

# Psychological Type and Burnout in Social Service Managers: Jungian Theory Reconsidered

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## Abstract

*The Myers-Briggs Type Indicator (MBTI) was administered to a random sample of social service managers (n = 243), who were predominantly “thinking” in preference. Measures of burnout (the Tedium Scale, with a purer “physical/emotional exhaustion” subscale derived through factor analysis) and instrumental/expressive traits (EPAQ scales) were obtained concurrently. The “thinking” vs. “feeling” MBTI preference did not affect these relationships in the manner predicted by Jungian theory as expressed by Garden, who hypothesized that under conditions of exhaustion or burnout the opposite function would be expressed in its negative aspect (i.e., “feelers” would endorse more impersonal and hostile traits, whereas “thinkers” would endorse more nurturing traits). Our findings showed that increased exhaustion was associated with increased complaining and hostility, regardless of the preference for “thinking” or “feeling.” We propose an alternative model based on the mismatch between personality preferences and management environment.*

*Keywords: burnout, tedium, psychological type, MBTI, personality*

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The concept of job burnout has been studied since the 1970s but it is still relevant for theory, research, and practice in vocational behavior in the 21st century (for reviews, see Leiter, Bakker, & Maslach, 2014; Schaufeli, Leiter, & Maslach, 2009; Seidler et al., 2014). Garden (1985, 1988, 1989, 2015) has claimed that symptoms of work-related “burnout” differ among Jungian types. Garden (1985) administered the Myers-Briggs Type Indicator (MBTI) and her own 210-item “Burnout Questionnaire” to a selective sample of 95 mid-career MBA students (81% of whom preferred “thinking”). A measure of burnout was derived from a factor analysis of this questionnaire and termed an “index of chronic energy depletion.” From the same factor analysis Garden identified four kinds of “reactions to people”: distancing, hostility, lack of concern, and not needing others. Relating the above measures, she reported that the associations between the four kinds of reactions to people and the burnout index were different for persons preferring “thinking” vs. those preferring “feeling.”

Negative reactions to others as a symptom of burnout were found primarily for feeling types. The reactions to people of the thinking types were...more positive than negative (Garden, 1985, p. 9).

She concluded from her data that “type concentration” (i.e., the predominance of feeling types in human service occupations where burnout effects have been studied) may have biased the description of burnout toward “negative, hostile, and depersonalized reactions toward people” (Garden, 1985, p. 4). She proposed that, in different samples (e.g., of MBA students) with a predominance of thinking types, the relationship between burnout and reaction would be different. Garden (1985) speculated that her demonstration of the effect of Jungian type on burnout symptoms illustrated a “reversion” process: as chronic energy depletion occurs, one’s preferred functions would “fall into” the unconscious and be expressed in an immature and less socially desirable way. In other words, “feelers” would endorse more impersonal and hostile traits, and “thinkers” would endorse more expressive nurturing traits.

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Garden (1988) replicated her work using a second, larger sample of 194 MBA students (78% preferred “thinking”) and also, for comparison purposes, a human services sample of 81 occupational health nurses (69% preferring “feeling”). A comparison of the same type across the two occupations yielded similar patterns. For those with a preference for “feeling,” a positive association was found between energy depletion and a measure of hostility and lack of interpersonal concern. For a “thinking” preference, achievement orientation was negatively associated with energy depletion. Garden (1988) also extended her “reversion” hypothesis of energy depletion and Jungian functions by examining the “sensing” vs. “intuiting” dichotomy. She predicted and found that for individuals with a “sensing” preference, there was a positive relationship between energy depletion and making errors or forgetting details. For persons with a preference for “intuition,” however, a positive association between energy depletion and boredom/loss of enthusiasm was found.

Garden’s (1985, 1988) data and speculations were certainly appealing to the occupational psychologists who use the Myers-Briggs Type Indicator, but can they be independently validated? As a part of a larger study of type distribution in a sample of social service managers (71% of whom preferred “thinking”), C. Hawkins, Williams, and R. Hawkins (1990) administered a measure of tedium or burnout (Pines, Aronson, & Kafry, 1981), a pilot version of managerial style, and a measure of negative and positive instrumental and expressive personality attributes (Spence, Helmreich, & Holahan, 1979). In view of Garden’s recent book (Garden, 2015), which continues to cite her earlier studies (Garden, 1985, 1988), we decided to investigate her hypotheses and attempt to conceptually replicate them through a secondary analysis of our unanalyzed data from the earlier study. Besides a measure of burnout /exhaustion and the MBTI, our earlier study included concurrent measures of socially-desirable and socially-undesirable instrumental and expressive personality traits, which can be considered to be conceptually analogous to Garden’s (1985, 1988) measures of negative manifestations of type “reversion.” We also included a pilot version of a managerial style questionnaire and a single-item Likert rating of job satisfaction. We consider these measures to be sufficient to justify our attempt for conceptual replication of Garden’s previous research.

## Research Questions & Hypotheses

Our research questions were as follows: (1) Are Garden’s (1985, 1988) hypotheses about Jungian type “reversal” and negative manifestations of behaviors and personality under conditions job burnout and stress supported in this conceptual replication? (2) Do mean levels of behaviors and personality under conditions of burnout/exhaustion differ in “thinking” and “feeling” types? Corresponding to these research questions are two null hypotheses: (1) Behaviors and personality traits of “thinkers” and “feelers” experiencing burnout/exhaustion do not differ in pattern of correlations; (2) Behaviors and personality traits of “thinkers” and “feelers” experiencing burnout/exhaustion do not differ in their mean levels.

The “thinking”–“feeling” dichotomy of the Myers-Briggs Type Indicator (Form G) has different scoring algorithms for males and females and different norms for the preference for “thinking” and “feeling” in males and females (i.e., more males prefer “thinking” and more females prefer “feeling”; Myers & McCaulley, 1985). As such, we were additionally interested in whether our conceptual replication of Garden’s (1985, 1988) findings would differ between males and females. Therefore, we included gender as an independent variable in our research design. Finally, we included the Survey of Leadership managerial style measure in this conceptual replication. This allowed us to extend Garden’s (1985, 1988) Jungian hypotheses to consider the broader context of the potential mismatch between personal attributes and managerial style environmental demands that may increase the likelihood of job dissatisfaction and subsequent energy depletion and burnout.

## Method

### Participants and Procedure

As described in C. Hawkins, Williams, and R. Hawkins (1990), this sample comprised 243 social service managers (136 women, 107 men) who completed a packet of questionnaires (containing the measures described below, including a single-item Likert rating scale of job satisfaction) mailed to a random sample of 440 mid-level supervisors employed in the Department of Human Services in a southwestern U.S. state. The overall return rate was 56%. The sample had a mean age of 42.1 years. Most of the supervisors were Caucasian, but there were 10 African Americans, 43 Hispanics, and five cases where race was unspecified. Seventy percent of the respondents

were married. Forty-six managers were high school graduates, 129 had bachelor's degrees, 65 had master's degrees (36 with a master's degree in Social Work), and six had doctorate degrees.

## Measures

**Myers-Briggs Type Indicator.** The MBTI, Self-Scorable Form G, was included in the survey packet, along with a demographic questionnaire. Scorable MBTIs were returned by 243 of the 246 respondents. The psychometrics for Form G are described in the MBTI Manual (Myers & McCaulley, 1985). Test-retest reliabilities for the dichotomies (i.e., E vs. I, S vs. N, T vs. F, J vs. P) range from .75 to .77, and for continuous scores (EI, SN, TF, JP) from .77 to .84. Reliability of the preferences ranges from .82 to .86. The MBTI has been criticized for its emphasis on dichotomous scoring of types rather than continuous scoring of trait dimensions, and for reported changes in four-letter MBTI types upon repeat testing (e.g., Boyle, 1995). There is extensive evidence for the construct validity of the MBTI (e.g., Hammer, 1996; Myers, McCaulley, Quenk, & Hammer, 1998).

**Tedium Scale.** Pines et al. (1981) developed a 21-item scale tapping self-perceived physical, emotional, and mental exhaustion at work. Each item is rated on a 7-point scale from "never" to "always" and a total "tedium" score is computed. This measure has a high internal consistency reliability (assessed by Cronbach's Alpha) ranging from .91 to .93 across studies, and two-month test-retest stability of .76 (Pines et al., 1981). The construct validity of the Tedium Scale is summarized in Pines et al. (1981). In 1988, this measure was shortened and renamed the Burnout measure (Malach-Pines, 1988) and its validity summarized.

Shirom (1989) has contended that the Pines et al. (1981) measure of tedium or burnout is factorially complex, having three affective components: anxiety, depression, and physical/emotional exhaustion. Since Garden's (1985, 1988) hypotheses were specific to her "index of chronic energy depletion," we performed a factor analysis (with an oblique rotation and scree test) on the 21-item Pines et al. (1981) measure. This yielded two main factors: "depression" (items 2, 9, 12, 14, 15, 16, 17, 18) and "physical/emotional exhaustion" (item 1, 4, 5, 7, 10, 13). Subscales were constructed from these two factors, yielding satisfactory internal consistency reliability coefficients (.92 for depression, .86 for physical/emotional exhaustion). We hypothesized that the physical/emotional exhaustion subscale would be similar to Garden's (1985, 1988) index of chronic energy depletion.

**Survey of Organizational Leadership (SOL).** Williams, Huffman, and Ward (1981, unpublished) developed this 50-item pilot instrument based on the Managerial Grid model of Blake and Mouton (1964, 1978). The SOL uses a 10-point scale asking the respondent to indicate how characteristic each of five leadership style options were for each of 10 work-management scenarios, based on rank ordering and equal-interval scaling. The SOL yields five scales, each corresponding to one of the five categories of the Managerial Grid produced by the combination of two dimensions (concern for people, concern for production). The traditional names for these categories, codes, and the corresponding alpha coefficients for each are "country club manager" (9-1; .68), "authority-obedience manager" (1-9; .73), "team manager" (9-9; .87), "status quo manager" (5-5; .73), and "impoverished manager" (1-1; .63). The test-retest reliability and construct validity of this pilot version of the SOL are not known. The development of the Managerial Grid, on which the SOL was based, is described by Blake and Mouton (1978, 1980).

**Extended Personal Attributes Questionnaire (EPAQ).** Spence et al. (1979) developed this 40-item self-report questionnaire to measure positive (socially desirable) and negative (socially undesirable) instrumental and expressive personality traits. Each item presents a pair of characteristics (e.g., "hostile" vs. "not at all hostile"). It is self-rated along a 5-point continuum according to "what kind of person you think you are." The 40-item EPAQ is an extension of PAQ, a well-known questionnaire developed by Spence and Helmreich (1978) to investigate the socially-desirable personality attributes of masculinity and femininity.

The following EPAQ scales were used in the study: the socially desired scales of positive instrumentality (I+) and positive expressiveness (E+) as well as the socially-undesirable scales of negative instrumentality (I-) and negative expressiveness-verbal passive aggressiveness (EVPA-).

The I+ scale contains the following eight items: "very independent" vs. "not at all independent," "very competitive" vs. "not at all competitive," "can make decisions easily" vs. "has difficulty making decisions," "very self-confident" vs. "not at all self-confident," "feels superior" vs. "feels very inferior," "stands up very well under pressure" vs. "goes to pieces under pressure," and "never gives up easily" vs. "gives up very easily."

The E+ scale also contains eight items: "very emotional" vs. "not at all emotional," "able to devoted self completely to other" vs. "not able to devote self completely to others," "very gentle" vs. "very rough," "very helpful to others" vs. "not at all helpful to others," "very kind" vs. "not at all kind," "very aware of the feelings of others"

vs. “not at all aware of the feelings of others,” “very understanding of other” vs. “not at all understanding of others,” and “very warm in relationships with others” vs. “very cold in relationships with others.”

The I- scale contains eight items: “very arrogant” vs. “not at all arrogant,” “very boastful” vs. “not at all boastful,” “very egotistical” vs. “not at all egotistical,” “very greedy” vs. “not at all greedy,” “very dictatorial” vs. “not at all dictatorial,” “very cynical” vs. “not at all cynical,” “looks out only for self; unprincipled” vs. “does not look out only for self; unprincipled,” and “very hostile” vs. and “not at all hostile.”

The EVPA- scale consists of four items: “very whiny” vs. “not at all whiny,” “very complaining” vs. “not at all complaining,” “nags a lot” vs. “doesn’t nag,” and “very fussy” vs. “not at all fussy.”

The EPAQ scales were theoretically derived and empirically tested through factor analysis (Spence & Helmreich, 1978; Spence et al., 1979). The internal consistency reliabilities (Cronbach’s Alpha) for the I+ scale (.74), the E+ scale (.75), the I- scale (.70), and the EVPA- scale (.60) are satisfactory for experimental measures (Helmreich, Spence, & Wilhelm, 1981). The construct validity of the EPAQ is also described in these sources (Helmreich, Spence, & Wilhelm, 1981; Spence & Helmreich, 1978; Spence et al., 1979), and also by Spence and Buckner (2000).

## Rationale and Procedure for the Conceptual Replication

Both the positive EPAQ scales (I+ and E+) and the negative EPAQ scales (I- and EVPA-) were examined in the relationship to Tedium Scale scores and the MBTI thinking-feeling preference. These scales appeared to be most similar in item content to Garden’s (1985) scales (distancing, hostility, lack of concern, and not needing others). The I+ scale has been shown to have a significant positive correlation with achievement orientation (Spence & Helmreich, 1978). We could not attempt to investigate Garden’s (1988) finding for the MBTI “sensing” – “intuition” (S-N) dimension (i.e., the relationship of energy depletion to “reality orientation” and “boredom”/“low enthusiasm”). The latter two scales had no correspondence in the EPAQ scales. Two other EPAQ scales, positive instrumentality – expressiveness (IE+) and negative expressiveness – communality (EC-), were dissimilar in content to Garden’s (1985, 1988) scales and were not used in this study.

## Results

### Preliminary Analyses

We first checked for the potential effects of respondent’s gender, race, education, management level, and age upon the measures used in this study (MBTI, Tedium Scale, SOL, and EPAQ scales). ANOVAs revealed a statistically significant demographic contribution only for the EPAQ positive expressiveness scale (E+) and for the negative verbal passive-aggressiveness scale (EVPA-). Women scored higher than men on E+ ( $p = .002$ ) (partial eta squared = .04) and on EVPA- ( $p = .000$ ; partial eta squared = .052). Because our analyses related to Garden’s (1985, 1988) “type concentration,” analyses of burnout effect were performed separately for men and women, although this gender difference was not important in this study.

The Survey of Organizational Leadership (SOL) findings were not useful for addressing the Jungian theory of burnout. Two hundred-fifteen of the 235 supervisors who completed this measure (95%) ranked “team manager” (9-9) as their top management style preference in this setting. There were no statistically significant differences in the Tedium Scale scores for the five SOL groups.

The mean Tedium Scale score for the social service managers was 3.1 ( $SD = .8$ ). Pines et al. (1981) reported an overall Tedium mean value of 3.2 for their normative samples. Thus, our social service managers as a group were reporting comparable levels of tedium to the normative population. In our sample, an overall average score of approximately “3” would indicate that only “rarely” would these individuals be experiencing physical, emotional, or mental exhaustion from their jobs. A score of “4” on the Tedium Scale (one standard deviation above the mean for sample of social service managers) would indicate that “sometimes” such a level of exhaustion would be experienced. Tedium Scale scores were significantly negatively correlated with job satisfaction ( $r = .44, p < .001$ ).

### Tests of Garden’s (1985, 1988) Hypotheses

Garden (1985, 1988) had based her Jungian theory of differential burnout effects upon “thinkers” and “feelers” by examining the correlations between exhaustion/burnout and self-reported negative behaviors/traits by

correlation analyses, followed by *t*-tests to examine mean level differences in these variables. Accordingly, we began with examining correlations and then performed ANOVAs to examine the mean level effects. Finally, to extend Garden's Jungian theory to the broader context of the person-environment match/mismatch, we conducted exploratory multiple regression MBTI Type Table analyses. For the correlations and the ANOVAs, the independent variables were MBTI type ("thinking" – "feeling"), exhaustion/tedium, and gender, while the dependent variables were the EPAQ personality scales. For the exploratory multiple regression analyses, the predictor variables were the MBTI dichotomies (EI, SN, TF, JP), and MBTI "thinking" – "feeling" type x gender interaction, while the dependent variable was exhaustion/tedium. Finally, because the community of MBTI users and researchers find the pattern of representation of the 16 personality types informative, we include a "Type Table" with appropriate Chi-square analyses to examine the relationships between whole (four letter) types as well as single-letter and two-letter combinations with tedium/exhaustion dichotomized at the median.

**Correlation analyses.** Table 1 presents the correlations between the Tedium Scale (with the depression and physical/emotional subscales) and the EPAQ I+, E+, I-, and EVPA- scales. The correlations were computed separately by gender and by respondent's preference for "thinking" or "feeling" on the MBTI. This table is comparable to Garden's (1985, 1988) tables of correlations showing the relationship between her Energy Depletion Index, the four kinds of reactions to people, and achievement orientation.

Table 1  
*Relationship between Tedium Scale scores and EPAQ Scales,*

| MBTI Preference Gender           | n  | EPAQ Scales     |        |       |        |
|----------------------------------|----|-----------------|--------|-------|--------|
|                                  |    | I+              | E+     | I-    | EVPA-  |
|                                  |    | <u>Thinking</u> |        |       |        |
| <u>Total Tedium Scale</u>        |    |                 |        |       |        |
| Women                            | 85 | -.28**          | -.25** | .30** | .33*** |
| Men                              | 86 | -.10            | -.16   | .21*  | .25**  |
| <u>Depression Subscale Score</u> |    |                 |        |       |        |
| Women                            | 85 | -.38***         | -.27** | .30** | .33*** |
| Men                              | 86 | -.08            | -.07   | .12   | .26**  |
| <u>Exhaustion Subscale Score</u> |    |                 |        |       |        |
| Women                            | 85 | -.04            | -.17   | .15   | .23**  |
| Men                              | 86 | -.04            | -.13   | .20*  | .19*   |
|                                  |    | <u>Feeling</u>  |        |       |        |
| <u>Total Tedium Scale</u>        |    |                 |        |       |        |
| Women                            | 48 | -.22            | -.11   | .18   | .23*   |
| Men                              | 20 | -.55**          | -.02   | .00   | .42*   |
| <u>Depression Subscale Score</u> |    |                 |        |       |        |
| Women                            | 48 | -.23            | -.16   | .22   | .29*   |
| Men                              | 20 | -.46*           | .06    | .10   | .46*   |
| <u>Exhaustion Subscale Score</u> |    |                 |        |       |        |
| Women                            | 48 | -.02            | .05    | .19   | .05    |
| Men                              | 20 | -.61**          | -.14   | .01   | .45    |

*Note.* Scores are shown separately by gender and "Thinking" vs. "Feeling" MBTI preference. \* =  $p < .05$ ; \*\* =  $p < .01$ ; \*\*\* =  $p < .001$ .

Table 1 shows no evidence that the MBTI T-F dimension influenced the relationships between the tedium subscales and the EPAQ measures in the manner theorized by Garden (1985, 1988). There were statistically significant intercorrelations for the Tedium scales which did differ by gender and T-F preference. To simplify presentation of the results in Table 1, only the correlations involving the physical/emotional exhaustion subscale (which was most pertinent to Garden's hypotheses) will be emphasized. For females and males preferring "thinking," as well as for males preferring "feeling," increased exhaustion was significantly associated with higher scores on the EVPA- (negative expressiveness, verbal passive-aggressiveness) scale. For males preferring "thinking," the exhaustion subscale was also significantly positively correlated with the I- (negative instrumentality) scale. For males preferring "feeling," the exhaustion subscale was significantly negatively correlated with the I+ (positive instrumentality) scale. That is, in those instances wherein burnout, more especially physical/emotional

exhaustion, was associated with increased hostility, it was at least as likely to be shown by subjects preferring “thinking” as by those preferring “feeling,” contrary to Garden’s (1985, 1988) prediction.

When making inferences about differences between correlations, a Fisher  $r$  to  $Z$  transformation function may be calculated and the difference in the transformed values of the correlation coefficients can be tested for statistical significance using a  $t$  test (Hays, 1988, p. 591). In other words, Garden’s (1985, 1988) claim that the relationship between energy depletion (tedium) and lack of concern for others and achievement orientation (EPAQ scales) differ for thinking vs. feeling types involves pairwise comparisons of the correlation coefficients for significance. For example, from Garden’s (1985) first table (p. 6), the correlation between distancing and energy depletion for feeling types was  $+.64$  and only  $+.15$  for thinking types. Calculating the Fisher  $r$  to  $Z$  transformation for these correlation coefficients and applying the  $t$  test yielded a statistically significant result ( $p < .01$ ). This allowed rejection of the hypothesis that the two populations from which these two independent samples (i.e., thinking types and feeling types) were drawn have equal correlations.

Overall, for Garden’s (1985) data in Tables 1 and 3, there were five pairs of correlations described as being different as a function of the thinking vs. feeling preference. Only one of these five comparisons (i.e., for distancing) attained statistical significance via the Fisher  $r$  to  $Z$  transformation and  $t$  test procedure. For the eight pairwise comparisons of correlation coefficients presented in Table 1 of the present study, involving the exhaustion subscale, only one attained statistical significance. The correlation between Tedium and the I+ scale for males preferring “feeling” ( $r = -.61$ ) was significantly different from that for males preferring “thinking” ( $r = -.04$ ;  $p < .05$ ). The direction of this difference was opposite to what Garden would have predicted. Thus, neither our data nor the original data of Garden (1985) in Table 1 and Table 3 provide compelling support for the differential effect of the thinking vs. feeling preference on the relationship between energy depletion and interpersonal reactions. In Garden’s (1988) replication study, however, four of the six pairwise comparisons of correlations for the T-F dimension between energy depletion and hostility, lack of concern for others (Table 4), and achievement orientation (Table 6) did attain statistical significance using  $r$  to  $Z$  transform and  $t$  test procedure.

**Analyses of variance.** Garden (1988) used  $t$  tests to compare mean levels of “nurturing orientation” (lack of concern for others, reverse scored), achievement orientation, reality orientation, and enthusiasm between the types at low and high levels of energy depletion (Garden, 1988; Tables 8 and 9). She reported significant differences between thinking and feeling types in levels of nurturing orientation and achievement orientation when energy depletion was low. Feeling types obtained higher mean levels of nurturing orientation and thinking types had higher levels of achievement orientation. When energy depletion was high, however, there were no significant differences between thinking and feeling for mean levels of either achievement or nurturing orientation.

In the present study, we examined mean levels of the positive and negative EPAQ scales via analyses of variance (ANOVAs). The independent variables were respondent’s gender, type (i.e., thinking vs. feeling preference), and level of tedium and exhaustion (high = at least one standard deviation above the mean, low = at least one standard deviation below the mean). The dependent variable was EPAQ personality scale scores. Garden’s (1988) prediction for these ANOVAs would suggest that the interactions involving level of exhaustion and the thinking vs. feeling preference would attain statistical significance for EPAQ scales (I+, E+, I-, and EVPA-). For our sample of human service managers, however, the Tedium exhaustion by thinking-feeling interactions were not statistically significant predictors of I+, E+, I-, or EVPA-.

**Multiple regression analyses.** Given the negative findings from correlational analyses and ANOVAs, a hierarchical stepwise multiple regression was performed. The independent (predictor) variables were gender, gender x thinking-feeling (TF) dimension, and EI, SN, TF, and JP continuous scores. The Tedium exhaustion subscale score was the dependent (criterion) variable. Only the TF dimension attained statistical significance ( $R^2 = .021$ ,  $Beta = .145$ ,  $p = .02$ ), indicating that a preference for “feeling” was significantly, but weakly, associated with physical/emotional exhaustion.

**Type Table data.** Since neither the correlational analyses nor the ANOVAs were consistent with the findings of Garden (1985, 1988), we examined the Type Table (Table 2) through the Selection Ratio Type Table (SRRT) method (McCaulley, 1985). Table 2 tabulates data from 68 subjects scoring greater than 4.0 on the physical/emotional exhaustion Tedium subscale. There were no statistically significant differences in patterning between this subsample and the overall sample ( $N = 243$ ). The SRRT analysis in Table 3, however, does show some complex relationships between high tedium (i.e., at least one standard deviation above the mean total score) and MBTI type. In comparison to the total base sample of 243 social service managers, the 41 social service managers reporting “high tedium” were more strongly “IJ” ( $p < .05$ ) and less “EJ” ( $p < .05$ ), while INFJs were overrepresented ( $p < .05$ ). Although the sample size precluded statistical significance, it was interesting to note that two of the three ESTPs in the base sample had high tedium scores. Thus, when the index of burnout includes aspects of depression in addition to physical/emotional exhaustion, then the MBTI types may reveal differential relationships.

Table 2

Human service managers reporting high "physical/emotional exhaustion (n = 68).

| The Sixteen Complete Types |                  |                   |                  | Dichotomous Preferences |      |       |    |      |
|----------------------------|------------------|-------------------|------------------|-------------------------|------|-------|----|------|
| ISTJ                       | ISFJ             | INFJ              | INTJ             |                         | n    | %     |    |      |
| n = 14<br>(20.6%)          | n = 9<br>(13.2%) | n = 3<br>(4.4%)   | n = 7<br>(10.3%) | E                       | 22   | 32.4  |    |      |
| +++++                      | +++++            | ++++              | +++++            | I                       | 46   | 67.7  |    |      |
| +++++                      | +++++            |                   | +++++            | N                       | 37   | 54.4  |    |      |
| +++++                      | +++              |                   |                  | S                       | 31   | 45.6  |    |      |
| +++++                      |                  |                   |                  | T                       | 45   | 66.2  |    |      |
| +                          |                  |                   |                  | F                       | 23   | 33.8  |    |      |
|                            |                  |                   |                  | J                       | 48   | 70.6  |    |      |
|                            |                  |                   |                  | P                       | 20   | 29.4  |    |      |
|                            |                  |                   |                  | Pairs and Temperaments  |      |       |    |      |
| ISTP                       | ISFP             | INFP              | INTP             |                         | n    | %     |    |      |
| n = 4<br>(5.9%)            | n = 1<br>(1.5%)  | n = 2<br>(2.9%)   | n = 6<br>(8.8%)  | IJ                      | 33   | 48.5  |    |      |
| +++++                      | +                | +++               | +++++            | IP                      | 13   | 19.1  |    |      |
| +                          |                  |                   | ++++             | EP                      | 7    | 10.3  |    |      |
|                            |                  |                   |                  | EJ                      | 15   | 22.1  |    |      |
|                            |                  |                   |                  | ST                      | 24   | 35.3  |    |      |
|                            |                  |                   |                  | SF                      | 13   | 19.1  |    |      |
|                            |                  |                   |                  | NF                      | 10   | 14.7  |    |      |
|                            |                  |                   |                  | NT                      | 21   | 30.9  |    |      |
|                            |                  |                   |                  | SJ                      | 30   | 44.1  |    |      |
|                            |                  |                   |                  | SP                      | 7    | 10.3  |    |      |
|                            |                  |                   |                  | NP                      | 13   | 19.1  |    |      |
|                            |                  |                   |                  | NJ                      | 18   | 26.5  |    |      |
|                            |                  |                   |                  | TJ                      | 32   | 47.1  |    |      |
|                            |                  |                   |                  | TP                      | 13   | 19.1  |    |      |
|                            |                  |                   |                  | FP                      | 7    | 10.3  |    |      |
|                            |                  |                   |                  | FJ                      | 16   | 23.5  |    |      |
|                            |                  |                   |                  | IN                      | 18   | 26.5  |    |      |
|                            |                  |                   |                  | EN                      | 13   | 19.1  |    |      |
|                            |                  |                   |                  | IS                      | 28   | 41.2  |    |      |
|                            |                  |                   |                  | ES                      | 9    | 13.2  |    |      |
|                            |                  |                   |                  | ET                      | 14   | 20.6  |    |      |
|                            |                  |                   |                  | EF                      | 8    | 11.8  |    |      |
|                            |                  |                   |                  | IF                      | 15   | 22.1  |    |      |
|                            |                  |                   |                  | IT                      | 31   | 45.6  |    |      |
| Jungian Types (E)          |                  | Jungian Types (I) |                  | Dominant Types          |      |       |    |      |
| n                          | %                | n                 | %                | n                       | %    |       |    |      |
| E-TJ                       | 11               | 16.2              | I-TP             | 10                      | 14.7 | Dt. T | 21 | 30.9 |
| E-FJ                       | 4                | 5.6               | I-FP             | 3                       | 4.4  | Dt. F | 7  | 0.3  |
| ES-P                       | 2                | 3.0               | IS-J             | 23                      | 33.8 | Dt. S | 15 | 22.1 |
| SN-P                       | 5                | 7.4               | IN-J             | 10                      | 14.7 | Dt. N | 25 | 36.8 |

Note. A Tedium subscale score greater than 4.0 constitutes high physical/emotional exhaustion. + = 1% of total sample (N = 243).

Table 3

*Human service managers obtaining Tedium total scores greater than 4.0 (n = 41).*

| The Sixteen Complete Types |                  |                   |                  | Dichotomous Preferences |            |      |
|----------------------------|------------------|-------------------|------------------|-------------------------|------------|------|
| ISTJ                       | ISFJ             | INFJ*             | INTJ             |                         | n          | %    |
| n = 12<br>(29.3%)          | n = 5<br>(23.2%) | n = 4<br>(9.8%)   | n = 5<br>(12.2%) | E*                      | 9          | 22.0 |
| +++++                      | +++++            | +++++             | +++++            | I*                      | 32         | 78.1 |
| +++++                      | +++++            | +++++             | +++++            | S                       | 25         | 61.0 |
| +++++                      | ++               |                   | ++               | N                       | 16         | 39.0 |
| +++++                      |                  |                   |                  | T                       | 28         | 68.3 |
| +++++                      |                  |                   |                  | F                       | 13         | 31.7 |
| +++++                      |                  |                   |                  | J                       | 32         | 78.1 |
| ++++                       |                  |                   |                  | P                       | 9          | 22.0 |
|                            |                  |                   |                  | Pairs and Temperaments  |            |      |
| ISTP                       | ISFP             | INFP              | INTP             |                         | n          | %    |
| n = 2<br>(4.9%)            | n = 1<br>(2.4%)  | n = 1<br>(2.4%)   | n = 2<br>(4.9%)  | IJ*                     | 26         | 63.4 |
| +++++                      | ++               | ++                | +++++            | IP                      | 6          | 14.6 |
|                            |                  |                   |                  | EP                      | 3          | 7.3  |
|                            |                  |                   |                  | EJ*                     | 6          | 14.6 |
|                            |                  |                   |                  | ST                      | 18         | 43.9 |
|                            |                  |                   |                  | SF                      | 7          | 17.1 |
|                            |                  |                   |                  | NF                      | 6          | 14.6 |
|                            |                  |                   |                  | NT                      | 10         | 24.4 |
|                            |                  |                   |                  | SJ                      | 20         | 48.8 |
|                            |                  |                   |                  | SP                      | 5          | 12.2 |
|                            |                  |                   |                  | NP                      | 4          | 9.8  |
|                            |                  |                   |                  | NJ                      | 12         | 29.3 |
|                            |                  |                   |                  | TJ                      | 21         | 51.2 |
|                            |                  |                   |                  | TP                      | 7          | 17.1 |
|                            |                  |                   |                  | FP                      | 2          | 4.9  |
|                            |                  |                   |                  | FJ                      | 11         | 26.9 |
|                            |                  |                   |                  | IN                      | 12         | 29.3 |
|                            |                  |                   |                  | EN                      | 4          | 10.0 |
|                            |                  |                   |                  | IS                      | 20         | 48.8 |
|                            |                  |                   |                  | ES                      | 5          | 12.2 |
|                            |                  |                   |                  | ET                      | 7          | 17.1 |
|                            |                  |                   |                  | EF                      | 2          | 4.9  |
|                            |                  |                   |                  | IF                      | 11         | 26.9 |
|                            |                  |                   |                  | IT                      | 21         | 51.2 |
| Jungian Types (E)          |                  | Jungian Types (I) |                  | Dominant Types          |            |      |
| n                          | %                | n                 | %                | n                       | %          |      |
| E-TJ                       | 4<br>9.5         | I-TP              | 4<br>14.7        | Dt. T                   | 8<br>19.5  |      |
| E-FJ                       | 2<br>4.9         | I-FP              | 2<br>4.9         | Dt. F                   | 4<br>10.0  |      |
| ES-P                       | 2<br>4.9         | IS-J              | 17<br>41.5       | Dt. S                   | 10<br>24.4 |      |
| EN-P                       | 1<br>2.4         | IN-J              | 9<br>22.0        | Dt. N                   | 19<br>46.3 |      |

Note. + = 1% of total sample (N = 243); \* = p < .05.



## Discussion

In this conceptual replication of Garden's (1985, 1988) research studies of Jungian dynamics and exhaustion /burnout, we attempted to reject two null hypotheses. First, behaviors and personality traits of "thinkers" and "feelers" experiencing burnout/exhaustion do not differ in pattern of correlations. Second, behaviors and personality traits of "thinkers" and "feelers" experiencing burnout/exhaustion do not differ in their mean levels. We could not reject the first hypothesis. Correlations shown in Table 1 did reveal statistically significant relationships between the Tedium Scale subscales (particularly the exhaustion subscale) and the EPAQ personality scales, which did differ by gender and thinking – feeling preference, but these relationships were not the pattern predicted by Garden (1985, 1988). We could also not reject the second hypothesis. ANOVAs performed to determine if the interaction of Tedium exhaustion and thinking – feeling significantly predicted the mean levels of the EPAQ scales (I+, E+, I-, EVPA-) did not attain statistical significance. The exploratory multiple regression analyses revealed a weak effect for the contribution of the TF continuous score dimension in predicting physical/emotional exhaustion. Non-parametric Type Tables showed that IJs and particularly INFJs were overrepresented among high scorers on the Tedium Scale (Table 3). Together, these findings suggest that there may be relationships between burnout and MBTI type for social service managers that merit further study.

Thus we did not observe an overall difference in the pattern of correlations between energy depletion ("tedium" or "burnout") and reactions to people or achievement orientation as a function of a social service manager's preference for "thinking" vs. "feeling" on the Myers-Briggs Type Indicator. This negative finding applied whether the total score on the Tedium scale was used or a more specific measure of physical/emotional exhaustion. Our data thus were inconsistent with Garden's (1985, 1988) hypotheses. Although this negative finding cannot, in the strict sense, be considered a failure to replicate, we contend that our inability to conceptually replicate Garden's (1985, 1988) findings in the present study does raise questions about the robustness of her theory of Jungian "reversal" dynamics. What factors may account for these negative findings?

### Different Instruments

We used a standardized measure of burnout, the Tedium Scale of Pines et al. (1981), corrected through factor analysis to yield a more specific measure of exhaustion, uncontaminated by depression, as recommended by Shirom (1989). In contrast, Garden (1985, 1988) used her own 210-item "Stress Questionnaire" measure. Nevertheless, the measures of energy depletion (burnout) appear comparable across both studies. The EPAQ scales, although selected to be similar in item content, were obviously not identical to Garden's (1985, 1988) nurturing and achievement orientation scales. In addition, the instructions for administering the EPAQ (describe "the kind of person you think you are") did not refer explicitly to self-perceived characteristics on the job. However, the direction of causality between personality traits (such as measured by the EPAQ) and "burnout" specific to a job is hard to ascertain.

Garden's (1985, 1988) non-standardized measures of "reactions to people" and "achievement orientation" were each defined by "two clean high-loading items" derived from factor analyses. The item content for these scales varied somewhat across the two samples in Garden's (1988) replication study. This raises some concerns about the psychometric soundness of her measures.

### Different Methods

There were methodological differences between our study and Garden's (1985, 1988). In our study, the MBTI was administered concurrently with the other measures. Garden (1988) has claimed that it is "critical" that the MBTI be administered prior to the measures of burnout and its correlates, as she did in her studies (Garden 1985, 1988). However, there are no data showing that the MBTI is altered by stressful experiences or training effects ([Chilmeran, 1981; McCaulley, 1981, p. 318] as cited by Garden (1988)). If contamination may have occurred due to the concurrent administration of the MBTI and the other measures, the moderating effect of "thinking" vs. "feeling" might actually have been enhanced; yet, this was not the case for our data.

### Different Samples

Our sample of social service managers, drawn randomly from a human service organization (HSO), predominantly preferred "thinking." They were similar to Garden's (1985, 1988) MBA samples, but dissimilar to

her HSO sample of occupational health nurses (which was predominantly “feeling”). Aside from the differences in measures and methods mentioned previously, the distinctiveness of our sample may account for the negative finding. If this is the case, Garden’s (1988) type concentration claim needs to be qualified by the admission of occupational specificity (Garden, 1985, 1989).

Does the failure to confirm Garden (1985, 1988, 1989) imply that knowledge of a respondent’s MBTI type in our study is irrelevant to the association between tedium (burnout) and the EPAQ scales? We believe not. The hierarchical, stepwise multiple regression analysis yielded a statistically significant contribution of the TF continuous score to the physical/emotional exhaustion Tedium subscale, but this effect was very modest, accounting for only two percent of the variance. In contrast, from a separate multiple regression analysis, the EPAQ EVPA-scale accounted for 7.5% of the variance in Tedium Scale total scores (C. Hawkins & R. Hawkins, 2016).

Thus, we concur with Garden (1985, 1988, 1989) that the MBTI is useful in understanding the manifestations of burnout effects. In our sample of human service managers, the Type Table SRRT analyses (Table 3) suggest that relationships between Type and high Tedium (or burnout) may be found. The usual SRTT method provides a more empirical approach to use in the interim while further studies are performed to corroborate the Jungian dynamics postulated by Garden (1988, 1989). Furthermore, we believe that it is important to consider the different values related to different personality preferences of supervisors. This may indicate a mismatch not only for occupation specific values but also for the management environmental context of particular organizations (Dimitrios & Konstantinos, 2014; Meyer, Hecht, Gill, & Toplonytsky, 2010). Our SOL Managerial Grid measure showed that 95% of the human service supervisors in our sample preferred the ideal “team manager” style (9-9). One anonymous respondent (with an INTP preference and a high Tedium Scale score) noted that, although she preferred the 9-9 style, she believed that these 9-9 behavioral choices were not permitted by her agency. One of us (R. Hawkins & Meier, 2015) has developed a systems contextual integrative model in which such mismatches between individual psychological type and the perceived organizational type (as estimated by the Salter Environmental Type Assessment instrument; Salter, 2000) can give rise to personal distress, or, in this context tedium or burnout. Jungian dynamics, such as have been proposed by Garden (1985, 1988, 1989, 2015), may be operative, but person-organizational differences may be sufficient to explain job burnout more parsimoniously.

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