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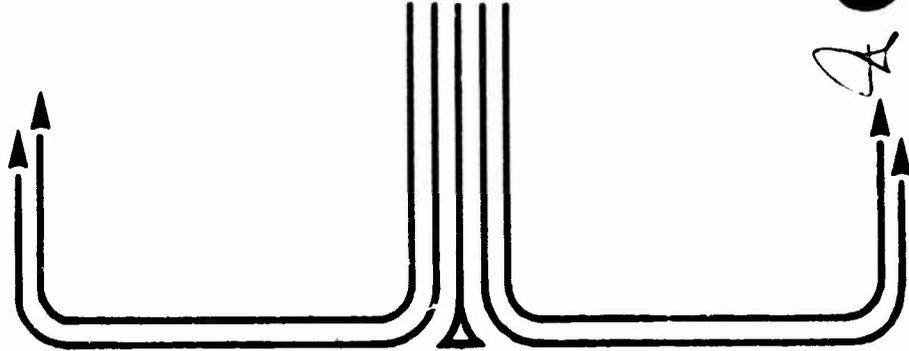
## STUDENT REPORT

MYERS-BRIGGS TYPE INDICATOR  
APPLIED TO EXECUTIVE LEADERSHIP

MAJOR TERRANCE J. McCARTHY 87-1680

*"insights into tomorrow"*

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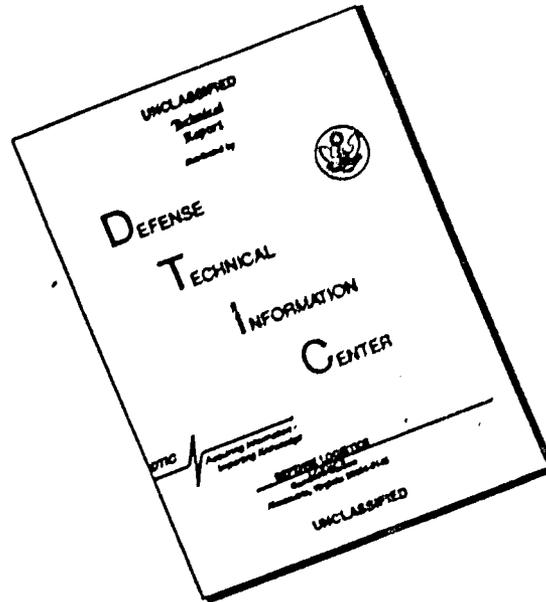
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<p>The Air War College (AWC)-initiated an executive assessment and development program in 1982. The purpose of the newly initiated program was to strengthen and expand the leadership skills necessary for AWC students to better direct complex organizations upon graduation. During a 1986 AWC curriculum review Major General Todd, Commandant of the Air War College, stated the time had come to expand the executive assessment and development program beyond a health evaluation and assess the students' personality types to provide them new insights into effective leadership. This project consists of not only the seminar and reading materials that enable the AWC to teach the Myers-Briggs Type Indicator applied to executive leadership, but also the instructional system development (ISD) documentation that substantiates both the need for and the composition of the course.</p>				
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## PREFACE

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This Air Command and Staff College research project examines the need for, and development of, a new leadership block of instruction for inclusion in the Air War College's executive assessment and development program.

The Air War College (AWC) initiated the executive assessment and development program in 1982 to strengthen and expand the AWC students' leadership skills. The program was started as an elective; however, since 1982 it evolved into a fully integrated core program. A 1986 curriculum review demonstrated the program was well on track to assess and develop the students' physiological strengths, but was falling short of fully assessing and developing individual leadership abilities. Therefore, to bring the program to fruition it was believed these leadership development shortcomings had to be addressed.

The Instructional System Development (ISD) process was followed to determine the precise instruction required to fulfill the program needs. A two hour, seminar director led block of instruction was developed using the ISD derived needs assessment as its basis. The specific seminar materials developed include seminar director guidance, discussion questions, and an exercise to demonstrate both the potential application of the Myers-Briggs Type Indicator (MBTI) in the work environment and to reinforce the students' functional knowledge of personality types.

My decision to undertake this project is based on an experience I had while serving as an executive officer on the Air Staff. During my tour I had to permanently remove a civilian from federal service which had two devastating effects on our directorate. First, several hundred productive hours were lost pursuing the administrative paperwork associated with the removal; and second, 15 years of valuable corporate knowledge were lost. I strongly believe that had I entered my Air Staff assignment with an ability to apply the MBTI I could have avoided this loss to the civilian work force; thus, it was important that I develop this project knowing the Air War College graduates would be taking an essential leadership tool with them to their next assignment.

I dedicate this project to my wife Diann for her love, patience and outstanding feedback, and to my daughter Katie and my son Brian for their love and understanding. Special thanks is extended to Dr Bart Michelson for giving me the opportunity to work this challenging project and to Major Chuck Holsen for his expert guidance and contributions.

## ABOUT THE AUTHOR

Major Terrance J. McCarthy earned his Bachelor of Science degree in Physics from the University of Wyoming and received his Commission through the Reserve Officer Training Corps program in December 1975. He entered active duty in June 1976, and attended Undergraduate Navigator Training at Mather AFB, CA, where he received his wings in February 1977. In May 1977 Major McCarthy was assigned to the 7th Military Airlift Squadron, Travis AFB, CA, where he served as a C-141 navigator. In December 1979 he was assigned to the 60th Military Airlift Wing as the Assistant Chief of the Flying Training Branch and concurrently transitioned from the C-141 to the C-5A. In August 1980 Major McCarthy became the Wing Operations Executive Officer. Major McCarthy was assigned to Headquarters Military Airlift Command, Scott AFB, IL, in August 1981 where he was the VOLANT SPOTLIGHT officer in the Office of the Deputy Chief of Staff for Air Transportation. In this position he served as an Air Cargo Systems Analyst and later as Executive Officer to the Deputy Chief of Staff for Air Transportation. Major McCarthy was then assigned to the Directorate of Transportation, Office of the Deputy Chief of Staff for Logistics and Engineering, Headquarters United States Air Force, Washington, DC in July 1983 as the Executive to the Director of Transportation. Concurrent with his assignments to the Military Airlift Command Staff and the Air Staff, Major McCarthy served as an Advance Agent for Presidential Flight Support where he worked jointly for the United States Air Force Assistant Vice Chief of Staff and the White House Military Office coordinating air travel for the President of the United States.

Major McCarthy is a senior navigator with over 1700 flying hours. He holds a Master's of Science degree in Management and is a graduate of Squadron Officers' School and Air Command and Staff College.



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integrated seminar and lecture periods. During these periods, the students would assess their personal leadership strengths and weaknesses, and attempt to use the MBTI results, in conjunction with other leadership tools, as a way to increase their strengths and decrease their weaknesses.

#### PURPOSE STATEMENT

The mandate from General Todd to establish the new course is clear; however, it is solely based on a perceived need rather than on an educationally derived one. Within the realm of education, the instructional system development (ISD) process is used to take a perceived need and shape it into a real need. The purpose of this project is to use the ISD process to establish the real need for the new course, and then develop a lesson to best teach the required instruction.

#### SUMMARY

Although the ISD process is the major thrust of this project, briefly discussing the theoretical underpinnings of the Myers-Briggs Type Indicator will provide a useful insight into why the Air War College perceived the need for a new leadership program to assess personality type. Moreover, an historical review of the MBTI and a discussion of its shortcomings for our application are essential before moving on to the ISD documentation. Thus, the MBTI's theory, history and shortcomings are the topics of the next chapter.

## Chapter Two

### THE MYERS-BRIGGS TYPE INDICATOR (MBTI)

#### INTRODUCTION

Mr Otto Kroeger, Senior Partner in Otto Kroeger Associates and an expert on the MBTI and its application, succinctly explains the Myers-Briggs Type Indicator and points to the way it can help senior leaders increase their strengths and decrease their weaknesses:

The Myers-Briggs Type Indicator is an easy to use questionnaire for identifying our natural preferences, strengths and temperaments. Through 166 short questions and word pair combinations, the MBTI identifies differing styles of perception, judgment, energy direction, and lifestyles. There are no "rights" or "wrongs" in the answers to the questions; the indicator simply identifies different kinds of people who like different things, who are good at different things, and who find it difficult to understand one another. The indicator is concerned with useful and valuable differences in people, not with psychopathology, and it does not measure intelligence. The results of the questionnaire are received via individual report forms from which we gain an understanding of how we like to gather information and how we make decisions, how we derive and direct our energy, and how we deal with our environment (11:1).

The MBTI specifically measures perception, judgment, interests, values, needs, and motivation preferences. These preferences are measured by the MBTI and quantified in terms of a leaning, one way or the other, on four preference scales (3:4). The preference scales and associated letters are listed in Table 1.

Extraversion(E) versus Introversion(I) Sensing(S) versus Intuition(N) Thinking(T) versus Feeling(F) Perception(P) versus Judgment(J)
---

Table 1: Preference Scales

An expanded discussion of the MBTI can be found at Appendix A; however, a basic understanding of the MBTI is important before continuing on; therefore, a brief synopsis of the four preference scales follows:

The EI index [or scale] is designed to reflect whether the person is an extravert or an introvert...The SN index is designed to reflect the person's preference between two opposite ways of perceiving, i.e., whether he relies primarily on the familiar process of sensing...or primarily on the less obvious process of intuition...The TF index is designed to reflect the person's preference between two opposite ways of judging, i.e., whether he relies primarily upon thinking...or primarily upon feeling... the JP index assigns a preference to one or the other two mental functions themselves. That is, either the perceiving (SN) function or the judging (TF) function is said to be dominant in one's dealings with the world (2:1-2).

Thus, 16 possible personality types are generated by combinations of preferences and are listed in Table 2 (1:7-8).

ISTJ	ISFJ	INFJ	INTJ
ISTP	ISFP	INFP	INTP
ESTP	ESFP	ENFP	ENTP
ESTJ	ESFJ	ENFJ	ENTJ

Table 2: Sixteen Types

David Keirsey and Marilyn Bates, the authors of Please Understand Me, Character and Temperament Types, took the preferences postulated by the MBTI and after "careful reading of...extremely complicated [psychological] work[s]" they discovered a clear connection between certain preference dimensions that could explain behavior, something the MBTI does not (4:31). Keirsey and Bates called these related dimensions the four temperaments. A temperament being "that which places a signature or thumbprint on each of one's actions, making it recognizably ones own", i.e., their behavior (4:27). In terms of the preference dimensions, the four temperaments are defined as follows: NF; NT; SP; and SJ (4:30). Attachment 1 to Appendix A contains a succinct summary of the four temperament types. A careful reading of this summary is essential to get an idea for how others around us feel and why they act the way they do.

## HISTORY

The history behind the development of the Myers-Briggs Type Indicator is pertinent to this research effort since it provides an insight into why the MBTI was selected as the appropriate instrument to assess the AWC students' personality types. Personality typing first emerged as a concept in Katharine Briggs' mind around the time of World War I. Briggs was a gifted thinker and reader who began to question and observe the differences and similarities of personality types. Although not formally schooled in the study of psychology, Briggs developed a system of personality typing based on the results of her observations. Shortly thereafter she discovered C.G. Jung, a Swiss physician and psychologist, had theorized a similar system. With this newfound information Briggs began to expand the theoretical system she shared with Jung. She continued to theorize about personality types, but it was her daughter, Isabel Briggs-Myers, who put the theory to use (3:x).

Isabel Briggs-Myers had always admired her mother's theory but concluded the theory had no practical use until a method could be devised to put it into practice. It was the suffering Briggs-Myers witnessed during World War II that gave her the inspiration for putting the theory to use. Briggs-Myers suggested the theory be used to highlight the differences between personalities and, therefore, once equipped with this knowledge, people could better understand each other and avoid destructive conflicts. Through the 50s and 60s Briggs-Myers developed a "item pool" that enabled her to assess the personality types her mother and Jung had theorized. This "item pool" which was comprised of questions designed to determine an individual's personality type evolved into the Myers-Briggs Type Indicator and was formally published in 1962 (3:x-xi).

## MBTI SHORTCOMINGS

Although acclaimed by many psychologists as the most reliable and valid instrument for assessing personality type, it is important to note some shortcomings of the MBTI which have been reflected in research studies (4:4). Research indicates the day-to-day personality changes in some people are difficult for the MBTI to account for and points to the MBTI's greatest shortcoming. Alida Westman and Francis Canter of Eastern Michigan University studied the diurnal changes, i.e., the impact of daily events and thought processes on MBTI results, and concluded the assessment must be viewed as "reflecting the person at a specific time and in a specific setting" (7:431).

Westman's and Canter's findings showed that one person out of 11 from their sample group "changed substantially on each [personality type] dimension" when comparing results from two consecutive days of morning, afternoon, and evening assessments. They further concluded the reason for the radical variation in personality types was attributable to "genuine change in the person" (7:434). Westman and Canter provided examples to illustrate their findings. In one case, a "person did not recall the same childhood memories in the morning as in the afternoon and, hence, answered some items differently. Another person was a good intuitive thinker in the afternoon but not in the

morning." The researchers went on to say "that some people show diurnal changes in their willingness to tackle difficult tasks and in perceived ability to concentrate" (7:434).

Summarizing their findings, Westman and Canter suggest the MBTI should be administered "a number of times" to accurately determine an individual's personality type preferences, and further, that the MBTI should be administered at the same time in the person's diurnal cycle to further substantiate the results (7:434). Westman and Canter also noted that H.G. Richek, a fellow researcher, discovered other factors to consider. Richek's findings were published in his 1969 study, "Note on Intercorrelations of Scales of the Myers-Briggs Type Indicator." Specifically, Richek noted that "[personality] type changes may depend not only on the person's [diurnal] cycle but also on the nature of the work the person is doing and different tasks may bring out different aspects of the person" (7:434). Thus, the major shortcoming of the MBTI for our application is its dependence on situation and time.

Westman's and Canter's research, and Richek's study demonstrate the MBTI is not a perfect personality assessment tool. Nevertheless, it is recognized by many experts in the field of psychology as the best survey instrument available for determining personality type (4:4). The MBTI holds this distinction because of its validity and reliability relative to similar instruments (10:II-3). It was for these reasons the Air War College selected the Myers Briggs Type Indicator as the best available instrument to assess the AWC students' personality type.

#### TESTING AIR WAR COLLEGE STUDENTS

The MBTI was given to all students in the Air War College class of 1987 in early August 1986. The indicators were evaluated and a general lecture period discussing the students' MBTI results was held a few weeks after the test. The students have tried to use their results on a personal basis but have not received further formal instruction on the possible uses of the MBTI applied to executive leadership. The AWC conducted a seminar on 7 January 1987 using a draft of the lesson materials developed by this project. The lesson content was subsequently revised and refined, and appears at Appendix A in final form.

#### SUMMARY

This brief explanation of the Myers-Briggs Type Indicator and a look at its historical development and shortcomings will serve as a backdrop from which the perceived need for the new leadership instruction can now be worked through the instructional system development (ISD) process. The ISD process is the subject of the next chapter.

## Chapter Three

### THE INSTRUCTIONAL SYSTEM DEVELOPMENT PROCESS

#### OVERVIEW

A method called Instructional System Development (ISD) allows us to pursue General Todd's mandate through an established process to derive the actual course needs, and then develop and validate the associated instruction (12:--). The ISD process consists of five steps. The five steps are explained at length in AFM 50-2, Instructional System Development; however, an abbreviated description of each step is provided below to introduce the five steps in the ISD process (8:1-3; 12:--).

1. Analyze system requirements.
2. Define educational requirements.
3. Develop objectives and tests.
4. Plan, develop, and validate instruction.
5. Conduct and evaluate instruction.

Table 3: Instructional System Development Process

As previously mentioned, the ISD process provides a method by which the instructional needs can be determined and the instruction can be developed. Steps one and two of the ISD process comprise the needs assessment, which is the subject of the next two sections, Analyze System Requirements and Define Educational Requirements.

#### STEP ONE: NEEDS ASSESSMENT--ANALYZE SYSTEM REQUIREMENTS

The key step at this point in the ISD process is to determine the system requirements, i.e., to determine what the AWC students need to know about the MBTI to enable them to assess their personal leadership strengths and

weaknesses; and achieve both greater productivity and conflict avoidance through an understanding of personality types. While little evidence exists in the military to substantiate a true need for the Air War College to teach this course, e.g., surveys, student critiques, etc., many experts in the field of psychology point to the value of the MBTI as a leadership tool, thus, providing a professional perspective to support the mandate.

Isabel Briggs-Myers pointed out the theory's value in her book, Gifts Differing, in which she wrote "the merit of the [MBTI] theory...is that it enables us to expect specific personality differences in particular people and cope with the people and the differences in a constructive way" (3:1). The basic differences to which Briggs-Myers refers are the different ways people use their minds (perception) and the different ways they process the information collected by the mind (judgment) (3:1). Briggs-Myers expanded on the usefulness of applying her theory in her article "Type and Teamwork." In the article she wrote "good teamwork calls for the recognition and use of certain valuable differences between members of the team [with the benefit of arriving] at a more fully informed decision than would otherwise be possible" (5:3).

Considering the tools necessary to successfully apply the MBTI, Isabel Briggs-Myers stated that an understanding of personality types is fundamental (3:1). Moreover, a comprehension of personality types to include the differences between the types and the effect certain type combinations may have on one another is essential. Furthermore, since MBTI, through an understanding of personality types, enables leaders to gain an appreciation for their subordinates' abilities and talents it can also be used to assess the leader's own abilities and talents. Through this inward assessment, individual strengths and weaknesses can be identified, and, in turn, be maximized or minimized to enhance the leader's effectiveness.

Overall, the key value of the Myers-Briggs Type Indicator is the insight it provides into the role personality plays in influencing behavior and attitude. As the theory suggests, it is through an understanding of personality types that it is possible to understand people and gain an appreciation for their abilities and talents. In turn, understanding people and appreciating their potential abilities and talents provide the bases for motivating and leading people (4:2). As many experts in the field of leadership will suggest, motivating people is the cornerstone of executive leadership. General Robert D. Russ, Commander, Tactical Air Command, emphasized this critical connection in his TIG Brief article, "Tenets of Leadership," in which he wrote, "leaders are in a position to impact the lives of every man and woman under their command and, therefore, must recognize what motivates their people. Quality treatment begets quality performance" (6:2).

Dr Bart Michelson, Professor of Leadership and Management at the Air War College, is a trained professional in the application of the Myers-Briggs Type Indicator. During a series of discussions with Dr Michelson the author was able to discern specific points of instruction required by the AWC students based on Dr Michelson's expertise and the professional justification revealed through research. Specific instructional needs are listed in Table 4 (13:--).

1. Comprehend the meaning of each personality type descriptor.
2. Comprehend the characteristics defining each personality type.
3. Comprehend how the personality types differ from each other.
4. Comprehend how the Keirsey and Bates temperament types indicate behavioral strengths and weaknesses.
5. Comprehend how the MBTI can be put to use.
6. Comprehend how personality types are related and how they interact.
7. Comprehend where the MBTI can be put to use.

Table 4: Students' Instructional Needs

With the students' needs now defined and justified we turn to the next step in the ISD process, defining what the students already know about the MBTI and its applicaton to executive leadership.

#### STEP TWO: NEEDS ASSESSMENT--DEFINE EDUCATIONAL REQUIREMENTS

The question now is what do the students know about the MBTI and its application to executive leadership. The answer to this question will allow us to subtract this knowledge from the instructional needs and determine exactly what must be taught. As previously noted, the AWC students received three hours of lecture and an hour of discussion where the results of their MBTI assessments were detailed in general terms, i.e., the different personality types were discussed and some potential conflicts between types were mentioned; however, the lecture was presented at the knowledge level and no attempt was made to provide the students with a comprehension level understanding of the subject matter (13:--). Therefore, it is appropriate to review all materials presented during the previous lecture period and then teach the instructional needs listed in Table 4 (13:--). Per discussions with Dr Michelson it was determined the students needed exposure to all the needs listed in Table 4.

#### STEP THREE: DEVELOP OBJECTIVES AND TESTS

Now that the precise educational needs of the students have been determined, a framework to express those needs must be developed, which is the next step in the ISD process (development of objectives, associated samples of behavior and tests). Based on the two step needs assessment detailed above the objectives and samples of behavior that appear in Table 5 were composed to

provide a framework from which the lesson could be developed. The composition of each objective which is based on the needs listed in Table 4 follows: needs 1, 2 and 3 comprise objective 1; needs 4 and 5 comprise objective 2; and needs 6 and 7 comprise objective 3. The test statement also listed in Table 5 reflects an all encompassing evaluation of the students' understanding of the objectives. Since the comprehension knowledge implied by objectives 1 and 2 is essential to be able to operate at the application level only one test statement is required.

Objective 1: Comprehend personality type preferences and the effect of these preferences in the work environment.

Sample of Behavior 1: Explain how your knowledge of the personality preference types of the people involved in a given work situation could guide your actions.

Objective 2: Comprehend how the Keirsey and Bates temperament types can be used to effectively assess individual strengths and weaknesses with a focus on executive leadership abilities.

Sample of Behavior 2: Using your MBTI results explain your personal leadership strengths and weaknesses.

Objective 3: Apply individual MBTI results to a given situation.

Sample of Behavior 3: Identify an appropriate way to deal with people in a given work environment.

Test: Propose and justify an application of the MBTI as a leadership tool in the work environment that will decrease conflict.

Table 5: Objectives, Samples of Behavior and Test

With these objectives and samples of behavior expressing the educational requirements, the next step in the ISD process is to design and validate the curriculum necessary to impart the needed instruction to the AWC students. The seminar guidance developed to achieve the course objectives is at Appendix A and the readings associated with the seminar are at Appendix C.

#### STEP FOUR: DEVELOP AND VALIDATE INSTRUCTION

AFM 50-62, Handbook for Air Force Instructors, provides the necessary guidance to correctly refine and transform the course objectives into the instruction package at Appendix A. The first step in this transformation is lesson planning. The lesson planning cycle includes the eight steps listed in Table 6 (9:6-1).

1. Determine the objective.
2. Research the topic as defined by the objective.
3. Select the appropriate instructional method.
4. Identify a usable lesson planning format.
5. Decide how to organize the lesson.
6. Choose appropriate support material.
7. Prepare the beginning and ending of the lesson.
8. Prepare a final outline.

Table 6: Lesson Planning Steps

After working through the entire planning cycle, the objectives, samples of behavior and the test developed in the previous section were refined to best meet the needs of the students (which represent steps one and two of Table 6). The format reflected in the final product (step four) is a result of guidance from AFM 50-62 and discussions with Dr Michelson of the Air War College. The format selected consists of lecture (informal briefing), seminar director posed questions to stimulate discussion, and an exercise to demonstrate the potential uses of the MBTI. A summary of step five, the lesson's organization by objective, can be found in Table 7.

OBJECTIVE	ORGANIZATION
1	Topical
2	Topical
3	Problem-Solution

Table 7: Selected Lesson Organization by Objective

The choice of support material (step six) was clear. Material defining the MBTI and its associated personality types was essential to fulfill the course objectives. Additionally, testimonial material was necessary to provide

the students with the thoughts from experts on the application of the MBTI. Steps seven and eight were accomplished using AFM 50-62 as a guide and the final product is at Appendix A.

The next step in transforming the objectives into a block of instruction is to develop the lesson itself. The result of this development can be found at Appendix A; however, it is appropriate to document the selection of the teaching methods prescribed by AFM 50-62. Specifically, an informal briefing to reinforce the students' knowledge of personality types is suggested along with indirect discourse to satisfy the remaining course objectives. All these objectives will be taught in the cognitive domain with one and two at the comprehension level, and objective three at the application level (9:18-2).

Finally, the effectiveness of the proposed instruction was validated and evaluated when the lesson was first taught in January 1987. The resulting feedback from both students and seminar directors substantiated the effectiveness of the instruction. Specific changes were suggested and incorporated in the final instruction package.

#### STEP FIVE: CONDUCT AND EVALUATE INSTRUCTION

As mentioned in the previous section, validation and evaluation were concurrently accomplished when the course was initially conducted in January 1987. The Air War College will continue to modify the instruction as necessary based on additional feedback and developments.

#### SUMMARY

The ISD process not only substantiated General Todd's mandate, but through a very systematic method it also transformed that perceived need into an effective block of instruction which greatly complements the physiological portion of the Air War College executive assessment and development program. As a result of this instruction the graduating students of the Air War College are better prepared to lead the people who manage the day-to-day activities of our large, complex Air Force organizations.

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# BIBLIOGRAPHY

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## A. REFERENCES CITED

### Books

1. Briggs-Myers, Isabel. Introduction to Type. Palo Alto, CA: Consulting Psychologists Press, Inc., 1980.
2. ----- . Manual: The Myers-Briggs Type Indicator. Palo Alto, CA: Consulting Psychologists Press, Inc., 1962.
3. ----- . MBTI--Gifts Differing. Palo Alto, CA: Consulting Psychologists Press, Inc., 1980.
4. Keirsey, David, and Marilyn Bates. Please Understand Me, Character of Temperament Types. Del Mar, CA: Prometheus Nemesis Books, 1978.

### Articles and Periodicals

5. Briggs-Myers, Isabel. "Types and Teamwork." Readings for Senior Command, Leadership, and Management. Carlisle Barracks, PA: The Army War College, 1985.
6. Russ, Robert D., Gen, USAF. "Tenets of Leadership." TIG Brief, Vol. 16, No. 8 (September-October 1986), p. 2.
7. Westman, Alida S., and Francis M. Canter. "Diurnal Changes on the Myers-Briggs Type Indicator: A Pilot Study." Psychological Reports, Vol. 54, No. 2 (April 1984), pp. 431-434.

### Official Documents

8. US Department of the Air Force. AFM 50-2: Instructional System Development. Washington, DC: HQ ATC/MPPTS, 25 May 1979.
9. ----- . AFM 50-62: Handbook for Air Force Instructors. Washington, DC: HQ ATC/OC, 15 January 1984.

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## CONTINUED

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### Unpublished Materials

10. Campbell, Dennis. "Helping Learners Learn: A Study of Learning Preferences, Teaching Styles, and Learning Systems." Paper presented at the 1986 Air Force Conference on Technology in Training and Education. Montgomery, AL, 10-13 March 1986.
11. Kroeger, Otto. "What is the Myers-Briggs Type Indicator?" Information paper. Fairfax, VA, undated.

### Other Sources

12. Macey, James, Lt Col, USAF. Air Command and Staff College, Maxwell AFB, AL. Instructional system development elective lectures and counseling sessions, September-December 1986. (Used with permission).
13. Michelson, Barton. Air War College, Maxwell AFB, AL. Interviews/meetings, September 1986-January 1987.

## B. RELATED SOURCES

### Books

- Briggs, Katharine, and Isabel Briggs-Myers. Myers-Briggs Type Indicator, Form F. Palo Alto, CA: Consulting Psychologists Press, Inc., 1976.
- Guild, Burke, and Stephen Garger. Marching to Different Drummers. Alexandria, VA: Association for Supervision and Curriculum Development, 1985.
- Hart, Gary, and William Lind. America Can Win. Bethesda, MD: Adler and Adler Publishers, Inc., 1986.
- Lawrence, Gordon. People Types and Tiger Stripes, A Practical Guide to Learning Styles. Gainesville, FL: Center for Applications of Psychological Type, Inc., 1984.

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## CONTINUED

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Smith, Perry. Taking Charge. Washington, DC: National Defense University Press, 1986.

### Articles and Periodicals

Carlson, John. "Recent Assessments of the Myers-Briggs Type Indicator." Journal of Personality Assessment, Vol. 49, No. 4 (August 1985), pp. 356-365.

Goldsmith, Ronald. "Sensation Seeking and the Sensing-Intuition Scale of the Myers-Briggs Type Indicator." Psychological Reports, Vol. 56, No. 2 (April 1985), pp. 581-582.

Hartzler, Gary J., and Margaret T. Hartzler. "Management Uses of the Myers-Briggs Type Indicator." Readings for Senior Command, Leadership, and Management. Carlisle Barracks, PA: The Army War College, 1985.

Schweiger, David. "Measuring Managerial Cognitive Styles: On the Logical Validity of the Myers-Briggs Type Indicator." Journal of Business Research, Vol. 13, No. 4 (August 1985), pp. 315-328.

Sipps, Gary, et al. "Item Analysis of the Myers-Briggs Type Indicator." Education and Psychological Measurement, Vol. 45, No. 4 (Winter 1985), pp. 789-796.

Tnomas, Charles. "Regression of Myers-Briggs Type Scales." Psychological Reports, Vol. 55, No. 2 (October 1984), p. 568.

### Unpublished Materials

Air Command and Staff College. "Leadership and the Individual: Using Your Influence." Maxwell AFB, AL: Air Command and Staff College, 5 September 1986.

Air War College. "FSL Guide: Leadership in Large Organizations." Maxwell AFB, AL: Air War College, 1986.

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## CONTINUED

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Kroeger, Otto. "Leading in Style: Catalyst." Information paper. Fairfax, VA, undated.

----- . "Learning Styles." Information paper. Arlington, VA, undated.

----- . "Pathways and Pitfalls." Information paper. Arlington, VA, undated.

### Other Sources

Kroeger, Otto. "Applying the Myers-Briggs Type Indicator." Lecture presented at the Air War College. Maxwell AFB, AL, 15 January 1987. (Used with permission).

----- . Otto Kroeger Associates, Alexandria, VA. Discussions, 15 January 1987.



**APPENDIX A**

(2S)

TITLE: MYERS-BRIGGS TYPE INDICATOR APPLIED TO EXECUTIVE LEADERSHIP

INTRODUCTION:

This seminar period builds on the analysis and interpretation of the Myers-Briggs Type Indicator (MBTI) given earlier in the year by Dr Kroeger, senior partner in Otto Kroeger Associates and an expert in MBTI interpretation and application. As Dr Kroeger pointed out, recognizing individual type preference can be used as a guide for assessing personal strengths and weaknesses related to leadership style. Type preferences and the potential effect of these preferences in the work environment will be the focus of this seminar. Suggestions for strengthening executive leadership capability will be addressed.

OBJECTIVES:

1. Comprehend personality type preferences and the effect of these preferences in the work environment.
2. Comprehend how the Keirsey and Bates temperament types can be used to effectively assess individual strengths and weaknesses with a focus on executive leadership abilities.
3. Apply individual Myers-Briggs Type Indicator results to a given situation.

DESIRED LEARNING OBJECTIVES:

1. Explain how your knowledge of the personality preference types of the people involved in a given work situation could guide your actions.
2. Using your Myers-Briggs Type Indicator results explain your personal leadership strengths and weaknesses.
3. Identify an appropriate way to deal with people in a given work environment.

SEMINAR PREPARATION:

Be prepared during this seminar to discuss individual type preferences with a focus on the strengths and weaknesses of each type. The following are questions to keep in mind as you prepare to guide this seminar:

- What are the characteristics of each personality type?
- How do the temperament types indicate leadership strengths and weaknesses?

ASSIGNED READINGS:

1. Briggs-Myers, Isabel. "Types and Teamwork." Readings for Senior Command, Leadership, and Management. Carlisle Barracks, PA: The Army War College, 1985.
2. Hartzler, Gary J., and Margaret T. Hartzler. "Management Uses of the Myers-Briggs Type Indicator." Readings for Senior Command, Leadership, and Management. Carlisle Barracks, PA: The Army War College, 1985.

## SEMINAR DIRECTOR'S GUIDE

INSTRUCTION PERIOD NO. 3104

TITLE: MYERS-BRIGGS TYPE INDICATOR APPLIED TO EXECUTIVE LEADERSHIP

ADMINISTRATIVE:

TIME LINE (90 minutes):

ADMIN	INTRO AND INFORMAL BRIEF	EXERCISE	BREAK	DISCUSS EXERCISE/ LEAD OFF QUESTIONS/	SUMMARY/ CLOSE
5 min	20 min	20 min	15 min	40 min	5 min

PURPOSE (IP OBJECTIVES):

1. Comprehend personality type preferences and the effect of these preferences in the work environment.
2. Comprehend how the Keirsey and Bates temperament types can be used to effectively assess individual strengths and weaknesses with a focus on executive leadership abilities.
3. Apply individual Myers-Briggs Type Indicator results to a given situation.

INTRODUCTION:

How often have we thought to ourselves how easy it would be to exist in a world where everyone acted and thought just like us. We envision a world where our ideas are accepted without question; where conflict can't exist because all think and act alike. Obviously, such a world only exists within the bounds of science fiction, but as David Keirsey and Marilyn Bates point out in their book, Please Understand Me, Character and Temperament Types, we often try to force others to conform to our way of thinking. Taking a unique approach, Keirsey and Bates suggest that the differences between people are necessary for a balanced perspective, and an understanding of the differences is essential for people to effectively work together. Keirsey's and Bates' ideas along with the Myers-Briggs Type Indicator (MBTI), created by Isabel Briggs-Myers, form the basis for this seminar period in which personality type preferences (MBTI) and behavior (temperament types) will be discussed with an eye on enhancing executive leadership abilities.

This brief introduction will now serve as a basis for discussing the MBTI preference types and exploring the specific uses and derivatives of the MBTI that will help us better understand and lead people.

SEMINAR CONDUCT:

Use the information contained in the introduction above and the discussion presented below to prepare an informal 20 minute briefing to explain the MBTI and Keirsey's and Bates' four temperament types.

As previously mentioned, Isabel Briggs-Myers created the MBTI. The MBTI "...identifies differing styles of perception, judgment, energy direction, and lifestyles." Dr Kroeger, senior partner in Otto Kroeger Associates and an expert on the MBTI and its application, expands the notion of what the MBTI is all about. Dr Kroeger explains:

There are no "rights" or "wrongs" in the answers to the [MBTI] questions; the indicator simply identifies different kinds of people who like different things, who are good at different things, and who find it difficult to understand one another. The indicator is concerned with useful and valuable differences in people...

The MBTI specifically measures perception, judgment, interests, values, needs, and motivation preferences. These preferences are measured by the MBTI and quantified in terms of four pairs of preference. The individual preference types and associated letters are listed in Table 1.

Extraversion(E) versus Introversion(I)
Sensing(S) versus Intuition(N)
Thinking(T) versus Feeling(F)
Perception(P) versus Judgment(J)

Table 1: Preference Scales

During Dr Kroeger's lecture he expanded on the theoretical underpinnings of the MBTI. Dr Kroeger explained how we are all born with preferences, e.g., a preference for using our right hand over our left, or vice versa. If these inherited preferences are encouraged they become internalized and eventually become part of us. Specific to personality type preferences, we are born with an inherited personality made up of two functions. First, a way to perceive, or collect data and second, a way to judge the data, or process the collected data.

There are two ways of perceiving data. The first way is through the senses and the second way is through intuition. People who prefer to use their senses to perceive data are "interested in what is actually there and can be seen or

heard or handled." On the other hand, people who prefer to use their intuition to perceive data are "interested in what is suggested by what is there--which may be meanings or relationships or possibilities." Table 2 summarizes some of the characteristics of the two ways of perceiving, sensing and intuition.

SENSING	INTUITION
Population: 70%	Population: 30%
To perceive data Sensors prefer: Digital; here and now; sequential and factual information; practical.	To perceive data Intuitors prefer: Analogue; possibilities and related hunches; theoretical meanings of data.
Summary: They are doers and are very literal.	Summary: They teach doers and are are big picture people.

Table 2: Sensing and Intuition Characteristics

As previously mentioned, once the data is perceived it must be processed in order to arrive at a conclusion. This is the judging function of our personality. Again, there are two different ways in which we judge data. The first way is by thinking and the second way is by feeling. People who prefer to judge data by thinking "...aim to make logical, impersonal decisions based on cause and effect." On the other hand, people who prefer to judge data by feeling "...aim to make their decisions in accord with what matters most to them personally and to other people (not necessarily known to them) for whom they feel." Table 3 summarizes some of the characteristics of the two ways of judging, thinking and feeling.

THINKING	FEELING
Population: 50%	Population: 50%
To make a judgment thinkers prefer: Clarity; objective values; non-personal; analytical; process; weighs cause and effect.	To make a judgment feelers prefer: Harmony; subjective values; interpersonal relationships; weighs impact on self and others.

Table 3: Thinking and Feeling Characteristics

The next step in comprehending the theory behind the MBTI is to explore "the world" in which we prefer to perform either the perceiving or judging function. If we prefer to operate in the outer world we are extraverts and if we prefer the inner world we are introverts. Table 4 summarizes the characteristics of "the world" in which we prefer to operate.

EXTRAVERSION	INTROVERSION
Population: 75%	Population: 25%
Extraverts prefer: Outer world people; action people; open disclosure; many relationships.	Introverts prefer: Inner world thoughts and ideas; cautious disclosure; fewer relationships.

Table 4: Extraversion and Introversion Characteristics

The final dimension in the MBTI demonstrates the way we share our preference type with the people around us, i.e., do we prefer to share our perceptions or our judgments. Isabel Briggs-Myers expanded on this last dimension:

Judging types face the world with their favored judging process, thinking or feeling as the case may be. They tend to live in a planned, decided, orderly way, aiming to regulate life and control it. Perceptive types deal with people and things with their favored perceptive process, sensing or intuition as the case may be. They tend to live in a flexible, spontaneous way, aiming to understand life and adapt to it."

Table 5 summarizes the characteristics of the ways in which people prefer to interact with the outer world, judging or perceiving.

JUDGING	PERCEIVING
Population: 50%	Population: 50%
They are the organizers who prefer: To be structured; scheduled; ordered; controlled; planned; use lists.	They are open ended and prefer: To be spontaneous; flexible; adaptive; understanding; responsive; lose lists.

Table 5: Judging and Perceiving Characteristics

Dr Kroeger explains how Briggs-Myers put the four preference pairs into a "type" framework (the resulting 16 types are contained in Table 6):

The results of the Myers-Briggs Type Indicator are reported...and refer to a person's type with four letters, one letter for each favored function of the four pairs of opposing preferences. The four letters combine to form a "type" of which there are 16 possibilities. To type someone, however, is not to box them in with still another label. Our types are dynamic in expression, and discovering our types leads to greater personal and interpersonal awareness of the strengths of our preferences.

ISTJ	ISFJ	INFJ	INTJ
ISTP	ISFP	INFP	INTP
ESTP	ESFP	ENFP	ENTP
ESTJ	ESFJ	ENFJ	ENTJ

Table 6: Sixteen Types

David Keirsey and Marilyn Bates, the authors of Please Understand Me, Character and Temperament Types, took the preferences postulated by the MBTI and after "careful reading of...extremely complicated [psychological] work[s]" they discovered a clear connection between certain preference dimensions that could explain behavior, something the MBTI does not. Keirsey and Bates called these related dimensions the four temperaments. A temperament being "that which places a signature or thumbprint on each of one's actions, making it recognizably ones own", i.e., their behavior. In terms of the preference dimensions, the four temperaments are defined as follows: NF; NT; SP; and SJ. Attachment 1 contains a succinct summary of the four temperament types and a review of these temperaments is essential to get an idea for how others around us feel and why they act the way they do.

Overall, the key value of the Myers-Briggs Type Indicator and Keirsey's and Bates' temperament types is the insight they provide into the role personality plays in influencing behavior and attitude. As the theories suggest, it is through an understanding of personality types that it is possible to understand people and gain an appreciation for their abilities and talents. In turn, understanding people and appreciating their potential abilities and talents provide the bases for motivating and leading people. As many experts in the field of leadership will suggest, motivating people is the cornerstone of executive leadership. General Robert D. Russ, Commander, Tactical Air Command, emphasized this critical connection in his TIG Brief article, "Tenets of Leadership," where he wrote, "leaders are in a position to impact the lives of

every man and woman under their command and, therefore, must recognize what motivates their people. Quality treatment begets quality performance."

With this appreciation for the MBTI and an understanding of Keirsey's and Bates' framework that allows us to view behavior, we can now turn toward an application of the MBTI and temperament types in the work environment to illustrate the value of the theory as an executive leadership tool. The exercise to accomplish this objective is at Attachment 2. Begin the exercise by dividing the seminar into four groups according to Keirsey's and Bates' temperament types, i.e., NT, NF, SJ, and SP. Don't tell the groups where to gather since the very process of how the groups move and start the exercise will reveal a characteristic associated with the temperament types, e.g., SJs will be quick to organize and will probably finish early, whereas the NTs will question one another, and the scenario itself, for most of the 20 minute period and will probably make a desperate last minute attempt to get something down on paper. If you're asked to provide more information about the people in the scenario, e.g., age, family background, sex, etc., tell them to make any assumptions they wish in developing the criteria. Any assumptions they make will again provide an insight into the characteristics associated with their temperament type. For example, the NF group will probably ask you if any of the members of the management team are married and which ones have children. More than likely they will use this information to see how the families will be impacted by the RIF (a feeler characteristic). After the break use Dr Kroeger's list of temperament type characteristics found at Attachment 1 as a tool to interpret and discuss each group's results. If time permits continue the discussion with the following lead off questions.

LEAD OFF QUESTION: Given your understanding of your personality type, the readings, and lecture material, how do you believe you can use this knowledge to decrease conflicts?

ANTICIPATED RESPONSES:

- Now that I know the perceptions, judgments, interests, values, needs, and motivational preferences of the types I can better guide the situation and anticipate problems; thus, avoiding conflicts.

-- Guides you toward assigning the right person to the right job.

-- Naturally, lowered conflict will result in increased productivity.

-- Dr Kroeger suggests 10 practical ways to apply the MBTI (page 2 of Attachment 1).

-- Remainder of discussion will be open-ended.

LEAD OFF QUESTION: Senator Gary Hart, a co-founder of the Military Reform Caucus and aspiring democratic Presidential candidate, states in his book, America Can Win, that:

Most [National War College (NWC)] students are either ISTJs (Introverted, Sensing, Thinking, and Judging) or ESTJs

(Extroverted, Sensing, Thinking, and Judging)--the typical managerial-bureaucratic personality...If the students switched their uniforms for business suits it would be next to impossible to distinguish them from the corporate executive...[The NWC] curriculum on balance stresses the acquisition of management skills versus leadership skills...The peacetime Army does not have the George Patton type. They've been weeded out.

Hart credits his words to Otto Kroeger (the same MBTI expert the Air War College uses) and Dr Richard Gabriel (author of Military Incompetence) but Hart makes the following observation of his own: "Our goal, if we want a military that wins in combat, must be thinking warriors, not trained managers and technicians." Considering Hart's statement (supported by Kroeger's and Gabriel's remarks) in light of the fact that the aggregate MBTI results of the National War College and the Air War College are identical, how do you see using your MBTI results to enhance your "warrior" leadership skills vice your "management" leadership skills?

ANTICIPATED RESPONSES:

- Open-ended discussion.

LEAD OFF QUESTION: During previous lecture periods you were exposed to a number of concepts that can be incorporated into a personal strategy for leading and guiding large, complex organizations. How does your knowledge of the MBTI and the four temperament types fit into that personal strategy?

ANTICIPATED RESPONSES:

- The MBTI and four derivative temperament types superbly complement Turcotte's model.

-- They fit hand-in-glove with Turcotte's discussion of the behavioral processes.

- Management style.
- Motivation/incentive systems.
- Leadership/power styles.
- Group dynamics.
- Conflict identification and addressal techniques.

SEMINAR CONCLUSION:

Summarize and close the seminar by reinforcing the power of personality type in examining leadership style and leadership effectiveness. This block of instruction should enhance the student's understanding of how different groups

look at temperament types, and their influence on leadership and decisionmaking. Reinforce the notion that a variety of temperament types is an essential element in the work environment. Additionally, stress Isabel Briggs-Myers' comment that "good teamwork calls for the recognition and use of certain valuable differences between members of the team [with the benefit of arriving] at a more fully informed decision than would otherwise be possible." The insights provided by this seminar will better enable the students to expand their leadership strengths and eliminate or neutralize their weaknesses. Overall, each student will be better prepared to lead the people who manage the day-to-day activities of our large, complex Air Force organizations.

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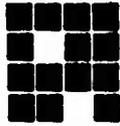
## PATHWAYS

- S Prefer things sequentially  
(makes sense)  
Deal well with details
- N Random data collectors  
Good long range planners
- NF Powerful people motivators  
Empathic  
Aware of others' feelings  
Powerful persuaders  
Authority in the person(s)
- NT Powerful Conceptualizers  
System planners  
Competent and consistent  
Firm minded and fair  
Authority is in being competent
- SJ Powerful Administrators  
Precise  
Take charge  
Hold subordinates/system  
accountable -- Don't reward  
what's expected  
Authority is in organization/  
system
- SP Powerful problem solvers  
Practical  
Immediate/resourceful  
Quick starters  
Authority is in the moment

## PITFALLS

- Can't wait and fill in (confusion)  
Data overload/too much -- too  
fast
- "Intuitive leaps" -- miss much  
Overlook/lose interest in details
- Carry/rescue everybody  
Guilt ridden  
Avoid conflict, "bullet biting"  
Grudge carriers  
Flounder when person(s) fails
- Mental gymnastics/game players  
Can miss immediate  
Complex and theoretical --  
cannot give a simple answer  
Impersonal and aloof  
They determine and define  
"competency"
- Nit pickers  
Rigid  
Do the wrong thing  
Only critical of wrong  
See the negative, not the positive  
Upward accountability--"The  
boss or system made me do it"
- Can create problems when none  
to solve  
Low interest beyond practical  
Get bored easily  
Low follow through  
Vague definition of authority

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Otto Kroeger  
Janet M. Thuesen

## Stages of Development in Response to the MBTI:

1. Enthusiasm -- apply it to everybody, everything, everywhere
2. Excuse-making and name calling
3. Facilitative, practical interpersonal tool

MBTI: NOT A CURE ALL NOR THE ONLY WAY

HOWEVER:

### 10 PRACTICAL WAYS TO APPLY THE MBTI

1. Read your "Portrait" and other material about once a month.
2. Add your 4 letters to your desk name plate and elsewhere.
3. Learn the language and speak it!  
"Are you "EJing" or should I be listening?"  
"Your Jness is showing!" ...
4. Post Management Styles and pages 17 & 18 in the ITT and other related materials, ie; posters, cards, cartoons, etc.
5. Take specific people, sit down with portraits and management styles, underline accuracies and discuss discrepancies.
6. TAB/Underline staff members' portraits. Distribute your own, underlined.
7. Whenever possible (coffee breaks, lunch, staff meetings, etc.) practice TYPEWATCHING, check observations with others.
8. Find a hero/personal friend in each of the 16 Categories and remember that person as a reference!
9. Develop a chalk or cork board in public view and encourage staff members to add their own name and type. Keep updated & ever growing
10. Practice your OPPOSITE preferences AT LEAST 5 minutes a day.

If you have access to an MBTI test booklet:

11. Work with questions directly from the booklet. Ask people how they would answer specific questions and discuss their answer.  
or  
Write on a plain sheet of paper your choices to the first 20-50 questions and then discuss different choices with someone else doing the same exercise.

Written by Otto Kroeger Associates. Revised 4/85.

MBTI APPLIED TO EXECUTIVE LEADERSHIP EXERCISE

SCENARIO: You are the commander of a large organization and because of a mandatory cutback in manpower you are required to RIF three civilian members of your management team. All members have parity in terms of time, experience, and performance.

Your task is to develop the criteria from which you will determine which three civilians will be RIFed.

Attachment 2



**APPENDIX B**

(2S)

TITLE: MYERS-BRIGGS TYPE INDICATOR APPLIED TO EXECUTIVE LEADERSHIPINTRODUCTION:

This seminar period builds on the analysis and interpretation of the Myers-Briggs Type Indicator (MBTI) given earlier in the year by Dr Kroeger, senior partner in Otto Kroeger Associates and an expert in MBTI interpretation and application. As Dr Kroeger pointed out, recognizing individual type preference can be used as a guide for assessing personal strengths and weaknesses related to leadership style. Type preferences and the potential effect of these preferences in the work environment will be the focus of this seminar. Suggestions for strengthening executive leadership capability will be addressed. (9:--)

OBJECTIVES:

1. Comprehend personality type preferences and the effect of these preferences in the work environment.
2. Comprehend how the Keirsey and Bates temperament types can be used to effectively assess individual strengths and weaknesses with a focus on executive leadership abilities.
3. Apply individual Myers-Briggs Type Indicator results to a given situation.

DESIRED LEARNING OBJECTIVES:

1. Explain how your knowledge of the personality preference types of the people involved in a given work situation could guide your actions.
2. Using your Myers-Briggs Type Indicator results explain your personal leadership strengths and weaknesses.
3. Identify an appropriate way to deal with people in a given work environment.

SEMINAR PREPARATION:

Be prepared during this seminar to discuss individual type preferences with a focus on the strengths and weaknesses of each type. The following are questions to keep in mind as you prepare to guide this seminar:

- What are the characteristics of each personality type?
- How do the temperament types indicate leadership strengths and weaknesses?

ASSIGNED READINGS:

1. Briggs-Myers, Isabel. "Types and Teamwork." Readings for Senior Command, Leadership, and Management. Carlisle Barracks, PA: The Army War College, 1985.
2. Hartzler, Gary J., and Margaret T. Hartzler. "Management Uses of the Myers-Briggs Type Indicator." Readings for Senior Command, Leadership, and Management. Carlisle Barracks, PA: The Army War College, 1985.

SEMINAR DIRECTOR'S GUIDE

INSTRUCTION PERIOD NO. 3104

TITLE: MYERS-BRIGGS TYPE INDICATOR APPLIED TO EXECUTIVE LEADERSHIP

ADMINISTRATIVE:

TIME LINE (90 minutes):

ADMIN	INTRO AND INFORMAL BRIEF	EXERCISE	BREAK	DISCUSS EXERCISE/ LEAD OFF QUESTIONS/	SUMMARY/ CLOSE
5 min	20 min	20 min	15 min	40 min	5 min

PURPOSE (IP OBJECTIVES):

1. Comprehend personality type preferences and the effect of these preferences in the work environment.
2. Comprehend how the Keirsey and Bates temperament types can be used to effectively assess individual strengths and weaknesses with a focus on executive leadership abilities.
3. Apply individual Myers-Briggs Type Indicator results to a given situation.

INTRODUCTION:

How often have we thought to ourselves how easy it would be to exist in a world where everyone acted and thought just like us. We envision a world where our ideas are accepted without question; where conflict can't exist because all think and act alike. Obviously, such a world only exists within the bounds of science fiction, but as David Keirsey and Marilyn Bates point out in their book, Please Understand Me, Character and Temperament Types, we often try to force others to conform to our way of thinking. Taking a unique approach, Keirsey and Bates suggest that the differences between people are necessary for a balanced perspective, and an understanding of the differences is essential for people to effectively work together. Keirsey's and Bates' ideas along with the Myers-Briggs Type Indicator (MBTI), created by Isabel Briggs-Myers, form the basis for this seminar period in which personality type preferences (MBTI) and behavior (temperament types) will be discussed with an eye on enhancing executive leadership abilities. (3:3) (3:4)

This brief introduction will now serve as a basis for discussing the MBTI preference types and exploring the specific uses and derivatives of the MBTI that will help us better understand and lead people.

SEMINAR CONDUCT:

Use the information contained in the introduction above and the discussion presented below to prepare an informal 20 minute briefing to explain the MBTI and Keirsey's and Bates' four temperament types.

As previously mentioned, Isabel Briggs-Myers created the MBTI. The MBTI "...identifies differing styles of perception, judgment, energy direction, and lifestyles." Dr Kroeger, senior partner in Otto Kroeger Associates and an expert on the MBTI and its application, expands the notion of what the MBTI is all about. Dr Kroeger explains: (8:1)

There are no "rights" or "wrongs" in the answers to the [MBTI] questions; the indicator simply identifies different kinds of people who like different things, who are good at different things, and who find it difficult to understand one another. The indicator is concerned with useful and valuable differences in people... (8:1)

The MBTI specifically measures perception, judgment, interests, values, needs, and motivation preferences. These preferences are measured by the MBTI and quantified in terms of four pairs of preference. The individual preference types and associated letters are listed in Table 1. (1:1)

Extraversion(E) versus Introversion(I)
Sensing(S) versus Intuition(N)
Thinking(T) versus Feeling(F)
Perception(P) versus Judgment(J)

Table 1: Preference Scales

During Dr Kroeger's lecture he expanded on the theoretical underpinnings of the MBTI. Dr Kroeger explained how we are all born with preferences, e.g., a preference for using our right hand over our left, or vice versa. If these inherited preferences are encouraged they become internalized and eventually become part of us. Specific to personality type preferences, we are born with an inherited personality made up of two functions. First, a way to perceive, or collect data and second, a way to judge the data, or process the collected data. (9:--)

There are two ways of perceiving data. The first way is through the senses and the second way is through intuition. People who prefer to use their senses to perceive data are "interested in what is actually there and can be seen or

heard or handled." On the other hand, people who prefer to use their intuition (4:1) to perceive data are "interested in what is suggested by what is there--which may be meanings or relationships or possibilities." Table 2 summarizes some of (4:1; 9:--) the characteristics of the two ways of perceiving, sensing and intuition. (9:--)

SENSING	INTUITION
Population: 70%	Population: 30%
To perceive data Sensors prefer: Digital; here and now; sequential and factual information; practical.	To perceive data Intuitors prefer: Analogue; possibilities and related hunches; theoretical meanings of data.
Summary: They are doers and are very literal.	Summary: They teach doers and are are big picture people.

Table 2: Sensing and Intuition Characteristics

As previously mentioned, once the data is perceived it must be processed in order to arrive at a conclusion. This is the judging function of our personality. Again, there are two different ways in which we judge data. The first way is by thinking and the second way is by feeling. People who prefer to judge data by thinking "...aim to make logical, impersonal decisions based on cause and effect." On the other hand, people who prefer to judge data by (4:1) feeling "...aim to make their decisions in accord with what matters most to them personally and to other people (not necessarily known to them) for whom they feel." Table 3 summarizes some of the characteristics of the two ways of (4:1; 9:--) judging, thinking and feeling. (9:--)

THINKING	FEELING
Population: 50%	Population: 50%
To make a judgment thinkers prefer: Clarity; objective values; non-personal; analytical; process; weighs cause and effect.	To make a judgment feelers prefer: Harmony; subjective values; interpersonal relationships; weighs impact on self and others.

Table 3: Thinking and Feeling Characteristics

The next step in comprehending the theory behind the MBTI is to explore "the world" in which we prefer to perform either the perceiving or judging function. If we prefer to operate in the outer world we are extraverts and if we prefer the inner world we are introverts. Table 4 summarizes the characteristics of "the world" in which we prefer to operate. (9:--)

EXTRAVERSION	INTROVERSION
Population: 75%	Population: 25%
Extraverts prefer: Outer world people; action people; open disclosure; many relationships.	Introverts prefer: Inner world thoughts and ideas; cautious disclosure; fewer relationships.

Table 4: Extraversion and Introversion Characteristics

The final dimension in the MBTI demonstrates the way we share our preference type with the people around us, i.e., do we prefer to share our perceptions or our judgments. Isabel Briggs-Myers expanded on this last dimension:

Judging types face the world with their favored judging process, thinking or feeling as the case may be. They tend to live in a planned, decided, orderly way, aiming to regulate life and control it. Perceptive types deal with people and things with their favored perceptive process, sensing or intuition as the case may be. They tend to live in a flexible, spontaneous way, aiming to understand life and adapt to it." (4:2)

Table 5 summarizes the characteristics of the ways in which people prefer to interact with the outer world, judging or perceiving. (9:--)

JUDGING	PERCEIVING
Population: 50%	Population: 50%
They are the organizers who prefer: To be structured; scheduled; ordered; controlled; planned; use lists.	They are open ended and prefer: To be spontaneous; flexible; adaptive; understanding; responsive; lose lists.

Table 5: Judging and Perceiving Characteristics

Dr Kroeger explains how Briggs-Myers put the four preference pairs into a "type" framework (the resulting 16 types are contained in Table 6):

The results of the Myers-Briggs Type Indicator are reported...and refer to a person's type with four letters, one letter for each favored function of the four pairs of opposing preferences. The four letters combine to form a "type" of which there are 16 possibilities. To type someone, however, is not to box them in with still another label. Our types are dynamic in expression, and discovering our types leads to greater personal and interpersonal awareness of the strengths of our preferences. (8:2)

ISTJ	ISFJ	INFJ	INTJ
ISTP	ISFP	INFP	INTP
ESTP	ESFP	ENFP	ENTP
ESTJ	ESFJ	ENFJ	ENTJ

Table 6: Sixteen Types

David Keirsey and Marilyn Bates, the authors of Please Understand Me, Character and Temperament Types, took the preferences postulated by the MBTI and after "careful reading of...extremely complicated [psychological] work[s]" they discovered a clear connection between certain preference dimensions that could explain behavior, something the MBTI does not. Keirsey and Bates called these (3:31) related dimensions the four temperaments. A temperament being "that which places a signature or thumbprint on each of one's actions, making it recognizably ones own", i.e., their behavior. In terms of the preference (3:27) dimensions, the four temperaments are defined as follows: NF; NT; SP; and SJ. (3:30) Attachment 1 contains a succinct summary of the four temperament types and a review of these temperaments is essential to get an idea for how others around us feel and why they act the way they do. (7:1)

Overall, the key value of the Myers-Briggs Type Indicator and Keirsey's and Bates' temperament types is the insight they provide into the role personality plays in influencing behavior and attitude. As the theories suggest, it is through an understanding of personality types that it is possible to understand people and gain an appreciation for their abilities and talents. In turn, understanding people and appreciating their potential abilities and talents provide the bases for motivating and leading people. As many experts in the (3:2) field of leadership will suggest, motivating people is the cornerstone of executive leadership. General Robert D. Russ, Commander, Tactical Air Command, emphasized this critical connection in his TIG Brief article, "Tenets of Leadership," where he wrote, "leaders are in a position to impact the lives of

every man and woman under their command and, therefore, must recognize what motivates their people. Quality treatment begets quality performance." (5:2)

With this appreciation for the MBTI and an understanding of Keirsey's and Bates' framework that allows us to view behavior, we can now turn toward an application of the MBTI and temperament types in the work environment to illustrate the value of the theory as an executive leadership tool. The exercise to accomplish this objective is at Attachment 2. Begin the exercise by dividing the seminar into four groups according to Keirsey's and Bates' temperament types, i.e., NT, NF, SJ, and SP. Don't tell the groups where to gather since the very process of how the groups move and start the exercise will reveal a characteristic associated with the temperament types, e.g., SJs will be quick to organize and will probably finish early, whereas the NTs will question one another, and the scenario itself, for most of the 20 minute period and will probably make a desperate last minute attempt to get something down on paper. If you're asked to provide more information about the people in the scenario, e.g., age, family background, sex, etc., tell them to make any assumptions they wish in developing the criteria. Any assumptions they make will again provide an insight into the characteristics associated with their temperament type. For example, the NF group will probably ask you if any of the members of the management team are married and which ones have children. More than likely they will use this information to see how the families will be impacted by the RIF (a feeler characteristic). After the break use Dr Kroeger's list of temperament type characteristics found at Attachment 1 as a tool to interpret and discuss each group's results. If time permits continue the discussion with the following lead off questions.

LEAD OFF QUESTION: Given your understanding of your personality type, the readings, and lecture material, how do you believe you can use this knowledge to decrease conflicts?

ANTICIPATED RESPONSES:

- Now that I know the perceptions, judgments, interests, values, needs, and motivational preferences of the types I can better guide the situation and anticipate problems; thus, avoiding conflicts.

-- Guides you toward assigning the right person to the right job.

-- Naturally, lowered conflict will result in increased productivity.

-- Dr Kroeger suggests 10 practical ways to apply the MBTI (page 2 of Attachment 1).

-- Remainder of discussion will be open-ended.

LEAD OFF QUESTION: Senator Gary Hart, a co-founder of the Military Reform Caucus and aspiring democratic Presidential candidate, states in his book, America Can Win, that:

Most [National War College (NWC)] students are either ISTJs (Introverted, Sensing, Thinking, and Judging) or ESTJs

(Extroverted, Sensing, Thinking, and Judging)--the typical managerial-bureaucratic personality...If the students switched their uniforms for business suits it would be next to impossible to distinguish them from the corporate executive...[The NWC] curriculum on balance stresses the acquisition of management skills versus leadership skills...The peacetime Army does not have the George Patton type. They've been weeded out. (2:182)

Hart credits his words to Otto Kroeger (the same MBTI expert the Air War College uses) and Dr Richard Gabriel (author of Military Incompetence) but Hart makes the following observation of his own: "Our goal, if we want a military that wins in combat, must be thinking warriors, not trained managers and technicians." Considering Hart's statement (supported by Kroeger's and Gabriel's remarks) in light of the fact that the aggregate MBTI results of the National War College and the Air War College are identical, how do you see using your MBTI results to enhance your "warrior" leadership skills vice your "management" leadership skills? (9:--)

ANTICIPATED RESPONSES:

- Open-ended discussion.

LEAD OFF QUESTION: During previous lecture periods you were exposed to a number of concepts that can be incorporated into a personal strategy for leading and guiding large, complex organizations. How does your knowledge of the MBTI and the four temperament types fit into that personal strategy?

ANTICIPATED RESPONSES:

- The MBTI and four derivative temperament types superbly complement Turcotte's model. (6:27)
  - They fit hand-in-glove with Turcotte's discussion of the behavioral processes. (6:31)
    - Management style. (6:31)
    - Motivation/incentive systems. (6:31)
    - Leadership/power styles. (6:31)
    - Group dynamics. (6:31)
    - Conflict identification and addressal techniques. (6:31)

SEMINAR CONCLUSION:

Summarize and close the seminar by reinforcing the power of personality type in examining leadership style and leadership effectiveness. This block of instruction should enhance the student's understanding of how different groups

look at temperament types, and their influence on leadership and decisionmaking. Reinforce the notion that a variety of temperament types is an essential element in the work environment. Additionally, stress Isabel Briggs-Myers' comment that "good teamwork calls for the recognition and use of certain valuable differences between members of the team [with the benefit of arriving] at a more fully informed decision than would otherwise be possible." The insights provided by this seminar will better enable the students to expand their leadership strengths and eliminate or neutralize their weaknesses. Overall, each student will be better prepared to lead the people who manage the day-to-day activities of our large, complex Air Force organizations.

(5:3)

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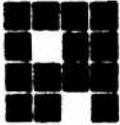
## PATHWAYS

- S Prefer things sequentially  
(makes sense)  
Deal well with details
- N Random data collectors  
Good long range planners
- NF Powerful people motivators  
Empathic  
Aware of others' feelings  
Powerful persuaders  
Authority in the person(s)
- NT Powerful Conceptualizers  
System planners  
Competent and consistent  
Firm minded and fair  
Authority is in being competent
- SJ Powerful Administrators  
Precise  
Take charge  
Hold subordinates/system  
accountable -- Don't reward  
what's expected  
Authority is in organization/  
system
- SP Powerful problem solvers  
Practical  
Immediate/resourceful  
Quick starters  
Authority is in the moment

## PITFALLS

- Can't wait and fill in (confusion)  
Data overload/too much -- too  
fast
- "Intuitive leaps" -- miss much  
Overlook/lose interest in details
- Carry/rescue everybody  
Guilt ridden  
Avoid conflict, "bullet biting"  
Grudge carriers  
Flounder when person(s) fails
- Mental gymnastics/game players  
Can miss immediate  
Complex and theoretical --  
cannot give a simple answer  
Impersonal and aloof  
They determine and define  
"competency"
- Nit pickers  
Rigid  
Do the wrong thing  
Only critical of wrong  
See the negative, not the positive  
Upward accountability--"The  
boss or system made me do it"
- Can create problems when none  
to solve  
Low interest beyond practical  
Get bored easily  
Low follow through  
Vague definition of authority

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Otto Kroeger  
Janet M. Thuesen

## Stages of Development in Response to the MBTI:

1. Enthusiasm -- apply it to everybody, everything, everywhere
2. Excuse-making and name calling
3. Facilitative, practical interpersonal tool

MBTI: NOT A CURE ALL NOR THE ONLY WAY

HOWEVER:

### 10 PRACTICAL WAYS TO APPLY THE MBTI

1. Read your "Portrait" and other material about once a month.
2. Add your 4 letters to your desk name plate and elsewhere.
3. Learn the language and speak it!  
"Are you "EJing" or should I be listening?"  
"Your Jness is showing!" ...
4. Post Management Styles and pages 17 & 18 in the ITT and other related materials, ie; posters, cards, cartoons, etc.
5. Take specific people, sit down with portraits and management styles, underline accuracies and discuss discrepancies.
6. TAB/Underline staff members' portraits. Distribute your own, underlined.
7. Whenever possible (coffee breaks, lunch, staff meetings, etc.) practice TYPEWATCHING, check observations with others.
8. Find a hero/personal friend in each of the 16 Categories and remember that person as a reference!
9. Develop a chalk or cork board in public view and encourage staff members to add their own name and type. Keep updated & ever growing.
10. Practice your OPPOSITE preferences AT LEAST 5 minutes a day.

If you have access to an MBTI test booklet:

11. Work with questions directly from the booklet. Ask people how they would answer specific questions and discuss their answer.  
or  
Write on a plain sheet of paper your choices to the first 20-50 questions and then discuss different choices with someone else doing the same exercise.

Written by Otto Kroeger Associates. Revised 4/85.

## MBTI APPLIED TO EXECUTIVE LEADERSHIP EXERCISE

SCENARIO: You are the commander of a large organization and because of a mandatory cutback in manpower you are required to RIF three civilian members of your management team. All members have parity in terms of time, experience, and performance.

Your task is to develop the criteria from which you will determine which three civilians will be RIFed.

Attachment 2

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# BIBLIOGRAPHY

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## REFERENCES CITED

### Books

1. Briggs-Myers, Isabel. MBTI--Gifts Differing. Palo Alto, CA: Consulting Psychologists Press, Inc., 1980.
2. Hart, Gary, and William Lind. America Can Win. Bethesda, MD: Adler and Adler Publishers, Inc., 1986.
3. Keirsey, David, and Marilyn Bates. Please Understand Me, Character of Temperament Types. Del Mar, CA: Prometheus Nemesis Books, 1978.

### Articles and Periodicals

4. Briggs-Myers, Isabel. "Types and Teamwork." Readings for Senior Command, Leadership, and Management. Carlisle Barracks, PA: The Army War College, 1985.
5. Russ, Robert D., Gen, USAF. "Tenets of Leadership." TIG Brief, Vol. 16, No. 8 (September-October 1986), p. 2.

### Unpublished Materials

6. Air War College. "FSL Guide: Leadership in Large Organizations." Maxwell AFB, AL: Air War College, 1986.
7. Kroeger, Otto. "Pathways and Pitfalls." Information paper. Arlington, VA, undated.
8. -----. "What is the Myers-Briggs Type Indicator?" Information paper. Fairfax, VA, undated.

### Other Sources

9. Kroeger, Otto. "Applying the Myers-Briggs Type Indicator." Lecture presented at the Air War College. Maxwell AFB, AL, 15 January 1987. (Used with permission).



**APPENDIX C**

## TYPE AND TEAMWORK

by

Isabel Briggs Myers  
January 1974

Good teamwork calls for recognition and use of certain valuable differences between members of the team. These are differences that result from four basic preferences about the use of perception and judgment, beginning with:

Which kind of perception. Perception is the process of becoming aware of something, and there are two distinct ways of doing it, through the senses or through intuition. People who prefer perception by way of their senses are interested in what is actually there and can be seen or heard or handled. People who prefer perception by way of intuition are interested in what is suggested by what is there—which may be meanings or relationships or possibilities. A sensing person and an intuitive person can go through the same experience, side by side, and come out with very different impressions as to what happened and was said and was worth remembering.

Which kind of judgment. Judgment is the process of coming to a conclusion about something, and there are two distinct ways of doing that, by thinking or by feeling. People who prefer to judge by thinking standards aim to make logical, impersonal decisions based on cause and effect. People who prefer to judge by feeling standards aim to make their decisions in accord with what matters most to them personally and to other people (not necessarily known to them) for whom they feel. A thinking person and a feeling person can be faced with the same problem and resort to very different techniques for solving it.

We use all these processes, but not equally. Whichever kind of perception and kind of judgment we naturally prefer, we use those two processes more, develop them more, and acquire greater skill in applying them in our daily lives.

Either kind of judgment can team up with either kind of perception. Thus four combinations occur, each combination producing a different set of interests, values, needs, habits of mind and surface traits.

Sensing plus Thinking. The ST people are mainly interested in facts, since facts are what can be collected and verified directly by the senses, by seeing, hearing, touching, etc. And they make decisions on these facts by impersonal analysis, because what they trust is thinking, with its step-by-step process of reasoning from cause to effect, from premise to conclusion.

Sensing plus Feeling. The SF people are also interested in facts, but make their decisions with personal warmth, because what they trust is feeling, with its power to weigh how much things matter to themselves and others.

Center for Applications of Psychological Type, Inc. Types and Teamwork.

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Intuition plus Feeling. The NF people judge with the same personal warmth. But since they prefer intuition, their interest is not in facts but in possibilities, such as new projects, things that have not happened but might be made to happen, or new truths that are not yet known but might be found out.

Intuition plus Thinking. The NT people share the interest in possibilities. But since they prefer thinking, they approach these with impersonal analysis. Often the possibility they choose is a theoretical, technical or executive one, with the human element more or less ignored.

The preferred combination of perception and judgment has much to do with vocational choice. People are drawn to fields that need their particular kind of perception and judgment, because they like a chance to use their best-developed processes. But what they choose to do in a given field is strongly influenced by the remaining two basic preferences.

Action or Ideas. We all have two worlds to live in—an outer world of action among people and things, and an inner world of ideas—and most of us know which one we find more comfortable. The extraverts among us are more at home in the outer world. They go over into the world of ideas when they feel the need to, but come home with pleasure to the world of action when the need is over. The introverts among us are more at home in the inner world. They go out into the world of action when they see a need to, but come home with pleasure to the world of ideas when circumstances permit. Every field of work needs both extraverts and introverts, experts in action and experts with ideas.

Judging or Perceptive Attitude. The final preference concerns the attitude taken toward the outer world. Judging types face the world with their favored judging process, thinking or feeling as the case may be. They tend to live in a planned, decided, orderly way, aiming to regulate life and control it. Perceptive types deal with people and things with their favored perceptive process, sensing or intuition as the case may be. They tend to live in a flexible, spontaneous way, aiming to understand life and adapt to it.

### Division of Labor

The great value of these differences is that they fit people to do and enjoy widely different segments of the world's work. What would be boring or confusing to one type and hence badly done, can be interesting and rewarding to another type and expertly handled. A person can be a failure at the wrong job and outstanding at the right one.

A director of the National Bureau of Standards once said that people are either thinker-uppers or worker-outers or getter-doners. In terms of type, the thinker-uppers are likely to be introverts with intuition, to whom the new possibility first dawns as an idea pure and simple. The worker-outers are more apt to be extraverts with intuition with a powerful urge to translate the idea into action but not much interest in carrying on beyond the point where everything is worked out. The getter-doners are likely to be sensing types who take great satisfaction in achieving tangible results and providing against circumstances that would interfere with the achievement.

Thinking types tend to be particularly effective in jobs dealing with inanimate objects that can be depended upon to behave logically, and feeling types tend to be good at dealing with people, who can usually be depended on to behave otherwise than logically. Sensing types with the judging attitude function well and contentedly in structured jobs with sharply defined procedures that must be followed. Intuitives with the perceptive attitude chafe at jobs where they can take no initiative in pursuing the possibilities they perceive.

Any team, therefore, should include a sufficient variety of types to perform effectively, and with satisfaction, the responsibilities of the team.

### Mutual Respect

Cooperation between opposite types, however, can run into difficulties, because they so often disagree on what should be done, or how, or whether anything needs to be done at all. Such disagreements are only natural. Opposite kinds of perception make people see quite different aspects of a situation. And opposite kinds of judgment direct action toward quite different ends. If the disagreements go unresolved, they can damage team morale and effectiveness. Forceful members of the team are likely to be and remain positive that they are right, and less forceful members may resent being overruled.

Morale and effectiveness will survive intact if the members of the team recognize that both kinds of perception and both kinds of judgment are essential to a sound solution of a problem. The prescription for an individual solving a problem alone is to exercise all four processes in succession: sensing to establish all the facts, intuition to suggest all the various possible solutions, thinking to determine the probable consequences of each course of action, feeling to weigh the desirability of each outcome in human terms. An individual is handicapped in doing this, because his less-liked perception and judgment are relatively immature and therefore not as helpful as they might be. But a well-balanced team can and should contain at least one skilled representative of each process.

By considering the contribution of each member, the team, or its executive head, can arrive at a more fully informed decision than would otherwise be possible. As a further aid to cooperation, these contributions demonstrate that each member is not only weak where others are strong (as they may have thought all along) but are also strong where those others are weak (which may never have occurred to them.) A healthy respect for one's opposite makes for peaceful and effective co-existence. It also helps one recognize and cultivate one's own less-developed processes.

### Communication

Much of the widespread difficulty in communication is due to type differences. A statement that seems perfectly clear and reasonable to one

type may sound meaningless or preposterous to another. One married couple, having learned how their types differed, reported with some pride their solution. "If we argue for fifteen minutes without getting anywhere, we go back and define our terms. We're not talking about the same thing!"

In order to serve any useful purpose, a communication needs to be (a) listened to, (b) understood and (c) considered without hostility. It is human nature not to listen attentively if one has the impression that what is being said is going to be irrelevant or unimportant. So a communication needs to start with a topic sentence that promises something worth listening to. The trouble is that what is considered worth listening to varies from type to type. Sensing types take facts more seriously than possibilities; they want an explicit statement of the problem before being asked to consider possible solutions. Intuitives want the prospect of an interesting possibility before they will buckle down to the facts. Thinkers demand that a statement have a beginning, a logically arranged sequence of points, and an end—especially an end; they are impatient of repetition and rambling detail. And feeling types are mainly interested in matters that have a direct effect on people; if you start with a concern for people, they listen. A good idea can usually be presented from any one of these angles.

A communication may be listened to and understood but still fail of its purpose if it arouses antagonism. Thinkers are the people most likely to fall into this trap, since they are naturally critical and tend to point out bluntly what they think is wrong with an idea or a proposed solution, but all types will feel justified in attacking something that seems to them wrong. The trouble here is that any attack is likely to provoke a spirited defense and lead to a divisive struggle between colleagues instead of a united attack upon the problem. If the dissenter will refrain from condemning the incomplete solution, and simply stress the unsolved part of the problem, of which he is particularly aware, the others can consider it with no loss of face and can broaden or change their solution accordingly.

#### Example of a Superior Management Team

Figure 1 shows the types of eight members of a highly successful management team in industry. The top man at this plant is an ESTJ, one of the extraverted thinkers who are most typically executive types. Four of the other members of the team are also TJ types, one ENTJ and three ISTJ. With each of these four, the top man has three preferences in common, as shown by the triple lines connecting them. But he has something in common with every member of the team.

The frequencies of the four preferences are:

4 Extraverts	4 Introverts
5 Sensing types	3 Intuitive types
6 Thinking types	2 Feeling types
5 Judging types	3 Perceptive types

The two instances of complete oppositeness are shown by the dashed lines. They are the people least likely to understand each other and be

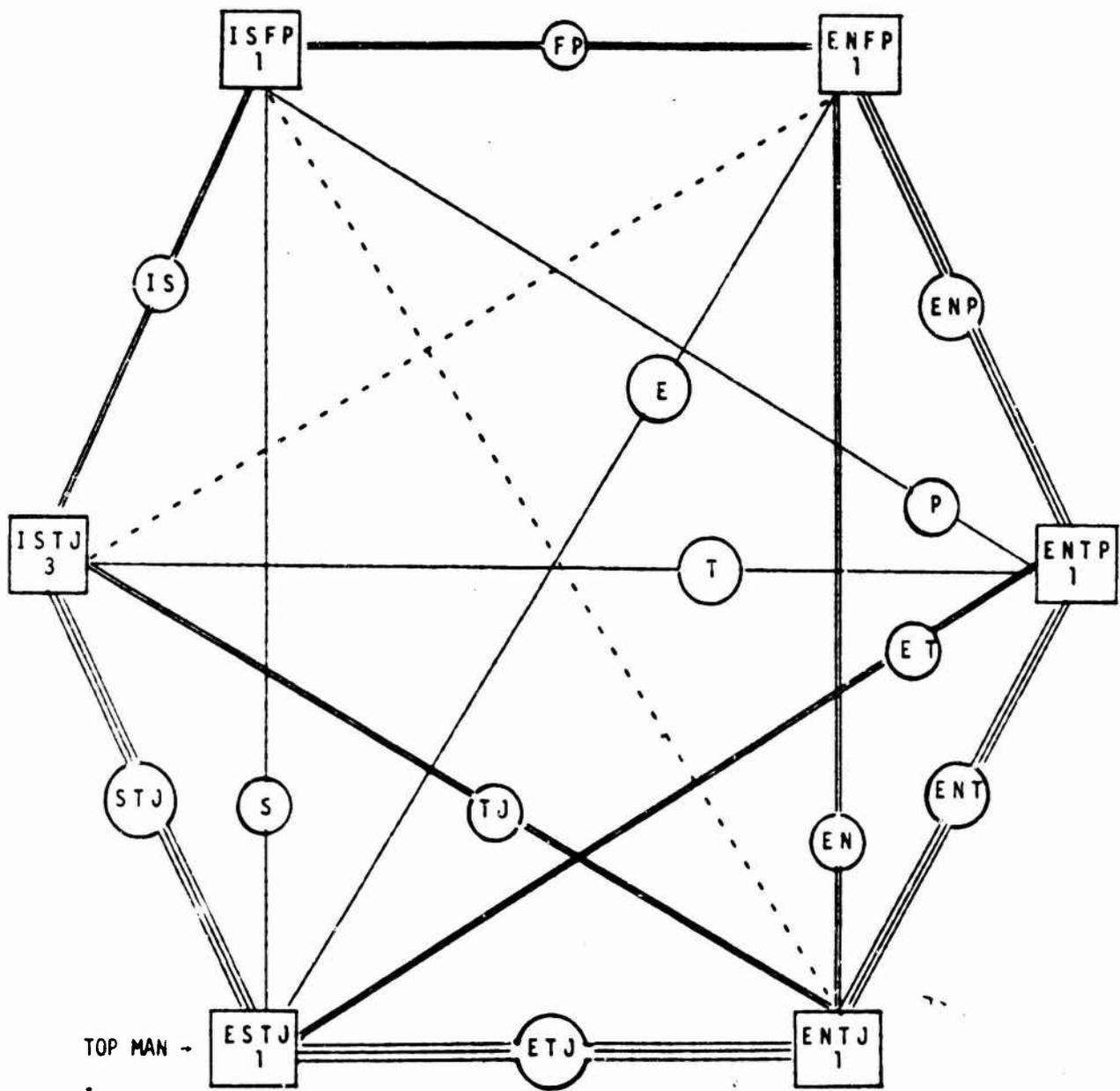


Figure 1. TYPES FOUND IN A SUPERIOR MANAGEMENT TEAM IN INDUSTRY

able to communicate, but they have good bonds with other types who can help in bridging the gap.

Only two of the eight are feeling types, and it should be remembered that this is an industrial team, dealing mainly with the inanimate. If it were a team in the health related professions, it would probably need—and have—more feeling types. The extravert with feeling is in charge of industrial relations. The introvert with feeling is in charge of the budget, which may, indeed, demand some tact.

### Clues to Assignment

The remaining pages deal with the mutual usefulness of the opposites and with the observed effects of each preference in work situations. They are from the "Introduction to Type." They are included here because they may shed some light on the suitability of certain responsibilities for certain members of a team. As St. Paul wrote to the Romans long ago:

"For as we have many members in one body, and all members have not the same office;

So we, being many, are one body...and every one members one of another.

Having then gifts differing according to the grace that is given to us, whether prophecy, let us prophesy according to the proportion of faith;

Or ministry, let us wait upon our ministering; or he that teacheth, on teaching; or he that exhorteth, on exhortation."

## MUTUAL USEFULNESS OF OPPOSITE TYPES

The clearest vision of the future comes only from an intuitive, the most practical realism only from a sensing type, the most incisive analysis only from a thinking type, and the most skillful handling of people only from a feeling type. Success for any enterprise demands a variety of types, each in the right place.

Opposite types can supplement each other in any joint undertaking. When two people approach a problem from opposite sides, each sees things not visible to the other. Unfortunately, they seldom see each other's point of view. Too much oppositeness makes it hard for people to work well together. The best teamwork is usually done by people who differ on one or two preferences only. This much difference is useful, and the two or three preferences they have in common help them to understand each other and communicate.

When extreme opposites must work or live together, an understanding of type does much to lessen the friction. Disagreement is less irritating when Smith recognizes that it would hardly be normal for Jones to agree. He is simply being an opposite type, and opposite types can be tremendously useful to each other when given the chance. The lists below show some of the specific ways.

---

### INTUITIVE NEEDS A SENSING TYPE:

- To bring up pertinent facts
- To apply experience to problems
- To read the fine print in a contract
- To notice what needs attention now
- To have patience
- To keep track of essential detail
- To face difficulties with realism
- To remind that the joys of the present are important

### SENSING TYPE NEEDS AN INTUITIVE:

- To bring up new possibilities
- To supply ingenuity on problems
- To read the signs of coming change
- To see how to prepare for the future
- To have enthusiasm
- To watch for new essentials
- To tackle difficulties with zest
- To show that the joys of the future are worth working for

---

### FEELING TYPE NEEDS A THINKER

- To analyze
- To organize
- To find the flaws in advance
- To reform what needs reforming
- To hold consistently to a policy
- To weigh "the law and the evidence"
- To fire people when necessary
- To stand firm against opposition

### THINKER NEEDS A FEELING TYPE

- To persuade
- To conciliate
- To forecast how others will feel
- To arouse enthusiasm
- To teach
- To sell
- To advertise
- To appreciate the thinker

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## EFFECTS OF EACH PREFERENCE IN WORK SITUATIONS

EXTRAVERTS	INTROVERTS
<p>Like variety and action. Tend to be faster; dislike complicated procedures. Are often good at greeting people. Are often impatient with long slow jobs. Are interested in the results of their job, in getting it done and in how other people do it. Often don't mind the interruption of answering the telephone. Often act quickly, sometimes without thinking. Like to have people around. Usually communicate freely.</p>	<p>Like quiet for concentration. Tend to be careful with details; dislike sweeping statements. Have trouble remembering names and faces. Tend not to mind working on one project for a long time without interruption. Are interested in the idea behind their job. Dislike telephone intrusions and interruptions. Like to think a lot before they act, sometimes without acting. Work contentedly alone. Have some problems communicating.</p>
SENSING TYPES	INTUITIVE TYPES
<p>Dislike new problems unless there are standard ways to solve them. Like an established way of doing things. Enjoy using skills already learned more than learning new ones. Work more steadily, with realistic idea of how long it will take. Usually reach a conclusion step by step. Are patient with routine details. Are impatient when the details get complicated. Don't often get inspired, and rarely trust the inspiration when they do. Seldom make errors of fact. Tend to be good at precise work.</p>	<p>Like solving new problems. Dislike doing the same thing over and over again. Enjoy learning a new skill more than using it. Work in bursts of energy powered by enthusiasm, with slack periods in between. Put two and two together quickly. Are impatient with routine details. Are patient with complicated situations. Follow their inspirations, good or bad. Often get their facts a bit wrong. Dislike taking time for precision.</p>
THINKING TYPES	FEELING TYPES
<p>Are relatively unemotional and uninterested in people's feelings. May hurt people's feelings without knowing it. Like analysis and putting things into logical order. Can get along without harmony. Tend to decide impersonally, sometimes ignoring people's wishes. Need to be treated fairly. Are able to reprimand people or fire them when necessary. Tend to relate well only to other thinking types. May seem hard-hearted.</p>	<p>Tend to be very aware of other people and their feelings. Enjoy pleasing people, even in unimportant things. Like harmony. Efficiency may be badly disturbed by office feuds. Often let decisions be influenced by their own or other people's likes and wishes. Need occasional praise. Dislike telling people unpleasant things. Relate well to most people. Tend to be sympathetic.</p>
JUDGING TYPES	PERCEPTIVE TYPES
<p>Best when they can plan their work and follow the plan. Like to get things settled and wrapped up. May decide things too quickly. May dislike to interrupt the project they are on for a more urgent one. May not notice new things that need to be done. Want only the essentials needed to get on with a job. Tend to be satisfied once they reach a judgment on a thing, situation or person.</p>	<p>Tend to be good at adapting to changing situations. Don't mind leaving things open for alterations. May have trouble making decisions. May start too many projects and have difficulty in finishing them. May postpone unpleasant jobs. Want to know all about a new job. Tend to be curious and welcome new light on a thing, situation, or person.</p>

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## MANAGEMENT USES OF THE MYERS-BRIGGS TYPE INDICATOR

Gary J. Hartzler and  
Margaret T. Hartzler

Peter Drucker defined management as the process of "Planning, Organizing, Directing, and Controlling" the actions of others. This paper will show how the MBTI can be used as an effective tool to aid the manager in each of these areas.

Each of us often acts as a manager. We may be the chairman of a committee, coach for a soccer team, manager of a home, or supervise other people on the job. Some of us run counseling centers. Recognition and use of MBTI typology as a day-in and day-out managerial strategy can make us both more effective and more humane.

We follow two principles using MBTI in management settings:

- 1) We recognize type preferences and the effects of those preferences in the work setting.
- 2) We "balance" use of typological skills.

This is not a scientific research paper. We are sharing with you our own observations and experiences in the managerial setting over six years of MBTI use. Software Solutions is a data processing consulting company (a "knowledge business") where we provide computer software development services on a project basis to managers of both government and private organizations.

The MBTI techniques cited here modify the style rather than the content of what we do. We are primarily in the business of writing and selling computer programs. We first use traditional methods to set up our project teams and make sure the staff have the technical qualifications to do the job. Then we use our understanding of typology to improve the quality of our product by making it more acceptable and useful to our clients. Fortunately, a natural byproduct of using the MBTI in this way is that we make our own lives more enjoyable and productive.

At the end of the article, we provide a set of "Rules" for using typology in typical management settings.

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These rules seem very obvious and close to conventional management wisdom, but they have been modified to reflect the special qualities that understanding MBTI typology can bring to them.

### *Planning, Organizing, Directing, and Controlling*

There are four major functional activities every manager does:

- \* PLANNING - the process of determining what should be done
- \* ORGANIZING - the process of deciding who should be doing it and when
- \* DIRECTING - the process of assigning the work to the staff
- \* CONTROLLING - the process of making sure the work gets done correctly

At our offices, we plan, organize, direct, and control for 1) our own company and 2) each client's project.

### *Planning*

In its broadest perspective, planning is the process of deciding what to do and making sure we have the resources to do it. The entrepreneur setting up a new business must decide what product he wants to produce, sell and deliver. As the business grows, he must continuously ask "What is our business?" and respond to the changing demands of the company's clients.

At Software Solutions, we have decided to provide high-quality computer systems for technical managers and administrators. We suspect that NT owners generally set these kinds of goals for their organizations. NF managers prefer to provide a more human kind of service (such as counseling) and SJ managers want to set up or run a more product-oriented kind of business. Neither the NT nor the NF owner seems to be as interested in profit as the reason for the firm as the SJ owner. SP entrepreneurs usually set up one-man operations in the physical areas--arts, crafts, farming, etc.

For individual projects, planning is often a question

of finding out what it is that our boss or client wants. For consultants, most of the goal-setting process happens during the sales calls.

The prospective client usually describes what computer software he wants during the first sales call. While telling us what kind of computer system he wants, he is displaying his type by his behaviors. After diagnosing his type we can use the things we "know" about his particular type to structure our proposal in a way that would impress most people of his type.

Usually, the first thing we see in a prospective client is whether he is a J or a P. We can then organize our sales delivery accordingly. The J prospects usually prefer the meeting to start on time, be well organized and productive. They want the materials we present to them to be well organized and to "look good." In fact, J's will often simply ignore anything that does not look professionally prepared. The P's often are perfectly willing to accept hand-scribbled notes on the blackboard as a formal presentation and will sometimes be slightly put off by too organized ("slick") a showing.

The next most obvious point about a prospect is whether he is an extravert or an introvert. Most extraverts are ready and willing to talk about what they need and want. Most introverts will have some written materials describing their problem and often prefer that you take the material away and read it thoroughly before you spend a lot of their time "pestering" them with questions.

Consistent with the prospect's type, we are careful to deliver a written proposal to any introvert that we want to make a sale to. Extraverts, on the other hand, will often be sold during the verbal sales pitch and will need the written proposal only for other people to review.

Usually, the next thing we find out is whether we are dealing with an intuitive or sensing person. In a discussion of the work he wants you to do an intuitive will focus on the purpose for the work while the sensing person will focus on specific details about the job. We try to avoid boring our intuitive clients with descriptions of all the steps we'll take to get their job done. We spend a lot of time on the specifics of our sensing prospects. Sensing-judging people, in particular, want to see exactly what they are going to get before they will commit to spending

the money on a project. Intuitive-perceptives are much more willing to accept global descriptions of what we are going to do for them.

The T-F dimension in the prospect will determine how we will justify his purchasing our product. If our prospect or client is an F, we will find out what he values and portray our product in those terms. For a T, we usually structure our presentation around the cost/benefit trade-offs.

All of these typological considerations are relative to the person we are making our presentation to. However, he or she will have to sell the idea to his or her organization (who may be people of other types), so we always deliver a well-organized, professionally presented, written proposal full of specific detail on how the project will be done and summarized in global terms with justifications for the effort in both logical and personal value terms. In other words, we make our materials meet every MBTI type person's preferences as much as we can. But, we make our sales presentation to the person sitting in front of us recognizing his or her MBTI type. By doing this our formal proposal stands a better chance of being presented to the next person in the organizational hierarchy.

For your personal planning, we recommend that you make sure that your work is viable from all eight of the MBTI perspectives. Can you present it well verbally (E) and in written (I) form? Can you point out all the details (S) and summarize (N) it? Can you justify it both logically (T) and in terms of the most likely values (F) you'll encounter? Can you keep it both well-organized (J) and open-ended (P)?

### *Organizing*

Organizing a company is the process of determining what jobs need to be done and selecting the people to do them. We select people for the various jobs we have to do on the basis of their background, capabilities and interests. We also consider their types. For the administrative personnel that work with the president of our firm, we need S and J skills. Our president is an "off-the-wall" intuitive, so we need someone to make sure he'll get all the details right. He's also a P that needs our administrators to make sure he is thorough and organized.

He recognizes that these type differences will sometimes make him uncomfortable and even angry, but he also recognizes that we need them to cover his typological skill deficiencies, so he instructs these people to "be their natural selves" and push him on detail and timing.

Some of our clients have also learned to balance themselves with people of different types on their staffs. An extraverted manager often has a "second-in-command" that is an introvert or vice-versa. They usually split the "outside-inside" jobs up accordingly--the extravert telling outsiders what the Branch is doing and the introvert making sure the Branch actually does it.

We organize the work space at the office according to the typological nature of the tasks being performed. For example, working at a computer terminal is very much an introverted activity. Usually a person working at a computer terminal is totally occupied making sure the typing is perfect. He needs to be free of interruptions, so we have set the physically large terminals up in relatively "private" spaces. Thus, the person using them won't be unnecessarily interrupted. Conversely, the salesman has a speaker phone and comfortable sitting area in his office for his normally extraverted type of work.

We also try to assign office space utilizing our knowledge of typological preferences. Introverts prefer being alone in a small office rather than have several people in one large one. Our extraverts prefer more space and do not mind having other people in their office to get it (as long as the people share about the same need for orderliness--J-P).

We also direct our support staff to acknowledge typological preferences and act accordingly. Our secretary will not put through calls to our ISFJ unless she knows he is "interruptable." She also has been directed to announce all calls to our extraverted salesman, so he can decide whether to take the call. This type of variation based on individual preferences should be provided in any organization. Using MBTI typology to justify differences makes them more palatable and readily implemented.

We organize for a project in the same way. We select the personnel to work on the project on the basis of technical qualifications, capabilities, and inclination. We are aware of typology, however, and make adjustments

accordingly. For example, an ENFP working with us for an ISTJ client was having some problems communicating with him. (Who would have predicted that?) We added an INTJ to the project to provide a balancing communications buffer for both of them. The INTJ was able to understand the global conceptualizations of the ENFP, organize them, and put them into writing for her. The ISTJ loved the sudden improvement in the product. Even though there was no change in what work was being done, what the ISTJ saw was much better from his point of view.

Basically, we have found the materials provided in the "Introduction to Type" brochure on the ways each type needs its opposite are true. We constantly are finding that the types can and do balance each other on projects if they are aware of the need to do so.

### *Directing*

Directing is more than just telling an employee to get a particular job done. A good manager should provide the employee the tools necessary to do the job, make sure the employee understands the task completely, and provide some motivation as well. But, the employer must tell his employee to do the job! The employee wants to know what is expected of him.

When we assign a person to a job for a client, we tell him about the client in terms of type or type effect. If the client is a J, we assign the job to our person with the stipulation that he deliver a complete, well-organized package and not Ideas Papers. Teams are directed to have the appropriately skilled (by MBTI type) person review all products before they are delivered.

Team directions are done with full type-awareness. We assemble the team to work on a project, describe the work as we understand it and define the technical roles we perceive each person filling on the project. We then review the typological implications of the composition of the team and install mechanisms to ensure coverage for shortages of typological skills. For example, we are currently delivering a User's Guide for a group of ISTJ accountants. Two intuitives are writing and reviewing it. Knowing that N's are likely to be detail-deficient, we are asking the client to provide an extra review to be sure there is enough detail. Of course, we forced ourselves to try to get it to be detailed enough, but we believe

intuitives just will not be able to get it as detailed as the ISTJ's will need it without spending far too much time doing it.

On the company level, we have found it a lot easier to make job assignments once we realized that most people like firm direction. Early in our president's ENTP managerial career, he often made assignments that were too open-ended. Two of our SJ's pointed out that he should give more precise directions with a definite deadline.

We like to discuss assignments as we give them, but we have discovered that most introverts want written directions. We make time for the introverts to take copious notes while we're telling them what we want done. A written memo describing the project handed out before the meeting is even more effective.

We think J managers tend to give too much direction to P personnel, telling them what to do and when. P managers, on the other hand, will leave things too open. I managers may have thought the job through and left no room for the E employee's imagination. The E manager will appear shallow while assigning jobs to the I employee. N's will need to bear with their S employees' demands for more detail, and S bosses will need to understand their N employees' need for the big picture. T managers will need to show the personal benefits of a project to an F, and F managers will need to learn how to assign work that their employees will not like doing.

### *Controlling*

Not only must a job be done, but it must be done right and on time. Furthermore, if the company is to make a profit or deliver the services at the lowest cost, managers must provide some controls. This seems like an SJ's natural domain. As an NP, our president often feels that controlling is his weakest area. Even the word "control" is moderately offensive to him. SJ managers we know seem to thrive on control and feel most uncomfortable when "out of control."

Quality control is the process of making sure the product meets the goals set for it. Use your J skills or make sure that someone with good J skills is checking the product. Also make sure you have a J regularly checking on each project's progress, especially if the project

leader is a P.

Realize that J project leaders will make relatively regular progress toward project completion, while P project leaders will move forward in spurts--often based on whatever deadlines they perceive. Some managers provide artificial deadlines for P people--about a week before the work really needs to be completed.

Extraverts will usually not have documented their progress in writing. A solution to this problem is to provide the extravert a dictation unit--an E will dictate his progress reports even if he won't sit down and write them!

Intuitives will often think they have made significant progress just because they've got the general idea worked out. For example, this article was "written" last June in concept by an intuitive, but it didn't get down on paper until after the third follow-up call from the editor of RPT.

Sensing types can often get blocked by the enormity of the task unless it has been broken down into pieces. Make sure that you or the sensing type breaks the project down into workable pieces. Be aware that sensing managers will often feel that nothing has been done, just because the project isn't complete yet. They can discourage themselves this way. Point out their progress on the individual tasks.

Sensing-judging clients are particularly prone to looking for completed work and ignoring "in-process" work, so be prepared (if you are an intuitive) for clients saying "That's nice, but what have you gotten done?" Our solution for this problem is to break the project down into tasks that can get completed each week or two and then report the completion of each task.

#### *Summary*

Management is the process of planning what should be done, organizing who is to do it, directing them to do it, and controlling the work so it gets done well. A person can use typological ideas to help manage any project.

Recently, we started a Federal Government contract. The Feds are notoriously slow at getting contractors paid

at the beginning of a contract and we couldn't afford that. We set about solving that problem using typology. First, we identified the types of the people we would have to deal with. Since they were ISTJ for the most part, we assumed that they would prefer that we follow the rules to the letter. We proceeded to find out what rules they followed. We asked each one to show us how to fill out all the boxes on all the forms. We asked each one who they sent the form to next. We called that person. We asked each person how we could make sure he or she had enough information so they would process our form for payment. We then made sure that we submitted every form correctly and that copies of every form that they needed from other Government agencies were supplied on time and accurately filled out. It worked--we got paid in the minimum six weeks from our first invoice and the second payment came the next day.

We suggest you read the materials in the "Introduction to Type" on the "Effect of Type in Work Settings" for more ideas on this topic. By applying the principles of: 1) allowing people to work within their types; and 2) balancing work teams by type, you can make your office more effective and more pleasant.

#### *Rules for Applying Typology in Management Settings*

1. Determine your client's (or boss') type and deliver according to it.
2. Deliver proposals that are (I) well-thought-out and written, (E) briefly summarized at the beginning, (N) include global summarizations, (S) include complete schedule and cost information, (F) are justifiable in human terms and (T) cost/benefit terms, are (P) open-ended and (J) well-organized and presented well.
3. Organize your work space to allow for individual type preferences and task demands in terms of type.
4. Organize your teams to interact well together by type, balance each other by type and meet the client's type needs.
5. Provide your staff extra time if they are typologically ill-suited to the client.
6. Provide teams counseling on the likely impact of

the team's type makeup and the methods for dealing with that impact. For example, extraverts must give introverts "air time" and we mean a lot of air time; in other words, the extraverts need to remember to be quiet long enough for the introverts to feel comfortable enough to speak up; introverts need time to prepare for the next topic; feeling types need time to socialize in meetings; thinking types need the meetings to stay on the topic; judging types want deadlines and don't want to leave meetings without some decisions being made; perceiving types prefer to avoid deadlines and may feel stifled if forced to make decisions within a limited time frame; intuitives will want to spend their time dreaming up better ways to do things; sensing types will want to get something real done; etc.

7. Use the problem solving approach suggested in the Introduction to Type. This approach maximizes the contribution each of your functions can make during the problem solving process.

8. Ask your J's to help you develop and stick to your plans. Ask your P's to keep you from making a decision too soon.

#### References

Myers, I. B. Introduction to type (2nd ed.). Gainesville, FL: Center for Applications of Psychological Type, 1976.



**APPENDIX D**

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