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## PRACTISING LAWYERS IN NOVA SCOTIA: COGNITIVE STYLE AND PREFERENCES FOR PRACTICE

The Cognitive Style Index and a demographic survey were administered to 524 practising lawyers in Nova Scotia. Results indicate that lawyers, as a group, have a more analytical than intuitive cognitive style. Differences between men and women and between partners and associates were nonsignificant statistically. This finding suggests lawyers are a more homogeneous group in terms of cognitive style than other groups such as law students and various groups of business managers. However, lawyers differed significantly in cognitive style across various preferred areas of practice. For example, those preferring criminal law scored statistically significantly lower on the Cognitive Style Index than those who preferred Real Estate and Construction law. Organizational behavior implications are discussed.

### Introduction

The importance of thinking to the legal profession and developing improved cognitive skills has been emphasized by Jaquish and Ware (1993). And Blasi (1995, p. 392) stated "... it would certainly be worthwhile to understand the cognitive structures

employed by highly skilled lawyers." However, a key element of thinking and information processing, i.e., cognitive style, in a large and important professional group, the legal profession has not received much attention in the research literature.

A person's cognitive style is the preferred and stable manner in which that person habitually organizes and processes information (Messick, 1976). There is a variety of measures of cognitive style and some of the more widely-used and well-known measures include Kirton's (1976) adaptor-innovator styles, the Learning Style Inventory (Kolb, 1974), the Myers-Briggs Type Indicator (Myers, 1976), and the Group Embedded Figures Test (Witkin, Oltman, Raskin, and Karp, 1971), a measure of field dependence/independence.

In an attempt to overcome some of the perceived difficulties with the above measures of cognitive style (more fully discussed by MacGillivray, Murphy, Reid & Young, 1998), Allinson and Hayes (1996) developed the Cognitive Style Index (CSI). The CSI was specifically designed as an easily-administered and easily-scored instrument for use in large-scale organizational studies.

Allinson and Hayes (1996) consider cognitive style as a single, superordinate dimension with an intuitive style at one end and an analytical style at the other end and,

Intuition, characteristic of the right brain orientation, refers to immediate judgement based on feeling and the adoption of a global perspective. Analysis, characteristic of left brain orientation, refers to judgement based on mental

reasoning and a focus on detail (Allinson & Hayes, 1996, p. 122).

People tend to favour one cognitive style over another and their style may fall along a continuum between the two end points of intuition and analysis.

The cognitive styles of various pre-professional groups have been explored, for example, business undergraduates (Doucette, Kelleher, Murphy, & Young, 1997), information management students (Casey, Murphy, & Young, 1996), dental students (Chaytor, Murphy, Boyd, & LaFleche, 1991), and law students (Townsend & Ede, 1985). Others have examined cognitive style among professional groups, for example, practising accountants (Bernardi, 1993; Mills, 1995), financial analysts (Mykytyn, 1989), and organizational executives (Nutt, 1993).

The main purpose of this study is to examine the cognitive styles of practising lawyers, a large and important professional group. A second purpose of this study is to compare practising lawyers' cognitive style scores to other groups studied in the literature. A third purpose of this study is to examine the measurement characteristics of the Cognitive Style Index (CSI) developed by Allinson & Hayes (1996).

There has not been much research examining lawyers and their cognitive styles. However, lawyers have been shown to be somewhat analytical in their cognitive style (Galín & Orstein, 1974). It was hypothesized that the lawyers in this sample would tend to be somewhat more analytical than intuitive in their cognitive style.

Allinson & Hayes (1996) suggested the CSI has concurrent validity because it was capable of discriminating between groups that were presumed to differ in cognitive style. Their results showed that women scored higher on the CSI (i.e., had a more analytical style) than did men, in four out of five samples. Women scored significantly higher on the CSI than did men in a study of law students (Doucette, Kelleher, Murphy, & Young, 1998a) and in a study of business administration undergraduates (Doucette, Kelleher, Murphy, & Young, 1998b). MacGillivray, Murphy, Reid, and Young (1998) found women co-op undergraduates had higher CSI scores than men co-op undergraduates, although these differences were not statistically significant. Accordingly, it was hypothesized that women lawyers would score higher on the CSI than men lawyers.

Allinson & Hayes (1996) have shown people with higher status and seniority in an organization tend to be more intuitive than analytical. Accordingly, it was hypothesized that lawyers in more senior positions would score lower on the CSI than lawyers in less senior positions.

Allinson & Hayes (1996) reported significant differences in CSI scores among several functional groups within the broader group of practising managers. Further, Doucette, et al. (1998a) found that those law students who had a preference for an area of legal practice scored significantly lower on the CSI than those who had no preference. Scores on the CSI for those who had a preferred area of legal practice were distributed

unevenly across 30 areas of legal practice. When students were recombined into one of three groups, the litigation group scored significantly higher than the corporate/commercial group, though differences in scores between the administrative/public law group and the litigation and corporate/commercial groups were not significant. Accordingly it was hypothesized that lawyers will differ in CSI scores in terms of preferences within the broader field of legal practice.

## Method

### Sample

A total of 524 practising lawyers, who are also members of the Bar Society of Nova Scotia, completed the Cognitive Style Index. Participating were 344 (66%) men who ranged in age from 26 to 80 years and 180 (34%) women who ranged in age from 26 to 61 years. In terms of educational background, 482 respondents (92%) indicated they possessed at least one undergraduate degree, of which the B.A. was the most predominant, and 45 (9%) indicated they had a second undergraduate degree. In terms of graduate degrees, 80 (15%) indicated they held at least one master's degree, of which the M.A. was most predominant and 5 (1%) indicated they held a second master's degree. One hundred and thirty five respondents (26%) indicated they held a professional designation, of which the Q.C. was most predominant with 70 (13%) indicating it. The

men had practiced law since bar admission an average of 16.4 years (SD=9.90) and the women had practiced an average of 8.5 years (SD=6.07).

## Procedure

The Cognitive Style Index was included with a cover letter and a self-addressed, stamped envelope in a regular monthly information package distributed by the Nova Scotia Bar Society to its membership.

## Instruments

Subjects completed two instruments, a demographic survey and the CSI. The former solicited data regarding educational background, gender, age, and preferred areas of legal practice.

The CSI contains 38 self-report items and requires about 10 minutes to complete. Each item has three choices, true, false, or uncertain and scores for each item are 0, 1, or 2. Twenty-one of the items are worded so that a response of "true" is scored as a "2" and a response of false is scored as a "0". The remaining 17 items are scored in a reverse fashion. For all 38 items responses which were "uncertain" are scored as "1". Consequently total scores can range from zero to 76. The closer the respondent's score is to zero, the more intuitive is the respondent. The closer the respondent's score is to 76, the more analytical

is the respondent.

Although the CSI is a new instrument there is support for its psychometric soundness. For example, Doucette, et al. (1998a) reported internal consistency coefficients ranging from .84 to .87 for a sample of law school students. Doucette et al. (1998b) reported internal consistency coefficients ranging from .75 to .88 and a coefficient of stability for test-retest of the CSI of .89 for a sample of business undergraduates. Allinson and Hayes (1996) reported a coefficient of stability for test-retest of the CSI of .90 for a group of management students.

## Results

In total 2200 demographic and professional surveys with an attached Cognitive Style Index were distributed and 524 were returned, for an effective return rate of 24%. Table 1 presents means, standard deviations, and coefficients alpha, a measure of internal consistency, of the Cognitive Style Index for the total sample and by sex.

TABLE #1 HERE

The first hypothesis in this study suggested that lawyers would tend to be more analytical than intuitive. This is supported by the average score of 46.34 (see Table 1),

approximately eight points above the theoretical mean of the CSI (38.5) ( $t=14.25$ ,  $df=523$ ,  $p<.0001$ ). Further, this sample of lawyers scored significantly higher than a sample of 284 Canadian law students who scored an average of 43.71 on the CSI ( $SD=13.37$ ) (Doucette et al., 1998a) ( $t=2.77$ ,  $df=806$ ,  $p<.05$ ). The present sample also scored significantly higher than a sample of brewery managers ( $n=226$ ,  $M=43.26$ ,  $SD=12.13$ ) ( $t=3.08$ ,  $df=748$ ,  $p<.05$ ) and a sample of miscellaneous managers ( $n=130$ ,  $M=39.48$ ,  $SD=7.08$ ) ( $t=5.91$ ,  $df=652$ ,  $p<.05$ ) in the work of Allinson and Hayes (1996). Lawyers, as a group, tend to have a slightly more analytical than intuitive style and the first hypothesis is supported, and are more analytical than several other groups that have been measured.

The second hypothesis indicated that women lawyers would have significantly higher CSI scores than men lawyers. Women lawyers scored slightly higher than men lawyers (see Table 1) however, differences were nonsignificant ( $F=0.93$ ,  $df=1, 522$ ,  $p>.33$ ) and the second hypothesis is not supported.

The third hypothesis of this study stated that lawyers in more senior positions would score lower on the CSI than lawyers in less senior positions. This hypothesis was tested in two ways. The scores of the present sample were compared to those of a sample of 284 Canadian law students who scored an average of 43.71 on the CSI ( $SD=13.37$ ) (Doucette et al., 1998). This sample of lawyers scored significantly higher than the sample of law students ( $t=2.77$ ,  $df=806$ ,  $p<.05$ ). Hypothesis 3 is not supported, indeed the contrary would have been supported.

The third hypothesis was tested in a second way. Generally, partners in law firms are higher in status and seniority relative to firm associates. Table 2 presents means and standard deviations for CSI scores for partners and associates. A one-way analysis of variance with position in firm as the independent variable resulted in a nonsignificant difference ( $F=0.04$ ,  $df= 1, 291$ ,  $p>.84$ ). The third hypothesis is not supported.

TABLE 2 HERE

Lastly, it was hypothesized that lawyers would differ on total Cognitive Style Index scores in terms of preferences within the broader field of legal practice. Fifty (10%) of the respondents had no preference for a particular of area of legal practice, but 474 (90%) did have a preference. These preferences were unevenly distributed across 38 areas of legal practice. These preferences were placed into one of eight categories, based on similarity of area of practice. These categories were developed independently by two of the authors, who also practice law.

TABLE 3 HERE

Category 1 included Commercial/Corporate, Debtor/Creditor/Bankruptcy, Taxation, Intellectual Property, General Practice, Media, International Law, and Admiralty Law. Category 2 contained Real Estate and Construction Law. Category 3 was

Estates/Wills/Trusts Law. Category 4 was comprised of Employment/Labor, Negotiation, and Arbitration/Mediation. Category 5 included Constitutional, Civil Litigation/Personal Injury, Commercial Litigation, General Civil Litigation, Litigation/Non-personal Injury, and Litigation Support. Category 6 was comprised of Administrative, Health, Legislation, Environment, Government, Aboriginal, Municipal, Military, Compensation, Crown, Immigration, Equal Rights, Freedom of Information, and Resource Law. Category 7 is Family Law and Category 8 is Criminal Law. The means and standard deviations for total scores on the Cognitive Style Index by area of preference are presented in Table 3. A one-way analysis of variance indicated significant differences in scores across the areas of preference ( $F=4.32$ ,  $df=7$ , 466,  $p<.0001$ ). A post-hoc analysis of differences using least-squares analysis indicated a number of significant differences across the areas of preference. The results of the least-square-means analysis are presented in Table 4 and support the fourth hypothesis of this study.

#### TABLE 4 HERE

Those in Category 8 of practice preference, criminal law, the most intuitive in the sample, scored statistically significantly lower than those in categories 2, 3, 4, and 7. The most analytical (i.e., those having a high score on the CSI) were in Category 2, Real Estate and Construction Law and they were statistically significantly higher than those in Categories 1, 4, 5, 6, 7, and 8. Those in Category 6 scored statistically significantly higher than those in Category 3.

## DISCUSSION

The coefficients alpha, measures of internal consistency, are supportive of the Cognitive Style Index's psychometric soundness. The Cognitive Style Index is a very promising research instrument and its use be continued with other more disparate, professional groups.

The first finding suggests that practising lawyers generally are more analytical than intuitive in their cognitive styles and are more analytical in style than other groups such as law students and various groups of business managers. Secondly, in view of our large sample sizes, the nonsignificant differences between men and women lawyers and between partners and associates indicate that lawyers are a homogeneous group with respect to cognitive style (although no formal study of power was done). The differences between lawyers and law students suggest a shift in students' cognitive styles toward a more analytical style after law school is finished and practise starts. This suggestion makes some sense given that cognitive style develops as a function of experience (Messick, 1976) and differences in cognitive style may occur as a result of recruitment and/or selection (Allinson & Hayes, 1996).

A number of pre-professional and professional fields have been shown to be

broad-gauge fields of study or practise, that is they can accommodate a variety of cognitive styles. For example, within the fields of business administration and tourism and hospitality management, co-op undergraduates scored significantly higher on the CSI than did non co-op undergraduates (MacGillivray, et al., 1998). Significant differences in CSI scores across law students's preferences for area of practise were also reported (Doucette et al., 1998a). Allinson and Hayes (1996) indicated that those managers in the personnel function had significantly higher CSI scores than managers in the functional areas of production, marketing, and finance. The differences in cognitive style scores among lawyers in terms of preference for area of professional practise indicates that law is a broad-gauge field of practise. Although there is an overall tendency for lawyers to be more analytical than intuitive, the field can accommodate a broad array of cognitive styles. Further, choices with respect to preferred field of practise appear to be, at least in part, a function of cognitive style.

The differences in cognitive style within the field of law are quite interesting given recent managerial and organizational concerns with developing self awareness, managing diversity, and constructing effective teams. Whetten and Cameron (1991) suggested that developing self awareness is a major requirement of individuals if they are to improve their interactions with others in organizations. Cognitive style is a key element in people's self concepts and as individuals know and understand their cognitive style, their knowledge and understanding of self improves. This can also contribute to knowing and understanding others and improving interpersonal effectiveness in organizations

(Whetten & Cameron, 1991). Further, Pedler (1988) has argued that cognitive style plays a key role in self-development. Those who engage in true self-development learn about a particular issue (e.g., writing wills) as well as learning about how they process information. Lawyers can improve interpersonal effectiveness and enhance self-development, in part, by knowing and understanding cognitive style, of self and of others.

According to Peter Drucker, teams are being used more frequently in today's organizations (Harris, 1993), and the importance of understanding one's own cognitive style and that of others in the organization has been stressed by Leonard and Straus (1997). Team selectors and others such as human resource managers should be aware of the differences in ways of doing things as a function of one's cognitive style. These differences can have negative outcomes such as increased conflict or positive outcomes such as synergy. Lawyers should be made aware of the range of cognitive styles operating in their firms as a means of understanding and managing team differences.

Cox and Beale (1997) suggested that managing diversity is broader than issues of race, culture, and gender, and diversity can include and should include other issues including cognitive style. It seems reasonable to assume that diversity is increasing in law firms as in many other professional organizations. Improved knowledge of cognitive style can help those in organizations improve diversity management by better understanding those with a different cognitive style.

In summary, this study contributes to the psychometric properties and construct validity of the Cognitive Style Index developed by Allinson and Hayes (1996). Additionally it suggests that lawyers, as a group, are homogeneous in terms of cognitive style, and tend to be more analytical than intuitive. Law is also a broad-gauge field of practice and it can accommodate an array of cognitive styles. Lawyers of differing cognitive styles also tend to have different preferences with respect to professional practice.

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Table 1

Descriptive statistics and internal consistency coefficients for total score on the Cognitive Style Index by for the total sample and by sex

Group	n	Mean	SD	Range	Alpha	Group	n
Men	344	45.96	12.83	12 - 74	.85		
Women	180	47.07	12.15	13 - 72	.84		
Total sample	524	46.34	12.68	12 - 74	.85		

Table 2

Means and standard deviations for total scores  
on the Cognitive Style Index for partners and associates

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Group	n	Mean	SD	Group	n	Mean
Partners	172	47.14	12.84			
Associates	121	46.85	12.42			

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Table 3

Means and standard deviations for total scores  
on the Cognitive Style Index by area of preference

Area of preference	n	Mean	SD	Area of preference	n
1 Commercial	82	45.71	13.96		
2 Real Estate	54	53.14	11.72		
3 Estates	13	51.23	12.81		
4 Employment	33	47.48	11.02		
5 Litigation	111	45.72	11.64		
6 Administrative	46	43.41	11.41		
7 Family	52	47.19	13.05		
8 Criminal	83	42.31	13.03		

Table 4

Results of the post-hoc least-squares-means analysis  
for the total Cognitive Style Index scores by area of preference

Area	1	2	3	4	5	6	7	8
1	-----	.0007	.1390	.4922	.9955	.3154	.5052	.0797
2		-----	.6186	.0402	.0004	.0001	.0142	.0001
3			-----	.3590	.1327	.0463	.2964	.0168
4				-----	.4777	.1526	.9160	.0443
5					-----	.2895	.4851	.0594
6						-----	.1346	.6313
7							-----	.0273
8								-----

