

MSG Thinking Styles Inventory

Manual

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Manual for the MSG Thinking Styles Inventory

The MSG Thinking Styles Inventory measures 13 different styles of thinking. It is based on Robert J. Sternberg's (1988) theory of mental self-government. This manual will first describe the theory as a whole, then present brief definitions of each style, then present the scale instructions and the scale, and finally present statistical information, including norms, reliabilities, and validities.

The Theory of Mental Self-Government

Basic Elements of the Theory

Governments have many aspects, such as function, form, level, scope, and leaning. Three major functions of government are the legislative, executive, and judicial. Four major forms of government are the monarchic, hierarchic, oligarchic, and anarchic. Two basic levels of government are the global and the local. Two domains in the scope of government are the internal (domestic affairs) and the external (foreign affairs), and two leanings are conservative and progressive. In this part of the article, the implications of each of these aspects for understanding intellectual styles are explored.

Governments may be viewed as having three primary functions: legislative, executive, and judicial. These functions are reflected both in the types of mental processes and problems that utilize them, and in terms of the styles that they generate. It will be argued that individuals favoring one or another function will also tend to favor those mental processes that partake of the corresponding function.

The Legislative Function

The legislative function involves creation, formulation, and planning of ideas, strategies, products, and the like. Legislative processes in task performance are information-processing components involved in formulation and planning, and a legislative style in a person corresponds to a predilection for formulation, planning, and creation.

Processes. Legislative processes are wide-ranging, including ones involved in various forms of creation, formulation, and planning. Some examples of legislative processes are those metacomponents, or higher order mental processes, that are used in various phases of planning for task performance: defining problems, deciding on the lower order processes needed to solve a problem, combining these processes into a coherent strategy, formulating a mental representation for information, and allocating mental and physical resources in problem solving (Sternberg, 1985).

Consider, for example, a problem such as combatting terrorism. If one wishes to legislate and then execute a strategy for such action, one must first decide how to define the problem—whether it is one that originates with Libya (possibly leading, as in recent U.S. history, to bombing Libya), or with Syria (leading, perhaps, to behind-the-scenes negotiation because of the perception that an attack on Syria is too dangerous), or with misguided revolutionaries (in which case one might bomb revolutionary headquarters, as Israel has attempted to do), or with indigenous self-help groups (in which case one might do nothing and applaud the terrorist actions). The point is that legislation begins with the definition of a problem, and the way one defines the problem will affect the processes

The legislative style. The legislative style characterizes individuals who enjoy creating, formulating, and planning for problem solution. Such individuals tend to gravitate naturally toward legislative activities. In general, they tend to be people who (a) like to create their own rules, (b) enjoy doing things their own way, (c) prefer problems that are not prestructured or prefabricated, (d) like to build structure as well as content in deciding how to approach a problem, (e) prefer creative and constructive planning-based activities, such as writing papers, designing projects, creating new business or educational systems, and (f) enter occupations that enable them to utilize their legislative style, such as creative writer, scientist, artist, sculptor, investment banker, policy-maker, and architect.

The Executive Function

The executive function is involved in the carrying out (execution) of the plans formulated by the legislative function. It is important to note that the term "executive" is used here in the sense that it is used in government rather than in the sense that it is used in contemporary psychology. Here, executive refers to those mental functions involved in implementing, not in planning cognitive and other activity. The executive branch of intellectual style executes rather than plans for execution.

Executive processes. Executive processes are those that carry out legislative plans. Included among them are performance and knowledge-acquisition components that encode, combine, and compare information. For example, the decision as to what strategy to use in solving a problem (legislative) will determine, in part, what aspects of a stimulus or set of stimuli should be encoded to solve that problem. Thus, legislative activities would be involved in deciding on a paper topic, whereas executive activities would be involved in encoding the information relevant to that paper topic, combining the collected information, and comparing that information to what one already knows in order to put together new and old information in an expeditious way. Similarly, with respect to terrorism, how one defines the problem of terrorism will affect one's planned strategy for combatting it, which will in turn affect the actions taken actually to combat it.

The executive style. Individuals with an executive style are implementers. They (a) like to follow rules, (b) like to figure out which of already existing ways they should use to get things done, (c) prefer problems that are prestructured or prefabricated, (d) like to fill in content within existing structures, (e) prefer activities that are already defined for them, such as solving algebra-word problems, applying rules to already structured engineering problems, giving talks or lessons based on others' ideas, and enforcing rules, and (f) prefer executive types of occupations, such as those of lawyer, policeman, builder (of others' designs), surgeon, soldier, proselytizer (of others' systems), and manager (lower echelon).

The Judicial Function

The judicial function involves activities of judging. Such activities may start before a given path to problem solution is ever instigated, and continue as one monitors problem solution during the course of that solution, and as one then evaluates it after it is completed.

Judicial processes. Judicial processes are information-processing components, such as those metacomponents that involve monitoring and evaluating internal and external feedback in problem solving. For example, judicial processes would be involved in recognizing that a paper

that someone is writing--whether one's own or someone else's--is getting off track, or in recognizing that the answer one has attained to a mathematics problem does not make sense, such as when a negative amount of change must be returned by a merchant to a customer. Judicial processes would also be involved in evaluating the success of a response to terrorism.

The judicial style. The judicial style involves judgmental activities. Judicial types (a) like to evaluate rules and procedures, (b) like to judge existing structures, (c) prefer problems in which one analyzes and evaluates existing things and ideas, (d) like to judge both structure and content, (e) prefer activities that exercise the judicial function, such as writing critiques, giving opinions, judging people and their work, and evaluating programs, and (f) tend to gravitate toward occupations involving large amounts of judicial activity, such as judge, critic, program evaluator, admissions officer, grant or contract monitor, systems analyst, and consultant.

Forms of Mental Self-Government

Governments come in different forms. Four of those forms are the hierarchic, the monarchic, the oligarchic, and the anarchic. Corresponding to each of these forms, in the domain of mental self-government, is a set of problems (requiring various kinds of mental processes) and a style. These styles of form are crossed with those of function. Logically, any form may be paired with any function, although psychologically, certain pairings are likely to be more common than others.

The Hierarchic Form

Hierarchic problems. Hierarchic problems are ones requiring fulfillment of multiple goals, with the goals assigned differing weights or priorities. Some examples would be choosing a career, selecting a college or a job, finding a mate, and planning a course.

The hierarchic style. Individuals preferring a hierarchic style tend (a) to be motivated by a hierarchy of goals, with the recognition that not all goals can be fulfilled equally well and that some goals are more important than others, (b) to take a balanced approach to problems, (c) to believe that ends do not justify means, (d) to view competing goals as acceptable, but sometimes to have trouble if the priorities come too close to each other and thus do not allow for formation of a hierarchy, (e) to seek complexity and to be self-aware, tolerant, and relatively flexible, (f) to have good senses of priorities, (g) usually to be decisive, unless priority-setting becomes a substitute for decision or action, and (h) to be systematic in their solution to problems and in their decision making.

The Monarchic Form

Monarchic problems. Monarchic problems are ones requiring fulfillment of a single goal or need. Pure monarchic problems are rare, although problems that are not intrinsically monarchic may be approached as though they are. Some examples of such problems might be ones of making children literate, maximizing profit at any costs, or financing an addiction. Often, problems become monarchic not because they are inherently so, but because the representation of the problem is oversimplified by the problem solver. It is important to recognize, here and elsewhere, that problems become of one kind or another largely as a function of the way people represent them. A given problem might seem monarchic to one individual, but hierarchic to another.

The monarchic style. People who exhibit a predominantly monarchic style tend (a) to be motivated by a single goal or need at a time, (b) to be single-minded and driven, (c) to believe that the ends justify the means, (d) to attempt to solve problems, full-speed ahead--damn the obstacles, (e) to oversimplify problem representations, (f) to be relatively unself-aware, intolerant, and inflexible, (g) to have relatively little sense of priorities and alternatives, (h) to be decisive, and often too decisive, because they view their decisions in oversimplified terms, and (i) to be systematic, but trivially so, as their system takes into account only those variables pertaining to a single goal or set of needs.

The Oligarchic Form

Oligarchic problems. Oligarchic problems are ones requiring fulfillment of multiple, equally important goals. The equal importances of the goals may be perceived rather than actual. Examples of such problems are teaching of English as a second language with the constraint that the indigenous culture of the learners not be destroyed, reform of an organization without undermining its basic tenets, and teaching of thinking with the constraint that the students not become "machines." Note that in each of these cases, there is a goal, but that the fulfillment of the goal has associated with it a constraint such that if the constraint is not fulfilled, the solution is deemed unacceptable. Thus, both the goal and the constraint are of equal importance.

The oligarchic style. Individuals preferring the oligarchic style tend (a) to be motivated by multiple, often competing goals of equal perceived importance, (b) to have available multiple, possibly competing approaches to problems, (c) to be driven by goal conflict and tension, with the tension arising out of the fact that they believe that the satisfaction of the constraints is as important as the problem solution itself, (d) to believe that ends do not justify means, (e) to find that competing goals and needs tend to interfere with task completion, because each of the competing goals and needs is seen as of roughly equal importance, (f) to seek complexity (sometimes to the frustration point), and to be self-aware, tolerant, and very flexible, (g) to have trouble setting priorities because everything seems equally important, (h) to be rather indecisive, and to be (i) multiply systematic, with the multiple systems competing with each other because of the need to satisfy multiple equally important goals.

The Anarchic Form

Anarchic problems. Anarchic problems are ones that require a breakaway from existing paths and procedures for their solution. They are what I sometimes refer to as "nonentrenched" (Sternberg, 1981, 1982). Some insight problems, such as the hatrack problem (Maier, 1970) and the nine-dot problem, may best be solved anarchically, because existing solution paths tend to interfere with, rather than facilitate, solution. These problems require a totally new approach. Radical life changes often require an anarchic approach as well, with the understanding that it is necessary to break away from existing approaches to adaptation to circumstances.

The anarchic style. Anarchic stylists tend (a) to be motivated by a potpourri of needs and goals that are often difficult for themselves, as well as others, to sort out, (b) to take a random approach to problems, (c) to be driven by what seems like a muddle, with sometimes seemingly inexplicable forces behind their actions, (d) to believe that ends justify

means, (e) to be often unclear or unreflective on their goals, (f) to be simplifiers who are unself-aware, intolerant, and too flexible, in that they may believe that anything goes, (g) to have trouble setting priorities because they have no firm set of rules upon which to base these priorities, (h) to be extreme, either in terms of being too decisive or too indecisive, and (i) to be asystematic, indeed, to eschew system.

Levels of Mental Self-Government

Government functions at multiple levels, for example, federal, state (or provincial), county, city, and so on. In general, one can distinguish between global and local levels. Corresponding to these two levels are two aspects of mental self-government.

The Global Level

Global problems. Global problems are general ones, often at a relatively high level of abstraction. Some examples are policy issues, general ideas for experiments (as opposed to the details of the implementation of these experiments), paper topics, advertising plans, and the like. Tasks requiring global processing would be formulating an overall instructional policy, coming up with new ideas for business products or promotions, and large-scale theorizing.

The global style. Globalists (a) prefer to deal with relatively large and abstract issues, (b) ignore or don't like detail, (c) like to conceptualize and work in the world of ideas, (d) tend to be abstract, and sometimes, diffuse thinkers, (e) can have a tendency to get lost on "Cloud 9," and (f) may see the forest but not always the trees within it.

The Local Level

Local problems. Local problems are ones involving detail, whether of conception or of implementation, such as the details of experiments, advertising campaigns, or mathematical problems. Examples of local problems are organizing details of a conference, planning a detailed instructional sequence, tax preparation, and writing of codes or laws.

The local style. Localists (a) often like concrete problems requiring detail work, (b) relish detail, (c) are often oriented toward the pragmatics of a situation, (d) are often down-to-earth, and (e) may not see the forest for the trees. Some executive types may prefer only to work at a broader level, accomplishing the main tasks in a project while relegating the more local details to others. Similarly, a legislative or judicial type could be more local. For example, in science, some individuals generate ideas for experiments, but do not have a clear sense of the global issue that the experiments test. Or the scientist may generate ideas that essentially deal with a smaller rather than a larger picture with respect to a phenomenon under investigation. Thus, the global-local distinction can be crossed with the functions of mental self-government, as well as with its forms.

Scope of Mental Self-Government

Governments need to deal both with internal, or domestic affairs, and with external, or foreign ones. Similarly, mental self-governments need to deal with both internal and external issues.

Internal Scope

Internal problems. Internal scope concerns tasks applying intelligence in isolation from others. One may deal with the world of objects or of ideas, but other people do not enter in, except perhaps trivially. Solving analytical problems, creating compositions or arts or crafts, working with machines, are examples of internal problems.

The internal style. Internalists tend to be introverted, task-oriented, aloof, socially less sensitive, and interpersonally less aware than externalists. They also like to work alone. Essentially, their preference is to apply their intelligence to things or ideas in isolation from other people.

External Scope

External problems. External problems require applying intelligence as it pertains to the external world of the individual—the world of others as well as of oneself. External problems thus are either about other people, or require work in conjunction with other people so that the interaction with the people essentially becomes part of the problem. Examples of tasks requiring such a style are directing subordinates, working with supervisors or peers, maintaining friendships, and developing intimate relationships.

The external style. Externalists tend to be extroverted, people-oriented, outgoing, socially more sensitive, and interpersonally more aware than internalists. They like to work with others, and seek problems that either involve working with other people or are about these other people.

Development of Styles

Where do these various modes of intellectual functioning come from? It seems plausible that at least some portion of stylistic preference is inherited, but I doubt that it is a large part. Rather, styles would seem to be partly socialized constructs, just as is intelligence (Sternberg & Suben, 1986). From early on, we perceive certain modes of interaction with others and with things in the environment to be more rewarded than others, and we probably gravitate toward these modes, at the same time that we have built-in predispositions that place constraints on how much and how well we are able to adopt these rewarded styles. To some extent, society structures tasks along lines that benefit one style or another in a given situation. There is a continuous feedback loop between the exercise of a style and how well that style works in a given societally imposed task. It is important to add that some of the rewards as well as punishments for various modes of interaction are probably internal rather than external. We adopt styles not only in relation to external objects and people, but in relation to ourselves.

Consider some of the variables that are likely to affect the development of intellectual styles.

A first variable is culture. Some cultures are likely to be more rewarding of certain styles than of others. For example, the North American emphasis on innovation and making of the "better mouse trap" may lead to relatively greater reward for the legislative and progressive styles, at least among adults. National heroes of one kind or another in the United States, such as Edison as inventor, Einstein as scientist, Jefferson as political theorist, Steve Jobs as entrepreneur, and Hemingway as author, tend often to be heroes by virtue of their legislative contribution. Other societies, such as Japan, that traditionally more highly emphasize conformity and the following of tradition, may be more likely to lead to executive and conservative styles. A society that emphasizes conformity and tradition to a very great degree may stagnate because of the styles induced into its members. It is interesting to view the transition of the label, "Made in Japan," from its image in the 1950s as indicative of a cheap imitation of an American product, to an image of high-tech innovation in the 1980s. The change in image seems, at least in

part, to mirror a transition occurring in the styles that are rewarded in Japanese society.

A second variable is gender. Traditionally, a legislative style has been more acceptable in males than in females. Men were supposed to set the rules, and women to follow them. This tradition is changing, but it would probably be fair to say that many men and women are still adjusting to what is to them an unfamiliar and uncomfortable system.

A third variable is age. Legislation is generally encouraged in the pre-school young, who are encouraged to develop their creative powers in the relatively unstructured and open environment of the preschool and some homes. Once the children start school, the period of legislative encouragement rapidly draws to a close. Children are now expected to be socialized into the largely conforming values of the school. The teacher now decides what the student should do, and the student does it, for the most part. The choice situation of the preschool—in which the child chooses what to do and how to do it—is over. Students who don't follow directions and the regimentation of the school are viewed as undersocialized and even as misfits. In adulthood, some jobs again encourage legislation, even though training for such jobs may not. For example, high school physics or history are usually largely executive, with students answering questions or solving problems that the teacher poses. But the physicist and historian are expected to be more legislative. The irony is that they may have forgotten how. We sometimes say that children lose their creativity in school. What they may really lose is the intellectual style that generates creative performance.

A fourth variable is parenting style. What the parent encourages and rewards is likely to be reflected in the style of the child. Does the parent encourage or discourage legislation, or judgment, on the part of the child? The parent him or herself exhibits a certain style, which the child is likely to emulate. A monarchic parent, for example, is likely to reward a child who shows the same singlemindedness, whereas an anarchic parent would likely abhor a child beginning to show a monarchic style, and try to suppress it as unacceptable. Parents who mediate for the child in ways that point to larger rather than smaller issues underlying actions are more likely to encourage a global style, whereas parents who do not themselves generalize are more likely to encourage a more local style.

A fifth variable is religious upbringing. Some religions, as practiced in the everyday world, are more encouraging of questioning and confrontation than are others. Nobel Prizes are not distributed among various religious groups in proportion to their occurrence in the world population. The pattern of difference is reflective of the emphasis on questioning of existing ways among these various groups.

A last variable is kind of schooling and, ultimately, of occupation. Different schools and, especially, occupations reward different styles. An entrepreneur is likely to be rewarded for different styles from those for which an assembly-line worker is rewarded. As individuals respond to the reward system of their chosen life pursuit, various aspects of style are more likely to be either encouraged or suppressed.

Obviously, these variables are only a sampling rather than a complete listing of those variables that are likely to influence style. Moreover, any discussion such as this one inevitably simplifies the complexities of development, if only because of the complex interactions that occur among variables. Moreover, styles interact with abilities. Occasionally one runs into legislative types who are uncreative, creative people who eschew

legislation, hierarchists who set up misguided hierarchies, and so on. But for the most part, the interactions will be more synchronous in well-adjusted people. According to the triarchic theory of human intelligence (Sternberg, 1986), contextually intelligent people are ones who capitalize on their strengths and who either remediate or compensate for their weaknesses. A major part of capitalization and compensation would seem to be in finding harmony between one's abilities and one's preferred styles. People who cannot find such harmony are likely to be frustrated by the mismatch between how they like to perform and how they are able to perform.

If styles are indeed socialized, even in part, then they are almost certainly modifiable to at least some degree. Such modification may not be easy. We know little about how to modify intelligence, and we know even less about how to modify intellectual styles. Presumably, when we learn the mechanisms that might plausibly underlie such attempts at modification, we will pursue a path similar to that some educators and psychologists are using in teaching intelligence (e.g., Sternberg, 1986).

We need to teach students to capitalize upon their strengths, and to remediate and compensate for their weaknesses. Some remediation of weaknesses is probably possible. But to the extent that it is not, mechanisms of compensation can usually be worked out that help narrow the gap between weak and strong areas of performance. For example, a business executive who does not like detail work may hire someone else to do it for him or her. Ultimately, we can hope that a theory of intellectual styles will serve not only as a basis for a test of such styles, but also as a basis for training that maximizes people's flexibility in their encounters with things, others, and themselves.

SUMMARY DEFINITIONS OF SUBSCALES

- Legislative:** Predilection for tasks, projects, and situations that require creation, formulation, and planning of ideas, strategies, products and the like.
- Executive:** Predilection for tasks, projects, and situations that provide structure, procedures, or rules to work with, and, that although modifiable, can serve as guidelines to measure progress.
- Judicial:** Predilection for tasks, projects, and situations that require evaluation, analysis, comparison-contrast, and judgment of existing ideas, strategies, projects, and the like.
- Global:** Predilection for tasks, projects, and situations that require engagement with large, global, abstract ideas.
- Local:** Predilection for tasks, projects, and situations that require engagement with specific, concrete details.
- Progressive:** Predilection for tasks, projects, and situations that involve unfamiliarity and ambiguity, and that also require going beyond existing rules and procedures and allow maximization of change.
- Conservative:** Predilection for tasks, projects, and situations that require adherence to existing rules and procedures.
- Hierarchic:** Predilection for tasks, projects, and situations that allow creation of a hierarchy of goals to fulfill.
- Monarchic:** Predilection for tasks, projects, and situations that allow focussing fully on one thing or aspect at a time and staying with that aspect until it is complete.

Oligarchic: Predilection for tasks, projects and situations that allow working with competing approaches, with multiple aspects or goals that are equally important.

Anarchic: Predilection for tasks, projects and situations that lend themselves to great flexibility of approaches, to trying anything one wishes as one pleases.

Internal: Predilection for tasks, projects, and situations that require activities that allow me to work as a unit, independently from others.

External: Predilection for tasks, projects, and situations that require activities that allow working with others in a group or interacting with others at different stages of progress.

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INSTRUCTIONS

THINKING STYLES QUESTIONNAIRE

This is a questionnaire about the different strategies and ways people use to solve problems, to carry out tasks or projects, and to make decisions. Read each statement carefully and decide how well it describes you. Use the scale provided to indicate how well the statement fits the way you typically do things at school, at home, or on a job. Circle 1 if the statement does not fit you at all, that is, you almost never do things this way. Circle 7 if the statement fits you extremely well, that is, you almost always do things this way. Use the values in between to indicate that the statement fits you in varying degrees.

1	2	3	4	5	6	7
Not At	Not Very	Slightly	Somewhat	Well	Very Well	Extremely
All Well	Well	Well	Well			Well

There are, of course, no right or wrong answers. Please read each statement and circle the number on the scale next to the statement that best indicates how well the statement describes you.

Please proceed at your own pace, but do not spend too much time on any one statement.

If you have any questions, feel free to ask them now.

	1	2	3	4	5	6	7
	Not At All Well	Not Very Well	Slightly Well	Somewhat Well	Well	Very Well	Extremely Well
603. When discussing or writing down ideas, I like criticizing others' ways of doing things.	1	2	3	4	5	6	7
805. I prefer to deal with specific problems, rather than with general questions.	1	2	3	4	5	6	7
306. I enjoy working on projects that allow me to try novel ways of doing things.	1	2	3	4	5	6	7
401. When making decisions, I tend to rely on my own ideas and ways of doing things.	1	2	3	4	5	6	7
702. When discussing or writing down ideas, I follow formal rules of presentation.	1	2	3	4	5	6	7
109. When talking or writing about ideas, I stick to one main idea.	1	2	3	4	5	6	7
313. When starting a task, I like to brainstorm ideas with friends or peers.	1	2	3	4	5	6	7
510. I tend to base my decisions only on concerns important to my group or peers.	1	2	3	4	5	6	7
703. When making a decision, I like to compare the opposing points of view.	1	2	3	4	5	6	7
508. I like to set priorities for the things I need to do before I start doing them.	1	2	3	4	5	6	7
104. I like situations or tasks in which I am not concerned with details.	1	2	3	4	5	6	7
801. When faced with a problem, I use my own ideas and strategies to solve it.	1	2	3	4	5	6	7
505. In discussing or writing on a topic, I think the details and facts are more important than the overall picture.	1	2	3	4	5	6	7
804. I tend to pay little attention to details.	1	2	3	4	5	6	7
502. I like to figure out how to solve a problem following certain rules.	1	2	3	4	5	6	7

	1	2	3	4	5	6	7
	Not At All Well	Not Very Well	Slightly Well	Somewhat Well	Well	Very Well	Extremely Well
705. I prefer tasks dealing with a single, concrete problem, rather than general or multiple ones.						1 2 3 4 5 6 7	
612. I like to control all phases of a project, without having to consult with others.						1 2 3 4 5 6 7	
710. I enjoy working on different tasks that are important to my peer group.						1 2 3 4 5 6 7	
206. I like situations where I can try new ways of doing things.						1 2 3 4 5 6 7	
107. I like to do things in ways that have been used in the past.						1 2 3 4 5 6 7	
701. I like to play with my ideas and see how far they go.						1 2 3 4 5 6 7	
602. I am careful to use the proper method to solve any problem.						1 2 3 4 5 6 7	
209. I like to deal with major issues or themes, rather than details or facts.						1 2 3 4 5 6 7	
802. I enjoy working on things that I can do by following directions.						1 2 3 4 5 6 7	
406. I like projects that allow me to look at a situation from a new perspective.						1 2 3 4 5 6 7	
308. In talking or writing down ideas, I like to have the issues organized in order of importance.						1 2 3 4 5 6 7	
407. I stick to standard rules or ways of doing things.						1 2 3 4 5 6 7	
412. I prefer to read reports for information I need, rather than ask others for it.						1 2 3 4 5 6 7	
311. When I have many things to do, I do whatever occurs to me first.						1 2 3 4 5 6 7	
205. I like to memorize facts and bits of information without any particular context.						1 2 3 4 5 6 7	

	1	2	3	4	5	6	7
	Not At All Well	Not Very Well	Slightly Well	Somewhat Well	Well	Very Well	Extremely Well
208. Before starting a project, I like to know the things I have to do and in what order.	1	2	3	4	5	6	7
201. I like problems where I can try my own way of solving them.	1	2	3	4	5	6	7
312. When trying to make a decision, I rely on my own judgment of the situation.	1	2	3	4	5	6	7
511. I can switch from one task to another easily, because all tasks seem to me to be equally important.	1	2	3	4	5	6	7
613. If I need more information, I prefer to talk about it with others rather than to read reports on it.	1	2	3	4	5	6	7
713. In a discussion or report, I like to combine my own ideas with those of others.	1	2	3	4	5	6	7
609. In trying to finish a task, I tend to ignore problems that come up.	1	2	3	4	5	6	7
403. When faced with opposing ideas, I like to decide which is the right way to do something.	1	2	3	4	5	6	7
504. I care more about the general effect than about the details of a task I have to do.	1	2	3	4	5	6	7
808. When working on a task, I can see how the parts relate to the overall goal of the task.	1	2	3	4	5	6	7
103. I like situations where I can compare and rate different ways of doing things.	1	2	3	4	5	6	7
211. When there are many important things to do, I try to do as many as I can in whatever time I have.	1	2	3	4	5	6	7
212. When faced with a problem, I like to work it out by myself.	1	2	3	4	5	6	7
305. I tend to break down a problem into many smaller ones that I can solve, without looking at the problem as a whole.	1	2	3	4	5	6	7

	1	2	3	4	5	6	7
	Not At All Well	Not Very Well	Slightly Well	Somewhat Well	Well	Very Well	Extremely Well
607. When I'm in charge of something, I like to follow methods and ideas used in the past.	1	2	3	4	5	6	7
210. When faced with a problem, I make sure my way of doing it is approved by my peers.	1	2	3	4	5	6	7
809. I use any means to reach my goal.	1	2	3	4	5	6	7
303. I like to check and rate opposing points of view or conflicting ideas.	1	2	3	4	5	6	7
605. I like to collect detailed or specific information for projects I work on.	1	2	3	4	5	6	7
708. In dealing with difficulties, I have a good sense of how important each of them is and what order to tackle them in.	1	2	3	4	5	6	7
207. I like situations where I can follow a set routine.	1	2	3	4	5	6	7
204. In doing a task, I like to see how what I do fits into the general picture.	1	2	3	4	5	6	7
411. I like to tackle all kinds of problems, even seemingly trivial ones.	1	2	3	4	5	6	7
810. I prefer to work on a project or task that is acceptable to and approved by my peers.	1	2	3	4	5	6	7
807. I like situations where the role I play is a traditional one.	1	2	3	4	5	6	7
806. I like to change routines in order to improve the way tasks are done.	1	2	3	4	5	6	7
608. When discussing or writing down ideas, I stress the main idea and how everything fits together.	1	2	3	4	5	6	7
402. I like projects that have a clear structure and a set plan and goal.	1	2	3	4	5	6	7
101. When working on a task, I like to start with my own ideas.	1	2	3	4	5	6	7
812. I prefer situations where I can carry out my own ideas, without relying on others.	1	2	3	4	5	6	7

	1	2	3	4	5	6	7
	Not At All Well	Not Very Well	Slightly Well	Somewhat Well	Well	Very Well	Extremely Well
408. When there are many things to do, I have a clear sense of the order in which to do them.						1	2 3 4 5 6 7
213. I like to participate in activities where I can interact with others as a part of a team.						1	2 3 4 5 6 7
102. Before starting a task or project, I check to see what method or procedure should be used.						1	2 3 4 5 6 7
410. When discussing or writing about a topic, I stick to points of view accepted by my peers.						1	2 3 4 5 6 7
307. I like tasks and problems that have fixed rules to follow in order to complete them.						1	2 3 4 5 6 7
301. Before starting a task, I like to figure out for myself how I will do my work.						1	2 3 4 5 6 7
704. I tend to emphasize the general aspect of issues or the overall effect of a project.						1	2 3 4 5 6 7
302. I like to follow definite rules or directions when solving a problem or doing a task.						1	2 3 4 5 6 7
611. When discussing or writing down ideas, I use whatever comes to mind.						1	2 3 4 5 6 7
113. When working on a project, I like to share ideas and get input from other people.						1	2 3 4 5 6 7
601. I feel happier about a job when I can decide for myself what and how to do it.						1	2 3 4 5 6 7
503. I like projects where I can study and rate different views or ideas.						1	2 3 4 5 6 7
111. When I start on a task, I like to consider all possible ways of doing it, even the most ridiculous.						1	2 3 4 5 6 7
509. When trying to make a decision, I tend to see only one major factor.						1	2 3 4 5 6 7

	1	2	3	4	5	6	7
	Not At All Well	Not Very Well	Slightly Well	Somewhat Well	Well	Very Well	Extremely Well
105. I like problems where I need to pay attention to details.						1	2 3 4 5 6 7
513. I like projects in which I can work together with others.						1	2 3 4 5 6 7
404. I like situations where I can focus on - general issues, rather than on specifics.						1	2 3 4 5 6 7
507. I dislike problems that arise when doing something in the usual, customary way.						1	2 3 4 5 6 7
606. I like to challenge old ideas or ways of doing things and to seek better ones.						1	2 3 4 5 6 7
512. When discussing or writing down ideas, I only like to use my own ideas.						1	2 3 4 5 6 7
707. When faced with a problem, I like to solve it in a traditional way.						1	2 3 4 5 6 7
712. I like to work alone on a task or a problem.						1	2 3 4 5 6 7
610. When there are several important things to do, I pick the ones most important to my peer group.						1	2 3 4 5 6 7
711. I find that solving one problem usually leads to many other ones, that are just as important.						1	2 3 4 5 6 7
413. When making a decision, I try to take the opinions of others into account.						1	2 3 4 5 6 7
604. I like working on projects that deal with general issues and not with nitty-gritty details.						1	2 3 4 5 6 7
501. I like situations where I can use my own ideas and ways of doing things.						1	2 3 4 5 6 7
709. If there are several important things to do, I do the one most important to me.						1	2 3 4 5 6 7
706. I like to take old problems and find new methods to solve them.						1	2 3 4 5 6 7

	1	2	3	4	5	6	7
	Not At All Well	Not Very Well	Slightly Well	Somewhat Well	Well	Very Well	Extremely Well
803. I prefer tasks or problems where I can grade the designs or methods of others.	1	2	3	4	5	6	7
813. I like situations where I interact with others and everyone works together.	1	2	3	4	5	6	7
506. When faced with a problem, I prefer to try new strategies or methods to solve it.	1	2	3	4	5	6	7
106. I like to do things in new ways not used by others in the past.	1	2	3	4	5	6	7
309. I like to concentrate on one task at a time.	1	2	3	4	5	6	7
112. I like projects that I can complete independently.	1	2	3	4	5	6	7
811. When trying to make a decision, I try to take all points of view into account.	1	2	3	4	5	6	7
108. When starting something, I like to make a list of things to do and to order the things by importance.	1	2	3	4	5	6	7
203. I enjoy work that involves analyzing, grading, or comparing things.	1	2	3	4	5	6	7
110. When I start a task or project, I focus on the parts most relevant to my peer group.	1	2	3	4	5	6	7
409. I have to finish one project before starting another one.	1	2	3	4	5	6	7
304. In talking or writing down ideas, I like to show the scope and context of my ideas, that is, the general picture.	1	2	3	4	5	6	7
405. I pay more attention to parts of a task than to its overall effect or significance.	1	2	3	4	5	6	7
310. When there are several important things to do, I do those most important to me and my peers.	1	2	3	4	5	6	7
202. I like situations in which my role or the way I participate is clearly defined.	1	2	3	4	5	6	7

THINKING STYLES SCORE SHEET

SCALE	Pg. 1	Pg. 2	Pg. 3	Pg. 4	Pg. 5	Pg. 6	Pg. 7	TOTAL/AVE.
LEG	401 ___ 801 ___	701 ___	201 ___	101 ___	301 ___ 601 ___	501 ___		___ ___
EXEC	702 ___ 502 ___	602 ___ 802 ___		402 ___	102 ___ 302 ___		202 ___	___ ___
JUD	603 ___ 703 ___		403 ___ 103 ___	303 ___	503 ___		803 ___ 203 ___	___ ___
GLOB	104 ___ 804 ___		504 ___	204 ___	704 ___	404 ___ 604 ___	304 ___	___ ___
LOCL	805 ___ 505 ___	705 ___ 205 ___	305 ___	605 ___		105 ___	405 ___	___ ___
PROG	306 ___	206 ___ 406 ___		806 ___		606 ___ 706 ___	506 ___ 106 ___	___ ___
CONS		107 ___ 407 ___		607 ___ 207 ___ 807 ___	307 ___	507 ___ 707 ___		___ ___
HIER	508 ___	308 ___	208 ___ 808 ___	708 ___ 608 ___	408 ___		108 ___	___ ___
MONA	109 ___	209 ___	609 ___	809 ___	509 ___	709 ___	309 ___ 409 ___	___ ___
OLIG	510 ___	710 ___		210 ___ 810 ___	410 ___	610 ___	110 ___ 310 ___	___ ___
ANAR		311 ___	511 ___ 211 ___	411 ___	611 ___ 111 ___	711 ___	811 ___	___ ___
INTR		612 ___ 412 ___	312 ___ 212 ___	812 ___		512 ___ 712 ___	112 ___	___ ___
EXTR	313 ___		613 ___ 713 ___		213 ___ 113 ___	513 ___ 413 ___	813 ___	___ ___

Note. Transfer ratings given for each item to score sheet (arranged in columns by page). The average of items answered is the score for that substyle.

TABLE 1: SUBSCALE SCORES BY PERCENTILE

		Grades 7 & 8				
		<u>Percentile</u>				
Subscale		90%	75%	50%	25%	10%
1. Legislative		5.9	5.3	4.6	4.0	3.7
	M	5.9	5.1	4.5	4.1	3.7
	F	5.8	5.4	4.6	4.0	3.6
2. Executive		5.3	4.8	4.1	3.6	2.9
	M	5.7	4.9	4.4	3.9	3.4
	F	4.9	4.4	4.0	3.1	2.3
3. Judicial		4.9	4.5	4.0	3.5	3.0
	M	4.9	4.6	4.2	3.2	3.0
	F	5.1	4.5	4.0	3.6	3.1
4. Global		4.8	4.4	4.0	3.4	3.1
	M	4.8	4.6	4.1	3.5	3.0
	F	4.6	4.2	3.9	3.4	3.1
5. Local		4.9	4.5	4.0	3.5	3.0
	M	5.1	4.6	4.1	3.6	3.1
	F	4.8	4.4	3.9	3.2	2.9
6. Progressive		5.6	5.0	4.3	3.9	3.4
	M	5.6	5.0	4.3	3.9	3.3
	F	5.8	5.0	4.3	4.0	3.5
7. Conservative		5.1	4.5	3.9	3.4	2.6
	M	5.4	4.9	4.2	3.6	3.0
	F	4.9	4.1	3.5	2.8	2.2
8. Hierarchic		5.5	4.9	4.2	3.7	3.0
	M	5.4	4.8	4.2	3.8	3.2
	F	5.6	5.2	4.3	3.5	2.7
9. Monarchic		5.0	4.5	4.1	3.6	3.0
	M	5.0	4.6	4.4	3.6	3.2
	F	4.9	4.3	4.0	3.6	3.0
10. Oligarchic		5.1	4.6	4.0	3.2	2.5
	M	5.2	4.5	4.0	3.5	2.9
	F	5.1	4.6	4.0	3.0	2.1
11. Anarchic		5.2	4.8	4.1	3.6	3.2
	M	5.4	5.0	4.4	3.6	3.4
	F	5.1	4.6	4.0	3.5	3.1
12. Internal		5.4	4.6	3.9	3.4	3.1
	M	5.2	4.8	4.1	3.6	3.0
	F	5.4	4.3	3.7	3.2	3.1

13. External		5.6	4.9	4.2	3.9	3.2
	M	5.6	4.9	4.2	3.9	3.4
	F	5.7	5.0	4.3	3.6	3.0

Grades 9 & 10

Percentile

Subscale		90%	75%	50%	25%	10%
1. Legislative		6.0	5.4	4.9	4.2	3.8
	M	5.9	5.4	4.9	4.1	3.7
	F	6.0	5.4	5.0	4.4	3.8
2. Executive		5.2	4.6	4.1	3.6	3.0
	M	5.2	4.4	4.0	3.5	2.9
	F	5.4	5.0	4.2	3.9	3.4
3. Judicial		5.0	4.75	4.1	3.75	3.3
	M	5.0	4.7	4.0	3.6	3.4
	F	5.3	4.8	4.2	3.8	3.2
4. Global		5.0	4.5	4.0	3.6	3.2
	M	4.9	4.2	4.0	3.6	3.2
	F	5.4	4.8	4.2	3.9	3.2
5. Local		5.0	4.5	4.1	3.6	3.2
	M	5.0	4.4	4.1	3.5	3.2
	F	5.0	4.5	4.1	3.8	3.2
6. Progressive		6.1	5.1	4.5	4.1	3.6
	M	5.7	5.1	4.4	4.0	3.3
	F	6.2	5.1	4.6	4.1	3.9
7. Conservative		5.1	4.5	3.9	3.2	2.7
	M	5.2	4.5	3.9	3.2	2.7
	F	5.0	4.5	3.9	3.2	2.4
8. Hierarchic		5.5	5.0	4.5	4.0	3.4
	M	5.4	5.0	4.4	3.9	3.1
	F	5.9	5.1	4.6	4.1	3.5
9. Monarchic		4.9	4.5	4.0	3.7	3.2
	M	4.9	4.4	4.0	3.6	3.1
	F	5.0	4.5	4.1	3.8	3.5
10. Oligarchic		5.5	4.6	4.1	3.6	2.9
	M	4.8	4.4	4.1	3.5	2.7
	F	5.8	5.1	4.2	3.6	3.1
11. Anarchic		5.4	4.9	4.4	3.9	3.4
	M	5.3	4.9	4.2	3.6	3.2
	F	5.6	4.9	4.6	4.1	3.7

12. Internal		5.3	4.5	4.0	3.4	2.6
	M	5.3	4.5	3.9	3.4	2.8
	F	5.4	4.6	4.1	3.5	2.6
13. External		5.9	5.3	4.6	4.1	3.5
	M	5.6	5.0	4.5	4.0	3.2
	F	6.1	5.5	4.8	4.2	3.9

Grades 11 & 12

Percentile

Subscale		90%	75%	50%	25%	10%
1. Legislative		5.9	5.2	4.6	4.0	3.4
	M	5.8	5.2	4.8	4.0	3.3
	F	6.0	5.2	4.6	4.0	3.4
2. Executive		5.1	4.6	4.1	3.5	2.9
	M	4.9	4.6	4.0	3.2	2.7
	F	5.3	4.8	4.2	3.5	3.0
3. Judicial		5.0	4.5	4.1	3.5	3.2
	M	5.0	4.5	4.2	3.7	3.3
	F	5.0	4.5	4.0	3.5	3.1
4. Global		4.9	4.4	4.1	3.6	3.3
	M	5.2	4.5	4.1	3.7	3.2
	F	4.7	4.4	4.0	3.6	3.4
5. Local		5.1	4.4	3.9	3.6	3.2
	M	5.1	4.4	3.9	3.6	3.4
	F	5.1	4.4	3.8	3.4	3.0
6. Progressive		5.5	5.0	4.4	3.8	3.3
	M	5.7	5.0	4.5	4.0	3.3
	F	5.4	4.9	4.4	3.7	3.2
7. Conservative		5.0	4.5	4.0	3.4	2.8
	M	5.0	4.6	4.0	3.5	2.8
	F	4.9	4.4	3.9	3.4	2.8
8. Hierarchic		5.6	4.9	4.2	3.9	3.4
	M	5.4	4.8	4.2	3.9	3.3
	F	5.7	5.0	4.2	3.8	3.3
9. Monarchic		4.9	4.5	4.0	3.5	3.1
	M	5.0	4.6	4.1	3.6	3.1
	F	4.8	4.3	3.9	3.5	3.2
10. Oligarchic		5.0	4.5	3.9	3.3	2.9
	M	5.0	4.4	4.0	3.4	3.0
	F	5.1	4.6	3.9	3.3	2.8

11. Anarchic		5.1	4.8	4.2	3.8	3.5
	M	5.1	4.8	4.3	3.8	3.5
	F	5.2	4.7	4.1	3.8	3.3
12. Internal		5.1	4.6	4.1	3.6	3.0
	M	5.0	4.6	4.2	3.8	3.4
	F	5.1	4.7	4.1	3.2	2.5
13. External		5.6	5.0	4.4	3.9	3.1
	M	5.7	4.9	4.3	3.8	3.1
	F	5.6	5.1	4.4	3.9	3.1

College Students -

Percentile

Subscale		90%	75%	50%	25%	10%
1. Legislative		6.1	5.6	5.1	4.5	4.1
	M	6.2	5.6	5.1	4.4	4.0
	F	6.0	5.6	5.1	4.5	4.1
2. Executive		5.4	4.9	4.2	3.7	3.1
	M	5.5	5.0	4.2	3.6	3.1
	F	5.1	4.9	4.2	3.7	3.1
3. Judicial		5.4	4.9	4.4	3.9	3.4
	M	5.3	4.6	4.2	3.9	3.5
	F	5.6	5.0	4.6	4.2	3.2
4. Global		5.4	4.5	4.0	3.6	3.1
	M	5.3	4.5	4.0	3.5	3.1
	F	5.5	4.8	4.1	3.6	2.9
5. Local		4.8	4.4	3.9	3.5	2.9
	M	4.9	4.4	3.8	3.2	2.8
	F	4.5	4.3	4.0	3.5	2.9
6. Progressive		6.1	5.6	5.0	4.2	3.8
	M	6.3	5.6	5.0	4.1	3.6
	F	6.0	5.8	5.0	4.2	3.8
7. Conservative		4.8	4.3	3.8	3.1	2.7
	M	4.8	4.2	3.9	3.1	2.4
	F	4.8	4.4	3.8	3.2	2.8
8. Hierarchic		6.3	5.6	5.0	4.4	3.9
	M	6.8	5.9	5.0	4.8	4.0
	F	6.1	5.5	5.0	4.3	3.9
9. Monarchic		4.9	4.2	3.9	3.4	3.0
	M	4.6	4.1	3.6	3.2	3.0
	F	5.0	4.4	4.0	3.5	3.1

10. Oligarchic		4.5	4.1	3.6	2.9	2.3
	M	4.4	4.0	3.4	2.8	2.1
	F	5.0	4.3	3.8	3.0	2.4
11. Anarchic		5.2	4.9	4.4	3.8	3.4
	M	5.2	4.8	4.5	3.9	3.4
	F	5.5	4.9	4.4	3.8	3.4
12. Internal		5.2	4.5	4.0	3.4	2.9
	M	5.3	4.5	3.9	3.1	2.8
	F	5.0	4.5	4.0	3.5	3.0
13. External		6.1	5.6	5.0	4.1	3.4
	M	6.2	5.6	5.1	4.1	3.8
	F	6.0	5.6	4.9	4.0	2.8

Laypeople

Percentile

Subscale		90%	75%	50%	25%	10%
1. Legislative		6.6	6.1	5.5	4.8	4.1
	M	6.6	6.1	5.5	4.9	4.3
	F	6.5	6.2	5.2	4.5	3.6
2. Executive		5.9	5.3	4.4	3.6	2.8
	M	6.0	5.3	4.5	3.6	2.9
	F	5.8	5.3	4.4.	3.4	2.7
3. Judicial		5.7	5.2	4.8	4.1	3.5
	M	5.6	5.3	4.6	4.1	3.6
	F	5.8	5.2	4.8	4.1	3.4
4. Global		5.3	4.9	4.2	3.6	3.1
	M	5.5	4.9	4.4	3.6	3.2
	F	5.2	4.8	4.0	3.5	3.1
5. Local		5.5	4.9	4.2	3.5	3.0
	M	5.6	5.0	4.2	3.6	3.0
	F	5.2	4.5	4.0	3.4	3.0
6. Progressive		6.5	6.0	5.4	4.6	3.9
	M	6.6	6.0	5.5	4.9	4.1
	F	6.5	6.1	5.4	4.5	3.3
7. Conservative		5.3	4.4	3.6	3.1	2.2
	M	5.4	4.6	3.8	3.1	2.2
	F	5.1	4.4	3.4	2.9	2.2
8. Hierarchic		6.4	5.8	5.2	4.4	3.8
	M	6.2	5.8	5.1	4.5	4.1
	F	6.5	6.0	5.3	4.2	3.4

9. Monarchic		5.1	4.5	3.9	3.3	3.0
	M	5.2	4.6	4.1	3.4	3.1
	F	5.0	4.1	3.8	3.2	2.6
10. Oligarchic		5.3	4.6	3.6	2.7	2.0
	M	5.3	4.7	3.7	2.6	1.9
	F	5.3	4.5	3.5	2.8	2.1
11. Anarchic		5.8	5.4	4.8	4.1	3.5
	M	5.8	5.4	4.9	4.1	3.5
	F	5.8	5.4	4.8	4.0	3.5
12. Internal		6.0	5.3	4.6	3.7	2.9
	M	6.1	5.4	4.8	3.8	3.4
	F	6.1	5.2	4.2	3.3	2.5
13. External		6.1	5.7	4.9	4.0	3.2
	M	6.1	5.7	5.0	4.0	3.2
	F	6.1	5.7	4.8	4.1	3.0

Table 2: Subscale Reliabilities (Coefficient Alpha)

Subscale	Grades	Grades	Grades	College	Laypeople
	7 & 8	9 & 10	11 & 12	Students	
1. Legislative	.68	.73	.76	.76	.80
2. Executive	.76	.73	.78	.81	.82
3. Judicial	.52	.64	.64	.72	.68
4. Global	.52	.54	.53	.78	.69
5. Local	.51	.43	.55	.54	.63
6. Progressive	.75	.72	.78	.87	.88
7. Conservative	.74	.79	.76	.77	.81
8. Hierarchic	.70	.72	.77	.80	.82
9. Monarchic	.38	.35	.43	.42	.58
10. Oligarchic	.75	.74	.74	.81	.88
11. Anarchic	.61	.51	.47	.53	.62
12. Internal	.58	.72	.68	.77	.82
13. External	.68	.72	.71	.88	.86

Table 3: Corrected Item-Total Correlations and Item Means - Page 1

	Laypeople		College		Grade 11&12		Grade 9&10		Grade 7&8	
	\bar{r}	X	\bar{r}	X	\bar{r}	X	\bar{r}	X	\bar{r}	X
<u>Legislative</u>										
011.	.60	5.09	.65	5.00	.51	4.81	.48	4.98	.29	4.40
When working on a task, I like to start with my own ideas.										
012.	.61	5.64	.51	5.11	.54	4.78	.47	4.69	.51	4.68
I like problems where I can try my own way of solving them.										
013.	.36	5.52	.34	4.82	.42	4.30	.29	4.70	.51	4.22
Before starting a task, I like to figure out for myself how I will do my work.										
014.	.49	5.32	.40	5.22	.34	5.12	.36	5.02	.42	5.07
When making decisions, I tend to rely on my own ideas and ways of doing things.										
015.	.58	5.03	.57	4.90	.36	4.52	.47	4.62	.23	4.48
I like situations where I can use my own ideas and ways of doing things.										
016.	.53	5.80	.52	4.96	.49	4.73	.41	5.08	.32	4.85
I feel happier about a job when I can decide for myself what and how to do it.										
017.	.37	5.41	.31	5.32	.42	4.73	.40	4.81	.37	4.76
I like to play with my ideas and see how far they go.										
018.	.59	5.37	.41	5.01	.56	4.78	.49	4.88	.32	4.89
When faced with a problem, I use my own ideas and strategies to solve it.										
Subscale Alpha = .80										
.76										
.73										
.68										

Table 3: Corrected Item-Total Correlations and Item Means - Page 2

	Laypeople		College		Grade 11&12		Grade 9&10		Grade 7&8	
	\bar{X}	X	\bar{X}	X	\bar{X}	X	\bar{X}	X	\bar{X}	X
<u>Executive</u>										
021. Before starting a task or project, I check to see what method or procedure should be used.	.57	4.78	.49	4.51	.54	4.42	.52	4.60	.48	4.08
022. I like situations in which my role or the way I participate is clearly defined.	.41	5.20	.45	4.88	.42	4.44	.31	4.76	.36	4.34
023. I like to follow definite rules or directions when solving a problem or doing a task.	.79	3.87	.61	3.74	.56	3.90	.48	4.09	.48	3.80
024. I like projects that have a clear structure and a set plan and goal.	.65	4.84	.53	5.09	.48	4.35	.46	4.59	.46	4.26
025. I like to figure out how to solve a problem following certain rules.	.51	3.94	.56	3.88	.48	3.79	.44	3.85	.49	4.03
026. I am careful to use the proper method to solve any problem.	.51	4.08	.55	3.94	.42	3.93	.38	3.95	.40	4.17
027. When discussing or writing down ideas, I follow formal rules of presentation.	.46	3.89	.37	3.90	.42	3.79	.42	3.86	.57	4.28
028. I enjoy working on things that I can do by following directions.	.48	4.15	.62	3.95	.52	4.11	.36	3.94	.47	4.29
Subscale Alpha =										.76

Table 3: Corrected Item-Total Correlations and Item Means - Page 3

	Laypeople		College		Grade 11&12		Grade 9&10		Grade 7&8	
	\bar{r}	X	\bar{r}	X	\bar{r}	X	\bar{r}	X	\bar{r}	X
<u>Judicial</u>										
031. I like situations where I can compare and rate different ways of doing things.	.58	5.23	.49	5.01	.57	4.38	.46	4.59	.23	4.31
032. I enjoy work that involves analyzing, grading, or comparing things.	.43	4.86	.48	4.38	.35	4.14	.36	4.23	.14	4.30
033. I like to check and rate opposing points of view or conflicting ideas.	.49	4.66	.66	4.64	.49	3.99	.59	4.18	.37	4.01
034. When faced with opposing ideas, I like to decide which is the right way to do something.	.22	5.09	.30	4.71	.26	4.44	.23	4.59	.37	4.33
035. I like projects where I can study and rate different views on issues.	.57	5.03	.46	4.60	.36	4.23	.46	4.60	.35	4.28
036. When discussing or writing down ideas, I like criticizing others' ways of doing things.	.06	3.02	.14	2.68	.07	2.85	.04	2.57	-.10	2.26
037. When making a decision, I like to compare the opposing points of view.	.33	5.37	.30	5.40	.27	4.71	.23	4.82	.24	4.47
038. I prefer tasks or problems where I can grade the designs or methods of others.	.42	3.88	.56	3.97	.37	3.90	.29	4.10	.35	3.94
Subscale Alpha =	.70		.72		.65		.63		.52	

Table 3: Corrected Item-Total Correlations and Item Means - Page 4

	Laypeople		College		Grade 11&12		Grade 9&10		Grade 7&8	
	F	X	F	X	F	X	F	X	F	X
041. I like situations or tasks in which I am not concerned with details.	.37	3.54	.39	3.43	.10	4.12	.19	4.13	.33	4.06
042. In doing a task, I like to see how what I do fits into the general picture.	.10	5.44	.32	5.06	.15	4.46	.21	4.77	.25	4.27
043. In talking or writing down ideas, I like to show the scope and context of my ideas, that is, the general picture.	.27	5.01	.58	4.69	.33	4.23	.22	4.18	.31	4.16
044. I like situations where I can focus on general issues, rather than on specifics.	.49	4.24	.69	4.15	.37	4.08	.49	4.31	.32	4.28
045. I care more about the general effect than about the details of a task I have to do.	.37	4.30	.56	4.15	.36	4.13	.30	3.89	.26	3.67
046. I like working on projects that deal with general issues and not gritty details.	.62	4.15	.67	4.30	.36	4.09	.36	4.09	.24	4.06
047. I tend to emphasize the general aspect of issues or the overall effect of a project.	.51	4.84	.41	4.42	.35	4.33	.28	4.46	.07	3.84
048. I tend to pay little attention to details.	.33	2.64	.30	2.60	.03	3.13	.08	3.05	.20	2.89
Subscale Alpha	= .69				.54				.53	

Table 3: Corrected Item-Total Correlations and Item Means - Page 5

	Local		Laypeople	College		Grade 11&12		Grade 9&10		Grade 7&8		
	F	X		F	X	F	X	F	X	F	X	
051. I like problems where I need to pay attention to details.	.36	4.40	.39	3.97	.26	4.00	.21	4.25	.21	4.25	.21	3.93
052. I like to memorize facts and bits of information without any particular context.	.15	3.76	.04	3.34	.32	3.75	.17	3.61	.15	3.71	.15	3.71
053. I tend to break down a problem into many smaller ones that I can solve, without looking at the problem as a whole.	.33	3.83	.23	3.48	.27	4.10	.18	3.78	.31	4.00	.31	4.00
054. I pay more attention to parts of a task than to its overall effect or significance.	.43	3.69	.46	3.57	.15	3.89	.38	3.93	.09	3.94	.09	3.94
055. In discussing or writing on a topic, I think the details and facts are more important than the overall picture.	.53	3.57	.23	3.06	.30	3.52	.17	3.53	.23	3.68	.23	3.68
056. I like to collect detailed or specific information for projects I work on.	.31	4.99	.32	4.73	.30	4.24	.21	4.65	.22	4.42	.22	4.42
057. I prefer tasks dealing with a single concrete problem, rather than general or multiple ones.	.26	4.33	.22	4.34	.27	4.31	.03	4.46	.30	4.06	.30	4.06
058. I prefer to deal with specific problems, rather than general questions.	.29	4.94	.25	4.50	.23	4.31	.20	4.31	.35	4.16	.35	4.16
Subscale Alpha =	.63		.54		.55		.44		.51		.51	

Table 3: Corrected Item-Total Correlations and Item Means - Page 6

	Laypeople		College		Grade 11&12		Grade 9&10		Grade 7&8	
	\bar{r}	\bar{X}	\bar{r}	\bar{X}	\bar{r}	\bar{X}	\bar{r}	\bar{X}	\bar{r}	\bar{X}
<u>Progressive</u>										
061. I like to do things in new ways not used by others in the past.	.58	4.62	.61	4.44	.44	4.27	.46	4.52	.31	4.12
062. I like situations where I can try new ways of doing things.	.68	5.73	.67	5.48	.56	4.68	.21	5.10	.45	5.04
063. I enjoy working on projects that allow me to try novel ways of doing things.	.59	5.52	.47	5.01	.47	4.44	.39	4.41	.42	4.73
064. I like projects that allow me to look at the situation in a new perspective.	.70	5.58	.66	5.46	.48	4.85	.37	4.92	.36	4.61
065. When faced with a problem, I prefer to try new strategies and methods to solve it.	.73	4.97	.65	4.56	.40	4.41	.41	4.53	.58	4.43
066. I like to change old ideas or ways of doing things and to seek better ones.	.68	5.47	.63	5.14	.49	4.52	.55	4.78	.55	4.09
067. I like to take old problems and find new methods to solve them.	.68	5.10	.70	4.84	.59	4.39	.45	4.32	.54	4.25
068. I like to change routines in order to improve the way tasks are done.	.51	5.24	.62	4.81	.44	4.31	.42	4.55	.35	4.53
Subscale Alpha	.88		.87		.78		.72		.75	

Table 3: Corrected Item-Total Correlations and Item Means - Page 7

	Laypeople		College		Grade 11&12		Grade 9&10		Grade 7&8	
	\bar{r}	X	\bar{r}	X	\bar{r}	X	\bar{r}	X	\bar{r}	X
<u>Conservative</u>										
071.	.55	4.06	.34	4.00	.39	4.10	.47	3.94	.42	3.93
I like to do things in ways that have been used in the past.										
072.	.66	4.04	.52	4.12	.59	4.04	.62	4.20	.40	3.92
I like situations where I can follow a set routine.										
073.	.61	3.60	.51	3.68	.57	3.87	.64	3.92	.58	3.83
I like tasks and problems that have fixed rules to follow in order to complete them.										
074.	.62	3.47	.48	3.64	.50	3.77	.55	3.38	.49	3.61
I stick to standard rules or ways of doing things.										
075.	.08	3.42	.18	3.60	.27	4.12	.25	4.03	.25	4.23
I dislike problems that arise when doing something in the usual, customary way.										
076.	.53	4.00	.52	3.73	.46	4.03	.53	3.96	.41	3.93
When I'm in charge of something, I like to follow methods and ideas used in the past.										
077.	.60	3.43	.65	3.42	.51	3.85	.34	3.87	.45	3.51
When faced with a problem, I like to solve it in a traditional way.										
078.	.60	3.41	.61	3.41	.44	3.66	.62	3.66	.45	3.79
I like situations where the role I play is a traditional one.										
Subscale Alpha = .81										

Table 3: Corrected Item-Total Correlations and Item Means - Page 8

	Laypeople		College		Grade 11&12		Grade 9&10		Grade 7&8	
	F	X	F	X	F	X	F	X	F	X
<u>Hierarchical</u>										
081. When starting something, I like to make a list of things to do and to order the things by importance.	.62	4.93	.71	5.00	.49	4.27	.35	4.12	.32	3.88
082. Before starting a project, I like to know the things I have to do and in what order.	.50	5.04	.48	5.16	.52	4.68	.32	5.02	.62	4.63
083. In talking or writing down ideas, I like to have the issues organized in order of importance.	.52	4.65	.50	4.85	.47	4.33	.32	4.24	.42	4.00
084. When there are many things to do, I have a clear sense of the order in which to do them.	.58	5.04	.66	4.84	.43	4.18	.50	4.59	.38	4.35
085. I like to set priorities for the things I need to do before I start doing them.	.60	5.26	.51	5.46	.46	4.52	.51	4.53	.28	4.30
086. When discussing or writing down ideas, I stress the main idea and how everything fits together.	.41	5.19	.40	5.12	.48	4.35	.43	4.47	.41	4.17
087. In dealing with difficulties, I have a good sense of how important each of them is and what order to tackle them in.	.70	5.33	.55	5.00	.46	4.39	.50	4.62	.45	4.24
088. When working on a task, I can see how the parts relate to the overall goal of the task.	.45	5.32	.32	5.05	.42	4.48	.40	4.43	.24	4.45
Subscale Alpha =	.82		.80		.76		.72		.70	

Table 3: Corrected Item-Total Correlations and Item Means - Page 9

	Laypeople		College		Grade 11&12		Grade 9&10		Grade 7&8	
	\bar{X}	S	\bar{X}	S	\bar{X}	S	\bar{X}	S	\bar{X}	S
<u>Monarchical</u>										
091. When talking or writing about my ideas, I stick to one main idea.	.18	3.94	.08	4.11	.29	3.86	.07	3.78	.38	3.97
092. I like to deal with major issues or themes, rather than details or facts.	.02	3.86	.22	4.23	-.02	3.97	.16	4.10	-.06	3.92
093. I like to concentrate on one task at a time.	.31	4.92	.08	4.76	.23	4.40	.19	4.51	.31	4.21
094. I have to finish one project before starting another one.	.35	3.77	.12	3.92	.30	3.91	.18	4.47	.29	4.02
095. When trying to make a decision, I tend to see only one major factor.	.56	3.10	.31	3.14	.26	3.79	.23	3.67	.29	3.59
096. In trying to finish a task, I tend to ignore problems that come up.	.26	2.87	.19	2.68	.00	3.62	-.02	3.28	-.10	3.19
097. If there are several important things to do, I do the one most important to me.	.34	5.30	.26	4.57	.20	4.40	.23	4.61	.14	4.53
098. I use any means to reach my goal.	.32	3.80	.19	3.68	.25	3.40	.14	4.61	.07	4.45
Subscale Alpha	.58		.42		.43		.36		.38	

Table 3: Corrected Item-Total Correlations and Item Means - Page 10

	Laypeople		College		Grade 11&12		Grade 9&10		Grade 7&8	
	I	X	I	X	I	X	I	X	I	X
101. When I start a task or project, I focus on the points most relevant to my peer group.	.72	3.55	.79	3.34	.36	3.60	.50	4.07	.42	3.80
102. When faced with a problem, I make sure my way of doing it is approved by my peers.	.70	3.42	.51	3.31	.52	3.86	.57	4.17	.33	3.89
103. When there are several important things to do, I do what is most important to me and my peers.	.56	4.35	.42	4.30	.41	4.30	.50	4.60	.37	4.21
104. When discussing or writing about a topic, I stick to points of view accepted by my peers.	.65	2.86	.52	2.95	.49	3.78	.41	3.81	.59	3.78
105. When making a decision, I tend to base my decision only on concerns important to my group or peers.	.61	3.10	.38	3.04	.40	3.60	.29	3.78	.37	3.72
106. When there are several important things to do, I choose the ones most important to my peer group.	.74	3.60	.64	3.30	.35	3.87	.46	4.11	.43	3.96
107. I enjoy working on different tasks that are important to my peer group.	.45	4.70	.29	4.48	.40	4.28	.27	4.50	.41	4.01
108. I prefer to work on a project or task which is acceptable and approved by my peers.	.71	3.32	.69	3.34	.55	3.95	.51	4.22	.64	3.86
Subscale Alpha	.88		.81		.74		.74		.75	

Table 3: Corrected Item-Total Correlations and Item Means - Page 11

	Laypeople		College		Grade 11&12		Grade 9&10		Grade 7&8	
	\bar{r}	X	\bar{r}	X	\bar{r}	X	\bar{r}	X	\bar{r}	X
111. When I start on a task, I like to consider all possible ways of doing it, even the most ridiculous.	.26	5.22	.36	4.94	.31	4.33	.28	4.71	.39	4.30
112. When there are many important things to do, I try to do as many as I can in whatever time I have.	.20	5.43	.16	4.99	.25	4.55	.26	4.84	.25	4.67
113. When I have many things to do, I do whatever occurs to me first.	.25	4.01	-.04	3.37	-.05	4.43	.14	4.35	.28	4.17
114. I like to tackle all kinds of problems, even seemingly trivial ones.	.34	4.80	.51	3.96	.17	3.79	.35	4.29	.45	3.88
115. I can switch from one task to another easily, because all tasks seem to me to be equally important.	.49	4.07	.18	3.69	-.01	3.93	.04	3.51	.37	3.87
116. When discussing or writing down ideas, I use whatever comes to mind.	.39	4.45	.30	4.42	.30	4.46	.13	4.57	.16	4.14
117. I find that solving one problem normally leads to many other ones that are just as important.	.44	4.57	.34	4.11	.34	4.48	.38	4.36	.42	3.94
118. When making a decision, I try to take all points of view into account.	.19	5.30	.25	5.14	.43	4.48	.30	4.74	.17	4.54
Subscale Alpha	.62		.53		.47		.51		.61	

Table 3: Corrected Item-Total Correlations and Item Means - Page 12

	Laypeople		College		Grade 11&12		Grade 9&10		Grade 7&8	
	\bar{X}	X	\bar{X}	X	\bar{X}	X	\bar{X}	X	\bar{X}	X
121. I like projects that I can complete independently.	.52	5.19	.60	4.48	.27	4.26	.38	3.97	.39	4.29
122. When faced with a problem, I like to work it out by myself.	.49	4.88	.53	4.50	.48	4.36	.48	4.26	.38	4.20
123. When trying to make a decision, I rely on my own judgment of the situation.	.54	5.13	.35	4.76	.35	4.59	.35	4.76	.35	4.43
124. I prefer to read reports for information I need, rather than to ask others for it.	.41	4.11	.29	3.73	.34	3.88	.18	3.91	.13	3.74
125. When discussing or writing down ideas, I only like to use my own ideas.	.50	3.54	.47	3.21	.32	3.79	.37	3.73	.22	3.71
126. I like to control all phases of a project, without having to consult with others.	.58	3.96	.44	3.41	.43	3.66	.39	3.53	.30	3.80
127. I like to work alone on a task or a problem.	.59	4.62	.56	3.79	.55	4.03	.58	3.67	.40	3.90
128 I prefer situations where I can carry out my own ideas, without relying on others.	.64	4.80	.59	4.28	.28	4.13	.58	4.21	.14	4.03
Subscale Alpha	.82		.78		.69		.72		.58	

Table 3: Corrected Item-Total Correlations and Item Means - Page 13

	Laypeople		College		Grade 11&12		Grade 9&10		Grade 7&8	
	\bar{r}	X	\bar{r}	X	\bar{r}	X	\bar{r}	X	\bar{r}	X
131. When working on a project, I like to share ideas and get input from other people.	.64	4.82	.75	5.08	.57	4.66	.37	4.89	.47	4.47
132. I like to participate in activities where I can interact with others as part of the team.	.70	4.86	.78	5.04	.58	4.72	.50	5.03	.47	4.55
133. When starting a task, I like to brainstorm ideas with friends or peers.	.42	4.69	.52	4.68	.37	4.32	.28	4.15	.40	3.88
134. When making a decision, I try to take the opinion of others into account.	.54	4.90	.70	5.03	.22	4.12	.45	4.95	.41	3.87
135. I like projects in which I can work together with others.	.75	4.79	.78	4.81	.56	4.50	.56	4.85	.35	4.60
136. If I need more information, I prefer to talk about it with others rather than to read reports on it.	.44	4.32	.32	4.24	.16	4.40	.24	4.45	.13	4.46
137. In a discussion or a report, I like to combine my own ideas with those of others.	.61	4.94	.63	4.95	.32	4.51	.44	4.98	.43	4.52
138. I like situations where I interact with others and everyone works together.	.76	4.82	.78	4.88	.45	4.22	.47	4.75	.36	4.34
Subscale Alpha =	.86		.88		.71		.72		.68	

Table 4: Correlation Coefficients of Subscale Scores with Other Style Measures

Laypeople Only

Subscale	Myers-Briggs Type Indicator				Gregorc Style Delineator			
	Intro. Extra.	Intui. Sensa.	Feel. Think.	Percept. Judg.	Concr. Sequen.	Abstr. Sequen.	Concr. Random	Abstr. Random
1. Legis.	-.12	.24**	-.10	.10	-.13	-.10	-.04	.24**
2. Exec.	-.02	-.51***	-.24**	-.50***	.47***	.31***	-.28***	-.47***
3. Judic.	-.18	.02	-.16	-.23*	.06	.13	-.06	-.10
4. Global	.03	.25*	.16	.10	-.15	-.15	.10	.18*
5. Local	-.04	-.28***	-.16	-.26**	.27**	.01	-.17*	-.14
6. Progres.	-.12	.39***	.00	.22**	-.21*	-.18	-.02	-.36***
7. Conserv.	-.01	-.48***	-.15	-.36***	.43***	.25**	-.22**	-.44***
8. Hierarc.	-.08	-.27***	-.25**	-.50***	.42***	.16	-.35***	-.25**
9. Monarc.	-.01	-.22**	-.04	-.09	.20*	.03	-.12	-.13
10. Olig.	-.12	-.21*	-.05	-.18*	.14	.09	-.04	-.17*
11. Anarc.	-.18*	.16	.06	.19*	-.09	-.17*	.06	.17*
12. Intern.	.08	.14	-.09	.07	.00	-.12	-.07	.14
13. Extern.	-.32***	-.11	.03	-.05	-.03	.04	.04	-.03

*p < .05

**p < .01

***p < .001

Table 5: Correlation Coefficients of Subscales with Ability Measures

Subscale	Grades	Grades	Grades	College	Laypeople
	7 & 8	9 & 10	11 & 12	Students	
	IQ	IQ	IQ	DATV	IQ
1. Legislative	.14	.20*	.29***	.08	.05
2. Executive	-.30**	-.15	-.08	-.10	-.17*
3. Judicial	.00	.07	.10	.06	-.05
4. Global	.06	-.09	.04	.09	.16
5. Local	-.11	-.11	.08	-.10	-.31***
6. Progressive	.03	.06	.16	.03	-.02
7. Conservative	-.26**	-.23**	-.05	.04	-.30***
8. Hierarchic	-.13	-.02	.07	-.03	-.11
9. Monarchic	-.22*	-.17	-.02	-.06	-.25**
10. Oligarchic	-.14	-.08	-.05	-.07	-.29***
11. Anarchic	-.04	.12	.16	.06	-.20*
12. Internal	.02	-.02	.18*	.18	-.07
13. External	.03	.10	.00	-.06	-.20*

*p < .05

**p < .01

***p < .001