

A COMPARISON OF THE COGNITIVE STYLE SIMILARITY AND
COMMUNICATION STYLE ADJUSTMENT INDEX METHODS TO STUDY
COUNSELING SUPERVISION PERFORMANCE

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This study was designed to examine two questions. First, does increasing Myers-Briggs Type similarity correlate with improved performance by counselor supervisor/supervisee dyads? Second, is the Communication Style Adjustment Index superior to the cognitive style scale matching procedure as a method of quantifying MBTI similarity in dyads?

Sixty-eight supervisor/supervisee dyads were recruited from University of North Texas Counselor Education Master's level practicum classes. Supervisee class rankings and supervisor performance ratings were correlated with the dyads' MBTI similarity as measured by the Communication Style Adjustment Index and the cognitive style matching procedure. While none of the hypotheses were supported it was noted that there was interaction approaching significance between dyadic similarity using the Communication Style Adjustment Index and supervisor performance ratings.

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CHAPTER I

LITERATURE REVIEW

Introduction

The initial idea for this study came from an experience while in supervision training. Upon observing various counselor trainees interacting with different supervisors with distinctly different supervisory styles, it became obvious that some counselor trainees preferred very close observation and scrutiny to feel comfortable and appropriately supported. Other trainees were clearly uncomfortable with such close observation and preferred more general assistance and guidance. An informal survey of the students indicated that the Sensing and Intuition scale of the Myers-Briggs Type Indicator (MBTI; Myers & Briggs, 1962) differentiated the two groups. The trainees who preferred close observation had a sensing personality preference while the trainees who preferred a more general approach had an intuiting personality preference.

This early observation led to an extensive exploration of the relationships between the MBTI, which operationalizes Jung's theoretical postulate of psychological types, and the ways in which dyads function together. In the process of reviewing many supervisor studies using the MBTI, a procedural problem emerged. There has been no reliable and theoretically consistent method to quantify the interaction of the Myers-Briggs Type functions at a relationship level of inquiry. The successful uses of the MBTI have been more qualitative, intensive applications in which individuals or small groups are taught to use the concepts of psychological type to appreciate individual differences. One researcher, Yeakley (1982, 1983), has noted this difficulty and has developed a Communication Style Adjustment Index (CSAI) to quantify interactions at the

relationship level of inquiry. Should this index prove to be valid measure of the ability of supervision dyads to communicate, it will advance the ability to use Jung's psychological types in quantitative research.

Statement of the Problem

There have been many supervision studies using the Myers-Briggs Type Indicator (MBTI; Myers & Briggs, 1962) to examine the counselor supervision relationship but the results of these studies have been conflicting and confusing. One issue, which may account for many of the inconsistencies among these studies, concerns the method of analysis of dyadic compatibility. There are two methods currently in use, neither of which have been validated as an adequate measure of dyadic compatibility.

The majority of researchers who have used the MBTI (Myers & Briggs, 1962) to assess cognitive style similarity between supervisors and supervisees have used some variation of a procedure in which the four functions of the type code for each dyad member are matched (Cox, 1996; Erdman, 1993; Garretson, 1993; Golden, 1987; Handley, 1980; Kanazawa, 1991; Lochner, 1997; Pearson, 1994; Robbins, 1992; Romans, 1990 and Steen, 1998). The underlying assumption of this method is that matching the MBTI Type Code functions of each dyad member will yield a valid measure of cognitive style compatibility that is useful in a relationship context. In theory, it is assumed that people with more similar types will communicate better and relate well to each other due to similar interests and focus. It is also assumed that people with different types will have more difficulty communicating and relating (Myers & Myers, 1990). A one-to-one matching accounts well for those dyads with exactly matching or mismatching codes. However, for the intermediate cases, it is the actual use of the

dominant and auxiliary functions of a type that determines how a person perceives and acts in the world. A strict one-to-one matching of functions does not account for the dominant and auxiliary functions within the type.

Another, more theoretically valid, approach to measuring compatibility between supervisor and supervisee is a Communication Style Adjustment Index (CSAI) developed by Yeakley (1982). The CSAI is derived from the MBTI and based on the assumption that the interaction of the preferred functions of the dyad members impacts their ability to communicate. This interaction, if quantified, may be used as a measure of the compatibility of the dyad. According to Yeakley (1982; 1983; personal communication, Feb., 1996 and June, 2001), there is no theoretical basis for using a simple matching procedure between the supervisor and supervisee MBTI Type Codes to indicate cognitive style similarity in the context of a relationship. Each of the sixteen types has a unique preferential pattern of dominant, auxiliary, tertiary and least preferred functions (Myers, 1990; Myers & McCaulley, 1989). It is the interaction of the preferred functions of each type in the dyad that contributes to the actual use of the functions in relationships via communication. At the relationship level of analysis, it is more appropriate to consider the level of difficulty for each of the communicators as they attempt to adjust to the other's cognitive preferences.

Successful research using the Myers-Briggs Type Indicator (Myers & Briggs, 1962) to examine relationships is dependent on an appropriate and effective method of quantifying the compatibility of dyads. The effectiveness of the methods currently employed has not been demonstrated.

Related Literature

Importance of Supervision

The importance of the supervision process to training counselors has been noted in the literature for many years (Boyd, 1978; Hansen, Pound, & Petro, 1976; Mueller & Kell, 1972; Patterson, 1983; Roeber, 1974). The supervisor-supervisee relationship, much like the counselor-client relationship, is believed to be a vital factor in the process of supervision (Handley, 1982; Carifio & Hess, 1987; Holloway, 1987, 1997; Muse-Burke, Ladany & Deck, 2001; Watkins, 1997). In review of literature, Lambert and Arnold (1987) found that supervision is a key factor that shapes and modifies skills as the process allows the trainee to identify strengths and weaknesses, integrate theoretical understanding into practice, and develop a unique style. Holloway (1987, 1997) concluded that the supervisory relationship nurtures the identity of the trainee and serves as the primary change agent in the trainees' development.

As counselor supervision has emerged as a distinct specialty, requiring specialized training (Bradley, 1989; Bradley & Kottler, 2001; Dye & Borders, 1990; Holloway and Neufeldt, 1995), research into the specific factors contributing to successful training programs has increased. However, quality research, based on theory and building on previous findings, has been either unavailable or conflicting in results (Ellis, 1991; Ellis & Ladany, 1997; Holloway, 1984; Kaplan, 1983; Ladany & Muse-Burke, 2001; Wiley & Ray, 1986). As high quality research increases and yields more consistent results, practical applications can be advanced to yield more effective training programs for counselors.

Importance of the Supervisory Relationship

The relationship between the supervisor and the supervisee has been of particular interest to researchers in the supervision of counselors in training because it is arguably the most important factor in the success of the training (Holloway, 1987, 1997; Muse-Burke, Ladany & Deck, 2001; Watkins, 1997). The ability of the supervisor and counselor in training to communicate clearly develops the relationship and promotes learning (Bradley, 1989; Loganbill et al, 1982; Stoltenberg & Delworth, 1987).

The essence of the supervisory experience is an intense one on one relationship in which the supervisor and counselor in training explore the multilayered complexities of the supervisor/counselor/client experience (Bradley, 1989; Bernard & Goodyear, 1998; Muse-Burke, Ladany & Deck, 2001). The counselor trainee must be able to understand and appreciate the world-view of the client, then communicate that understanding to the supervisor. The supervisor must be able to understand and appreciate the world-view of the client and the counselor trainee; then recognize and communicate the ways in which those worldviews may interact to affect the counselor's understanding of the client's world and the counselor/client relationship. As the supervisor and the trainee work to understand these complexities in the situation, the supervisor and the counselor trainee must be able to conceptualize and communicate on multiple levels (Bradley, 1989; Loganbill et al, 1982; Muse-Burke, Ladany & Deck, 2001; and Stoltenberg & Delworth, 1987).

The communication process to develop and clarify mutual understanding of the various phenomenological perspectives may be the most potent learning experience in supervision. Communication between the supervisor and counselor and the counselor and

client is the primary process of supervision, therefore, an important focus for research into counselor supervision.

Theoretical Approach to Studying the Supervisory Relationship

One theoretically sound approach to exploring the communication process is based on Jung's (1923, 1971) psychological types. Jung theorized that many individual differences in personality and behavior are due to the way people prefer to use their minds. He posited two basic modes for attaining awareness and acting in the world: Perceiving and Judging. The mode of perceiving the world has two functions: Sensing and Intuition. The other mode, judging the information perceived, also has two functions: Thinking and Feeling. The mode of perception determines what one sees in a situation and the mode of judgement determines what one decides to do about it. Each individual, from infancy, has a natural preference for one of the perceiving mode functions and one of the judging mode functions. As the preferred mode is enjoyed more than the other, it is used more and, therefore, becomes more reliable and trustworthy to the individual. It is these basic differences in perception and judgment, which result in corresponding differences in personality and behavior among individuals.

A person who prefers sensing perception focuses attention on the immediate surroundings, the information actually coming in through the senses. The person who prefers intuition focuses attention on possibilities linked via the unconscious to the incoming sense impressions. As the preferred mode, whether sensing or intuitive, becomes more developed, the person becomes more interested in and oriented to the

stream of impressions revealed by that perceptive mode, neglecting the impressions from the other mode. A person who prefers sensing will perceive the importance of aspects of a situation differently than a person who prefers intuition (See Table 1).

Table 1

Modes of Perception: Sensing and Intuitive

Sensing (S)-----	-----Intuitive (N)
values authority,	tolerance for complexity
takes directions	prefers open-ended questions
need for order	strong need for autonomy

A person who prefers thinking judgement will use impersonal logic to reach conclusions about the information perceived through either perception function. A person who prefers feeling judgement will use personal values to come to conclusions about the information perceived by either function of perception. As the preferred mode, whether thinking or feeling, is developed the individual is oriented to that means of concluding about situations and making determinations about appropriate responses (See Table 2).

Table 2

Modes of Judgement: Thinking and Feeling

<u>Thinking (T)</u> -----	----- <u>Feeling (F)</u>
Objective	interpersonal
Analytical	relationship focus
logical decision maker	High need for nurture

Several researchers (Carey & Williams, 1986; Garretson, 1993, Golden, 1987; Handley, 1980 Romans, 1990; and Steen, 1999) have found that differences in the perceptive mode preference and/or the judgement mode preferences can be problematic to the supervisor/counselor trainee relationship. The critical areas of conceptualizing the client, assessing situations and devising treatment plans are particularly vulnerable to misunderstandings. Difficulties arising from psychological type differences between the supervisor and the trainee are likely to impede the process of training.

In addition to the functional preferences within each mode, Jung (1923) posited that each person also develops a preference for one mode (either Perception or Judgment) over the other which then dominates the type. The preferred function in the preferred mode is the one the person is most comfortable with and it is the most powerfully developed. There are four possible dominant functions, Sensing or Intuition, Thinking or Feeling. The preferred function of the other mode is auxiliary, or the second most preferred function. Jung (1923) also posited that psychological types have a characteristic attitude to the world. They are Introverted, focused on the inner world of ideas, or Extraverted and focused on the outer world of people and things. This focus affects

where the individual's most preferred mode is used, in the inner world or in the outer world. For introverts, the most preferred mode is used in the inner world where it is not readily apparent to the outer world. In the outer world, introverts use their auxiliary or second best developed function. Extraverts use their dominant function in the outer world, and the auxiliary function in the inner world (See Table 3).

Researches (Yeakley, 1982, 1983; and Marcus, 1993) exploring the effects of the preferred functions on dyadic relationships have found that the interaction of the dominant and auxiliary preferences of the members of a dyad are critical to the perception of the success of the dyad.

Table 3
16 MBTI Type Codes

		Introversion		Extraversion	
		Judging	Perceiving	Perceiving	Judging
Sensing	Thinking	ISTJ	ISTP	ESTP	ESTJ
“	Feeling	ISFJ	ISFP	ESFP	ESFJ
Intuitive	Feeling	INFJ	INFP	ENFP	ENFJ
“	Thinking	INTJ	INTP	ENTP	ENTJ

Using The Myers-Briggs Type Indicator to Operationalize Jung's Psychological Types

The Myers-Briggs Type Indicator (MBTI) developed by Briggs and Myers (1962) from extensive research into Jung's psychological types, has been used successfully in marital therapy and business consulting to aid in the understanding of individual differences and the impact of those differences on relationships. Successful clinical and

consulting use of the MBTI at the relationship level has depended on an individualized, in vivo approach in which the individuals are taught to understand, observe and apply the concepts on both intra personal and interpersonal levels. Individuals taught to understand the MBTI type codes are able to use the information to understand differences, predict and prevent impediments to their interactions with others.

Procedural Methods to Assess the Impact of Type Variations Within Dyads

The problem using psychological type, as measured by the MBTI (Myers & Briggs, 1962), for quantitative research lies in devising a method of quantifying the potential difficulties of interpersonal, dyadic interactions at the relationship level of inquiry (Yeakley, 1982, 1983). Two methods have been used in previous studies to assess dyadic similarity at the relationship level. The first was devised as a measure of cognitive style similarity. The second was devised as a measure of communication style shifting difficulty (See Appendix A, Table 4).

Cox (1996), Erdman (1993), Garretson (1993), Golden (1987), Handley (1980), Lochner (1997), Pearson (1994), Robbins (1992) and Steen (1998) assessed cognitive style similarity using some variation of matching the four functions of the MBTI type code for each of the dyad members. The underlying assumption is that a one-to-one matching of functions will result in an index of similarity at the relationship level of inquiry. The results of these studies were contradictory, sometimes achieving significant results in the expected direction, sometimes not.

Yeakley (1982, 1983) argued that there is no theoretical basis for matching type codes to determine similarity. The real issue at the relationship level of inquiry is communication style compatibility. Each MBTI type has four hierarchical preferences for

taking in and processing information (See Table 4, in Appendix A). Each member of the dyad has a first, second, third and least preferred mode of communicating. Yeakley contends that good communication requires that each member of the dyad (as sender or receiver) match the preferences of the other member, which he calls communication style shifting. He has developed a Communication Style Adjustment Index (CSAI; Yeakley, 1982), which ranks the difficulty for all the possible dyad combinations of MBTI types (See Table 5, in Appendix A).

Marcus (1993) used Yeakley's method of assessing dyadic communication style in her dissertation study of cognitive style similarity. She used the Communication Style Adjustment Index (CSAI; Yeakley, 1982) to investigate the relationships among cognitive style similarity, quality of the working alliance, theoretical orientation and gender. The study achieved significant results indicating that the more similar the communication style the stronger the working alliance. She found a positive correlation between communication style similarity, the working alliance and satisfaction. In addition she found that patterns of communications style impact the report of rapport between supervisor and supervisee.

It is possible that Marcus' (1993) significant results reflect the more theoretically sound assumptions underlying the CSAI (Yeakley, 1982) as opposed to the scale matching procedures previously used to assess dyadic cognitive style interactions. If the inconsistencies in the previous study replication attempts are, in fact, due to the method of analysis at the relationship level, as contended by Yeakley, it is important to demonstrate that problem with research.

Cognitive Styles and Supervision

A prevalent focus of supervision research is the interaction of cognitive style and satisfaction with the supervisory relationship. There is a growing body of research using the Myers Briggs Type Indicator Type Codes (MBTI; Myers & Briggs, 1962) to assess the relationships between cognitive style and other variables in supervision.

Handley (1980) investigated the relationships between cognitive style similarity of supervisors and trainees and; (1) the trainees' ratings of the supervisory relationship and satisfaction with supervision, and (2) the supervisors' ratings of the supervisory relationship, satisfaction with supervision, and evaluation of trainees. He studied 33 dyads from a large Midwestern university comprised of 33 beginning practicum students as trainees with 20 advanced doctoral students as supervisors. He matched the MBTI Type Codes (Myers & Briggs, 1962) to assess cognitive similarity of the supervisors and trainees. The shortened form of the Barrett-Lennard Relationship Inventory (BLRI), originally developed by Barrett-Lennard (1962), shortened by Lanning and Lemons (1974), was used to measure the degree of satisfaction with the relationship. The Counselor Evaluation and Rating Scale (CERS) developed by Myrick and Kelly (1971) was used to evaluate the trainees. Two 6-point Likert scale items (SQ1 and SQ2) assessed overall satisfaction. SQ1 assessed the trainees' satisfaction with supervision while SQ2 assessed the supervisors' satisfaction with trainee performance.

He found no significant relationship between overall cognitive style similarity and the mutual perceptions of the interpersonal relationship. However, trainee scores on certain MBTI (Myers & Briggs, 1962) indices, especially the S-N scale, were related to the supervisors' perceptions of the relationship, satisfaction with the relationship and

evaluation of the trainees. The supervisors tended to rate N type trainees higher than S type trainees. Supervisor cognitive styles were not found to be related to the dependent variables.

Handley's (1980) innovative use of the MBTI Type Codes begin a series of investigations of cognitive style similarity as a pertinent variable for evaluating counselor supervision. Notable weaknesses of this study include statistical analyses depended upon extremely small numbers in some cells due to the distribution of types (Marcus, 1993), the theoretical limitations of the modified five point matching procedure (Yeakley, 1982, 1983), the use of doctoral students as supervisors (Erdman, 1992), and not fully indicating the data, especially the numbers of Sensing and Intuitive participants (Erdman, 1992). It is possible that the interaction of the MBTI preferences was acting as predicted in this investigation. The clustering around the S-N scale may have been a function of the specific dyad combinations involved.

Carey and Williams (1986) demonstrated the usefulness of the MBTI (Myers & Briggs, 1962) to describe supervisees and supervisors (Garretson, 1992). They used the MBTI, the BLRI (Barrett-Lennard, 1962) and the CERS (Myrick & Kelly, 1971) to measure the relationship between cognitive style and outcome of supervision. Their sample consisted of eighteen doctoral level students acting as supervisors to 46 beginning master level students, forming 46 supervisory dyads.

When they compared the group of supervisors' scores to the group of trainees' scores using the MBTI Type Code (Myers & Briggs, 1962) similarity was not found to be related to supervisee satisfaction with the relationship as measured by the BLRI (Barrett-Lennard, 1962), nor were they related to the supervisors' evaluation of trainee

competence as measured by the CERS (Myrick & Kelly, 1971) scores. They found that supervisors showed significantly higher scores on the Intuitive end of the S-N scale and significantly higher scores on the Thinking end of the T-F scale as compared to the trainees. Trainees tended to be characterized as Feeling and Sensing on the MBTI scale. The authors speculated, but did not test, that there could be negative consequences of supervisor-supervisee mismatches. Marcus (1993) found that matching of a Thinking supervisor with a Feeling supervisee did, in fact, produce dyads with the least rapport. Romans (1990) study of gender and cognitive style indicates that women tend to rate higher on the Feeling scale while men tend to rate higher on the Thinking scale. Marcus (1993) and Romans (1990) results indicate there are potential negative consequences from mismatching types and/or gender.

Golden (1987) replicated Handley's (1980) study with a sample of 40 supervisory dyads. The dependent variables were the same. She found a significant correlation between similarity of cognitive style and overall satisfaction with supervision for both supervisors and supervisees, but no relationship between cognitive similarity and the overall rating of the relationship. She did not find the same supervisor preference for intuitive trainees that Handley found. She did find a correlation between supervisee satisfaction with supervision and similarity on the J-P scale.

Garreston (1992) replicated and extended Handley's (1980) study. The sample of 42 counselor-supervisor dyads from a Midwestern state university psychology program consisted of a beginning practicum student and an advanced doctoral level student as the supervisor. Since this was a replication of Handley's (1980) study, she used the same measurement instruments. All dyads were given the MBTI (Briggs & Myers, 1962), then

the sub-scales were matched to determine cognitive style similarity, the BLRI (Barrett-Lennard, 1962) shortened by Lanning & Lemons (1974) was used to assess relationship satisfaction, the CERS (Myrick & Kelly, 1971) was used to evaluate counselor progress and two 6-point Likert questions (SQ1 and SQ2) were used to assess overall satisfaction. SQ1 assessed supervisee overall satisfaction with supervision and SQ2 assessed supervisor overall satisfaction with supervisee performance. She found no relationship between cognitive similarity and satisfaction with the relationship.

It is likely that the inherent theoretical weakness of the matching procedure to assess dyadic cognitive style interactions can explain the differences in Garretson's (1992), Golden's (1987) and Handley's (1980) results. The meaning of all ratings other than a perfect match and a complete mismatch is unclear. It is possible that the predicted interactions between preferred functions were present in all populations but were not assessed since the matching procedure does not measure interactions between dominant auxiliary functions.

The findings of significant correlations between variables and certain scales may be an artifact of the interactions of auxiliary and dominant functions. Handley's (1980) findings of a correlation between J-P scale and satisfaction may show more clearly using the Communications Style Adjustment Index (CSAI; Yeakley, 1982) since the J-P scale is used to determine the dominant or preferred function. The interaction of those functions was not studied.

Erdman (1993) added the dimension of developmental level of the supervisee to her study of cognitive style similarity and satisfaction with supervision. Using 42 supervisory dyads from counseling programs located in and around San Antonio, TX, she

administered the MBTI (Myers & Briggs, 1962) to the supervisors and supervisees and matched the Type Code sub-scales, converted them to continuous scores, then computed overall similarity using Cronbach's D^2 procedure assess cognitive similarity. The satisfaction with supervision was measured by the Supervision Questionnaire (SQ; Worthington and Roehlke, 1979) and supervisee development levels were assessed using the Supervisee Levels Questionnaire-Revised (SLQ-R; McNeill, Stoltenberg, and Pierce, 1985).

None of her hypotheses were supported. No relationship between cognitive style similarity and satisfaction with supervision regardless of developmental level was found. Yeakley (1982) argued that when the relationship is the unit of analysis, it is the degree of similarity in dominant auxiliary functions in communication style preferences that is important, rather than the cognitive similarity per se. None of the variations of the matching procedure assess the interactions of the dominant and auxiliary functions except in the two extreme cases, no matches and all matches, since in these two cases the preferred functions are the same. It is possible that the predicted interactions between MBTI preferences were present in this study but were not measured. Therefore, it is possible that her results were adversely affected by the method she used to establish supervisor and supervisee cognitive style similarity.

Marcus (1993) studied the relationship between communication style similarity, working alliance, theoretical orientation, level of training and gender compared to satisfaction with supervision. Her sample was taken from a variety of clinical settings around a major metropolitan area in the Northeast. There were 73 supervisory dyads, with 42 trainees and 27 working clinicians as supervisees. The dyads were from several

disciplines clinical and counseling psychology, social work, psychiatric nursing and psychiatry. There were twenty-three different sites including inpatient and outpatient settings. She used the MBTI Type Codes (Briggs & Myers, 1962) and Communication Style Adjustment Index (CSAI; Yeakley, 1982) in her analysis of the degree of similarity of cognitive styles, the Supervisory Working Alliance Inventory (SWAI; Efstation, Patton and Kardash, 1990) and a Supervision Questionnaire (constructed for the study) to assess the supervisory relationship.

She found that the interaction of the dominant and auxiliary cognitive style functions did correlate with the strength of the working alliance, which correlated with satisfaction with supervision. Her study supported her hypotheses that a Feeling supervisee paired with a Feeling supervisor reported the strongest rapport; a Feeling supervisee paired with a Thinking supervisor reported the least rapport. A Thinking supervisee and a Feeling supervisor reported more rapport than the Feeling supervisee and Thinking supervisor. A Thinking supervisee and a Thinking supervisor reported mean scores on rapport.

Marcus' (1993) significant correlations with overall cognitive similarity are probably due to her use of Yeakley's Communication Style Adjustment Index (CSAI; 1983) as the measure of cognitive style similarity instead of the previously preferred MBTI Type Code (Myers & Briggs, 1962) matching procedure. As a result, her analyses considered the interactions of the dominant and auxiliary functions inherent in the supervisors and supervisees communications. It is the difficulty in adjusting to those communication differences, which is likely to account for the reported differences in supervisor and supervisee rapport and working alliance.

Communication Style Adjustment Index and Significance of Results

Yeakley (1982, 1983) conducted studies directly comparing the statistical significance of the results using the MBTI Type Code matching procedure versus the Communication Style Adjustment Index (CSAI) rankings. For each study he analyzed the same data using the matching procedure and again using the CSAI. In each study he achieved statistical significance with the CSAI but not with the Type Code matching procedure.

In 1983, Yeakley reported several studies in which the MBTI Type Code matching procedure and the Communication Style Adjustment Index were used to predict relationships in various types of dyads. The first study examined marital dyads. After six months of marital counseling, counselors selected ninety couples so that thirty of the couples were judged to be worse off than before, thirty couples were the same and thirty couples had improved. The prediction tested was that the greater the type similarity between marital partners, the more likely they would be in the group with improved relationships. Using the CSAI produced positive results that were significant to the .01 level while the MBI matching method yielded non-significant results.

The second study examined manager-subordinate dyads. Thirty dyads from a large corporation were asked to rate their communication as “successful” or “unsuccessful”. In ten dyads both rated their communications successful, in ten dyads one member rated communications successful while the other rated communications unsuccessful, and in ten dyads both rated the communications as unsuccessful. The prediction was that the greater they type similarity between manager and subordinate the

more likely their dyad would be in the group where both rate their communication as being “successful”. Using the CSAI produced positive results significant to the .02 level while the MBTI matching procedure did not achieve significance.

The third study examined twelve teachers combined with 266 students to comprise 266 dyads in discussion classes. The prediction was that the type similarity the higher the students adjusted course grad would be. Grads were adjusted by comparing the students GPA. Using the CSAI produced significant positive results to the .001 level while the MBTI matching procedure results were non-significant.

The fourth study involved twelve teachers combined with 661 students to comprise 661 dyads in lecture classes. The prediction was that the greater the similarity in type between teacher and student the higher the student’s adjusted course grade would be. Using the CSAI produced positive results significant to the .001 level while the MBTI matching procedure did not achieve significance.

The fifth study involved forth sales dyads consisting of an insurance sales representative and a prospective insurance buyer. Twenty prospects purchased insurance and twenty did not. The prediction was that the greater the type similarity between the sales representative and the prospective buyer, the more likely the prospect would be in the group that purchased insurance. Using the CSAI produced positive results significant to the .01 level while the MBTI matching method did not achieve significance.

The final study examined minister-member dyads. Ministers from sixteen local churches were selected so that all sixteen MBTI types were represented. For each congregation, fifty new adult members were chose at random. The prediction was that in each congregation there would be an over-representation of types similar to the minister

and an under-representation of types dissimilar to the minister. The CSAI produced results significant to the .001 level while the results using the MBTI matching procedure were non-significant.

In all of Yeakley's (1982, 1983) comparisons, the results were in the expected direction for both methods. These findings support the notion that cognitive style is theoretically valid and that the inherent statistical weakness of a five-point scale generates the non-significant results.

Purpose of the Study

The dual purposes of this study were to assess the effect of MBTI similarity on supervision performance evaluations and to test the relative efficacy of two methods of quantifying MBTI similarity in a dyad. To accomplish this, the study examined the relationship between a supervisee, final performance ranking and the supervision dyad's similarity ratings as determined by both the Communication Adjustment Index (CSAI; Yeakley, 1982) and the MBTI scale matching procedure. The same examination was conducted for the Supervisor's performance rating and the dyad's similarity rating as determined by both the CSAI and the scale matching procedure. Finally, the study was designed to compare the level of significance achieved using each measure of dyadic similarity to determine which of the methods is more robust.

The research questions were: (1) Is there a significant correlation between supervisor-supervisee cognitive style similarity, as determined by the MBTI (Byers & Briggs, 1962) scale matching procedure, and the supervisor's evaluation of the supervisee's performance? (2) Is there a significant correlation between supervisor-supervisee communication style similarity, as determined by the Communication Style

Adjustment Index (CSAI; Yeakley, 1982), and the supervisor's evaluation of the supervisee's performance? (3) Is the significance of the correlation achieved in item 2 (using the Communication Style Adjustment Index) significantly greater than the significance of the correlation achieved in item 1 (using the scale matching procedure)? (4) Is there a significant correlation between supervisor-supervisee cognitive style similarity, as determined by the MBTI (Myers & Briggs, 1962) scale matching procedure, and the supervisee's evaluation of the supervisor's performance? (5) Is there a significant correlation between supervisor-supervisee communication style similarity, as determined by the Communication Style Adjustment Index (CSAI; Yeakley, 1982), and the supervisee's evaluation of the supervisor's performance? (6) Is the significance of the correlation achieved in item 4 (using the Communication Style Adjustment Index) significantly greater than the significance of the correlation achieved in item 5 (using the scale matching procedure)?

Significance of the Study

A strong correlation between a dyad's interaction of Type Codes and the final performance ranking of the trainee would have far reaching implications for virtually all training programs. Utilizing such information by pairing supervisors and supervisees with compatible Type Codes could improve the effectiveness counselor training. In addition, if performance ratings are demonstrated to be a function of Type Code similarity, dyadic working relationships in all endeavors would be affected. Knowledge about factors affecting the efficiency of working relationships has wide ranging implications for clinical practice, education and business.

Many clinicians have validated the usefulness of the Myers-Briggs Type Code Indicator (MBTI; Myers & Briggs, 1962) to assist members of a dyad to understand differences between them, which lead to their relationship complications. From this clinical understanding, attempts to design quantitative research into the nature of those relationship complications has evolved. The results of this research, at least in the area of counseling supervision, has been contradictory and confusing because there has been no adequate measuring tool to shift the focus of inquiry from the individual to the relationship or dyad. In the successful clinical work the focus is qualitative, at the individual level, where, each individual learns to interpret data from a wider perspective. Valid quantitative research requires an adequate measuring tool to quantify the similarity of a dyad at the relationship level. The identification of an adequate method to quantify Type Code similarity in dyads would advance the ability to do quantitative research into Jung's psychological types and their affect on relationship variables.

Summary

This study was designed to examine the relationship between supervisor and supervisee MBTI (Myers & Briggs, 1962) similarity and supervision performance outcomes. Several previous studies have found that the supervisory relationship is affected by the interaction of the MBTI codes of the supervisor and supervisee (Erdman, 1993; Garretson, 1992; Golden, 1987; Handley, 1980; Marcus, 1993). Since the relationship between the supervisor and the supervisee is arguably the most robust factor in successful supervision outcomes, the overall performance outcome might be correlated to the dyad MBTI similarity (Holloway, 1987, 1997; Muse-Burke, Ladany & Deck, 2001; Watkins, 1997).

The results of the research using the MBTI (Myers & Briggs, 1962) to assess the relationship between cognitive style and supervision variables have been contradictory and confusing (Carey & Williams, 1986; Erdman, 1993; Garretson, 1992; Golden, 1987; Handley, 1980; Marcus, 1993). This study was designed to examine the possibility that the many of the inconsistent results in the previous studies were a result of the inherent statistical weaknesses of the MBTI Type Code matching procedure as the measure of cognitive style similarity. Those weaknesses could mean that the findings of significance in previous studies using the matching procedure were the result of unique favorable variations in the samples instead of reliable and reproducible trends.

Marcus' (1993) successful use of the Communication Style Adjustment Index (CSAI; Yeakley, 1982) which achieved significant results, combined with the cogent arguments and preliminary study results provided by Yeakley (1982, 1983, personal correspondence, Feb. 1996 and June, 2001) provided the basis for a direct comparison of the relative effectiveness of two methods of quantifying MBTI (Myers & Briggs, 1962) similarity in this study. It examined the relationship between supervisee and the supervisor performance evaluations and the cognitive similarity of the dyad as measured by the MBTI Type Code matching procedure and the CSAI. Finally, results using each measure will were compared

CHAPTER II

METHODS

This study examined the relationship between supervisor and supervisee performance outcomes and the similarity of the supervisor and supervisee Myers-Briggs Type Indicator codes (MBTI; Myers & Briggs, 1962). Most of the previous studies have examined the cognitive style similarity and the satisfaction with supervision (Carey & Williams, 1986; Erdman, 1993; Garretson, 1992; Golden, 1987; Handley, 1980; Marcus, 1993). Some have examined the relationship between counselor progress and cognitive style (Carey & Williams, 1986; Garretson, 1992; Golden, 1987; Handley, 1980) with mixed results.

This study also compared the two methods of calculating the similarity of dyads using the Myers-Briggs Type Indicator (MBTI; Myers & Briggs, 1962). The most prevalent method of determining dyadic similarity in the literature to date has been to assess cognitive style similarity using a one-to-one matching of MBTI scales for each member of the dyad. The second method of determining dyadic similarity has been to assess the communication style adjustment difficulty using Yeakley's (1982) Communication Style Adjustment Index (CSAI).

The assumption underlying the comparison of the two similarity calculation methods was that the cognitive style scale matching procedure has inherent flaws, which have led to the confusing and statistically insignificant results of previous studies (Cox, 1996; Erdman, 1993; Garretson, 1993; Golden, 1987; Handley, 1980; Lochner, 1997; Pearson, 1994; Robbins, 1992 and Steen, 1998). The most serious flaw in the cognitive style similarity procedure is the lack of theoretical consistency. The MBTI reflects how

people perceive and made decisions about their perceptions based on their auxiliary and dominant functions (Myers & Briggs, 1962; Yeakley, 1982, 1983, personal communications Feb, 1996, and June 2001). The one-to-one matching of MBTI scales does not account for the use of dominant and auxiliary functions. There are five possible scores using the matching procedure, all scales equal, no scales equal, one, two or three scales equal. The scores of all scales equal and no scales equal and theoretically clear. Exactly similar scales are the most alike and should make dyadic interactions simplest. Exactly opposite scales are least alike and should make dyadic interactions most difficult. However, there is no clear theoretical explanation for the meaning of the differences in one, two, and three scales matching without some value placed on the meaning of the scales which match or don't match.

The second flaw is the restricted range of possibilities. There are really only two meaningful scores using the matching procedure, which cover only a small percentage of the possible combinations. The undefined combinations have no meaning and the restricted range creates statistical limitations on the possibility of reaching significance.

Yeakley's (1982) Communication Style Adjustment Index (CSAI), which was developed to address the inherent flaws in the matching procedure, is based on the more theoretically consistent assumption that the members of the dyad must attempt to shift their dominant style of perceiving or judging to match that of the other member of the dyad to accomplish clear communication. It is further assumed that the more style shifting required by a dyad, the more difficult clear communications will be. Each combination of MBTI types forming a dyad will have different levels of difficulty based on the shifting required, creating a range of twenty scores. Thus, the Communication

Style Adjustment Index resolves the theoretical inconsistencies and reduced the statistical problem created by the restricted range of possible scores.

The two basic research questions in this study were: 1) Do supervisor/supervisee performance ratings vary with MBTI (Myers & Briggs, 1962) similarity? And 2) Is the Communication Style Adjustment Index (Yeakley, 1982) superior to the cognitive style similarity one-to-one scale matching procedures as a method for assessing MBTI similarity in dyads. The following research questions were analyzed using both methods of quantifying MBTI similarity: 1) Do supervisors rate supervisees performance higher as the MBTI similarity increases? And 2) Do supervisees rate supervisors performance higher as the MBTI similarity increases?

Hypotheses

The first group of hypotheses assessed the relationship of the supervisee's performance ranking by the supervisor and the dyadic similarity using the cognitive style similarity method (H1), and using the Communication Style Adjustment Index method (H2) then comparing the results yielded by the two methods (H3).

H1 The greater the supervisor-supervisee cognitive style similarity, as measured by the MBTI Type Code (Myers & Briggs, 1962) scale matching procedure, the higher the ranking of the supervisee's performance by the supervisor on the Supervisor Ranking Form.

H2 The greater supervisor-supervisee communication style similarity, as measured by the Communication Style Adjustment Index (Yeakley, 1982) procedure, the higher the ranking of the supervisee's performance by the supervisor on the Supervisor Ranking Form.

H3 The significance of the results in H2 will be greater than the significance of the results in H1

The second group of hypotheses assessed the relationship between the supervisor's performance which was rated by the supervisee, and they dyadic similarity using the cognitive style similarity method (H4), then using the Communication Style Adjustment Index method (H5) and finally, comparing, the results yielded by the two methods (H6).

H4 The greater the supervisor-supervisee cognitive style similarity, as measured by the MBTI Type Code (Myers & Briggs, 1962) scale matching procedure, the higher the rating of the supervisor's performance by the supervisee on the Supervisor Rating Form.

H5 The greater the supervisor-supervisee communication style similarity, as measured by the Communication Style Adjustment Index (Yeakley, 1982) procedure, the higher the rating of the supervisor's performance by the supervisee on the Supervisor Rating Form.

H3 The significance of the results in H5 will be greater than the significance of the results in H4.

Definition of Terms

Supervision

Supervision is defined as intensive interpersonally focused, one to one, on-going, educational relationship in which an experienced, trained supervisor is charged with the responsibility of facilitating the acquisition of appropriate professional behaviors in the

supervisee (Bradley, 1989; Bradley & Kottler, 2001; Hart, 1982; Holloway, 1997; Loganbill, Hardy & Delworth, 1982; Muse-Burke, Ladany & Deck, 2001; Watkins, 1997).

Supervisor

The supervisor is the trained and experienced counselor charged with the responsibility of facilitating the professional development of the counselor-in-training (Bradley, 1989; Bradley & Kottler, 2001; Hart, 1982; Holloway, 1997; Loganbill, Hardy & Delworth, 1982; Muse-Burke, Ladany & Deck, 2001; Watkins, 1997).

Supervisee (Trainee or Intern)

The supervisee is the counselor-in-training whose professional development is the focus of the supervision (Bradley, 1989; Bradley & Kottler, 2001; Hart, 1982; Holloway, 1997; Loganbill, Hardy & Delworth, 1982; Muse-Burke, Ladany & Deck, 2001; Watkins, 97). Only beginning level trainees in master's practicum courses were recruited for this study.

Cognitive Style

In general, cognitive style is defined as the way individuals conceptually organize the environment (Myers, 1980, 1990; Myers and McCaulley, 1989), the systematic way a person prefers to perceive and judge things people, events, and ideas. It is considered to be unique and consistent with each person, influencing his or her values, interests, the way the person reasons, the way the person interacts with the environment and with other people (Myers, 1980, 1990; Myers and McCaulley, 1989). For the purpose of this study, it referred to the dyadic similarity when calculated using the one to one matching of the Myers-Briggs Type Codes of each member of the dyad.

Communication Style

Communication Style (Yeakley, 1982) is the unique pattern of preferences an individual exhibits in communication with others. This is derived from the MBTI Type Code (Myers & Briggs, 1962;) according to the instructions in the MBTI Manual (Myers & McCaulley, 1989) and indicates the unique dominant, auxiliary, tertiary and least preferred functions (See Table 4).

Communication Style Adjustment Index (CSAI)

The CSAI (Yeakley, 1982) is an index which provides a rank ordering for the predicted difficulty of communication style shifting between any dyad of MBTI Type Codes (See Table 5).

Psychological Type (MBTI Type Code, Type)

Psychological type is a construct originally developed by Carl Jung (1971). For purpose of this study, it refers to Jung's types as interpreted by Isabel Myers and Kathryn Briggs (1962) in their work developing the Myers-Briggs Type Indicator. They attributed individual differences to basic individual preferences in using the mind to perceive and judge the world, which, in turn, govern behavior, values, interests, and motivations. It is assumed that people with more similar types will be better able to communicate since their interests, values and motivations coincide.

Myers Briggs Type Indicator (MBTI)

The MBTI consists of four bipolar dimensions (scales) which yield sixteen individual types; Introversiion-Extraversiion (I-E), Sensing-Intuition (S-I), Thinking-Feeling (T-F), and Judging-Perceiving (J-P). The I-E scale measures the individual's attitude toward the world; the relative preference for the internal world of ideas (I) or the

external world of people and things (E) (Myers and McCaulley, 1989). According to Kiersey and Bates (1978), this indicates whether the individual derives energy from people (E) or from solitude (I). The S-N scale indicates the individual's orientation to perceiving the world; a here and now focus on the information gleaned from the five senses (S) versus an orientation to abstract connections and patterns or possibilities inherent in the incoming information (N). Jung (1971) referred to the N dimension as preferring to use the unconscious which yields hunches or intuition. Kiersey and Bates (1978) considered this dimension measured practicality (S) versus innovation (N). The T-F dimension measures the individual's preferred standards for deciding about information perceived from the world; an impersonal, logical, and analytical method for making decisions (T) versus a personal values reference for decisions (F; Myers & Myers, 1980). Kiersey and Bates (1978) refer to this an impersonal (T) versus personal (F). The fourth dimension, J-P, identifies the individual's preferred or dominant mode, Judging (T or F) or Perceiving (S for N) and measures the individual's orientation to the outer world; a preference for planned order and having decisions made (J) versus a preference for open options and spontaneity (P; Myers & Myers 1980). Kiersey and Bates (1978) used the terms closure (J) versus options (P). These four dimensions combine to create sixteen possible type codes (See Table 3).

Subjects

Volunteers were recruited from master's level practicum courses in the Department of Counseling, Development and Higher Education, in the College of Education, at the University of North Texas during the Summer and Fall semesters in 2001. The University of North Texas is located in Denton, TX, and draws its students

from the Dallas-Ft. Worth metroplex. The CACREP master's program is structured to support part time students who are employed full time which yields a mixture of traditional and nontraditional students. The program serves students preparing for careers as school counselors as well as Licensed Professional Counselors.

The Master's level practicum provides the students with their first counseling experiences at the Counseling and Human Development Center run by the Department of Counseling Development and Higher Education. The low cost clinic draws clients from the surrounding communities and serves children, adolescents, adults and couples. The practicum classes meet once per week for five hours. Clients are assigned to students who are supervised during their sessions via television monitors by the professors, doctoral student assistants and other students in the class.

A total of 68 dyads were assessed in this study. thirty-five from the summer session and thirty-three from the fall session. There were 35 supervisees who were enrolled as students in the master's level practicum classes and 13 supervisors of those students in those classes. Each practicum class had seven or eight master's level students, one professor and two doctoral students as supervisors. The professors supervised all students in the class while the doctoral students supervised a sub-set of the class, usually half. Twenty-seven students had two supervisors participating in the study for a total of 54 dyads, five students had only the professor supervisor participating, which yielded 5 dyads, three students had three supervisors participating, which yielded 9 dyads for a total of 68 dyads.

Two practicum classes were recruited at the end of the summer session of 2001. Both classes participated. Each class had eight students and three supervisors, a total of

sixteen students and nine supervisors. Thirteen students had two supervisors, which generated twenty-six dyads, and three students had three supervisors which generated another nine dyads for a total of thirty-five dyads.

Four more practicum classes were recruited at the end of the fall semester in 2001. One class declined because they had already been dismissed for the semester. The three remaining classes participated. One class had eight students while the other two had seven students each, a total of twenty-two students. One student declined to participate and offered no explanation. Two more students were absent on the day the data were collected and did not participate, leaving a total of nineteen students. All three classes had three supervisors each for a total of nine supervisors. Two doctoral student supervisors in one practicum had schedule conflicts on the day the data were collected and did not participate. A total of seven supervisors participated in the fall semester. Fourteen students had two supervisors, five students had one supervisor for a total of thirty-three dyads from the fall semester.

Instruments

The instruments used were the Myers-Briggs Type Indicator, form G (MBTI; Briggs & Myers, 1962), the Communication Style Adjustment Index (Yeakley, 1982; See Appendix A; Table 5), the Supervisor Ranking Form (SRF; See in Appendix B), and the Supervisor Rating Scale (SRS; See in Appendix B).

Myers-Briggs Type Indicator (MBTI)

The MBTI, form G, was used to determine cognitive style preferences of supervisor and supervisees. The MBTI is a 126 item, forced choice, self report measure of dichotomous dimensions of personality preferences: Extraversion-Introversion (EI),

Sensing-Intuition (SN), Thinking-Feeling (TF), and Judgement-Perceiving (JP). Form G is considered to be the standard form, and is used for most general counseling purposes.

The MBTI is one of the most widely used personality instruments with non-psychiatric samples (Devito, 1985). The MBTI has often been used in research and found to be satisfactorily reliable and valid (Briggs-Myers & McCaulley, 1985; Carlson, 1985, Erdman, 1993; Garretson, 1993; Murray, 1990). The manual (Myers & McCaulley, 1989) contains extensive data showing split-half correlation, test retest correlations to estimate stability over time, and construct validity. In a review of the reliability and validity literature of the MBTI, Murray (1990) found that the validity and reliability for the four dimensional model is strong.

Research has shown important correlations between the various scales and personality types, and various aspects of interpersonal behavior, including team leadership and learning in regard to teacher and pupil functioning in a group (Myers & McCaulley, 1989). The MBTI is particularly suited for a study of supervisory relationships (Carey & Williams, 1985; Cox, 1996; Erdman, 1992; Garretson, 1993; Kanazawa, 1990; Lochner, 1997; Marcus, 1993; Romans, 1990; and Steen, 1998).

Communication Style Adjustment Index (CSAI)

Yeakley's Communication Style Adjustment Index (1982) was developed as an alternate approach for studying psychological type at the relationship level of inquiry. The index is a derivative of Myers-Briggs Type Indicator which yields similarity scores for a dyad. It is assumed that the more alike the members of the dyad the easier the communication will be. The two members MBTI codes are assessed to determine how much shifting will be required to understand the other. The index provides a 32 point

ordinal scale for communication from the perspective of one member of a dyad. By combining the ranks of the two members, it is possible to create a rank for the dyad as a whole, which produces a 20 point ordinal scale for the dyad. This expansion of possible ranks makes the index a more powerful measurement tool than previously used scale matching procedures which yield only 5 scores for all possible dyad combinations.

Several studies using the CSAI (Yeakley, 1983) have shown it to be a superior measurement tool to the Cognitive Style Matching Procedure. Yeakley (1983) studied marital dyads, organizational dyads, and teacher-student dyads in discussion and lecture classes, sales representative-prospect dyads and minister-member dyads. He made a direct comparison of the results using both the CSAI and the Cognitive Style Matching Procedure to assess the similarity of each dyad. In all cases, the statistical analyses reached significance (.05 to .001) when using the CSAI and were not significant when using the Cognitive Style Matching Procedure on the same dyads.

Supervisor Ranking Form (SRF)

This form was developed by the researcher and used by the supervisors as the document on which to rank order their students by their overall performance in the practicum. (See Appendix B).

Supervisor Rating Scale (SRS)

This form was developed by the researcher and used by the students to rate their supervisor's performance (See Appendix B). It is a four point Likert- type questionnaire on which students were asked to assess the helpfulness of their supervisors by marking the appropriate phrase.

Procedure

Samples

Sixty-eight volunteer dyads were recruited from University of North Texas Counselor Education classes during the summer and fall semesters of 2001. Students enrolled in Master's level Practicum classes were recruited as supervisees and the actual supervisors of those students were recruited as the supervisors for the study. During the last two weeks of each semester, all participants completed a consent form to participate in the study and the Myers-Briggs Type Indicator, form G. Supervisors were given the Supervisor Ranking Form (SRF; See in Appendix B) and instructed to rank the supervisees in order to their performance in the class. Supervisees were given the Supervisor Rating Scale (SRS; See in Appendix B) and were instructed to assess the performance of their supervisors by selecting the phrase which best described the supervisor's helpfulness during the semester.

Scoring

Standard hand scoring using procedures using stencils provided by the MBTI developers (Consulting Psychologist Press) were used to determine each participants Myers-Briggs type code (Myers & McCaulley, 1985). From those MBTI scores, cognitive style similarity scores were computed by matching each of the four functions for each of the dyad member's Type Code, deriving a score of 0, 1, 2, 3 or 4 for each dyad. The Communication Style Adjustment scores were taken from the Communication Style Adjustment Index (See Table 5 in Appendix A; CSAI; Yeakley, 1982) using the type codes of each member of the dyad. The performance scores for the supervisees were

their rankings from the Supervisor Ranking form, with possible range from 1 to 8, one being the highest. The performance scores for the supervisors were converted from the supervisor rating scale verbal description to numeric values from 1 to 4, one being the highest.

Analyses

The data were prepared by assigning unique identifiers to each dyad. Each professor was assigned a three digit number, e.g. 100, 200, 300, 400, 500. Each doctoral student was assigned a sequential number registered in the tens place for the professor teaching the practicum, e.g. 110, 120, 130, 210, 220, 230 etc. Each student was assigned a number from 1-8 which was registered in the ones place, e.g. 101, 102, 103. The unique identifiers for each dyad were recorded into a spreadsheet for entry into SPSS computer program for analysis.

The Myers-Briggs Type Codes were compared for each member of each dyad. The cognitive style similarity was computed by comparing each sub-scale for a match. Each dyad score (from 0-4) was recorded in a spreadsheet with the unique dyadic identifier for entry into the SPSS computer program for correlational analysis.

The Communication Style Adjustment ranks were assigned to each dyad by looking up the two MBTI codes in the index (See Table 5 in Appendix A). The Index rank was recorded into a spreadsheet with the unique dyadic identifier for entry into the SPSS computer program for correlational analysis.

The Supervisors rankings of their students were derived from the Supervisors Ranking Form (SRF; in Appendix B). Each student was assigned a score from 1-8 based

on the supervisor's ranking in the class, one being the highest. That score was recorded with the unique identifier in a spreadsheet for entry into the SPSS program for correlational analysis.

The student's ratings of their Supervisors were converted from Supervisor Rating Form (SRF; See Appendix B) by assigning each of the four phrases describing the supervisor's helpfulness a numeric value of 1-4, one being the highest. Those scores were recorded with the unique dyadic identifier into a spreadsheet for entry into the SPSS computer program for correlational analysis.

The spreadsheet was entered into SPSS and Spearman's Rho correlational analyses for ranked data were performed for the following hypotheses, H1, H2, H4, H5.

H1 The greater the supervisee-supervisor cognitive style similarity, the higher the supervisee performance ranking on the Supervisor Ranking Form.

H2 The greater supervisor-supervisee communication style similarity, the higher the supervisee performance ranking on the Supervisor Rating Form.

H3 The significance of H2 results will be significantly greater than the significance of H1 results.

H4 The greater the supervisee-supervisor cognitive style similarity, the higher the supervisor performance rating on the Supervisor Ranking Form.

H5 The greater supervisor-supervisee communication style similarity, the higher the supervision performance rating on the Supervisor Rating Form.

H6 The significance of H5 results will be significantly greater than to significance of H4 results.

The data were prepared and entered into SPSS. Spearman Rho correlation analyses were performed to assess H1, H2, H4 and H5

CHAPTER 3

RESULTS AND DISCUSSION

Supervisors Ranking Supervisees

H1 The greater the supervisee-supervisor cognitive style similarity, the higher the supervisee performance ranking on the Supervisor's Ranking Form was not supported (See Table 6).

H2 The greater supervisor-supervisee communication style similarity, the higher the supervisee performance ranking on the Supervisor's Ranking Form was not supported (See Table 6).

H3 The significance of H2 results will be significantly greater than the significance of H1 results does not apply since significance was not reached for H1 or H2.

None of the hypotheses were supported. There is almost no correlation between the student rankings and dyadic similarity using either the Cognitive Style Matching Procedure or the Communication Style Adjustment method. The correlation between the student rankings by their supervisors and dyadic similarity using the Cognitive Style Matching procedure was .131, with a one-tailed significance of .151. The correlation between the student rankings by their supervisors and dyadic similarity using the Communication Style Adjustment Index was .137 with an on-tailed significance of .142. While the results are in the expected direction and the correlation using the Communication Style Adjustment Index is slightly better than the Cognitive Style Matching Procedure, it is hardly better than chance.

Table 6

Correlations: Supervisors Ranking Supervisees

	Student Ranking
Cognitive Style Matching Procedure	
Correlation	.131
Sig (1 tailed)	.152
Communication Style Adjustment Index	
Correlation	.137
Sig (1 tailed)	.142

Supervisees Rating Supervisors

H4 The greater the supervisee-supervisor cognitive style similarity, the higher the supervisor performance rating on the Supervisor Rating Form was not supported.

H5 The greater supervisor-supervisee communication style similarity, the higher the supervisor performance rating on the Supervisor Rating Form was not supported.

H6 The significance of H5 was results will be significantly greater than the significance of H4 results does not apply since significance was not achieved in H4 or H5.

None of the hypotheses were supported (See Table 7). The correlation between supervisor performance ratings by their students and dyadic similarity using the Cognitive Style Matching Procedure was .045, with one-tailed significance of .363. The correlation between supervisor performance ratings by their students and dyadic similarity using the Communication Style Adjustment Index was .192 with one-tailed significance of .065 with approaches the .05 threshold of significance. There was a noticeable effect size detected using the Communication Style Adjustment Index method

(.192 with significance of .065) while virtually no effect was detected using the Cognitive Style Matching procedure (.045 with significance of .363) on the same dyads. These results are in the expected direction, indicating the CSAI is a far more sensitive measurement tool than the Cognitive Style Matching Procedure assessing the same data.

Table 7

Correlations: Supervisees Rating Supervisors

	Student Rating
Cognitive Style Matching Procedure	
Correlation	.045
Sig (1 tailed)	.363
Communication Style Adjustment Index	
Correlation	.192
Sig (1 tailed)	.065

Discussion

While none of the hypotheses were supported, several issues of interest emerged. The results were clearly more substantial for the supervisees rating the supervisors than for the supervisors ranking the supervisees. There are several factors which may account for these results.

Supervisors Ranking Supervisees

Supervisees performance was measured by the supervisor’s ranking of each student. The decision to use the supervisor’s ranking of students was made to improve the range of variation in possible outcome measures. In graduate courses, students assessed to be competent, i.e. passing, receive a grade of A or B. Two potential outcomes would

not allow sufficient variation to detect an effect even if it were present. However, in view of the findings of the study, it is possible that there really is not enough variation between top and bottom performers to detect with a much larger sample. The cognitive style correlation using the matching procedure was .131 with significance of .152, and the communication style correlation using the CSAI (Yeakley, 1982) were .137 with significance of .142 indicating very little correlation of the variables. From these results, it is reasonable to conclude there was a very minor effect size despite the effort to force a wider range using rank ordering. One possible explanation is that the overall performance of beginning counselors who are judged to be competent is very similar and there is not enough variation from the top performer to the bottom performer to detect the difference and relate it to another variable without a very large sample.

Another issue is the study design. Yeakley's (1983) Ex Post Facto designs selected samples so that there were equal groups of successful and unsuccessful dyads. Statistical analyses were performed to determine whether those in the successful groups tended to be more similar in type using the communication style adjustment index whereas the unsuccessful groups tended to be less similar. In his studies of student teacher dyads he used adjusted grades to separate the groups. Those who performed better than their GPA vs. those who did not. Some variation of this design might prove more effective for future research.

Another possible explanation for the insignificant results is that counselor's training is designed to prepare counselors and supervisors to identify and handle differences in mode of thinking and feeling (Bradley, 1989, 2000; Loganbill et al, 1982; Muse-Burke, Ladany & Deck, 2001; and Stoltengerg & Delworth, 1987). As a result,

seasoned therapists/supervisors would be expected to be aware of differences and to be minimally affected by the issues of type interactions, especially in the overall assessment of performance.

From this study, it is reasonable to conclude that supervisors evaluation of beginning counselors overall performance is not significantly affected by type similarity. As indicated in previous studies (Cox, 1996; Erdman, 1993; Garretson, 1993; Golden, 1987; Handley, 1980; Kanazawa, 1991; Lochner, 1997; Pearson, 1994, Robbins, 1992; Romans, 1990 and Steen, 1998), the measurable effects have been in the area of satisfaction with the relationship as opposed to a global assessment of performance.

Supervisees Rating Supervisors

While the correlations for supervisees rating their supervisors' performance did not reach significance, they are in the predicted direction. The cognitive style correlation using the matching procedure was very low, .045, a tailed significance of .363. The communication style correlation using the CSAI was much stronger, .192, 1-tailed significance of .065. That is very close to the .05 threshold for a significant effect. These results suggest that the supervisee's evaluations of the supervisors were more sensitive to type code interactions than the supervisors' evaluations of the supervisees. The construct measured may explain the differences in results.

In this study, the supervisors were asked to evaluate the supervisees' overall performance as a beginning counselor. That is a very complex construct encompassing many core competencies which the supervisor gained through education and experience with counseling and supervising counselors in training (Bradley, 1989, 2000; Loganbill et al, 1982; Muse-Burke, Ladany & Deck, 2001; and Stoltenberg & Delworth, 1987). The

supervisees, on the other hand, were just beginning to understand how to operationalize the competencies they gained from the classroom. Therefore, they could not be asked to rate the supervisors' competency based on their experience of supervisors' performance of their knowledge of supervision core competencies. Instead, they were asked to rate the supervisor on overall helpfulness.

The construct actually measured by 'helpfulness' may be closely related to the experience of overall satisfaction with supervision than to the evaluation of multiple competencies based on knowledge and experience. This would be consistent with previous counselor supervision studies which have found that the evaluation of satisfaction with supervision has correlated with type code similarity (Golden, 1987; Marcus, 1993). None of the previous counselor supervision studies examined the correlation between type code similarity and overall performance.

Further exploration of the elements comprising the supervisee's report of greater satisfaction (Handley, 1980; Golden, 1987) or rapport (Marcus, 1993) and the relationship of this satisfaction/rapport on performance outcomes is warranted. Is this an issue of supervisee performance anxiety which is alleviated by nurture and reassurance? Is this a student need that supervisors should be prepared to address? Does it have a significant affect on the performance outcome of the dyad? Are all students equally affected by it? Studies to answer these questions could provide counselor educators vital information to improve the quality of training programs.

Another factor affecting the stronger correlation for supervisees rating supervisors may be that the supervisees in this study were taking their first practicum course. It is understood they were not accomplished therapists. Their ability to work around the

communication issues presented by type code differences is not likely to be as well developed as the supervisors. For this reason their evaluations may be less objective and more vulnerable to type interactions.

MBTI Code Matching Procedure vs. Communication Style Adjustment Index

Despite the fact that none of the hypotheses were supported, this study demonstrated that using the Communication Style Adjustment Index (CSAI; Yeakley, 1982) to assess type code similarity detected effects between supervisees rating supervisors and their Myers Briggs Type Indicator (MBTI; Myers & Briggs, 1962) code similarity that was not detected using the cognitive style matching procedure. Using the same data, it was clear that the relationships were not detected at all with the matching procedure. This is consistent with Yeakley's (1983) findings.

Yeakley's (1983) studies were designed to correlate outcomes with type code similarities. He achieved significant results between outcomes in marital dyads, teacher/student dyads, sales dyads and pastor/congregant dyads and type code similarity as measured by the CSAI (Yeakley, 1982). The studies most similar to counselor supervisor are those of teacher-student dyads in discussion and lecture classes. He predicted that the greater the type code similarity, the higher the students adjusted course grades would be. In both studies, analyzing the same data using the CSAI produced significant positive results to the .001 level while the cognitive style matching procedure results were not significant. The most important difference in those studies and this one is the sample size. His samples were of 266 dyads and 661 dyads respectively. The sample size in this study, 68 dyads, was too small to achieve significance.

Summary

This correlation study was designed to examine two different issues. The first issue was the relationship between Myers Briggs Type Indicator (MBTI; Myers & Briggs, 1962) code similarity and performance outcomes in counselor supervision. The second issue was relative effectiveness of two methods currently used to assess MBTI code similarity in dyads.

For the first issue, the assumption of the study was that the more similar the MBTI codes of the counselor and supervisor, the better the performance outcome for the counselor and the supervisor. Supervisors were asked to rank order master's level students in practicum by their overall practice. Supervisees were asked to rate their supervisors overall helpfulness. Spearman Rho analyses were performed. None of the hypotheses were supported.

The results showed virtually no relationship between the type similarity and the performance rankings of the supervisees by the supervisors. However, the results were in the predicted direction and approached significance (.065) for the supervisees rating the supervisors.

The second issue was to evaluate the effectiveness of two methods of assessing MBTI code similarity in dyads. Counselor-Supervisor dyad type code similarity as assessed using both methods prevalent in the current literature (Carey & Williams, 1986; Cox 1996, Erdman, 1993; Garretson, 1993; Golden, 1987; Handley, 1980; Lochner, 1997; Person, 1994; Robins, 1992 and Steen, 1998). First was the cognitive style similarity method which compares each of the MBTI scales; I-E, S-N, T-F, J-P, for each member of the dyad. The comparison yields a score of 0, 1, 2, 3, or 4 matches. Second

was the Communication Style Shifting method which uses the Communication Style Adjustment Index (CSAI; Yeakley, 1982) to yield a similarity score for the dyad based on the amount of shifting each member has to do to understand the other. The results using the two methods were then compared.

Since none of the hypotheses were supported statistical analyses were not performed for the comparison of the two methods. Neither of the methods yielded significance or a noticeable effect sizes for the supervisors ranking supervisees. The supervisees rating supervisors had a noticeable effect size, approaching significance (.065) using the CSAI but detected virtually none using the cognitive style similarity method.

Conclusions

From this study it is reasonable to conclude that supervisee final performance assessments by their supervisors are not significantly impacted by type code similarity. However, there is some evidence that the supervisees' impressions of the supervisors' performance were affected by type similarity. This study and the previous studies have failed to identify significant results consistently in the area of counselor supervision and MBTI similarity (Cox, 1996; Erdman, 1993; Garretson, 1993; Golden, 1987; Handley, 1980; Kanazawa, 1991; Lochner, 1997; Pearson, 1994; Robbins, 1992; Romans, 1990 and Steen, 1998). One very likely reason for this is that the effect size is small and the samples must be much larger to detect the relationships. Yeakley's (1983) studies of teacher-student dyads yielded significant results on sample sizes of 266 and 661 dyads. All of the other studies have been much smaller, fewer than one hundred dyads.

Another conclusion from this study and others is that MBTI similarity issues may be more apparent in other types of relationships. Counselors and their supervisors are trained to minimize the effects of type differences on their relationships. Additional investigation into the effects of type similarity in other fields is warranted. It is very possible that dyads in other fields are strongly impacted by type differences. Certainly, Yeakley's (1983) studies of sales reps/purchasers, martial dyads, pastor/congregant dyads and teacher/student dyads indicate similarity is correlated with better performance. The next question is why?

The differences in the correlations obtained in his study using the scale matching procedure and the Communication Style Adjustment Index suggest that the CSAI is a superior method of quantifying type code similarity. However, the lack of significance of the results of the study make it impossible to draw firm conclusions. Additional studies are needed to confirm validity of the Communication Style Adjustment Index. Further research is required to establish an effective method for quantifying MBTI similarity in dyads if there is to be quantitative research using the MBTI at the relationship level of inquiry.

APPENDIX A

Tables

Table 4

Yeakley's communication style preferences by Type Code

TYPE *	CHOICE***1 2 3 4	TYPE*	CHOICE***1 2 3 4
ISTJ	T S F N	ESTJ	T S N F
ISFJ	F S T N	ESFJ	F S N T
ISTP	S T N F	ESTP	S T F N
ISFP	S F N T	ESFP	S F T N
INFJ	F N T S	ENFJ	F N S T
INTJ	T N F S	ENTJ	T N S F
INFP	N F S T	ENFP	N F T S
INTP	N T S F	ENTP	N T F S

*For I's (Introverts) the primary communication style is the auxiliary function.

**For E's (Extraverts) the primary communication style is the dominant function.

***Choice 1 is the primary communication style. Choice 2 is the secondary communication style. Choice 3 is the tertiary communication style. Choice 4 is the least preferred communication style.

Table 5

Communication Adjustment Index

Two-Way Dyads, Both Are Sender and Receiver

	I S T J	I S F J	I N F J	I N T J	I S T P	I S F P	I N F P	I N T P	E S T P	E S F P	E N F P	E N T P	E S T J	E S F J	E N F J	E N T J
ISTJ	62	28	24	50	44	27	4	27	47	36	13	24	57	19	13	53
ISFJ	28	62	50	24	27	44	27	4	36	47	24	13	19	57	53	13
INFJ	24	50	62	28	4	27	44	27	13	24	47	36	13	53	57	19
INTJ	50	24	28	62	27	4	27	44	24	13	36	47	53	13	19	57
ISTP	44	27	4	27	62	50	24	28	57	53	13	19	47	24	13	36
ISFP	27	4	2	4	50	62	28	24	53	57	19	13	24	47	36	13
INFP	4	27	44	27	24	28	62	50	13	19	57	53	13	36	47	24
INTP	27	4	27	44	28	24	50	62	19	13	53	13	36	13	24	47
ESTP	47	36	13	24	57	53	13	19	64	60	2	10	42	33	22	33
ESFP	36	47	24	13	53	57	19	13	60	64	10	2	33	42	33	22
ENFP	13	24	47	36	13	19	57	53	2	10	64	60	22	33	42	33
ENTP	24	13	36	46	19	13	53	57	10	2	60	64	33	22	33	42
ESTJ	57	19	13	53	47	24	13	36	42	33	22	33	64	10	2	60
ESFJ	19	57	53	13	24	47	36	13	33	42	33	22	10	64	60	2
ENFJ	13	53	57	19	13	36	47	24	22	33	42	33	2	60	64	10
ENTJ	53	13	19	57	36	13	24	47	33	22	33	42	60	2	10	4

APPENDIX B

Forms Developed for this Study

Supervisor Ranking Form

Supervisor:

Student:

Date:

Instructions: Please rank order the students you supervised by their performance in this practicum class.

Student Ranking (first is the highest rating)

1

2

3

4

5

6

7

8

Supervisor Rating Scale

Student: _____

Supervisor: _____

Course: _____

Date: _____

Instructions: Please assess the overall helpfulness of your supervisor by circling one of the phrases below.

Not Helpful

Somewhat Helpful

Quite Helpful

Very Helpful

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RESEARCH CONSENT FORM

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Subject Name: _____ Date: _____
Title of Study: A Comparison of the Cognitive Style Similarity and Communication
Style Adjustment Index Methods to Study Counseling Supervision Performance

Principal Investigator: Anne Schanz, M.Ed.
Committee Chairman: Robert Berg, Ed.D.

Before agreeing to participate in this research study, it is important that you read and understand the following explanation of the proposed procedures. It describes the procedures, benefits, risks, discomforts of the study. You may withdraw from the study at any time.

PURPOSE OF THE STUDY AND HOW LONG IT WILL LAST:

The purpose of the study is to examine the supervisory relationship between counselors in training and their supervisors using a Communication Style Adjustment Index derived from the Myers-Briggs Type Indicator. The study will last two semesters, or until 42 dyads are enrolled.

DESCRIPTION OF THE STUDY INCLUDING THE PROCEDURES TO BE USED:

It is assumed that counselor trainees and supervisors with more similar communication styles will have better supervision experiences. Participants will be recruited from Masters level practicum classes in the Counseling, Development and Higher Education Department at UNT. Each participant will be given the Myers-Briggs Type Indicator and asked to complete a rating form to evaluate the supervisor or student performance during the practicum.

DESCRIPTION OF PROCEDURES/ELEMENTS THAT MAY RESULT IN DISCOMFORT OR INCONVENIENCE:

Completion of the Myers-Briggs Type Inventory is not generally experienced as stressful. Most of the students will have participated in the test as part of the course work leading up to the Practicum. It will take about 30 minutes to complete. The supervisor rating form requires the supervisors to rank order the students by performance at the completion of the semester. The counselor trainee rating form will require the trainee to rate the supervisors performance on a 5 point Likert scale. These are not anticipated to be stressful.

RISKS AND BENEFITS TO THE SUBJECTS OR OTHERS:

There is no foreseeable risk to the participants in the study. The subjects are not likely to benefit directly from this study. The value of the study will be demonstrating a viable tool for use in further quantitative research using Jungian types.

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CONFIDENTIALITY OF RESEARCH RECORDS:

The privacy and confidentiality of the participants will be protected. Research records will be maintained so that identifying information is not released. Once the data is collected the dyads will be assigned letter and number designators.

REVIEW FOR THE PROTECTION OF PARTICIPANTS:

This research study has been reviewed and approved by the UNT Committee for the Protection of Human Subjects 940-565-3940.

RESEARCH SUBJECTS RIGHTS: I have read all the above. In case there are problems or questions, I have been told I can call Anne Schanz M.Ed. at telephone number 972-774-0221 or Dr. Robert Berg at 940-565-2915.

Ann Schanz, M.Ed. or her designee has explained the study to me and answered all of my questions. I have been told the risks or discomforts and possible benefits of the study.

I understand that I do not have to take part in this study, and my refusal to participate will involve no penalty or loss of rights to which I am entitled. I may withdraw at any time without penalty or loss of benefits to which I am entitled. The study personnel can stop my participation at any time if it appears to be harmful to me, if I fail to follow directions for the participation in the study, if it is discovered that I do not meet the study requirements, or if the study is canceled.

I understand my rights as a research subject, and I voluntarily consent to participate in this study. I understand what the study is about and how and why it is being done. I will receive a signed copy of this consent form.

Subjects signature

Date

Signature of witness

Date

I certify that I have reviewed the contents of this form which the person signing above, who, in my opinion, understood the explanation. I have explained the known benefits and risks of the research.

Anne Schanz, M.Ed. or designee

Date

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