.		
1	20	39.55	35.31 - 43.79	9.06		
2	12	43.42	38.18 - 48.65	8.24		
3	8	49.63	44.03 - 55.22	6.70		
4	16	52.50	50.05 - 54.95	4.60		
5	13	42.69	36.84 - 48.54	9.68		
6	20	45.15	40.92 - 49.38	9.04		
7	10	55.80	50.48 - 61.12	7.44		
8	7	49.86	42.63 - 57.09	7.82		
9	18	43.17	38.23 - 48.10	9.92		

Table 4. Enneagram type and originality





Sub-scores on E (Efficiency)

Research: Nathans	and Van	der Meer
-------------------	---------	----------

Enneagram						
type	Ν	mean	95%	s.d.		
1	20	15.85	13.68 - 18.02	4.64		
2	12	18.75	14.83 - 22.67	6.16		
3	8	24.00	20.08 - 27.92	4.69		
4	16	25.13	22.80 - 27.45	4.36		
5	13	19.84	16.19 – 23.50	6.05		
6	20	20.90	17.94 – 23.86	6.32		
7	10	25.50	21.93 - 29.07	4.99		
8	7	20.71	15.92 – 25.51	5.19		
9	18	22.22	19.81 - 24.63	4.85		

 Table 5. Enneagram type and efficiency



Sub-scores on R (Rule/Group conformity)

The	Enneagram	Journal	– July	2009
-----	-----------	---------	--------	------

Enneagram						
type	Ν	mean	95%	s.d.		
1	20	35.30	32.13 - 38.47	6.77		
2	12	35.92	33.06 - 38.78	4.50		
3	8	42.50	37.23 - 47.77	6.30		
4	16	45.50	42.01 - 48.99	6.54		
5	13	37.46	33.98 - 40.95	5.77		
6	20	39.70	36.39 - 43.01	7.07		
7	10	42.50	39.06 -45.94	4.81		
8	7	46.71	40.66 - 52.77	6.55		
9	18	35.44	31.42 - 39.47	8.09		

Table 6. Enneagram type and Rule/group conformity

On the sub-scales not all differences were statistically significant. In Tables 7-9 we show the significance differences (significance level of .05 or better). ANOVA was used for the calculation of the level of significance.



TYPE

Research: N	Jathans and	l Van der	Meer
-------------	-------------	-----------	------

Туре	type	Mean of difference	Level of significance
1	4	-12.95	.000
	7	-16.25	.000
2	7	-12.38	.030
4	1	12.95	.000
5	7	-13.11	.012
7	1	16.25	.000
	2	12.38	.030
	5	13.11	.012
	9	12.63	.008

Table 7. Differences between Enneagram types related to scoreon Originality

Туре	type	Mean of difference	Level of significance
1	3	-8.15	.014
	4	-9.28	.000
	7	-9.65	.000
	9	-6.37	.012
3	1	8.15	.014
4	1	9.28	.000
7	1	9.65	.000
9	1	6.37	.012

Table 8. Differences between Enneagram types related to scoreon Efficiency

Туре	type	Mean of difference	Level of significance
1	4	-10.20	.000
	8	-11.41	.005
2	4	-9.58	.008
	8	-10.80	.027
4	1	10.20	.000
	2	9.58	.008
	5	8.04	.049
	9	10.06	.001
5	4	-8.04	.049
8	1	11.41	.005
	2	10.80	.027
	9	11.27	.007
9	4	-10.06	.001
	8	-11.27	.007

Table 9. Differences between enneagram types related to score onrule conformity

What do the Results of this Research Mean for Enneagram Theory?

We believe the results of this study contribute to scientific validation of the Enneagram. We see a strong correlation with a very well-validated questionnaire. If the Enneagram was not valid, we would not find any correlation.

To interpret the results correctly we again need to remind ourselves that we are talking about statistics. That means we can predict something about a group of people with the same type but not about individuals within that group. Look, for instance, at type 6 in Figure 1. For a large group of people with type 6 we can predict with confidence that their medium score will be around 105. If we repeat this research with a larger group, we might expect the larger part of the population to center around score 105. However, in this pilot group the lowest score of type 6 was 74 and the highest score 146. This is almost the maximum dispersion possible. So the results give predictions about groups but not about individuals.

This explains why we see so many exceptions to rules like "9s conform" or "7s are innovative." Statistically this is true, but not every individual conforms to

the statistics. Of course, this creates complication in the typing process. After all, the typing process is always about individuals. It is clear from this research we cannot say "this person is not innovative so he can't be a 7," or "this person is innovative so he can't be a 1." This means our outcomes have practical implications for the typing process. It is a warning against generalizations like "all type x's are y."

Discussion

When we look at the statistics per type of the research we see the following:

Type 1. Type 1 tends to an adaptive style. That is, he or she is improving things that already are there, not rethinking them from the beginning. Some type 1s will be innovative, but not many. The Type 1's score on originality is the lowest of all types and significantly lower than those of type 4 and 7. Type 1 is significantly more efficient in problem-solving and has more of an eye for detail and method than types 3, 4, 7 and 9. Type 1 is the most conforming type, but differs statistically only from types 4 and 8, the least conforming types.

Type 2. Type 2 tends to the average. Type 2s are neither very adaptive nor very innovative. Some type 2s will be more innovative or more adaptive but not many.

Type 3. Type 3 tends to an innovative style. We found no adaptors in our research, though some type 3s tend more to the middle.

Type 4. Type 4 tends toward innovation. We found no adaptors in our research. Some type 4s tend to the average. According to this study, type 4 is significantly less conforming than types 1, 2, 5, and 9, and more original and less efficient than type 1.

Type 5. Type 5 tends toward the average. We did not find any innovators. Some type 5s tend toward adaption.

Type 6. Type 6 shows the most variety of styles.

Type 7. Type 7 tends toward innovation. We did not find any adaptors. Type 7s are significantly more original than types 2, 5, and 9, and more original and less efficient than type 1.

Type 8. Type 8 tends toward innovation. We did not find any adaptors among the Type 8s. Type 8 scores as the most unconforming type, and the difference in this measure with types 1, 2, and 9 is significant.

Type 9. Type 9 tends toward the average. We did find strong adaptors and extreme innovators.

The types 1, 4, 7, and 8 have the most outspoken preference for an adaptiveinnovative style. Type 1 scores adaptive on all 3 sub-scales, 4 and 7 score as innovative on all 3 sub-scales, and type 8 is only outspoken on nonconformism (sub-score R). So a number of our expectations were confirmed, namely types 1 (adaptive), 4 (innovative), 5 (average), 7 (innovative), and 8 (innovative) scored as we expected when compared with Enneagram descriptions in the literature.

For some types, however, we see interesting differences with the expected scores according to Enneagram literature definitions. Type 3 was expected to score as adaptive but this group's score is highly innovative. This puts the supposed efficiency, pragmatism, and adjustment of type 3s, as well as their other-directedness and goal-orientation in a different light. We will have to define these descriptions of type 3 more precisely, or perhaps abandon them. What exactly do we mean by efficient? Big steps, speedily home as we say in Dutch? That would be an innovative characteristic. Or creating well-defined procedures? That would be adaptive. The last is not confirmed by this research.

For types 6 and 9 we expected average scores. Results give extremely varying scores. Apparently these descriptors of type 6 and 9 should be abandoned or clarified. Of type 2 we did not have clear expectations as there we found none in the Enneagram literature. Type 2s came out with average scores overall.

By and large we think that the research shows us that there is a statistically significant relationship between Enneagram type and adaptive/innovative style, without predictive value for individual representatives of the type.

Conclusion

Although the present study shows statistical significant relationships between Enneagram type and style of problem-solving as measured by the KAI, some major questions still remain to be answered. One of them is the relationship between the meaning of the term creativity in the descriptions of the types and the definitions of styles of problem solving in the KAI theory. Another issue comes with the use of dichotomies. If we assume we can find 3 relevant dichotomies (and one of them could be Adaptor-Innovator) will they adequately describe 9 types?

The literature review also showed us important differences in the descriptions of the Enneargam personality types. It would help if *The Enneagram Journal* would start a debate on a commonly used evidence-based standard descriptions of the personality styles.

In the description of the personality types all references to the word "creativity" and the meaning of the concept of "creativity" should be considered with special care. All items in the descriptors referring to level of problem solving should be weeded out.

The sample we used was rather small due to the fact we needed to be absolutely sure on the types. The results of our research can be improved by larger samples.

The data we gathered provide us with a rich source of information on enneagram and the differences on types and style of problem solving. Giving the timeframe for this (first) publication we can only present some first results and we will use the dataset for further analysis as well as we ask the readers of Enneagram Journal to come up with rival hypotheses that can be tested. We are most happy to share our data in the academic tradition we all have.

References

- Hurley K.V. and T.E. Dobson (1991). *What's my type?* Dutch translation (1994), Ankh Hermes, Deventer, 33, 46, 52, 73, 77.
- Isaksen, S. G., & Puccio, G. J. (1988). Adaption-Innovation and the Torrance Test of Creative Thinking: The Level-Style Issue Revisited. *Psychological Reports*, No. 63, pp, 659-670.
- Jacobson, C. M. (1993). Cognitive styles of creativity: Relations of scores on the Kirton Adaption-Innovation Inventory and the Myers-Briggs Type Indicator among managers in the USA. *Psychological Reports*, *72*, 1131-1138.
- Kirton, M.J.(1976). Adaptors and innovators: a description and measure. *Journal* of Applied Psychology, 61, p. 622-629.
- Kirton, M. J., & Ciantes, S. M. (1985). Adaption-Innovation and Cattell's Sixteen Personality Factor Inventories. *Personnel Individual Differences*, Vol. 7, No. 3, pp. 141-146.
- Kirton M.J. (1987). *Kirton Adaption-Innovation Inventory Manual*, Occupational Centre, Hertfordshire UK.
- Kirton, M. J. (1989). *Adaptors and innovators*, 1989, Routledge, London/New York.
- Loo, R., & Shiomi, K. (1997). A Cross Cultural Examination of the Kirton Adaption-Innovation Inventory. *Personnel Individual Differences*, Vol. 22, No. 1, pp. 55-60.
- Magielse S.(2005). Enneagram en Creatieve stijl: een vergelijking van Adapotion-Innovation stijlen tussen de Enneagram Typologieen, master thesis Erasmus Universiteit Rotterdam.
- Meer van der J.D (2000). Innovatie voor accountants, *De accountant*, 2000-5, 24-28.
- Naranjo C. (1994). *Character and Neurosis*, Gateways/IDHHB, Nevada City, 41, 50, 142, 144, 210, 213, 214, 255, 257.
- Nathans H. (2004). The enneagram at work, Cyan/Scriptum, London.
- Palmer H.(1988). The Enneagram, Harper, San Francisco, 177
- Palmer H.(1995). *The Enneagram in love and work*, Harper, San Francisco, 193, 230, 200, 240-241.

- Palmer H. and P.B. Brown (1998), *The Enneagram advantage*, Harmony Books, New York, 46, 61, 222.
- Riso D.R. and R.Hudson (1999). *The wisdom of the Enneagram*, Bantam Books, New York/Toronto/London/Sydney/Auckland, 112, 153, 168, 206, 208-209, 248, 283, 289-290, 331.
- Wagner J.P. (). *The Enneagram Spectrum of personality styles*, Metamorphous Press, Portland OR. 59, 69,